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**Demand and Supply in UK Archaeological Employment,
1990-2010**

Kenneth Robert Aitchison

Declaration

This thesis has been composed by the candidate, Kenneth Robert Aitchison, and the work is the candidate's own, but where the candidate has been a member of a research group (as has been the case for some of the submitted research publications), the candidate has made a substantial contribution to the work, such contribution being clearly indicated, and the work has not been submitted for any other degree or professional qualification

Signed:

Kenneth Aitchison

Date:

20 December 2010

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Preface

The idea behind presenting this thesis by research publication originated in discussions between the author and Professor Ian Ralston. Together, we recognised that material I had written could potentially have academic, as well as practical value, and that the series of labour market intelligence reports I had produced formed a coherent body of research. However, the data and published reports were all generated for and on behalf of a professional body, which meant that the fuller academic exploitation of the results was not feasible in the reports themselves.

This is what the present work sets out to achieve.

Kenneth Aitchison

15 December 2010

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I would also like to thank all of the following people who have kindly provided me with information or advice that I have used in the preparation of this thesis.

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Abstract

The core of this thesis comprises three previous published reports - *Profiling the Profession: a survey of archaeological jobs in the UK* (Aitchison 1999), *Archaeology Labour Market Intelligence: Profiling the Profession 2002-03* (Aitchison & Edwards 2003) and *Archaeology Labour Market Intelligence: Profiling the Profession 2007-08* (Aitchison & Edwards 2008). These volumes are the only comprehensive reviews of the labour market within the archaeological sector in the UK, examining who works in all sectors of archaeology, what qualifications they hold, how they are rewarded and how they are trained. These three surveys have established a corpus of time-series datasets which demonstrate how archaeological practice and employment have evolved in the UK over the decade to 2008 and the onset of the global economic crisis in that year.

The thesis contextualises these data-rich reports with a historical and analytical account of how employment in archaeology grew from the late nineteenth century until 1990, and then examines the drivers of demand for services that lead to archaeological employment in the United Kingdom over the 20 years from 1990-2010, and how this demand was met.

Until 1990, archaeology was primarily a state-provided or state-sponsored activity. The sector's funding base transformed in the 1990s to become primarily reliant on private sector monies and the effects upon employment within the sector have been of the sectoral reaction to adopt an enterprise-focussed model for delivery have been considerable.

The number of people employed in archaeology grew very rapidly over this period (by approximately 4.5% *per annum*), with the expansion of applied, commercial archaeology representing the majority of this growth. These individuals are very highly academically qualified, but not very well rewarded financially.

In order to fully explore the central issues, historical patterns and precedents are examined, focussing on particular strands of activity in detail, using case studies of organisations and particular archaeological projects.

Critical Review

1 Introduction and Methodology

This general Critical Review supports the submitted portfolio of published work.

The three volumes submitted as that portfolio have been published as:

Aitchison, K. 1999. **Profiling the Profession: a survey of archaeological jobs in the UK**. York, London & Reading: CBA, English Heritage & IFA.

http://www.discovering-archaeologists.eu/national_reports/Profiling_the_Profession_1997-8.pdf

Aitchison, K. & Edwards, R. 2003. **Archaeology Labour Market Intelligence: Profiling the Profession 2002/03**. Bradford: CHNTO.

http://www.discovering-archaeologists.eu/national_reports/Profiling_the_Profession_2002-3.pdf

Aitchison, K. & Edwards, R. 2008. **Archaeology Labour Market Intelligence: Profiling the Profession 2007-08**. Reading: IfA.

http://www.discovering-archaeologists.eu/national_reports/Profiling_the_Profession_2007-8.pdf

They are also all available electronically (links checked on 14th December 2010).

This Critical Review summarises the aims, objectives, methodologies used, results and conclusions presented in those volumes. It also indicates how they form a coherent body of work, what contributions the author made to them and how this work has contributed significantly to the expansion of knowledge and what impact it has had.

In order to fully explore how this work has made a significant contribution, the necessary Appendix supports this critical review by contextualising these data-rich reports with a historical and analytical account of how employment in UK archaeology developed from the late nineteenth century until 1990 as a fundamentally state-provided or state-sponsored activity. It then considers in detail how the sector's funding base transformed in the 1990s to become primarily reliant on private sector monies and how the sector itself reacted by adopting an enterprise-focussed model for delivery. This Appendix covers in outline the years before the first of these three surveys (1997-98) and then addresses in greater detail the way that archaeological employment functioned during the decade that the three surveys cover. As the

third report supplied in the portfolio was published before the impact of the global economic deterioration upon archaeological practice became apparent in 2008, the Appendix also incorporates a discussion of the changes that have taken place in this sector between 2008 and the end of November 2010, and the political and economic contexts of these changes.

The Critical Review presents Conclusions below that draw on the published reports and the historical Appendix and also puts forward an assessment of the potential future for employment in the sector.

1.1 Historical Context of the Data

The philosophers have interpreted the world in various ways; the point however is to change it
(Marx, 1845: 61)

Archaeological employment in the UK in the 1990s transformed from a state-led activity to an increasingly commercial and entrepreneurial enterprise, with a significant increase in the number of workers in the sector. Very little data existed before 1997 that could be used to evaluate the effects that this transformation was having. The series of reports considered here were commissioned to gather and interrogate such information. The collection of the data in those reports took place at specific points in the financial years 1997-98, 2002-03 and 2007-08.

This thesis is not dominantly a reinterrogation of those data, but an attempt at contextualisation which explores the external factors that led to the patterns identifiable in the reports.

The context for the data collected is established through an exploration of how archaeological employment developed before 1997 by examining the stimuli for archaeological employment through looking at who employs archaeologists, who these employers are working for (the clients) and why those clients want archaeological work done.

The data collected are historically contingent – they were collected at those times to answer specific questions about archaeological employment, and while the importance of obtaining time-series data through a longitudinal study became a key driver, this was not the original intention of the exercises. The results were always intended to be understood as informative intelligence rather than purely descriptive data, as per Hutton (1990: xv) “Survey research is, or should be, related to decision-making and is only worth while if it enables better decisions to be made than would otherwise have been the case”.

1.2 Overview of Published Material

Below are summaries of the three reports' aims, their specific objectives, the methodologies used, the results obtained and the conclusions drawn from those results. Commonalities pursued across the full suite of publications are identified and the author shows where particular themes were not explored in every report.

1.2.1 Aims

The three reports share common aims of identifying, collecting, quantifying and disseminating labour market intelligence for the archaeological sector.

These have been both surveys and assessments, with the underlying purposes being to provide support for employers, individual professional archaeologists, aspirant professionals and policy makers through presenting comprehensive, reliable and up-to-date data-rich analyses of the state of the labour market within this sector.

These data and analyses allow conclusions to be drawn which could aid business planning and improve organisational performance and competitiveness. For individual archaeologists, and for those seeking to work in the sector, they also provided information that has allowed them to identify their own position within the profession and could help to inform their own personal career decision-making.

The reports have focussed almost exclusively upon those that are in paid employment. While they have included information on unpaid volunteer staff who work alongside salaried colleagues, this research has not aimed to undertake audits of the whole avocational sector in archaeology and so did not seek data from volunteer-led organisations.

1.2.2 Objectives

The objectives of the three reports identify core themes that underpin them all.

However, over time, the language used changed subtly, reflecting increased understanding of the reports' potential and recognising the requirements of the commissioning organisations.

The first report (Aitchison, 1999), which analysed the market in 1997-98, was funded solely by the four UK national heritage agencies (English Heritage, Historic Scotland, Cadw and the Department of the Environment [Northern Ireland]). No comparable previous research had been undertaken, and the seven objectives of that report (Aitchison, 1999: ix) were largely to establish base-line data. Those objectives were:

1. to identify the numbers of professional archaeologists working in the UK;
2. to analyse whether the profession was growing, static or shrinking;
3. to identify the range of jobs;
4. to identify the numbers employed in each job type;
5. to identify the range of salaries, and terms and conditions, applying to each job type;
6. to identify differences in employment patterns between different geographical areas; and
7. to help those seeking to enter the profession.

The funding base of the second report (Aitchison and Edwards, 2003), which collected data in 2002-03 had changed significantly. The primary funder for that research was the Sector Skills Development Agency (SSDA), a UK-wide agency of the Department for Education and Skills. The SSDA's remit was to support the establishment of Sector Skills Councils; at the time the research was undertaken, the Cultural Heritage National Training Organisation (CHNTO) was in the process of being absorbed into Creative and Cultural Skills, the sector skills council for the cultural heritage sector. Because of CHNTO involvement and SSDA funding, objectives expanded to encompass training and the delivery of training by employers, specifically relating to training needs, skills shortages and skills gaps.

English Heritage and Cadw were also funders (despite the lack of financial contributions from the Scottish and Northern Irish national heritage agencies, comprehensive UK-wide data continued to be collected).

The 2002-03 objectives (Aitchison and Edwards, 2003: x) were to present:

1. information on training needs, skills shortages and skills gaps;
2. details of the nature and extent of the archaeology sector, including accurate employment figures;
3. information on occupations, including potential recruitment and career progression difficulties; and
4. labour market trends and issues, including training investment and supply and other financial, business and staffing issues.

These objectives meant that the data became more sophisticated, ensuring that as well as providing the same core data sets that were gathered in 1997-98. The project also explored the age, gender, ethnic background and disability status of individuals working within the sector. It also reviewed the qualifications held by individuals, the commitment of employers to support training and their preferred methods for training delivery.

The funding base changed again for the third report. The principal funder was the European Commission through the Leonardo da Vinci II fund. The four UK national heritage agencies also contributed.

The visibility and success of the earlier reports had led to significant interest from individuals and organisations across European archaeology, and so a partnership was formed, initially with bodies in ten countries (eventually expanded to twelve) all collecting comparable data. The

proposal to the European Commission made it clear that while the datasets that could be transnationally compared related to certain core areas – for example, to the numbers of individuals, to qualifications, to states of origin and to where qualifications were gained – supplementary data considered important by the relevant national funders and researchers could be gathered in each state.

The specific objectives (Aitchison and Edwards, 2008: 11) were to:

1. generate a profile of the workforce, highlighting any diversity issues;
2. gather and interpret information on training needs, skills shortages and skills gaps;
3. gather and interpret details of the nature and extent of the archaeology sector, including accurate employment figures;
4. gather and interpret information on professional roles including potential recruitment and career progression difficulties;
5. identify labour market trends and issues including training investment and supply and other financial, business and staffing issues;
6. identify potential barriers to employment;
7. feed these data into the Europe-wide *Discovering the Archaeologists of Europe* project so contributing to a wider dataset about the archaeological profession in twelve of the 27 EU countries (the UK objectives and methodology functioned as the model for comparative studies in the other participating states); and
8. inform the archaeological sector of the outcomes of this research.

Essentially, the core data remained consistent with the two previous surveys, allowing for time-series comparisons to be made as well as comparisons with the outcomes in other participating states. The questions relating to training, introduced in 2002-03, were repeated, and new questions that related to transnational mobility were introduced. This lastmentioned issue – whether there are opportunities or barriers facing individual citizens seeking to live and work in European Union countries other than those of their origins – was the significant new area introduced into the objectives as a product of the European Commission funding.

1.2.3 Methodology

Labour market analysis adapts a supply-demand model of market operation. Within this model, supply is the human resource available to support workplace needs, and demand is the need of employers for workers and their skills (Maginn and Dench, 2004: 4)

The phrase ‘labour market intelligence’ (LMI) is widely used in employment studies to describe research, interpretation and analysis of the demand and supply of labour and skills (Maginn and Dench, 2004; UKCES, 2009). It differs from labour market *information*, which is the raw data collected from various sources, as labour market *intelligence* is the interpretation of those data to enhance their practical application. Interpretation and analysis are therefore key to this work

as the underlying philosophy behind these projects had reflexive aims that sought, in appropriate ways, to develop understanding about the professional archaeological workforce.

They were commissioned to supply and interrogate time-series data that were then used as a resource to support policy-making, while also aiming to provide value-added information for the sector in general. The commissioning bodies are discussed above (1.2.2 Objectives), and those funders were represented on the project boards for each of exercise, with oversight and quality assurance roles.

Much LMI is directly economically related, such as data on numbers of employees, age and gender profiles, salaries and so on. Econometrics is the application of statistical methods to testing and quantification of hypothetical economic relationships using data, and the econometric application of LMI is often the primary driver behind the commissioning of such studies (Woods and O'Leary, 2007). The studies presented here contain some econometric elements.

Essentially, LMI can be divided into two forms, dependent upon the source sought for the information. Supply-side LMI is intelligence about the supply of workers to the labour market - examining information about current workers, prospective or aspirant workers and students. Skills-needs information (and the needs of training and education suppliers) is collected, as is information about career expectations and aspirations, individual decision-making processes, choices, experiences and perceptions of education, training and the labour market. This information is generally obtained directly from individuals who are asked to comment on their own personal roles and situations.

By contrast, demand-side LMI is information about the demand for workers and skills in the labour market. While information is collected concerning employer and employee needs, demand side LMI focuses on collecting the opinions, experiences and judgements of employers, thereby identifying their current and future needs. In both supply-side and demand-side LMI, the actual information collected can be both hard, statistical data and soft, opinion-based comment. These studies used in this thesis have been, by definition, demand-side LMI, as all of the information was collected from employers.

Two basic sampling strategies can be used in collecting survey data - convenience sampling and probability sampling. The key characteristic of convenience sampling is a non-systematic approach to recruiting respondents, often allowing potential respondents to self-select. Any sample in which the probability of a sample member's inclusion in the sample cannot be computed is a convenience sample (Schonlau, Fricker jr and Elliott, 2002: 33).

There are various methodologies that can be applied in undertaking convenience sampling – such as the systematic sampling of website visitors, or the use of a volunteer panel, but the

easiest to administer is through uncontrolled instrument distribution, such as posting a survey on a website for anyone to complete (*ibid.*, 34). The word 'convenience' should not be taken to necessarily imply methodological weakness. Such surveys can produce valuable results, particularly when qualitative outcomes are sought. For example, within archaeological employment studies, Everill (2009) used a non-systematic, open instrument distribution survey to gather valuable supply-side LMI.

Hutton (1990: 11-4) considers that probability sampling as a method of survey research has advantages over convenience sampling: it allows results to be aggregated from multiple sources; it is gathered from a representative sample population; it is designed to be unbiased; and it can be replicated in the future allowing for the generation of time-series datasets. Furthermore, large surveys can be broken down to interrogate subsets of data.

The three reports describe the outcomes of a series of studies which used the probability sampling approach to gather data from closed populations. The sample frames constructed from those closed populations were lists of employers (or potential employers) of archaeologists generated by the project research team before sampling began.

The universal first stage in the methodologies applied in all of these projects was to identify the population of respondents to be targeted. For each exercise, the target population for survey was all organisations employing archaeologists and all self-employed archaeologists in the UK.

Possible shortcomings were frankly acknowledged in 2008 (Aitchison and Edwards, 2008: 25):

"...as the mailing list was not likely to be perfect, there will have been some *coverage error* (omission, duplication or wrongful inclusion of population elements) but minimal *sampling error* (where only a subset of the total population is sampled). The levels of non-response may have introduced some *non-response error* (all error definitions after Groves, 1989) if the non-respondents had differed significantly from the respondents, but the authors and project board are confident that the non-responding organisations would not have provided data that would have been significantly different in qualitative terms".

Each of the surveys used paper questionnaires, mailed directly to the target population members. The advantages of this approach are that potential respondents are confronted with a physical reminder of their invitation to contribute, and questionnaire completion is accessible to everyone. The principal disadvantage is that the responses then need to be coded upon receipt. The questionnaires used in each survey are included as appendices within the published reports.

Self-administered mail surveys, where there is no interviewer to guide the respondent, produce levels of return that are in general lower than face-to-face or telephone surveys (De Leeuw and Hox, 2008: 240). De Leeuw (2008: 128-9) notes that although no systematic comparisons are

available, response figures for commercial and market research surveys are in general lower than for official (government) surveys.

The data collection medium influences both the number of returns sought (quantity) and the value of each given return (quality). In terms of how these factors affect the overall results, the number of returned surveys affects only the statistical error (or variance); the quality of survey process affects a number of other errors, which can be collectively called bias.

For these projects, extrapolation from the data recovered was relatively straightforward as a closed population had been sampled and as the level of response was known, the probability with which an individual or individual organisation was selected into the sample could be determined and so a full statistical picture could be drawn. By contrast, extrapolation in open sample frames – such as would be encountered in convenience sampling exercises – statistical inference becomes problematic (Schonlau, Fricker jr and Elliott, 2002: 34). The level of confidence in extrapolated results depends heavily on the level of response, which diminished from 55% in the first survey to 24% in the second and 20% in the third, reflecting the increasing length and complexity of the questionnaire over time (Aitchison and Edwards, 2008: 118). It must be noted, however, that over time a wider range of organisations were approached for data in order to ensure as complete a sampling frame as possible.

It is recognised that the overall methodology applied in these projects has weaknesses, both in terms of sampling variability and sampling bias.

Something is always lost in the sampling process, and any given sample cannot be expected to be exactly representative of the population from which it was drawn (Collins, 1986: 6). There was the potential to retrieve unrepresentative data, and to construct interpretations based upon these. While it is impossible to remove completely the risk of unrepresentative data contaminating a dataset, this risk can be minimised through careful review of target population, questionnaire design and response patterns. This risk cannot be completely remedied as there are effectively no alternative ways to collect this data, and so effectiveness cannot be tested against data collected through alternative methodologies.

Sampling bias can be defined as “potential sources of error in sample estimates that is [subsequently] *not* taken into account” (Collins, 1986: 93). This could have been introduced through incomplete coverage – if the list of potential respondents was in fact not comprehensive, and had not included all employers of archaeologists – or through non-response, which can also include respondents’ failure to understand what is being asked of them. As information has not been received from non-respondents, there is no way to check whether or not their responses would have been different from the population that anonymously responded.

Mitigating against both of these potential sources of errors involves aiming to “minimise the *size* of unsystematic errors arising from variability and to minimise the *risk* of systematic errors arising from bias. We can not undertake to minimise the size of the latter because they are, by definition, either zero or unknown” (Collins, 1986: 95). Over the course of the three surveys, the sampling methodologies – particularly the questionnaires used – were reviewed to minimise these known unknowns, but in the process the questionnaires grew in length, which may have been a contributory factor to the reduced return rate (diminishing quantity while improving the quality of returns).

1.2.4 Results of the Published Works

The results of the three studies have produced a data-rich resource, charting the development of archaeological employment over the decade from 1997-2007.

The objectives of the three works varied slightly, but there was a general level of consistency ensuring that the results can be used as time-series datasets.

Estimated Size and Nature of the Workforce

The first common objective was to identify the numbers of individual professional archaeologists working in the United Kingdom, the different occupational areas that they worked in and demographic data relating to the studied population.

These data were collected over a period of rapid growth for the sector. There was a 55% increase in the number of archaeologists in employment over the ten years covered by the surveys. This means that the workforce grew by 4.7% *per annum* over the five years to 2002-03, and then by 3.2% *per annum* over the next five years.

	Archaeologists	Support staff	Total
1997-98	4425	367	4792
2002-03	5710	1100	6810
2007-08	6865	866	7731

Table 1: Estimated size of the archaeological workforce.

The results of each survey show that the majority of archaeologists have been male, with there having typically been two male archaeologists for each female worker over the ten years of the study, but with this degree of difference decreasing over time. Before ages 30-39, the gender proportions in all studies have been more closely balanced and increasingly so in the most

recent study, with the numbers of women working in archaeology reducing in proportional terms from that point on. It is not known whether this represents women leaving the profession at this career stage, or whether the numbers of women working in archaeology has started to increase but that this has yet to work its way up the age ranges.

	Female	Male
1997-98	35%	65%
2002-03	36%	64%
2007-08	41%	59%

Table 2: Gender diversity in professional archaeology.

The results of each survey showed that the majority of archaeologists have been male, roughly in the proportion 2:1 male to female, but with this difference decreasing over time.

Data on ethnicity and disability status began to be collected in 2002-03.

Archaeology is not ethnically diverse. In both 2002-03 and 2007-08 at least 99.0% of working archaeologists were white; the potential supply of archaeological practitioners is also not ethnically diverse, with Benjamin (2003) finding that 2.0% of archaeology undergraduate students were of black or Asian origin.

	Black or minority ethnicity	White
2002-03	0.7%	99.3%
2007-08	1.0%	99.0%

Table 3: Ethnic diversity in professional archaeology.

Archaeology has also had very limited participation by disabled individuals.

	Disabled	Not-disabled
2002-03	0.3%	99.7%
2007-08	1.6%	98.4%

Table 4: Disability status of workers in professional archaeology.

New data introduced in 2007-08 related to workers' countries of origin. At that time, 93.1% of archaeologists working in the UK were from the UK, 5.0% were from elsewhere in the European Union, 0.3% were from non-EU Europe and 1.6% were from elsewhere in the world.

Anticipated Growth of the Sector

The second ongoing objective was to identify and analyse the relative growth of the sector, and whether future growth was anticipated. This was not done through seeking absolute data, but by asking respondents whether their organisation had been relatively larger or smaller at specific points in the past (one, three and five years before the survey date), and similarly undertaken by asking respondents whether they expected growth one and three years in the future.

In 1997-98, the cumulative data showed that the profession had grown over the previous five years, with further growth expected over the coming years, with a particularly high proportion of commercial archaeological contractors reporting that they had experienced growth.

The 2002-03 survey showed that the absolute figures received indicated that the profession had grown over the previous five years by 29%, with 45% of employers reporting that they had grown in that period. Further growth was anticipated at that time, but not as many employers then reported experiencing growth in the five years to 2007-08 as had anticipated it in 2002-03. However, employers were then generally confident that further growth could be expected in the next five years. Importantly, the survey census date in 2007 was immediately before the effects of the global economic crisis became apparent – as was recognised in the publication of that report (Aitchison and Edwards, 2008: 12).

Range of Jobs

The third objective, to identify and assess the range of jobs undertaken by archaeologists, immediately identified that there has been little consistency in the use of job titles in archaeology. The questionnaires returned in 1997-98 identified 455 separate job titles that were held by 2132 individual archaeologists – nearly one title for every 4.7 archaeologists. Using these titles allowed composite ‘post profiles’ of similarly titled jobs to be created and this technique was repeated in the subsequent surveys (a total of 34 categories in 1997-98, expanded to 45 categories by 2007-08). In 2002-03 there was one post title for every 5.5 individuals and there was one for every 5.3 archaeologists in 2007-08.

Identifying the Numbers Employed by the Organisational Bases and Functional Roles of Employers

Each survey also analysed the workforce both by the organisational bases of their employers (state agencies, commercial companies, universities, local government, other) and by their primary functional roles (field investigation, providing advice, educational services, museum /

visitor services). The model for this was developed from a less sophisticated start in 1997-98 to use these specific categories in 2002-03 and 2007-08.

	2002-03	2007-08
National government or agency	15%	9%
Local government	22%	17%
Universities	16%	15%
Commercial organisations	41%	51%
Other organisations	6%	8%

Table 5: Proportion of workforce by employer’s organisational base.

Over time, proportionally fewer archaeologists were working for national government agencies or local government and more were working in the private sector. Increasing proportions were providing fieldwork services, with fewer providing advice or museum / visitor services.

	2002-03	2007-08
Field investigation & research	49%	57%
Historic environment advice and information	31%	27%
Museum visitor / user services	8%	4%
Educational and academic research services	12%	12%

Table 6: Proportion of workforce by employer’s primary role.

Salaries and Terms and Conditions of Employment

One of the most scrutinised and discussed data-sets collected has been that relating to archaeological salaries (*cf* Everill’s reporting of “disbelief” (2009: 44)).

	Average (mean) full-time (FT) archaeological salary	Median FT archaeological salary	Average FT salary for all occupations
1997-98	£17,079	£15,905	£19,167
2002-03	£19,161	£17,127	£24,498
2007-08	£23,310	£20,792	£29,999

Table 7: Archaeological salaries. Aitchison and Edwards 2008, table 141 p. 136.

Earnings in archaeology increased over the study period, but in the five years from 1997-98 to 2002-03 by less than half the rate that the UK average increased by. Over the five years from 2002-03, archaeological earning increased at the same rate as the national average.

In each of the studies, female archaeologists were found to be paid slightly less on average than male archaeologists, although in each survey female archaeologists were also typically younger and more likely to work part-time than their male counterparts.

When comparing earnings within the five categories of employers used in these surveys, national government or state agency employees have consistently been paid the highest, while private sector organisations have consistently paid the lowest average salaries

By functional roles, field investigation and research services have been consistently lowest paid, with the second-lowest average being in museum and visitor / user services. The highest paid have been the employees of organisations providing educational and academic research services. The mismatch between educational roles paying highest, but universities not being the highest paying sector is accounted for by relatively poorly paid individuals employed by universities but providing field investigation services through commercialised companies.

Archaeologists earn considerably less than those working in associated professional industries, and (on average) earn comparable amounts with skilled construction workers (Aitchison and Edwards 2008, table 73, p.76).

These relatively low levels of pay have had a significant impact on issues regarding the recruitment, retention and motivation of staff within archaeology.

Early career work in archaeology can be intermittent and short-term, leading to individuals working for a series of employers on short contracts, sometimes with intervening periods of unemployment. However, over the study period, the proportion of archaeologists working on temporary contracts fell, while the relative proportion of archaeologists in part-time work increased. This suggests the sector has moved towards a pattern of greater security for posts, together with increased appreciation of flexibility.

Within private sector archaeology, there are few well-defined intra-organisational career progression routes. Career progression routes are better defined within the public sector, but it is also difficult for individuals to move horizontally within the profession, from one subsector to another.

Geographical Variations

The surveys examined geographical variations in employment patterns.

In the first two surveys, more archaeologists were found to work in London and the south of England than in other areas, but this simply reflects the overall national pattern of employment across the entire economy. The proportion of archaeologists working in London declined between 1997-98 and 2002-03, and then declined further to 2007-08, to the point that more

archaeologists worked in the south-west of England than in London. This is likely to have been related to English Heritage's relocation of their head office and the staff working there from London to Swindon.

In almost all geographical areas, the largest single employment sector was commercial organisations carrying out field investigation and research. National government organisations were more highly represented in areas that include a capital city.

Qualifications and Training

From 2002-03, several new sets of questions were introduced relating to qualifications held by staff, organisational attitudes to training and to skills gaps and shortages.

In 2002-03, it was found that 90% of professional archaeologists were graduates, with 31% of all professional archaeologists holding postgraduate qualifications. Five years later, the figure of 90% of archaeologists being graduates was being maintained, but now with 40% having postgraduate qualifications. By 2007-08, 99% of archaeologists aged under 30 were found to be graduates.

Despite an apparently strong commitment to training reported in both surveys, organisations appeared to be failing to translate this into action through the appropriate use of training budgets and evaluation of training's impact on individuals and organisations (Aitchison and Edwards 2008, 100-101).

1.3 Coherence

The three works presented here form a coherent body of work.

These volumes are the only comprehensive reviews of the labour market within the archaeological sector, examining who works in all sectors of archaeology, what qualifications they hold, how they are rewarded and how they are trained. These three surveys established a corpus of time-series datasets which demonstrate how archaeological practice and employment have evolved in the UK over the decade to 2008 and the onset of the global economic crisis in that year.

They fit together through the maintenance of a core methodology which leads to the establishment of time-series datasets. These can be interpreted to provide an ongoing commentary upon the condition of the archaeological labour market.

Crucially, there are meantime no other UK archaeological employment surveys that can be added to this set. Some other research undertaken by the author and by others (*eg* Carter and

Robertson 2002a, Everill 2009) has added some supplementary value to the interpretations presented within them.

The coherence of this approach is demonstrated through its adoption for the *Discovering the Archaeologists of Europe* project, where the core methodology and approach was applied in twelve European countries (to which can now be added Bosnia-Herzegovina [Lawler 2010]).

The value of the reports is in this coherence, through the production of comparable data and consistency of core questions being asked. While the reporting style has varied slightly over time, all the reports continue to function as recognisable key reference point.

1.4 Contribution to the Expansion of Knowledge

The texts presented here make significant contributions to knowledge of how archaeological practice has developed and how it is undertaken.

Philosophically, the texts are the building blocks for a contemporary economic history of the subsector; no previous works have been able to collect and interpret data on the scale that the three reports considered here have achieved.

There were some earlier, less developed studies which tended to limit their scope to looking at particular aspects of the sector or followed other methodological approaches. These generally produced experiential histories of engagement or sociologies of practice. The one noteworthy exception was Sperry (1992), which looked simultaneously at employment data and investment in the sector, although that study was deliberately limited in scope to 'rescue' archaeology.

The major contribution of these works has been through the application of the knowledge generated through the authors' own interpretation and interrogation of the data presented in the reports; these have not often been reinterrogated by other authors (although Carter and Robertson (2002b) did reassess the headline employment figures presented in Aitchison (1999)).

The value of this research programme has been in the benefits that can be drawn from its interpretation (and the making available of data for others to interpret).

1.5 Review and Impact

Extent

No previous or contemporaneous work has ever attempted to gather data relating to employment in UK archaeology on this scale or to comparable depth.

Each of these projects was undertaken through postal questionnaire survey of archaeological employers, intending at each iteration to contact every potential employer of archaeologists in the UK.

Range

The series of reports is extremely data-rich, allowing for extensive multivariate analysis. Each survey received data in the form of completed questionnaires from several hundred respondents (ranging from between 242 and 324 usable responses), who completed organisational questionnaires of between four pages in length in 1997-98 and eight pages in 2007-08 plus single-page post profile questionnaires for each separate post (not each separate individual) working for that organisation. This represented hard data on at least 39% of the total estimated workforce at each survey point.

Quality

As the data was provided directly by respondents, there was minimal potential for the data to have been corrupted in the collection process. However, as the mailing lists of potential respondents were inevitably imperfect, there will have been some coverage error (omission, duplication or wrongful inclusion of population elements) but minimal sampling error (where only a subset of the total population is sampled).

Over the survey periods, the questionnaires have become more sophisticated as additional data were sought with each iteration. However, this was not at the expense of core datasets which remained consistent, allowing the cross-sectional data gathered at five year intervals to form coherent time-series datasets upon which detailed longitudinal analyses have been undertaken.

Coherence

The reports are similarly structured, with each report presenting a review of the methodology used; results relating to the numbers and types of organisations involved in archaeological practice; results relating to the population of working archaeologists (size of population,

diversity); results relating to the jobs that these people do (salaries, terms and conditions). The second and third reports also assessed professional training, collecting data on identified training needs and delivery mechanisms.

Impact

The portfolio represents a significant body of work, the individual parts of which have been extensively used and referenced within academic and commercial archaeology.

The figures generated in 2007-08 are used as benchmarks in English Heritage's Heritage Counts volume for 2008 (EH, 2008c: 42), and in Historic Scotland's review of existing information for the Scottish Historic Environment Audit (Historic Scotland, 2008a: 31), while they also are used as economic indicators by ECOTEC (ECOTEC, 2008) in a report to HEACS (the now defunct Historic Environment Advisory Council for Scotland) on the *Economic Impact of the Historic Environment in Scotland*.

In terms of influencing the development of the wider cultural sector, the 2007-08 document is referred to in Creative and Cultural Skills (Creative and Cultural Skills, 2008) workforce development plan for the cultural heritage in the UK, and it is noted in the Creative and Cultural Skills & Skillset (2010: 53) *Strategic Skills Assessment for the Creative Industries* that the "information regarding employment figures was far more detailed and precise than available through SIC codes and the APS. Therefore, this data was used to inform the total employment figures created for the Archaeology segment and therefore the Cultural Heritage sub-sector".

In terms of its value and impact for individuals, whether currently working in archaeology or aspiring to do so, the reports can help to inform decisions relating to career planning and professional development. For employers, this research can be and is used to support recruitment strategies as well as strategic development in terms of identifying the organisations' places in the market, areas of business opportunity and potentially to support acquisition policies. Through this research, employers' training needs and priorities are identified, thus aiding educators in matching training design to sectoral needs. For policy makers with responsibilities for protecting the historic environment, the research provides information about the level of capacity available within the sector and the levels that could be anticipated in the future.

The results have also been used for lobbying purposes, such as by the Institute for Archaeologists in their submission to the *Panel for Fair Access to the Professions* (IfA, 2009a), and in terms of international influence they were the model for the *Discovering the Archaeologists of Europe* project (below).

This work has also added to sectoral understanding who 'does' archaeology – the kinds of organisations and individuals that are investigating, interpreting and presenting the archaeological past. The research shows that, with effectively every practitioner being a graduate and the majority of individuals working for organisations that compete in the market place, both commercial and academic attitudes will influence the understanding of the past that is presented to the public. This has also led to further understanding of how archaeology is financed, with private sector development being the overwhelmingly most significant funder of archaeological practice in the UK in the two decades since 1990.

The *Discovering the Archaeologists of Europe* project allowed the Profiling the Profession methodology to be applied in eleven other European states in 2007-08 (data were collected in Ireland, the UK, Belgium, the Netherlands, Germany, Austria, Czech Republic, Slovakia, Hungary, Slovenia, Greece and Cyprus) (Aitchison, 2009c). This approach was subsequently also applied in Bosnia-Herzegovina (Lawler, 2010), and the model methodology had previously been used to generate comparable data in Australia (Ulm, Nicholls and Dalley, 2005).

This also allowed exploration of issues of transnational mobility (whether individual archaeologists and organisations can work outside their country of origin) and the formulation of initial critical comparison between states where archaeological practice is now primarily funded by the private sector and those where the state maintains a controlling role.

Prior to this project, this kind of information was unavailable in most individual states and had never previously been collected or applied on a transnational basis.

Future Work

A series of recommendations were set out in Aitchison and Edwards 2008 (14). Those that related directly to employment were that:

- this research should continue to be repeated at on a five-year cycle;
- further projects which apply the National Occupational Standards in Archaeological Practice in the workplace should be undertaken (this has led to the roll-out of the National Vocational Qualification in Archaeological Practice);
- further research was needed to identify why there continues to be so few black or minority ethnic people working in the sector (this has not yet been undertaken);
- and that comprehensive, up-to-date information about those participating in archaeology on a voluntary basis was needed in order to identify potential skills and training issues for this group of individuals. This has now been carried out by the Council for British Archaeology (Thomas, 2010).

In retrospect, having now reviewed in greater detail the content and context of the reports, to continue this research through further repetitions would undoubtedly continue to improve understanding of the profession's needs. Continuing or expanding the *Discovering the*

Archaeologists of Europe project would allow ongoing and more detailed analysis of what the various approaches to archaeological employment means for the management of the historic environment in different states.

1.6 The Author's Contributions to the Published Works

The three reports, together with the *Discovering the Archaeologists of Europe* project of which the third report formed a component, were all the outcomes of projects conceived, initiated and led by myself.

Throughout the three underlying studies, I have been the lead investigator, initiating the research process, securing funding, designing the initial methodology, leading on data collection and analysis and then having overall control of the report writing process.

Each project benefited from contributions from various individuals in advisory and administrative roles. All are credited in the appropriate reports.

Details of others' contribution to the research and reporting process are summarised here. For the 1997-98 study (Aitchison, 1999), I was sole researcher and author; I devised the methodology and managed the project. The text was copy edited by Simon Denison prior to publication.

For the second iteration, carried out in 2002-03 and published as Aitchison and Edwards (2003), my co-author was Rachel Edwards. I had control over methodological developments from the 1997-98 base, was simultaneously project manager and project leader. I shared responsibility for data collection, analysis and reporting with my co-author, and I then had final oversight and sign off of the published report.

In 2007-08, my co-author was Rachel Edwards again (Aitchison and Edwards, 2008). I was responsible for the overall project and led on methodological revisions. For this project I took less responsibility for data collection, and my co-author and I shared analysis and reporting as specifically set out in the report (Aitchison and Edwards, 2008: 1):

“This report was written by Kenneth Aitchison, Head of Projects and Professional Development at the Institute of Field Archaeologists and Rachel Edwards of Arboretum Archaeological Consultancy. Kenneth Aitchison completed most of the analyses for Chapters 3 and 4; Rachel Edwards completed most of the analyses for Chapters 5 and 6 and Appendix 1. Kenneth Aitchison wrote most of Chapter 1 and parts of Chapters 2, 6 and 7. Rachel Edwards wrote most of Chapters 3-7 and part of Chapter 2. The authors jointly undertook the critical editing of the report”.

2 Review and Conclusions

The conclusions presented here are divided into two parts – the first reviews the solid data that were published in the reports that constitute this thesis and material that was consequently available before 31st March 2010 and comments upon that, the second speculates on what might happen in the short and medium term from that date based on government policy and emerging information published by 30th November 2010.

2.1 Supply and Demand in Archaeological Employment

In any labour market, the forces of supply and demand determine both price (wages) and quantity (the number of people employed).

The economic system within which applied archaeological practice in the UK operates has created a demand for archaeological services which has been supplied by the employers of archaeologists.

Using Williams' (1977) 'epochal analysis', the forces that have led to the existence of a market for archaeological employment can be seen as a cultural process, part of a cultural system which has been transformed through stages and variations.

Cultural processes have dominant features, and currently the dominant model in archaeological practices is of flexible private sector provision of services. In addition to the dominant model, cultural processes also have residual and emergent features, which "are significant both within themselves and in what they reveal of the characteristics of the 'dominant'" (Williams, 1977: 122).

By 'residual', Williams means something different from the archaic; this is something that has been formed in the past but that is still active (and sometimes still effective) in the present cultural process. In terms of archaeological employment, important residual models include the provision of fieldwork services by universities and local authorities – organisations which are typically not-for-profit organisations but which are characterised by the need to charge high overheads in order to provide an income to their parent body in return for infrastructural support, an institutional advantage which is discussed below.

Identifying the emergent can be difficult, as sometimes what appears to be emergent can simply be elements of a new phase of the dominant model; the truly emergent, for Williams, is "substantially alternative or oppositional to [the dominant]: emergent in the strict sense, rather than merely novel" (Williams, 1977: 123). While private sector advisory services – consultancy – within archaeology, mediating at the interfaces between archaeological curators, contractors

and clients, is effectively one aspect of the dominant model, the appearance of consultants undertaking curatorial work on behalf of local planning authorities is in this sense an example of emergent practice (see 6.2.2.1, below).

Archaeological practice and employment have not reached a condition of stasis, where they will remain unchanged forevermore. Emergent cultural practice will continue while active residual processes will also continue to operate. These are necessary facets of the dominant process, which will continue to develop. For example, development-led off-shore archaeological work has emerged as a relatively new (physical) area of work in the decade since 2000 (see 6.1.2.4 Maritime Archaeology, below), but using the polluter-pays model that has been dominant since 1990.

Demand for the relevant kinds of archaeological work has been generated through the linking of economic demand – for construction in particular (see 6.1.2 Process, below) – to the principles of sustainable development. The political application of the economically liberal principles of polluter-pays sustainable development (see 6.1.1.1 Sustainable Development, below) in a very lightly regulated market has allowed the UK to have a sophisticated and flexible archaeological jobs market which responds rapidly to market changes, and which can grow when the economy grows.

On the supply-side, this means that the provision of archaeological employment grows as demand grows. During the period of increasing supply (1990-2007), this provision was furnished by increasing numbers of employers who did not face substantial barriers to entry to begin operating in the market.

There is an overprovision of graduates at first and second degree levels seeking work with these employers (see 6.3.3.3 Numbers of Students, below), and entry to the job market is essentially unrestricted; for businesses as service providers, it is very easy to establish a new business - the entry barriers are also very low.

“At present in Great Britain’s archaeology market it is apparent that with low entry barriers and heightened exit barriers, the market is becoming increasingly saturated with service providers ... this is resulting in a downward pressure on prices which in classical economics reduces profitability to the bottom limits of tolerance. According to orthodoxy, in a saturated market we should expect higher levels of bankruptcy as the ‘inefficient’ are driven out of the market ... we need to allow the market to work, in order for the market-place to find an appropriate level” (Hinton and Jennings, 2007: 110). As Hinton and Jennings identified, the market is flawed – some employers have institutional advantages which protect them from bankruptcy and the market therefore functions imperfectly.

The system also does not deliver training for professional archaeologists well – indeed, this is an area where the market is inefficient, as employers are reluctant to pay for staff development despite any loss of return on their investment being offset by the potential benefits they could gain from ‘training overspill’, where one organisation recruits staff who have been trained by a competitor.

Overall, however, the system works. Demand has been created and supply has met that demand. Sustainable development is being achieved with a flexible workforce. Businesses are not always well run, and while there are too many not-for-profit practices and attitudes within the sector which contribute to profit margins being low, nowhere in Europe has a better or more effective system of archaeological practice. This means that the UK also has the best developed system for archaeological employment which provides more opportunities than the more heavily regulated contemporary statist or social democratic models operated elsewhere in Europe.

2.1.1 Change from State to Private Funding

Archaeology’s funding base has been transformed from being primarily state-reliant to being overwhelmingly privately funded. This transformation goes alongside the transformation from an accent on the preservation of what is considered to be aesthetically pleasing to the mitigation of environmental damage (see 6.1.1.1 Sustainable Development, below).

The initial dominant model of funding archaeological practice – amateurs with labouring assistance financed by personal funds – became residual as state-funding emerged in the early twentieth century to become dominant until the end of the 1980s. Private funding for archaeological practice begins to emerge in the 1970s, surpassing state funding to become the dominant model even as direct state funding peaks in the mid-1990s (although offset to a large degree by the state funding development-led archaeological investigations when the state itself is the polluter), becoming a residual element which is incorporated into the dominant model. Heritage Lottery Funding is an alternative emergent source, but one which is ultimately subject to the same controls as taxation-originated state funding and which actually contributes relatively little to professional archaeological practice.

Jones (1984: 50) considered that the state spent £210,000 on field archaeology in 1970, with the first published quantifications of the amount of money being spent on archaeology from multiple sources being produced by RESCUE in the 1970s with a figure of £2.6m being spent in 1976-77 (Beresford Dew, 1977). These data came from questionnaire-based surveys, and historically they followed the first direct financial intervention from central government to support archaeological work in advance of development, the implementation of block grants from the Department of the Environment (DoE) to maintain regional archaeological ‘units’ from

1973 onwards. Of the £2.6m disbursed in funding in England in 1976-77, more than 50% came directly from the DoE and less than £13,000 (<0.5%) from 'business/commercial' sources (*ibid.*).

The amount spent on field archaeology by the state agencies continued to increase in the late 1970s, to a total of £4.8m across Great Britain in 1978-79 (although comparison of these figures is skewed by this being a period of high inflation). 49% of this was provided by the DoE and 1% by 'business' (Dennis, 1979). In 1980, the DoE replaced its policy of funding the core activities of archaeological organisations with one of supporting projects rather than organisations. In Scotland, this was of little consequence as a network of independent units had not emerged, with the Central Excavation Unit and SUAT continuing to conduct the bulk of investigation work.

The key site in terms of the subsequent transformation of responsibilities to the private sector was Anslow's Cottages in Berkshire in 1985 (Case Study 4: Anslow's Cottages, Burghfield, below), with the simultaneous recognition that archaeology could be expensive, that neither national nor local government wanted to take financial responsibility for this and that this cost could potentially be handled through the planning system, a recognition that led to the 1990 publication of PPG 16 (DoE, 1990b) (see 6.1.1.1.4 Planning Policy Guidance note 16: Archaeology and Planning, below).

Even before PPG 16 was established, increasing amounts of money were being put in to archaeology by the private sector – not through obligation, but as a consequence of recognising that archaeology would have to be 'dealt with', and that it was in their financial interests for this to be done as soon as possible. In high rent areas, such as the City of London, in the period between a site being bought and rental (or sale) of that site, it would be generating no income and would potentially be accumulating a cost in terms of interest payments due.

RESCUE continued to publish occasional reports on the funding of archaeology, with the next significant publication relating to 1990-91, the financial year during which PPG 16 was published. Sperry (1992: 32) estimated a total of £31.0m was spent in 1990-91, 33% from central governmental agencies and 48% from developers, with the remainder coming from local authorities (17%) and 2% from 'other' sources. Crucially, this is the financial year during which archaeology became a material consideration in the planning process in England, and it shows that even before that policy was fully in place, developers were funding more than the state.

This author estimated from staffing costs and planning application data that £119.3m was spent on applied archaeology in England in 2000, 57% of which (£68.3m) was considered to come directly from private sector developers (Aitchison, 2001). The same methodology was then applied to data for financial year 2003-04: the increase in spending on archaeology in England was estimated to have been 79% over four years, to £213m. Funding from developers increased proportionately even more rapidly, to £144m in that year (an increase of 110% over four years)

(reported in Hinton and Jennings (2007)). Finance from other sources – specifically the Heritage Lottery Fund – also increased rapidly over those four years, while funding from English Heritage fell in absolute terms.

2.1.2 Economics of Archaeology

Archaeological work, in material terms, is useless ... it is a knowledge-based activity (Baker, 2001)

Archaeological deposits, and almost all archaeological finds, are essentially non-tradeable environmental assets, and as they cannot be traded for other goods or services, archaeology is essentially valueless. However, knowledge has value. Adam Smith observed in an early draft of *The Wealth of Nations* (Smith, 1776) that art and knowledge could be “purchased, in the same manner as shoes or stockings, from those whose business it is to make up and prepare for the market that particular species of goods”. Because knowledge can be commoditised, a market for archaeological knowledge has developed, in the sense that clients will pay archaeologists to transform deposits into knowledge (through the processes of archaeological fieldwork and analysis) that the clients can then use for their own purposes (such as to get planning permission). This has reached the point where archaeology in the UK can be described as being a market-led activity, regulated through the democratic processes of local government (Aitchison, 2009e).

The commercial model has become dominant, business entities compete and individual archaeologists contribute to their activity. Income is primarily from private sector developers, secondarily from central and local government acting as developers, and only after that from other state-led sources – from the state and local government as an employer of archaeologists, from higher education funding councils (which provide very little funding that goes into applied archaeology) and from the national lottery through the Heritage Lottery Fund (technically a non-governmental source, but accountable to the Department of Culture, Media and Sport).

In order to fit to the sustainable development model, the funding of archaeological work ahead of development has to come from the developers in order to ensure that the polluters are mitigating against the outcomes of their actions. If this work was funded by a hypothecated levy upon all development, such as happens for archaeological evaluation in France (Demoule, 2008), then those that chose to avoid impacting upon archaeology would be taxed as heavily as those that did – meaning that non-polluters would also be paying, alongside those that damaged the resource. And even more detached from sustainable development would be a model where the state paid – absolving the polluters of all of their responsibilities.

2.2 Weaknesses in the System

The commercially-led system is not perfect; while there are some real problems, a number of unjustified criticisms have been made of the system, including the issue of access to primary reports (*aka* grey literature) (Lock, 2008), the exclusion of the public from professional activities (Faulkner 2000) and the potential for the objectives of archaeological research to become secondary to the demands of clients (Cumberpatch and Blinkhorn, 2001). These criticisms are often responses to change, and are normally external critiques from non-engaged viewpoints and founded upon imperfect understandings of the system and the way it operates.

There are real weaknesses, and these are discussed below – the very fact that the market is imperfect and may fail to deliver effectively, that all work has to be processed through the filter of local government, that companies operate on low margins which directly contributes to limited financial reward for workers in the sector, and that there are limited entry routes which reduces the social mix of workers.

2.2.1 Market Failure

Generally, marketplaces should be self-regulating – if consumers are able to choose what they want to purchase, they will then be free to select from producers of a product or service, and then pay those producers as much, or as little as they want to. If a producer charges too much, an alternative producer should be able to provide a comparable service that the consumer can then choose to purchase. This self-regulation is Adam Smith’s metaphorical ‘invisible hand’.

Market failure is a central tenet of environmental economics, which identifies that sometimes the market does not allocate resources sufficiently efficiently to protect an environmental resource. It is the process that fails to provide protection (which in the case of archaeology would include mitigation against damage), not the participants in that market – neither the producers (who in archaeology’s case are the contractors) nor the consumers (the clients). They have not failed – the market process has.

Market failure is not the same as a failure of the markets, such as the Wall Street Crash or the ‘credit crunch’ that led to the economic crisis at the start of the twenty-first century, nor is it the inability of a producer to service a sector, so leading to their eventual loss of market share.

Environmental economics uses supply and demand to minimise the impact of the human economy on environmental resources, such as ecosystems or the historic environment. Market failure occurs under conditions of asymmetric information (Lofgren, Persson and Weibull, 2002), when consumers are either insufficiently informed – when they don’t realise that they

must mitigate against environmental impacts through committing resources – or when they are not compelled to do so.

Market failure does not only exist within environmental economics – it can be an issue that relates to human resources, specifically regarding training. Employers will often be reluctant to invest in the employability of their staff through training them, which then leads to an overall skills deficit within a sector (or even wider). This line of thinking motivated the UK government to fund skills training, particularly for Level 1 and 2 qualifications when employers weren't investing in this area (Clough, 2005; Leitch, 2006). In terms of archaeological training, because archaeological employers find it financially difficult to invest in training, particularly for junior staff, it has not yet been possible to establish a sustainable culture of the internal investment in placements or apprenticeships for such early-career professionals.

For archaeological practice as a whole it can be argued that, since 1990, the market has protected the historic environment resource effectively. But this has been imperfect and geographically inconsistent, as archaeological curators advising local government have had a regulatory role in this market, setting the required work and influencing access to the market and the way that this is done varies across the country.

Hinton (2008) argues that even though developers have spent hundreds of millions of pounds on archaeology, the historic environment – as a public asset – has not been best protected. This argument asserts that because quality of service is not necessarily of interest to archaeology's clients, the market fails to ensure that archaeology is undertaken adequately and consistently.

For larger scale projects, with more substantial developer clients, this has not been a great problem – these are 'educated consumers', with far greater levels of financial investment at risk in these projects, who appreciate the requirements upon them and will normally access in-house or consultancy advice to ensure that they meet all of their requirements. This is potentially more of an issue with smaller developers who have had little contact with archaeology – 'uneducated consumers' – and who may attempt to reduce the amount of investment they make in mitigating against the damage they are causing, leading to projects having to be undertaken with unrealistically low budgets. While there are providers willing to undertake projects like these, the market is skewed towards competition on an underfunded basis.

2.2.2 Local Government Mediation

The concept of archaeological work being mediated through local government is not, in itself, a weakness. Local democratic control over policies that affect the historic environment is extremely important, and this is the pivotal process through which 93% of all archaeological

work originates (Aitchison, 2009b). However, application of the process is both vulnerable and inconsistent.

At the start of 2010, every local planning authority in the UK had access to archaeological advice in the development control process, founded upon maintained Sites and Monuments or Historic Environment Records. These services are normally small operations within much larger authorities (see 6.2.2 Employment in Historic Environment Advice Provision, below). As they are non-statutory – while the authorities do have to respond in some way to archaeological issues raised through the planning system, they have no legal obligation to provide specifically archaeological (or historic environment) services – they are frequently under threat from budget cuts and so the system is vulnerable to political or economic changes, as has been demonstrated in some authorities, such as Northamptonshire, where the archaeological advisory service was withdrawn for a period of years.

The weakness, however, is in the way that this service is delivered – which can lead to inconsistencies in the requirements placed on clients and thus on contractors, and perceived limitations on opportunities for contractors to work.

In 2001, Clark wrote that “resources for conservation are static or falling, while public expectations of conservation are rising and staff are being asked to deal with a growing range of activities” (2001: 61). *Heritage under Pressure* (Baker and Chitty, 2002), identified that heritage services were low on local authorities’ agenda, that heritage potential was being neglected and that heritage was regarded as being an obstacle to be overcome rather than a positive asset.

Informing the Future of the Past (IFP) (Ferne and Gilman, 2000) and *IFP+* (Gilman and Newman, 2007) clearly set out the technical requirements for managing, maintaining and updating Historic Environment Records as databases, but they do not address the provision of advice. There is not at present an accepted IfA Standard and guidance for curatorial practice (despite the need having been discussed for over a decade – eg Fairclough (1999), Chadwick and Reeve (2000)), although an overarching *Standard and guidance for Stewardship of the Historic Environment* (IfA, IHBC & ALGAO, 2009) exists. Without a specific curatorial Standard, it may be perceived as unreasonable that curators are issuing briefs requiring contractors to work to accepted Standards (as effectively every curator makes reference to the requirement for work to be undertaken to at least the relevant IfA Standard for that particular form of investigation) while not being subject to comparable peer-reviewed quality controls themselves.

There is potential for roles and responsibilities to become confused. Archaeological advisers – curators – should only provide advice to the planning departments within their local authorities, which are then responsible for placing conditions on the work that developers wish to do, and the developers appoint (and, if they are also using a consultant, monitor) their chosen contractors. The contractors do need to liaise with the curators – but ideally this should never

be seen as a relationship where the curator requires something of the contractor (although some authorities may delegate some responsibilities). Best practice should mean that the curators only advise the planners, who can then negotiate with the developers, who can then request that their chosen contractors do that particular. Too often these relationships can become confused and 'short-circuited', leading to curators acting beyond their remit and trying to micromanage the mitigation strategy.

A long-standing issue has been the maintenance of lists of archaeological contractors by curators who then make them available to planning applicants whose proposal may require an archaeological assessment or evaluation, or which has an archaeological condition or agreement upon it. This procedure – intended to facilitate the identification of a suitable contractor – has the potential to be seen as a form of restrictive practice, especially where the conditions for inclusion on a given list are opaque or unfairly selective (anonymous, 2002a). Over time, this matter has improved “... at least the practice of local authority select lists of approved contractors has now generally achieved a fairer standard (ever since the Ombudsman took a hand)” (Colcutt, 2006: 224), but it remains a residual element of debatable practice. In 2010, curators are now more likely to direct applicants to the IfA Register of Organisations, so that the entry requirements for that particular 'list' are transparent and peer-reviewed, rather than based upon value judgements made in-house. This is particularly frequent in the south of England.

The system may yet be on borrowed time. In Scotland, there is a single data repository – the National Monuments Record of Scotland (although some local Sites and Monuments Records see their data as the intensive record which complements the non-intensive national record) – and many authorities do not maintain in-house advisors, although they normally access them from neighbours – such sharing of personnel and management is spreading across many local authority boundaries. Across England, nearly all authorities have an in-house or shared service, but occasionally discussions of the possibility of a single, centralised database and advisory service (such as functions in Northern Ireland) arise. Without the *Heritage Protection Bill* reaching the statute books, the full process of the *Heritage Protection Review* in England is incomplete and the current local government model for the delivery of archaeological advisory services on the public behalf remains weak and vulnerable.

2.2.3 Low Margins

Competition in applied archaeology has usually been embraced on a price-led rather than quality basis and in this market “archaeological contractors are very under-capitalised, work on

extremely small margins and frequently yield annual surpluses of under 5%" (Darvill and Russell, 2002: 73).

The archaeological market is highly fragmented, with poor or restricted profitability, uneven regulation, low barriers to entry and increasing competition. That competition, "...despite all of the assertions of every single archaeological practice to offer a high quality service, is highly price sensitive given the power of the buyers" (Hinton and Jennings, 2007: 108). Even the market leaders can only claim to have 5% of the market, and therefore have limited capacity to set market prices or influence them to any significant degree (*ibid.*).

Profit margin is calculated by dividing a company's profit by its revenues. This figure is an indicator of a company's pricing policies – which will be influenced by external factors – and its ability to control costs (a higher profit margin indicates a company is better at controlling costs, although this may also reflect a company's client base and mix of work types – consultancy will typically return a higher profit margin than fieldwork).

Using data from three relatively large companies operating in the applied archaeology sector (each of which is a registered charity), Oxford Archaeology (the largest archaeological contractor by staff numbers in the UK), Wessex Archaeology (the second largest) and Cotswold Archaeological Trust (another of the ten largest), the figures in Table 8 below show that all have been typically returning a profit margin of below 5%, even before the onset of the global economic crisis in 2008, and the occasional margin in excess of 10% has to be set against (in the cases of both Oxford and Wessex) years when the margins have been negative – expenditure has been greater than income.

Oxford Archaeology					
	2008-09	2007-08	2006-07	2005-06	2004-05
Income	£11,681,088	£10,416,526	£9,132,557	£7,922,205	£7,676,885
Spending	£11,901,088	£9,132,557	£8,855,462	£7,978,366	£7,382,718
'Profit'	-£220,000	£1,283,969	£277,095	-£56,161	£294,167
Profit Margin (Charity Commission, 2010b)	-1.88%	12.33%	3.03%	-0.71%	3.83%
Wessex Archaeology					
	2008-09	2007-08	2006-07	2005-06	2004-05
Income	£7,029,499	£8,234,355	£7,252,970	£6,307,361	£6,077,672
Spending	£7,370,856	£7,706,485	£6,829,877	£6,391,198	£6,075,395
'Profit'	-£341,357	£527,870	£423,093	-£83,837	£2,277
Profit Margin (Charity Commission, 2010c)	-4.86%	6.41%	5.83%	-1.33%	0.04%
Cotswold Archaeological Trust					
	2008-09	2007-08	2006-07	2005-06	2004-05
Income	£2,587,274	£3,515,962	£3,503,991	£1,867,423	£1,562,800
Spending	£2,542,051	£3,107,157	£3,107,229	£1,785,312	£1,501,499
'Profit'	£45,223	£408,805	£396,762	£82,111	£61,301
Profit Margin (Charity Commission, 2010a)	1.75%	11.63%	11.32%	4.40%	3.92%

Table 8: Income and expenditure for three major archaeological contractors.

Small margins lead to limited profitability which in turn brings reduced opportunities for reward and exposure to potential business failure.

The majority of the archaeological workforce in the commercial sector are employed by charities or other not-for-profit organisations (see 6.2.1.2.2, below). This is seen by some to be a personally satisfying, ethical approach to work (Andrew Fitzpatrick pers. comm. 30th September 2009 - presentation to OUDCE MA Professional Archaeology), but is seen by others as a contributory factor to wage suppression. Tim Holden, a Director of the privately-owned Headland Archaeology Ltd wrote “the not for profit culture of our industry leaves companies like ours with a number of interesting challenges. Of course the ‘level playing field’ does not exist and we have to prosper in spite of tax and financial advantages offered to archaeological organisations outside the private sector. This requires us to be more efficient and more business-like, and we are inherently more in tune with our clients who face the same commercial pressures” (Holden, 2010: 27).

The issue of sector-wide low margins is extremely difficult to address in a gradualist way and completely impossible to address in a non-gradualist way without a radical restructuring of practice. Higher barriers to entry, or enabling market forces to allow more organisations to fail, seem to be the only possible mechanisms to achieve this (Hinton and Jennings, 2007: 109).

Barriers to entry – such as might be achieved through the profession reaching Chartered status, a stated aim of the Institute for Archaeologists (IFA, 2000), whereby only accredited professionals would have a licence to practice – would restrict the numbers of practitioners without reducing the volume (and thus value) of potential work, allowing that value to be realised by a smaller number of competitors, therefore giving scope to allow higher charges to clients to be set and potentially for higher margins to be retained. The achievement of Charter status seems unlikely in the short term because of extensive regulatory checks the Institute would have to pass, without any credible objections being made, before the Privy Council could approve this on Government's behalf.

Hinton and Jennings (*ibid.*) also call for lowering the barriers to exit. Many of the organisations that function within larger entities – such as the university or local authority based contractors – have been protected from full exposure to the market by their parent bodies, which may have seen greater value in their continued existence than in simply using them as income generators (although post-2008 economic crash this may be becoming less widespread). In this case, low margins are less of a concern for those organisations, as they are better able to accept them – and therefore their truly commercial competitors are forced into working for equivalently low profit levels. It is the existence of such bodies and the number of charities operating in the sector in particular that allows Holden to assert that there is no 'level playing field', even when there are not any restrictions in terms of access to market. This has changed to an extent since 2008, with some companies putting in very low tenders simply to maintain market share and staff numbers, and numbers of university-based businesses being allowed by their parent universities to fail (see 6.3.3.4 University-based Commercial Archaeological Practices, below).

2.2.4 Graduate Entry by Default

Entry routes and diversity have been largely ignored ... This has led to a situation where [the historic environment sector] could be seen as socially exclusive and non-meritocratic, with many potentially good people being denied opportunities to establish themselves and to professionally advance (Aitchison, 2008)

91% of archaeologists are graduates (Aitchison and Edwards, 2008: 55), with essentially all new entrants holding degrees, as 99% of practitioners aged under 30 in 2007-08 were graduates (*ibid.*). 93% of applicants to join IfA as corporate members in 2009-10 held at least one degree (137 of 148) (Beth Asbury pers. comm. 23rd April 2010).

With such an oversupply of graduates competing for a limited number of vacancies, non-graduates have little chance of gaining entry-level jobs as there is an absence of any other competence- or knowledge criteria that employers can use to assess the quality of candidates

(Aitchison, 2008); this has led to archaeology becoming a graduate entry profession by default, largely staffed by individuals from a restricted (middle class) portion of the total population (Aitchison, 2006a).

Spence (1973) recognised that employees and employers use qualifications as signals, rather than as demonstrations of competence, as employers are generally unsure of the productive capabilities of an individual at the time they are recruited, and so therefore hiring decisions are uncertain ones (Spence, 1973: 356). This leads to a loop, where new applicants use qualifications to signal that they are better qualified than those that went before them, which alters the beliefs and expectations of employers leading to wage levels being adjusted in response. After new employees have been appointed, the new information that is available to employers about the levels of qualification that particular salaries will attract leads to changed expectations the next time they are recruiting.

In 2007-08, there were 16,251 individuals studying archaeology at university (Ramsden, 2009). The majority of students want to work in the sector - "55% of graduates reported that, upon starting their degree, they wanted to pursue a career as an archaeologist; 57% of graduates reported that, upon finishing their degree, they wanted to pursue a career as an archaeologist" (Jackson and Sinclair, 2008: 10). However, the number of jobs available is limited, as there were only 6,865 people working as archaeologists in 2007-08 (Aitchison and Edwards, 2008).

Students are in general underinformed as to the level of competition they will face for employment within the sector, and unaware of the relatively underdeveloped career and rewards structure they might encounter if they do find work (Jackson and Sinclair, 2008: 25).

Halpin (2005) ranked graduates of 61 academic subjects by average salary earned six months after graduation, using HESA data from 2002-03. Archaeology was the lowest ranked subject, with graduates earning £13,300 on average (by contrast, the top ranking subject was medicine, where graduates earned an average of £31,353), and Halpin concluded that 11% of archaeology graduates were unemployed and 30% in non-graduate jobs.

This is not an overall view of the earnings within subject areas, but a snapshot of where graduates were six months post-graduation, which is supported by First Destination data reported by Jackson and Sinclair (2008: 4). That showed that only 50% of 2006 archaeology graduates were in full-time or part-time paid employment six months after graduation.

Some of the unrealistic employment and salary expectations that archaeology students have may be directly caused by a lack of information given to them about employability. This can be compounded by academic staff who themselves might not have had experience of working outside academia (Aitchison and Giles, 2006).

These considerations must be balanced against the benefits of a graduate workforce, which will be more productive (and, statistically, healthier), is better able to adapt to new tasks and can be a direct source of innovation (Wilberforce, 2005; Blundell et al., 1999; Chamberlain, 2009).

2.2.5 Salaries

Pay has a significant impact on issues around recruitment, retention and motivation of people working within archaeology, and on individuals' capacity to invest in their own training

(Aitchison, 2008)

While Andrew Lawson wrote in 1993 that "Professional archaeology has now progressed enormously in the realisation that it would neither attract nor retain the best qualified staff on a subsistence-level wage. Archaeology is now an accepted profession that commands reasonable fees" (Lawson, 1993: 149), salaries for many in the applied sector (although by no means all) have remained low.

Low levels of pay have been a long-standing issue in archaeology. Some have blamed this on the pressures of the market on the commercial sector (Chadwick, 2000; Cumberpatch and Blinkhorn, 2001), but this issue predates the introduction of competitive tendering. It was acknowledged, and bemoaned, from the early 1970s onwards. Musson (1974) noted how poorly fieldworkers were rewarded, but even with poor levels of reward there were some who begrudged those that were trying to earn a living from archaeology, and who thought that the discipline should be taken out of the hands of these "mercenaries" (Kiln, 1973).

Speaking to the Young Archaeologists' Conference in 1985, Anne Fahy said that "... it would almost appear that young archaeologists should be grateful that they have been able to find work. Any considerations of pay, conditions etc., have been subsumed in the [effort] to stay in work" (Fahy, 1985). By the 1990s the issue continued to provoke unhappy comment (Sperry, 1992; Aitchison and Anderson, 1995; Reeve, 1995; Schaaf, 1996; Turner, 1996; Aitchison, 1996).

Over the study period of the three labour market intelligence reports, archaeological salaries increased by 36%, but national average earnings increased by 57%

	Average salary for archaeologists	Average salary for all UK workers	
1997-98	£17,079	£19,167	89%
2002-03	£19,161	£24,498	78%
2007-08	£23,310	£29,999	78%

Table 9: Average archaeological salaries. (Aitchison and Edwards, 2008: 136)

A (semi-) organised reaction has come from pressure groups within archaeology, such as ACT (see 6.4.1 The Role of the Professional Association, below) and the Diggers' Forum, which has now contributed to IfA's salary benchmarking work, but while reaction to this issue has occasionally been vocal, this has not transformed into effective action. Only on a workplace-by-workplace basis has there been any trade union reaction, which has manifest itself through local negotiations rather than industrial action, which perhaps emphasises the generally ununionised nature of applied archaeology (see 6.4.3 Trade Unions and Archaeology, below).

In review, competition within archaeology on the basis of price rather than quality has undoubtedly contributed to lower amounts being earned by archaeologists (Heaton, 2000; Hinton and Jennings, 2007). With turnover reduced by prices being set so low, this has led to low profit margins across the sector (see 2.2.3, above), which is compounded by so many of the largest participants in commercial archaeology being constituted as not-for-profit organisations (see 6.2.1.2.2 Not for Profit Organisations and Charitable Status, below)

And even decades after Robert Kiln's 1973 plea to stop the professional "mercenaries", volunteerism still persisted as a mentality - "Archaeologists have still not shaken off the legacy of their roots in the 1970s volunteer culture" (Turner, 1996: 8), and this author argued that individuals within archaeology who regard their work as a 'hobby' and not as a career, who are prepared to receive commensurately low wages, prevent those who do aim to make a living from archaeology from getting adequate financial reward (Aitchison, 1996).

But taking all of these factors into account, the most significant reason why archaeological salaries are so low is oversupply, and the effect of this on the operation of the labour market. In 1981, Ken Hudson wrote that "What one sees in present-day British archaeology is, in fact, the fairly brutal operation of the Victorian economic theory of supply and demand. There are far too many archaeologists chasing too few jobs, wages are depressed in consequence" (Hudson, 1981: 138).

Since 1980, and possibly even before, there has normally been an oversupply of archaeologists looking for jobs, and in a market with many suppliers (in this case, individual archaeologists), who are not providing differentiated products, prices (here the prices are the wages paid) will fall as the consumers (in this case, the employers of archaeologists) can choose to take on those that are prepared to work for lower salaries. At times when there has been pressure on supply, such during the M74 Completion project (see Case Study 11: M74 Completion, below) and in Ireland from 2002-07 (see 6.1.2.2 Infrastructure, below), there has generally not been a surge in wages, as the issue has been dealt with through employers drawing on the over-supply of archaeologists in other areas.

This unregulated market economy means that archaeologists will not be paid any better unless demand exceeds supply, and the workload outstrips the available labour.

IfA, as the professional association acting to improve the lot of its members, has taken steps to counter the worst of the problem. The 1986 IFA AGM passed a special resolution declaring that the use of full-time archaeologists as 'paid volunteers' contravened Rule 1.9 of the Code of Conduct "in every respect" (Fahy, 1987). Namely, this referred to low pay, no written contracts, no sick pay or holiday entitlement and a failure by employers to inform employees of their rights and obligations in respect of Income Tax and National Insurance (so potentially disqualifying the individual from benefits). While this resolution did not directly affect the issue of low pay, it made it clear that all employees must have the same rights, and all employers have the same obligations towards them. The IFA's Council then passed a further resolution in December 1987 which stated that "It is IFA policy that persons pursuing a career in archaeology should not receive remuneration on volunteer subsistence rates, but at a proper wage" (Hall, 1988).

IfA began to publish recommend minimum rates of pay equating to the three grades of corporate membership from 1996 onwards (Murray, 1996), which was a key recommendation of the Institute's Archaeological Employment in Britain Working Party (Schaaf, 1996).

These minima were pegged to points on the local government rates of pay scale, increases to which are negotiated nationally and annually between the local government employers and trade unions represented on a Joint Negotiating Committee. These minima were rapidly adopted and broadly adhered to within archaeology, so that by 1997-98, less than 10% of all working archaeologists were earning less than the IfA's recommended minimum for individuals exercising PIFA level responsibilities (Aitchison, 1999: 40).

With the minima in place, IfA was able to require Registered Organisations (who employ 67% of the applied, commercial archaeology workforce) to pay at least these levels of remuneration as a condition of their Registration, and then to move on from the recommended minima to develop recommendations for more generous 'reasonable' rates of pay. These reasonable rates are not intended to replace the minima, but are taken from a benchmarking exercise that compared the salaries earned by practitioners in other fields which required comparable levels of competence or responsibility to those exercised by archaeologists (Price and Geary, 2008). In 2010, IfA circulated a discussion paper to seek comment from members on how to best implement this (Geary, 2010).

2.3 Strengths in the System

Despite the weaknesses identified above, the system works in the sense that, as a market solution to an environmental issue, it has effectively delivered environmental mitigation and/or protection: damage to the archaeological resource has been managed through the mechanisms

of preservation by record and preservation by understanding. This has involved archaeological practice, embedded as it is within the planning system, leading (directly or indirectly) to greater levels of public, professional and political understanding about the past.

The market-led system has also led to a degree of workplace recognition and respect for archaeologists from professionals that archaeologists work alongside. In terms of employment, the sector has expanded greatly (and, as discussed elsewhere, most of the professional archaeologists who have ever worked are still working in the sector today - see below, 4.1 Issues in Writing Contemporary History). This means that the gross amount of remuneration received by archaeologists in 2007 (average salary multiplied by the number of people working in the sector taken from Aitchison and Edwards (2008)) was £160m – this compares with an estimated £76m ten and £19m seventeen years before (Aitchison, 1999; Spoerry, 1992). Archaeologists have achieved parity of esteem with fellow contractors that they routinely work alongside – consistent progress can be seen from the “generous provision” of a scraper by “Messrs Wimpey” at the first excavations at Heathrow at the end of the 1930s (Grimes and Close-Brooks, 1993: 308-9) to field archaeologists becoming an integrated part of the team on the Heathrow Terminal 5 project less than sixty years later.

2.3.1 Market Solution to Sustainable Development

The real price of every thing, what everything really costs to the man who wants to acquire it, is the toil and trouble of acquiring it (Smith, 1776: book 1, chapter 5)

The commercialised system of applied archaeology in operation in the United Kingdom uses the power of the market to address an environmental issue.

Archaeology in itself is economically valueless – but the evaluation and interpretation of archaeological remains can have a value, if gaining that information then produces greater economic benefit to the commissioner of that work. By linking archaeology to the planning process, the value of archaeological work to the developer client is that it will remove an obstacle to planning permission, which is needed before their investment can become profitable.

One of the obvious features of environmental economics is the limited ‘tradeability’ of environmental assets. Environmental economics has concerned itself with determining what value can be placed on environmental assets, with two possible outcomes – either its economic value can be determined, and then a decision can be made on whether it can be traded for some other good, or “you can treat it as essentially of infinite value and protect it literally at all costs” (Harman, 2009: 25).

Even Scheduled Ancient Monuments do not have infinite value – it is possible to obtain Scheduled Monument Consent which will permit damage being done to a Scheduled Ancient Monument if the applicant can demonstrate public gain from their works. And this is broadly the same principle that is applied to undesignated archaeological sites in the planning process – they can be damaged or even destroyed completely, but only if there is a concomitant public gain. This gain is in the recording and interpretation of those sites and the economic cost is what the developer-polluter has to pay to secure that recording and interpretation.

The precise cost of the archaeological work is then not set by the public, nor by their elected representatives, but is negotiated between the polluter-developer and their chosen contractor. This negotiation process will often initially be conducted through a competitive process which allows the invisible hand of the market to set the range of guide prices for the work.

This process works because each polluter has to decide if the damage they will cause is worth the amount they will have to pay to compensate for it. Government (the taxpayer) only has to pay if government or natural forces causes the damage. The damage is offset through preservation by record or understanding (see 2.3.2 Protection of the Resource through Preservation by Record, below), and development is allowed to continue which delivers economic and social benefits.

However, the process of valuation and mitigation is not a simple or simplistic approach; as well as cost, these resources each have a value, variable through time and across space; and value-free economics is unrealistic. By using supply and demand to minimise the impact of the human economy on environmental resources risks the potential threat of the market failing to achieve the intended environmental goals, if the markets were to fail to allocate resources efficiently to achieve that protection.

Market failure is only avoidable through the state setting external regulation in such a way that the market can most efficiently adjust – this means that politicians set the goals, but how those goals are achieved is up to participants in the market, with the potential to lead to “informed, innovative, incentive-based greenery” (anonymous, 2005).

Market failure in the specialised sense presented here is not happening in British applied archaeology, but because the market relies heavily on the stressed curatorial system (see 2.2.2 Local Government Mediation, above), relatively small changes to this may endanger the system as a whole.

From the initial recognition that archaeological remains could be considered as an environmental resource (McGimsey, 1972), it has been appreciated that they are a non-renewable resource that should only be consumed “frugally” (Lipe, 1974). Acceptance of this perspective, and the application of the principles of environmental economics, have allowed

archaeology to progress from being a leisure or purely academic activity, with practitioners “protesting in vain at the erosion of our heritage and the lack of resources to record it properly” (Wainwright, 1999) to applied archaeology playing an important role in environmental management and the broad aims of sustainable development.

2.3.2 Protection of the Resource through Preservation by Record

Archaeological practice has been extended as a result of the planning system – it is an intrinsic part of the development process as archaeological remains are recognised as an environmental asset, the potential degradation of which must be met by mitigative measures undertaken by professional archaeologists.

Since 1990, when PPG 16 (and subsequently NPPG 5, PPG (Wales) and PPS 6) “transformed the archaeological response to development proposals from a reactive one, consequent on proposals going ahead, to a proactive one in which various archaeological issues were given a place within the [planning] decision-making process” (Darvill and Russell, 2002: 3), the policies delivered through those planning guidance notes have brought “a degree of financial stability to field archaeology” (Hunter et al., 2006: 37).

In 2010, the UK Government’s overarching aim for the historic environment, as published in PPS 5, is that it should be conserved and enjoyed (DCLG, 2010f: 2) – and, most crucially for archaeological practice and employment, this includes seeking “to contribute to our knowledge and understanding of our past by ensuring that opportunities are taken to capture evidence from the historic environment and to make this publicly available, particularly where a heritage asset is to be lost” (*ibid.*)

The key policy in PPS 5 is HE12.3:

Where the loss of the whole or a material part of a heritage asset’s significance is justified, local planning authorities should require the developer to record and advance understanding of the significance of the heritage asset before it is lost, using planning conditions or obligations as appropriate. The extent of the requirement should be proportionate to the nature and level of the asset’s significance. Developers should publish this evidence and deposit copies of the reports with the relevant historic environment record. Local planning authorities should require any archive generated to be deposited with a local museum or other public depository willing to receive it.

Local planning authorities should impose planning conditions or obligations to ensure such work is carried out in a timely manner and that the completion of the exercise is properly secured (DCLG, 2010f: 11).

Because of and following PPG 16 (DoE, 1990b), “preservation by record” became the established and accepted philosophy of management of change to the historic environment. That phrase appears recurrently in PPG 16, and underpins that document and all the policies that flowed from it. Preservation by record led to the accumulation of a great deal of data, in an inherently empirical, processualist manner, involving a great deal of work being undertaken.

The profession, and stakeholders in the profession, realised that there was a need to transform those data into understanding, and because every one of those planning-initiated projects leads to the production and public deposition of reports on the work done, primary literature on this work is publicly available. The data that were recovered from sites have been transformed into information – allowing for that information to be transformed again into knowledge, and hence to understanding, about human activity in the past.

Most visibly, this has been elaborated through Richard Bradley’s re-evaluation of British prehistory through examination of this primary literature resource (Bradley, 2006; 2007). There remain residual attitudes, held by those that have rarely realised the value of this suite of primary literature, that this material is in some way inferior (*cf.* Lock, 2008), but it is demonstrable that this material is of the utmost importance and that the system is successfully preserving archaeological sites by record (Ford, 2010; Aitchison, 2010a).

Preservation by record, and the work done to achieve this, is also one of the mechanisms through which greater public, professional and political understanding about the past has developed. *Power of Place* (EH, 2000) was the report which launched English Heritage’s Heritage Protection Reform process. This report relied heavily upon the results of a MORI opinion poll which produced solid data showing public support for the way that the historic environment was being treated, crucially demonstrating that “77% [of respondents] disagree that we preserve too much” (*ibid.*, 4) – which has been interpreted as meaning that the public are happy with the sustainable approach to the historic environment and its preservation by record. This has not led to universal public support for the way that the management of the historic environment is practiced (as discussed by Cooper (2008)), but the attempts to discredit this approach could not have been made if preservation by record had not already been implemented.

2.3.3 Recognition and Respect for Archaeologists

Objective 1 of the Institute for Archaeologists’ ten-year strategic plan (IFA, 2000) was: “*to have achieved proper recognition and respect for archaeologists and their role in society*”.

When the IfA reviewed the achievements of that plan (Bradley, 2009), it was recognised that insufficiently robust tools had been put in place to measure progress against this objective. The

Institute had hoped to receive feedback on the status of archaeologists from *Heritage Counts* and other surveys, but this data was largely unavailable. Moreover, it would have been impossible to identify the role of the Institute in any perceived changes.

It can be argued, however, that recognition and respect for archaeologists has been achieved through the current system. This can be done by considering a number of different parameters.

Financial respect is most easily (and contentiously) measured. Together with increased numbers of individuals working in the sector, individual salaries have risen. Over the ten years from 1997-98 to 2007-08, the average (mean) earnings of an archaeologist rose by 36.5%, but the national average salary (for all occupations) rose by 56.5%.

	Number of archaeologists	Average salary	Aggregate salary
1997-98	4425	£17,079	£75.6m
2002-03	5712	£19,161	£109.5m
2007-08	6865	£23,310	£160.0m

Table 10: Aggregate archaeological earnings.

Archaeologists' salaries over this decade have remained comparable with those of skilled construction and building tradespeople. While workers in the sector are better rewarded than labourers or other unskilled construction workers, salaries lag far behind those of civil engineers, architects or construction managers.

But archaeologists have gained workplace respect even without financial parity. This allows routine working alongside contractors, moving from the earliest days when archaeologists were an irritation, occasionally relying upon the charity of contractors (Grimes and Close-Brooks, 1993; Miles, 1999) to becoming integrated parts of teams on major construction projects (Barber et al., 2008) and being accepted as providing valued advice when working in consultancy roles.

It is the educational status of archaeologists that has allowed this to happen - a highly-skilled and well educated workforce is the most powerful driver of quality, particularly in a sector that has a graduate workforce (CWDC, 2010). Having such a well-educated, intelligent workforce allows archaeology as a profession to deliver innovative solutions to technical problems, something which first really began to be developed in London as the archaeologists at the Museum of London were able to work alongside and with contractors on complicated sites (see Case Study 8: Number One Poultry and Case Study 17: Museum of London Archaeology, below). The Framework system at Heathrow Terminal 5 (see Case Study 15: Heathrow Terminal 5, below) has perhaps been the most visible demonstration of archaeology's development of

innovative, intelligent and appropriate solutions to dealing with the practical and methodological complexity of contemporary archaeological and construction practice.

As fieldwork methodologies have developed, they have led to greater levels of responsibility for the individual archaeologist – excavation, recording and interpretation are brought together through the development of the single-context recording system, in itself dependant upon the use of single-context planning and permatrace (thus allowing the Harris Matrix) and leading to the Framework system. Individual archaeologists are expected to have a high level of technical skill and intellectual engagement, which they are able to confidently demonstrate (see Case Study 1: Winchester, Case Study 15: Heathrow Terminal 5 and Case Study 17: Museum of London Archaeology, below).

Not all is perfect, as not every archaeologist has been able to demonstrate their competence to fellow professionals and contractors – meaning that not every application to join the IfA as an individual member or as a Registered Organisation meets the quality criteria required to be successful - and “commercial archaeologists will continue to be branded as part of the problem by our clients and somehow to blame for finding things. Contrast this with other contaminated-land specialists who are hailed as apart of the solution, dealing properly with difficult situations and enabling projects to continue” (Holden, 2010: 27), but in general British applied archaeology as a profession had developed and gained reputationally over the 20 years to 2010.

2.4 Potential Future Supply and Demand

Prediction is a very risky enterprise – what is presented in this section is at best informed guesswork, last reviewed at November 2010, that aims not to become a hostage to fortune. Confident predictions, made in the past, can often become so inaccurate that they are amusing reminders of past misjudgements. For example, in 1974 Chris Musson wrote “It is difficult to imagine the independent consultancy [then meaning a commercial fieldwork company] becoming a major force within British archaeology” (Musson, 1974: 89) – and this author wrote (Aitchison, 2006b) that “Funding from developers is anticipated to rise by 7-10% per annum ... Over the ten years to 2015, the industry’s revenue will have approximately doubled, and at that point 96% of income will come from developers” (although, in my defence, I did also note that “Throughout this report, the possibility of external macro-economic or political factors leading to a significant realignment of housing and development policy has not been considered” and explained that I was not able to offer a professional opinion on whether or not this might take place).

The agencies of change in the short- to medium- term are likely to be both political and economic.

In terms of policy documents, the most immediate agent of change for England will be *Planning Policy Statement 5*, published in March 2010 (DCLG, 2010f). The impact of PPS 5 is unlikely to be as revolutionary as PPG 16 was twenty years before, but it will take some time for the requirements of the new document to be established fully and (coincidentally, like PPG 16) that bedding-in time is taking place during an economic downturn which has led to a reduction in the amount of construction work being undertaken).

The *Heritage Protection Reform Bill* did not reach the statute book in 2007 or 2008, but it is possible that a version of this will be reintroduced by the Westminster government that was elected in May 2010 (Action Planning, 2010: 159). This Bill (in its earlier form) prioritised public access, information and consultation (James, 2009: 518).

The *Historic Environment Amendment (Scotland) Bill* was introduced to the Scottish Parliament on 5th May 2010, with the intention of harmonising and consolidating legislation in Scotland (and in so doing replace the *Ancient Monuments and Archaeological Areas Act 1979* as the primary legislation relating to Scheduled Ancient Monuments in Scotland). This Bill is intended to deliver cost-neutral changes.

The most important, overwhelming factor in the future supply and demand for archaeological employment is the economy and political responses to the economic crisis that began in 2007-08.

The Conservative-led UK government that came to power in May 2010 has reversed the previous administration's Keynesian policies which aimed to refloat the economy through investment – the government's policies are now focussing on reducing the budgetary deficit through selective reduction of state spending. This has potentially enormous implications – firstly for national and local government services, where budget cuts will certainly lead to job losses, and secondly through the reduced investment in infrastructure projects – the Department for Transport budget for 2010-11 was cut by £683m in May 2010, cancelling or deferring three major roads projects and reducing Network Rail's budget by £100m (Stimpson, 2010).

Given archaeology's integration into the development cycle, future developments in construction will be key. With the state reducing its commitment to invest in this sector, this increases the importance of private investment. The latter has been the main source of funding for housing development over the previous twenty years, and has also delivered major infrastructure projects through the private finance initiative, allowing public infrastructure projects to be funded with private capital.

Hub projects, such as Crossrail and the Thames Gateway, which had begun work before 2010, were, in May 2010, considered likely to continue (although there were concerns that they are

not completely safe – the RMT union immediately pointed this out (anonymous, 2010b)) and to require significant amounts of archaeological work. The response to climate change, through coastal and riparian defensive works and through low-carbon energy generation will also continue to require environmental assessment which will involve archaeological work.

And just as the forces that caused the crisis affected archaeological practice across the world (Aitchison, 2009e), the processes of globalisation should make it easier for archaeological practitioners and businesses – as agents of the knowledge economy - to work in other countries (Aitchison, 2009c). While the utterly geographically located nature of archaeological remains makes this harder, skilled practitioners should be able to apply their geographically transferable skills in new environments.

2.4.1 The Future of Publicly-Funded Archaeological Employment

The effects of the global economic crisis on commercial archaeological practice are clear and direct (see 9.1 Effects of the Economic Deterioration on Archaeological Contractors, below), but there are areas of archaeological practice which had yet to be seriously impacted upon at the time of writing (2010) but where adverse effects are expected in the coming years. The second wave of the crisis's effects on archaeology will primarily impact on sectors that rely heavily on national funding sources, specifically government services (both local and national) and universities.

Although this is not yet the classic 'double dip' or 'W-shaped' recession, where an immediate negative effect is fairly rapidly alleviated, but then followed by a further crash when the policies that led to the recovery are scaled back (Gamble, 2009a: 93), in archaeology's case the sector may experience a 'double dip' following the end of the capital investment funding (see 9.1.4 Capital Expenditure as Fiscal Stimulus, below) and the change of UK government in May 2010, as the incoming administration has focussed on addressing the deficit through reducing spending rather than Keynesian stimuli. The impact on the sector under the devolved administrations may be different and less immediate.

Local government forms the filter through which archaeological practice is mediated – in-house, shared or external archaeological advisors to planning departments contribute to decisions on whether, or under what conditions, planning permission should be granted for work that will affect archaeological remains. This is not a statutory, legally protected service that local planning authorities are obliged to provide and these archaeological services could be under serious threat. If these services are lost, there will also be a second blow to commercial archaeology – as, if planners aren't receiving archaeological advice, they will not impose the conditions upon development that necessitate fieldwork being undertaken.

Universities can also expect to face funding reductions – like local government, their funding comes from several sources but central government grants are a very significant component of this. As the government deals with the budget deficit that the economic crisis has created, grant reductions are inevitable and have already been demonstrated in the announcement of the HEFCE budget for 2010-11 (HEFCE, 2010).

2.4.1.1 Effects of the Economic Crisis on Local Authority Curators

The primary effects of the economic crisis to date on curatorial services have been through the reduction in the amount of construction work being undertaken, directly leading to a reduction in the number of planning applications being scrutinised by local planning authority curatorial services. Swanson (Aitchison and Swanson, 2010) reported that the number of planning applications being seen by the West of Scotland Archaeology Service (WoSAS), a joint service providing advice to twelve local planning authorities, had been dropping since the effects of the downturn began to be felt in 2008. The number to be scrutinised in the final quarter of 2009 was expected to be half that seen one year before.

The situation reported at WoSAS has been replicated across the UK. In England, there were 174,000 applications for planning permission in the quarter April – June 2007; by October – December 2008, this had fallen by 36% to 110,000, with the same number being reported a year later in October – December 2009 (DCLG, 2009a: 138; DCLG, 2010d). The *Archaeological Investigations Project* has long demonstrated the direct relationship between the number of planning applications made and the number of archaeological investigations undertaken (as measured by the number of reports deposited) (Darvill and Russell, 2002), and the overall reduction in the amount of archaeological work was already being reported by 2008 (Aitchison, 2009e).

This has led to reduced incomes for local planning authorities, as planning applications are supported in part by planning fees which are intended to achieve cost recovery for the fee-paying element of their services – and these planning fees were frozen for a year in January 2010 to help support the recovery of the construction sector (anonymous, 2010a). Few vacant posts are being refilled, and shared services are being canvassed and examined more widely (such as has been discussed throughout northern Scotland [Ian Ralston pers. comm. 4th July 2010]).

As well as providing advisory services, a small number of local authorities also undertake fieldwork on a commercial basis (see 6.2.1.2.2.1 Local Government Providers, below) – and these are being doubly affected, both by the downturn as it has affected commercial archaeology in general and by the pressures on local government expenditure for service provision. Exeter

Archaeology was founded in 1970, and is “potentially the oldest archaeological contractor in the UK” (Exeter CC, n.d.). It failed to meet its break even target for 2008-09, leading to a reduction in core staff, and after the first five months of 2009-10 it was clear that income was well below target for that year (Exeter CC, 2009a, 2009b). Following discussions within the council on potential options for the unit (including closure and outsourcing), the organisation restructured again with a smaller core unit of 15 staff from January 2010 (Exeter CC, 2010).

The situation at Exeter Archaeology is likely to be repeated and accentuated across the few remaining local government archaeological contractor services, with all facing the same dilemma and most likely some (if not all) having to reduce in size and possibly to close.

Following these immediate effects of the economic crisis are potentially far more serious issues stemming from the fact that the current local government funding settlement only extends to 2010-11 (DCLG, 2007). And so, from April 2011, all councils will receive a different, undoubtedly heavily reduced, financial subvention from the state (the patterns of these cuts may differ across the devolved administrations). The grant will be calculated on the basis of data available to Government on 1st October 2010 (DCLG, 2010b).

Cuts started to be announced to local government services early in 2010 (Morris, O'Grady and Morris, 2010; BBC News, 2010) and with Historic Environment Records (HERs) being non-statutory services, it is impossible to see the forthcoming financial settlements not directly leading to the loss of posts within these services. Even before the implementation of the new settlement, the number of staff working in HERs reduced between 2006 and 2008. The total number only fell by around 1%, but this follows a period of sustained growth in this sector (EH, ALGAO and IHBC, 2009; Ingle, 2008).

This may well mean that provision of advice and the maintenance of records will be put under further pressure and the provision of separate HERs in many local authority areas may be able to continue to operate indefinitely. While the actual Record is important, it does not necessarily have to be physically under the safekeeping of the local authority - it is the interrogation of the Record that is crucial, and so the provision of advice remains key. Currently, several authorities do not have in-house provision of advice; there are many examples of shared services being provided jointly to several authorities, a private company either maintains the record or provides advice to three local authorities in Scotland, and for several years Northamptonshire was seen as 'toxic' as it had no advisory service at all (ALGAO, FAME and IfA, 2009).

On 12th October 2010, following the story earlier in the year referred to above (BBC News, 2010), Nottinghamshire County Council announced very significant cuts to their conservation team (which includes the archaeological service and historic environment record) and budget (Notts CC, 2010), to save £763,000 over two years from 2011-13 with a 76% reduction in

staffing – from 33.8 (FTE) staff to only six. This is likely to be the pattern followed by many other local authorities in the immediate future.

With local authority services being the pivot upon which almost all of primary archaeological work (and thus employment) depends, the impact of any reductions in the level of services in this area upon the rest of archaeological employment is potentially enormous.

2.4.1.2 Effects of the Economic Crisis on Universities

Any effects of the economic situation on archaeological employment within universities have, to date, been largely indirect, but universities can now also expect to face funding reductions – like local government, they are funded from several sources with one of the most significant being central government grants. As the government deals with the budget deficit that has been generated by the economic crisis, grant reductions are inevitable and have already been set out in the announcement of the HEFCE budget for 2010-11 (HEFCE, 2010).

Aitchison & Edwards (2008) estimated that 1009 individuals worked for universities, 668 of whom were working to provide education and academic services (table 18, p39); 572 of these individuals were identified as “research-active” at the 26 higher education institutions which submitted to the archaeology panel in the Research Assessment Exercise 2008 (RAE, 2009). However, that statistic was flawed as various universities tried to manipulate figures in different ways, and so an accurate picture is not drawn by those data.

The anticipated future effects may be severe. From the summer of 2009, it was recognised that there was a strong chance of cuts to public funding for universities, in the order of at least 5-10%, which would be very likely to lead to redundancies (Baty, 2009; Hooley, 2009).

Simultaneously, an alternative pressure provided by the changing economic situation has seen the overall number of applications for university places in 2009-10 increasing by 9.7% in comparison with the previous year (UCAS, 2009a). Applications to study archaeology went up by 6.9% (UCAS, 2009b), less than the aggregate figures but leading to an increase in the number of students accepted on to courses of 4.2% (UCAS, 2009c). The numbers applying for places continued to increase for the 2010-11 intake by a further 2.4% (UCAS, 2010a).

By the end of 2009, realities were becoming clear as the Department for Business, Innovation and Skills announced a cut in its grant per student to HEFCE – the ‘unit of resource’ (Mandelson, 2009). Mroz (2009) estimated that, overall, higher education was facing cuts of £915million – and that “the reality is that higher education seems set to take the biggest cut of all in the public sector” (*ibid*). These cuts were confirmed in February 2010 when HEFCE announced the provisional distribution of funding to English universities and colleges in 2010-11 (HEFCE,

2010), and once the figures had been fully calculated and appreciated (a real term cut of £573m [Harrison, 2010]) initial reaction was noisy but ineffectual (Jack, 2010).

The immediate cuts, which can be aggregated up to an estimated £900m by 2013, are anticipated to affect staffing most heavily. In 2009, two universities – Manchester and Sheffield – closed their in-house commercial field units (Aitchison, 2009e; Cumberpatch, 2009). It has been reported that GUARD (the commercial arm of the University of Glasgow’s Department of Archaeology) is also under threat “because it is not meeting targets set for all departments to generate income” (Denholm, 2010a) and faced a review in June 2010 with options being considered for December 2010 (Denholm, 2010b). The commercial arms normally employ fewer individuals, on lower average salaries, than the academic departments themselves, and so it will be financially easier for the universities to cut staff numbers here first. But given the scale of the impending cuts, it is very likely to affect academic staff sooner rather than later – initially through natural wastage, as posts opened up by retirement (which might be encouraged through offers of voluntary severance, as happened at the University of Sheffield) are not filled. The Department of Archaeological Science at the University of Bradford also reduced in size in 2010 through retirements, members of staff accepting enhanced early severance packages and staff taking up jobs elsewhere without these people being replaced (Ian Ralston pers. comm. 4th July 2010). In May 2010 the University of Bristol announced proposals to cut four of the 16 teaching posts within the Department of Archaeology and Anthropology (Pitts, 2010).

These changes will have knock-on effects for the rest of the profession. While academic archaeology is a relatively small part of the sector as a whole - 15% of all archaeologists work for universities, two thirds of them providing education and academic research services (Aitchison and Edwards, 2008: 39, table 18) - given that effectively all the new entrants into professional archaeology in the last two decades have been graduates, it will shape the supply of practitioners to the sector as a whole.

2.4.1.3 Effects of the Economic Crisis on National Heritage Agencies

Changes at the national heritage agencies – English Heritage, Historic Scotland, Cadw and the Northern Ireland Environment Agency – will be driven by more than just economic factors. First and foremost, as agencies of central or devolved government, they will be impacted on by the efforts of the government to address the economic deficit. Bigger politics – particularly outside England, where heritage is often heavily associated with particular identity agenda – will also come in to play.

English Heritage receives approximately three-quarters of its funding from the Treasury to carry out its statutory role as the Government’s adviser on the historic environment in England,

and the current Funding Agreement covers the three year period 1st April 2008 – 31st March 2011 (EH, 2008). The current Historic Scotland Corporate Plan also extends from 2008-11 (Historic Scotland, 2008b).

None of the three principal UK political parties' 2010 general election manifestos made mention of archaeology, although all did refer to heritage if not the historic environment (Heritage Alliance, 2010). One potentially very significant policy – which didn't make it to inclusion in a manifesto – was contained within a Liberal Democrat policy document published in September 2009 identifying target areas for budget cuts, the Liberal Democrats identified “at least 90 quangos that should be culled or merged”, including English Heritage which would be merged with the Heritage Lottery Fund (HLF) (Liberal Democratic Party, 2009). The differing geographical remits of English Heritage (England) and the HLF (UK wide) notwithstanding, the economic situation is highlighting the temptation for politicians who are faced with difficult decisions to cut at relatively easy targets, and state-funded heritage agencies are on that list. As employers, national heritage agencies are very definitely not invulnerable to funding reductions, and as made clear by Leighton (2010: 2), “In calling for cuts the political parties are trying to be seen to protect health, education and/or other ‘high priority’ services, implying that heritage is low priority and will be cut ... jobs are particularly at risk given the high proportion of [DCMS] grant [to heritage bodies] spent on salaries”.

Speaking in February 2010, the then Conservative Shadow Minister for Culture, Ed Vaizey, appeared to have a better grip on the roles of those two organisations than the Liberal Democrats had presented, but made it very clear that his party planned changes for them both, and pointedly emphasised that “... we need to have a debate about the work and role of English Heritage” (Action Planning, 2010).

This merger was then identified in list of proposed changes leaked to the *Daily Telegraph* in September 2010 (Porter, 2010), but when the Government formally announced which quangos would be cut or consolidated on 14th October 2010, there were no major consolidations of heritage bodies. However, DCMS “asked English Heritage and the Heritage Lottery Fund, as a matter of urgency, to identify and reduce any overlap of activities” (DCMS, 2010a).

Prior to the 2007 elections to the Scottish Parliament, the Scottish National Party (which subsequently formed a minority administration) made a manifesto commitment to “reduce duplication” by merging Historic Scotland and the Royal Commission on the Ancient and Historical Monuments of Scotland (Scottish National Party, 2007: 57). Subsequently, this did not come to pass, but the issue was touched upon again in the Reid strategic review of the National Trust for Scotland (National Trust for Scotland, 2010) which recognised that there are several agencies working in the field of heritage in Scotland and called for more collaboration.

With in-house staffing a major part of the budgets of each of these agencies, cuts or 'efficiency savings' are very likely to impact on staff numbers. In the first instance, this can initially be expected to be addressed through 'natural wastage', as posts that fall vacant and not then filled (there is a sense that this is already happening at both Historic Scotland and English Heritage in particular, in the latter case because a significant level of staff unhappiness was created by the relocation of many posts from London to Swindon [English Heritage, 2008: 22]). In Northern Ireland, the comparatively small historic environment team within the NI Environment Agency may prove to be particularly vulnerable, as there will be so little room for manoeuvre if staff cuts have to be made.

Jeremy Hunt, the then newly-appointed Secretary of State for Culture, Media and Sport told BBC's *Newsnight* on 12th 2010 that "None of the Department for Culture Media and Sport's budgets are protected" and if the required cuts were spread evenly between all government departments, his would have to find £66m of savings. Following an announcement by David Laws, Chief Secretary to the Treasury on 24th May 2010 (HM Treasury, 2010a), English Heritage had to immediately identify £4m savings from their 2010-11 budget. Simon Thurley, the EH Chief Executive, claimed to have anticipated and planned for these cuts (EH, 2010b), which led to an immediate halt to recruitment to several EH training projects and the closure of their Future Jobs Fund project (see 9.1.5 Future Jobs Fund, below). In addition to this, the plans for a Stonehenge Visitor Centre were put into abeyance (BBC News Wiltshire, 2010).

When further cuts were announced following the Comprehensive Spending Review on 20th October 2010, English Heritage's grant from Government was reduced by 32% (EH, 2010e). This will lead to the loss of "at least 200 posts" (EH, 2010d).

On 17th November 2010, it was announced that Historic Scotland's budget for 2011-12 would be cut by 4.7% to £47.0m from the 2010-11 level of £49.3m (Steel and Atkinson, 2010).

2.4.2 Planning Policy Statement 5: Planning for the Historic Environment

Planning Policy Statement 5 (PPS 5) (DCLG, 2010f) was published on 23rd March 2010 and replaced both PPG 16 (DoE, 1990b) and PPG 15 (DoE and DNH, 1994). This document had to take into account the philosophical and practical differences between the two policy guides it was replacing – PPG 15 had tried to cover much wider ground in its 210 paragraphs than PPG 16 had in its 31.

For England, PPS 5 is now the document upon which planning decisions relating to archaeology will be based. It will therefore shape the activities of applied/commercial archaeology and thus the vast majority of archaeological practice. The Statement is supported by a planning practice

guide (DCLG, EH and DCMS, 2010), and a statement from Government on the historic environment in England (DCMS, 2010b).

The consultation draft of PPS 5 – then called *Planning Policy Statement 15: Planning for the Historic Environment* - was published in July 2009 (DCLG, 2009b), having been in development since 2002 (ODPM, 2002a, 2002b).

In terms of practice, PPS 5 follows PPG 16 in not explicitly stating who should fund archaeological investigation – but throughout this is implicitly the responsibility of the developer as the applicant for planning permission. Other new English Heritage literature goes further and considers that PPS 5 places “on developers the responsibility for funding any archaeological work necessary to mitigate the effects of development” (EH, 2010c). Despite the slight obfuscation in terminology, it will thus secure the basis of archaeological practice in England as it has emerged over the last twenty years.

Philosophically, the new document had (from the very first, 2002 version) a stronger and more inclusive title than its predecessors – ‘planning for the historic environment’ makes the historic environment the subject, rather than ‘planning and the historic environment’ (PPG 15) or ‘archaeology and planning’ (PPG 16), both of which prioritise the planning aspect of the documents.

In doing so, it marks a significant shift of focus in terms of content. PPG 16 in particular had given precedence to the making of a record, an outcome which led to fundamental components of archaeological practice remaining stubbornly empiricist, while PPS 5 prioritises the production of knowledge and understanding (generated from high quality data) rather than the data themselves. This represents a move towards a concept of preservation by understanding rather than by record, as set out and advocated by Roger Thomas (2009). That said, neither the phrase ‘preservation by understanding’ nor its predecessor, ‘preservation by record’ appear in the Statement.

The prioritisation of data collection between 1990 and 2010, as led by PPG 16, meant that there was argued to be an increasing gulf between applied archaeological practice and the theoretical approaches to archaeology developing in the universities. John Barrett thought that this represented a “fundamental rift ... between those positions characterised as processual and post-processual ...” (Barrett, 1995: 4), with one of the early proponents of postprocessual archaeology, Ian Hodder finding it to be a “shock” that “post-processual archaeology was having little impact on data acquisition” (Hodder, 1992: 171).

The value of data is that they are “factual statements of given material conditions (the archaeological record) [which] can be apprehended by observers who accept a common set of conventions controlling how such observations may be collected and described” (Barrett, 1995:

4). The widespread adoption of the single-context planning recording system (see Case Study 17: Museum of London Archaeology, below) had, in principle, achieved this aim – data could be read by individuals other than those that had produced them. Barrett’s work with Framework Archaeology (see Case Study 15: Heathrow Terminal 5, below) led to the introduction of a greater degree of interpretation – and thus understanding – to accompany the data production phase in the projects run under the Framework system, but this had not become more widely adopted.

In PPS 5, the concept of significance becomes more important than it was under PPG 16 (although this has been a longstanding factor to be considered in Environmental Assessment) – developers no longer simply have to provide detailed descriptions of the elements of the historic environment that are being impacted upon by their, but they have to provide “descriptions of the significance of the historic assets affected” (policy HE 6.1). To describe significance requires interpretation of the resource and thus the adoption of an acceptable methodology for defining significance.

Kristiansen (2009) recognised the difference between simple data production and the development of an approach founded not on inventorying but on understanding, and considered that the latter would be a more costly approach. Despite PPS 5’s focus on significance, Kristiansen’s forecast of knowledge-producing archaeology from the contract sector becoming more expensive will not necessarily come to pass. It should mean that there is no longer a need for every threatened site to be recorded in full detail, but that there is potential for every site considered to be significant to be recorded, interpreted and understood.

Initial responses from archaeologists to the document’s publication were cautiously positive as the most important aspects of PPG 16 (and 15) – those that would ensure the continuation of development-led (and developer-funded) archaeology - were still there (Hinton, 2010a).

To paraphrase the key objectives of Government for planning and the historic environment, as set out in paragraph 7 of the PPS, it aims to deliver sustainable development through intelligently managed change, to facilitate conservation as a way to enhance place-shaping, and ensure that opportunities are taken to contribute to knowledge and understanding through capturing evidence and by making it publicly available.

It is not as groundbreaking a document as PPG 16 was in 1990 – which is understandable, as twenty years have passed with archaeology as a material consideration in the planning process which means that a system is already in place and judged by government to be working well. What has changed is the thrust of the guidance that needed updating as a result of the underpinning philosophical ideas. It remains to be seen how workable this will be, and what the changes in practice that are entailed really amount to.

From applied archaeologists' points of view, the key changes are likely to involve increased 'frontloading', with more predetermination work becoming necessary (and possibly less work that is dependent upon the discharge of planning conditions).

The developers' representatives and advisors were also generally satisfied with the document – the British Property Federation (2010) considered that “PPS 5 is clearer, more concise and more consistent than its predecessor”, and Simon Pugh-Jones (interviewed by (Johnstone, 2010)), recognised that while the document is presentationally very different from PPG 15 and 16, much of the detail is familiar as it refers to extant designation principles and planning processes.

In terms of its future effect on the employment of archaeologists, the document could yet be still-born, thus not producing the changes full acceptance of its philosophical demands would demand of the applied archaeological sector. Potentially, it could be sidelined by economic measures to stimulate the economy and especially the construction sector by removing administrative 'obstacles', or it could be affected by political changes if a new Secretary of State chooses not to associate their Department with something developed by the previous government.

The bedding-in period for PPG 16 took place during the building industry's most recent previous downturn, and this reduction in the caseload upon planners and archaeological advisors actually worked in applied archaeology's favour, as it was able to be implemented in a less pressurised environment (Lane & Vaughan, 1992).

The production and adoption of the PPS was a key part of the Heritage Protection Reform (HPR) process that English Heritage was leading. Had a Heritage Protection Act accompanied it, it would have completed this process, but the draft *Heritage Protection Bill* which was first published in April 2008 was twice dropped from the legislative programme in December 2008 and July 2009 (Henley, 2008; Fulcher, 2009). In terms of employment within the applied archaeological sector, the non-completion of the HPR legislation probably has little effect; it is PPS 5's updating and continuation of PPG 16's principles that always would be the most significant part of this process.

3 Postscript to the Critical Review

On 6th May 2010, while this text was being prepared, a UK General Election was held.

Looking back to 1979, the last piece of legislation passed on the final day of Callaghan's Labour Government was the *Ancient Monuments and Archaeological Areas Act*. The *National Heritage Act* was one of the final pieces of legislation to receive Royal Assent before the General Election in 1983 and PPG 16 was launched on the eve of Margaret Thatcher's resignation as Prime Minister in 1990 (see 6.1.1.1.4, Planning Policy Guidance note 16: Archaeology and Planning, below).

The *Heritage Protection Bill* was dropped from the December 2008 Queen's speech as the scale of the economic crisis overshadowed all other matters, and then it did not find its way on to the legislative agenda for the final Parliament before the 2010 General Election.

At the start of March 2010, it was believed that what was then still being called *PPS 15: Planning for the Historic Environment*, but which we now know to be *PPS5* (DCLG, 2010f), had, after eight years or more in development, only a 50% chance of being introduced before the General Election, but no chance post-election if there was a change of Government, as the incoming Secretary of State would not want to introduce a document that was historically (if not necessarily ideologically) closely associated with the former Government. Three weeks later, the final adopted version of *PPS 5* was published on 23rd March 2010, a fortnight before the election was called and on 6th April Parliament went into the pre-election period when policy documents could no longer be published.

Coincidences of decisions being enacted at dramatic stages of parliaments aside, the creation of the possibilities for archaeological employment have been deeply linked to political developments in the past. The effects of political changes in May 2010 upon archaeological employment may be significant, particularly given that economic forces have always been the drivers that led the political decisions that have shaped the nature and extent of archaeological employment in the UK. After the long years of the boom – and, in retrospect, archaeology really did never have it as good as between the years of 2004-2007, and we did not fix the roof while the sun was shining when turnover and expansion were pursued rather than long-term investment in the superstructure of the profession – archaeology is only just beginning to have to deal with the realities of a fragile client base.

The contemporary historians of the 1970s rescue era (the authors in Rahtz, 1974, and Barri Jones, 1984) did not politically contextualise what was happening to archaeology. A great deal was written about the huge increases in spending on archaeology between 1973 and 1975 – but this was an era of three different Governments and high levels of state spending across the whole economy, described by one former minister as a time when politicians like him were

“spending money like water” (McDonald, 2010). The way that PPG16 fitted in to the overall political philosophy of the time has been better documented, not least by Wainwright both in print (2000) and in interview (Aitchison, forthcoming).

In the months immediately after the 2010 General Election, the Conservative-led coalition Government immediately prioritised the reduction of the state’s deficit through an aggressive programme of cuts. The transformation from the previous Government’s policies – which had sought a Keynesian, spending-led route out of recession, was significant, with immediate effects on archaeological employment. While the ending of unemployment reduction measures, such as the Future Jobs Fund (see 9.1.5, below), had little effect, the announcement of a *Devolution and Localism Bill* which would abolish regional spatial strategies and the targets for housing development contained within them (regen.net, 2010) led to an immediate reduction in the amount of archaeological work being sent to tender, with both developers and local planning authorities reluctant to commit to significant decisions while the future direction of government policy remained unclear.

Demand and supply in archaeological employment is, and always has been, driven by economic cycles and the political management of those cycles. The implications of the coalition’s policies are significant for archaeological employment – while direct funding cuts are leading immediately to the loss of posts in central and local government, together with universities, further changes may yet occur as the Government implements its frequently discussed but largely unspecified plans for the ‘Big Society’ (Cabinet Office, 2010).

This could potentially lead to many of the state’s activities being outsourced to applied companies – with those that have charitable status possibly being at an advantage. In archaeology, the areas where this might well take place include strategic survey, museum displays, and potentially most significantly of all, in local government curatorial provision. This is the one area that has been identified in this study as representing a potentially fragile link in the work process chain, upon which the rest of applied archaeology relies, and where there are already issues of under-resourcing and inconsistency. If these services are outsourced (as already happens in a few authorities in England and Scotland, and across all of Wales), there is potential for the landscape of archaeological employment to change considerably, especially if the organisations that have the capacity to take on the delivery of these services are also the major fieldwork providers. This would have to lead to clear separations of responsibilities within organisations to minimise the potential for conflicts of interest, and could also lead to a very small number of commercial organisations dominating the sector, both in terms of curating the resource and undertaking fieldwork.

At the very close of 2010, it still is not clear if and how the Government might enact policies that could lead to these outcomes, or indeed if it ever will. The strength of the coalition has not been

tested to anything approaching breaking point, and bigger political and economic issues may well change the government's direction. Archaeology, as a profession, did very well in the period from 1990-2007, and has coped, to a greater or lesser extent, from 2008-2010. The impact of politics and economics on the future demand for and supply of archaeological employment will be significant, but what this will actually mean for the profession remains unpredictable – something will happen, but we cannot yet tell what.

Historical Appendix

4 Explanatory Introduction to the Historical Appendix

Archaeology has its legends and needs its history (Kehoe, 1999: 7)

This Historical Appendix to the critical review seeks to examine what the drivers of demand for services that lead to archaeological employment in the United Kingdom over the 20 years from 1990-2010 have been, and how this demand has been met. In order to fully explore the central issues, it examines the historical patterns and precedents that led to the circumstances prevailing during the study period and then looks at particular strands of activity in detail, using case studies of organisations and particular archaeological projects.

Most central to this work is the identification and discussion of the contributions of dominant, emergent and residual practices to the process of archaeology's commercialisation within the framework of sustainable development and how this has affected employment within the sector.

4.1 Issues in Writing Contemporary History

Old stories are easy to tell. It is the new ones that are difficult (Yamin, 2001: 154)

Everyone has their own memories, and contemporary history promotes engagement with the past in a way that more distant events generally do not (Bogdanor, 2009). The immediate past is more engaging, and more contentious, than histories of previous eras; in many ways, it is easier to access, yet harder to synthesise. Bourdieu argued that history should be a sociology of the past and that sociology should be treated as a social history of the present (Bourdieu and Wacquant 1992; Bourdieu 1995). This text aims to work towards providing such a unified social study for contemporary and recent archaeological practice.

Christenson (1989) has discussed in detail the nature of the history of archaeology, recognising that the most obvious benefit of contemporary history is that information can be sought from living informants (*ibid.*, 163) – but by being part of the history, the writer might lack objectivity and distance. When one writes about a period and activities that the author was involved with or has memories of, those personal experiences inevitably shape our understanding of them (Hobsbawm, 1997: 302, 304).

The advantages of working with a deeper historical past are that there is a notional distance between the writer and the processes or events examined, and that historical depth should allow us to recognise that not everything we take for granted can be treated as inviolable truths (Murray, 1989). This has to be balanced against the view that the contemporaneous historian might understand events and processes better than a later writer whose opinions are coloured by the attitudes of their own time (Christenson, 1989: 165).

The immediacy of the past can be quantified. The publication of *Planning Policy Guidance note 16* (DoE, 1990b) is taken in this text as being a pivotal point in the history of archaeological practice in the United Kingdom (see 6.1.1.1.4 *Planning Policy Guidance note 16: Archaeology and Planning*, below); professional archaeologists in the UK were, on average, aged 37 in 2007 (Aitchison and Edwards, 2008: 48-9, 55) and that more than 98% of these archaeologists were graduates. This means that the 'typical' UK archaeologist was 20 years old when PPG 16 was published in 1990, had not graduated and was not yet part of the workforce. Therefore most of the workforce in 2010 had no experience or memory of working in the pre-PPG era (Aitchison, 2010d).

To return to Christenson, that writer estimated "... that 90% of all [US archaeological] practitioners who ever lived are probably alive today" (Christenson, 1989: 163). Christenson drew on the work of Derek Price, who estimated in *Little Science, Big Science* that 80-90% of all the scientists who ever lived were alive at the time of writing (Price, 1963: 1). Christenson then calculated his outcomes by reference to secondary indicators such as the number of PhDs awarded and membership of the Society for American Archaeology.

'Price's Law' states that the number of living scientists doubles every 15 years, with 45 years separating the start of a working life from retirement (Price, 1963: 11). This allowed him to conclude that there were "about seven scientists alive for every eight that have ever been" (*ibid*).

Price was writing at what was very much a time of expansion, and of the political support for big science in the West – in the UK represented by Harold Wilson's 'white heat of technology', a speech that was made in the same year as Price's book was published – and cannot be automatically extended to all other disciplines and subsequent periods. However, having the population data allows this to be more carefully examined.

Calculating workforce totals for the number of archaeologists working in any given year is straightforward. Data are available for the total numbers of individual archaeologists in work in several years, and by arithmetically extrapolating between those known points, estimated numbers of working archaeologists can be produced for every year from 1883 to 2010.

To calculate the number of people who have ever worked in archaeology – using Price's basic methodology of using average working lifetimes is also relatively straightforward. This allows the assumption that the total number of individuals leaving the profession is the same as the number entering the profession in the year that they first appeared in the record – for Price, this was 45 years before. To this must be added the numbers who have lost their jobs (in years when the total number of archaeologists in work went down).

Using Price's 45 year example produces a remarkable outcome, suggesting that 80% of all archaeologists who ever worked in Britain are still working in 2010. However, the average 45

year working lifetime seems implausible in archaeological practice, where employment conditions are much more volatile than for those in Price's field (university academics). Much more likely is a 15, or even a 10 year average.

Using the supposition that archaeological careers last on average for ten years, it can be suggested that in total 11,991 people have, historically, worked in British archaeology. With an estimated 6,248 in post on 1st January 2010, that represents 52% of all the archaeologists who have ever worked in British archaeology. This study truly represents a social history of the present.

Average working lifetime in archaeology	Total number that have ever worked in archaeology	Percentage still working in 2010
45 years	7,829	80%
25 years	10,244	61%
15 years	10,369	62%
10 years	11,991	52%

Table 11: Possible total numbers of archaeologists who have ever worked in UK archaeology.

There is a danger that contemporary history can rely too heavily upon selective, even romanticised reminiscences. Two important publications for this study - Wainwright (2000) and Carver (2006) - are extremely valuable and detailed accounts of events in which both writers were key participants, but it must always be remembered, however, that these are subjective, personal accounts (as their authors acknowledge) – and “...to write convincing histories of archaeology, one must be prepared to deal with villains and villainy as well as with heroes and heroism” (Christenson, 1989: 164).

Christenson sets out four methodologies for writing histories of archaeological practice (1989, 167) – the first of which he rejects out of hand as being no longer needed – the ‘goody-goody history’, eulogising the efforts of single individuals and often addressed at younger readers.

Secondly, the history can all be written from publications – this considers who thought what and when, but not necessarily why, a shortcoming that can be overcome by incorporating oral histories (Christenson's third methodology), but avoiding the fear of compromising the author's standing by anonymising the contributors and contributions.

Christenson's final, fourth, methodology is to take a quantitative sociohistorical approach that examines change in various indicators. The three research projects which form the body of this thesis are entirely that, reports on data gathering and analysis exercises which essentially form what, with this commentary, could form a sociology of archaeological practice's recent past.

Every history is a mirror of the author's own interests, and therefore selective rather than comprehensive (Blainey, 1982: preface), and, importantly, the present author therefore also has to consider another of Christenson's warnings – that informants' viewpoints at the time that they were writing or speaking always has to be taken into account, that their decisions on what to write and what to exclude will have been influenced by their considerations of their own place within the profession, and so my current and future positions as both author and professional also have to be remembered.

4.2 Histories, Anthropologies and Sociologies of Archaeologists

Archaeology as a profession and discipline was constructed in particular times and places by particular individuals. Real people seized opportunities or lost them (Kehoe, 1999: 14).

This work, and the contextualising Appendix in particular, is an attempt to produce a brief sociological or socioeconomic history of contemporary archaeological practice in the UK, focussing on employment as an indicator and so looking at the profession organisationally rather than directly at the experiences of individuals. This is plainly not econometrics as defined by Baltagi (2002: 3) – "... the unification of statistics, economic theory and mathematics ...", although it draws on some of those elements. It also expands beyond previous accounts (in particular Rahtz (1974), Jones (1984), Ralston and Hunter (1999), and Wainwright (2000)) of how archaeological practice has developed.

There has been scholarly interest in the history of archaeology since at least the late 1930s (Trigger, 1994: 114). Some early works were accounts of great discoveries, with historiography very easily becoming hagiography glorifying the achievements of Great Men. Subsequently, Glyn Daniel can be considered to be the first historian of archaeological thought, with *A Hundred Years of Archaeology* (Daniel, 1950); Daniel and Bruce Trigger were the writers of what Murray and Evans (2007: 1) call the great meta-narratives of the history of archaeology. The development of archaeological theory and thought has remained a main focus of archaeological historians who have generally avoided archaeological practice (although where it has been looked at, this has tended to focus on excavation as a technique (Carman, 2004: 47); eg Barker (1977), Carver (1987), Chadwick (1997)).

External review and appraisal of archaeological thought and practice has been rare (Murray, 1989: 56), meaning that "... the history of archaeology continues to be written mainly by archaeologists who are interested, for various reasons, in the history of their own discipline. These are professional archaeologists who also happen to be amateur historians" (Trigger, 1994: 124). There are few works that have originated outside the discipline and which can thus attempt to take more objectified views of professional archaeology - writing from a

philosopher's viewpoint, Kluckhohn (1939) critiqued archaeology and anthropology's forthright empiricism and reluctance to engage with theory, thereby identifying the vacuum that allowed David Clarke (1968: xiii) to describe archaeology as an "undisciplined empirical discipline".

Work that has been done on the history of archaeology as a practice has focussed on "marking out the domains of knowledge and of socialising budding practitioners" (Murray and Evans, 2007: 6), which have been demonstrated sociologically, anthropologically and through social history.

Taylor (1995) explored in detail the early development of professional archaeology and its divergences from antiquarianism in terms of its middle class origins and ongoing middle class characteristics, which Trigger (1989: 15) also recognised; these works have researched the social origins and makeup of the practitioners, rather than the sociologies of an industry or profession.

Anthropologically, Edgeworth (2003) wrote about studying archaeological practice in the present, valuing this as a mechanism that could enhance our understanding of human lives in the past, with emphasis "on what diggers actually *do* and *how* they do it" (Edgeworth, 2003: xiv). This was a detailed, but fundamentally introspective, account of eleven weeks of participant observation over the winter of 1989-90 at an unnamed archaeological site for an unnamed organisation. Everill (2009) also continued Edgeworth's work through participant-observer research on a commercial fieldwork project, although his research focused more closely on socio-political aspects than on the physical practices.

Several of the authors in Rahtz (1974) wrote accounts that detailed the profession's development up to and into the 1970s as did Jones (1984), while Hudson (1981) (an industrial archaeologist) wrote a genuine social history which is particularly valuable as a contemporary history source. Hunter and Ralston (1993; 2006), McAdam (1995), Darvill and Fulton (1998), Ralston and Hunter (1999) and Everill (2009) have more recently all produced brief histories of the development of archaeological practice in the UK up to the 1990s, with Wainwright (2000) presenting an extensive (if autobiographical) account. Ralston and Hunter (2009) and Darvill (2009) extend their earlier accounts into the first decade of the twenty-first century, but little synthetic work has yet been done on the development of archaeological employment in that period.

5 History and Context

This chapter seeks to establish how archaeological employment developed in the period up to 1990.

This history of archaeological employment takes its starting point as the appointment of the first Inspector of Ancient Monuments following the passage of the *Ancient Monuments Act* 1882. This is a deliberate choice for the definition of the beginning of modern, professional archaeology in the United Kingdom, seeking to make a clear separation between antiquarianism and archaeology, following Levine (1986) and Taylor (1995) in rejecting any perceived continuity between the two practices. This allows the work to focus only on the establishment and development of archaeology in Britain as a discipline which has individuals formally employed in recognisable roles as archaeologists.

Throughout this chapter, I aim to show links between patterns in archaeological employment and external factors, both political and economic. In terms of archaeological employment, it is demonstrable that economic factors are always the primary determinants of demand, creating opportunities and imposing constraints, with politics then framing responses to these financial pressures.

Following a discussion of the earliest archaeological employment, the chapter subsequently considers crucial developments during the twentieth century.

5.1 Ancient History: 1882-1938

Mr Labouchere (Northampton) said, he noticed that there was an item in the Estimates for the inspection of ancient monuments. He objected to this as utter nonsense. He believed there was a Schedule of some of the ancient monuments. They knew there were any number of ancient monuments about the country, and why were all these monuments not to be in the Schedule? Why there should be an Inspector to look after four or five of these monuments he could not understand.

For his part, he did not care sixpence about Stonehenge. He thought that they must have been fools who carried huge stones a long distance in order to place them in circles. Now, although they had an Inspector, they did not seem to give him work to do; they did not tell him to look after all the ancient monuments, but empowered him to choose half-a-dozen monuments to look after. What had this Inspector been doing? How had he looked after monuments? Did he live in London? What was he? He would like some explanation on this point (Hansard, 1888).

What Henry Labouchere, Liberal Member of Parliament for Northampton, was drawing attention to was the existence of the Inspector of Ancient Monuments, the holder of the first true professional archaeological post in the United Kingdom. This appears to have been a display of blustering posture from the Member of Parliament during a debate on the salaries and expenses of civil servants, rather than any sort of attempt to have the 1882 Act which had established the Inspector's post rescinded.

Clause 5 of that Act defines the first true archaeological post(s) in the United Kingdom:

The Commissioners of her Majesty's Treasury shall appoint one or more inspectors of ancient monuments, whose duty it shall be to report to the Commissioners of Works on the condition of such monuments, and on the best mode of preserving the same, and there may be awarded to the inspectors so appointed such remuneration and allowances for expenses, out of moneys provided by Parliament, as may be determined by the Commissioners of Her Majesty's Treasury.

John Lubbock M.P. was the driving force behind this Act, having first introduced a private member's bill to protect ancient monuments in 1870 (Levine, 1986: 123). Lubbock considered himself 'blessed with not one, but two fathers' – Sir John Lubbock, baronet, and his neighbour, Charles Darwin, who taught Lubbock to be his research assistant in entomology (Kehoe, 1998: 21). Darwin's work strongly influenced Lubbock (*On the Origin of Species* was first published in 1859), notably the recognition that humanity might have greater antiquity than was presented in biblical texts, as he then presented in his 1865 publication, *Pre-historic Times*.

By the time of the passage of the Act in 1882, the idea of preservationism had been developing amongst the British middle classes since the 1850s (Murray, 1989), with increasingly vocal anxiety about the damage wrought to archaeological monuments by 'amateurs'. In 1881, immediately prior to the Parliamentary debate of Lubbock's Bill, *The Edinburgh Review* "deplored the well-meaning spades and pick-axes of the free-lances of archaeology" and called for greater regulation (anonymous, 1881).

The main objection to the Bill that would become the 1882 Act was that it interfered with private property rights (Thompson, 1977: 60; Murray, 1989) – a monument could be entered onto the Schedule irrespective of who owned it. Hudson (1981: 56) makes a convincing case that it was the extension of the electoral franchise (under the *Second Reform Act* of 1867) that allowed parliament to approve the Act. It was a remarkable achievement – the concept of restricting use or enjoyment of private property for the greater public benefit was novel, controversial, and an early step towards recognising the historic environment as a public asset. No comparable legislation relating to the natural environment would be passed until after the Second World War, with the *National Parks and Access to the Countryside Act* 1949.

Murray argues that the establishment of an Inspectorate, rather than positioning antiquarian or scientific societies as the Act's administrators, was firstly a demonstration of Government's desire to control the operation of the Act. It was also based on the opinions of influential parliamentarians that those who were "not overcome by sentimental attachment to the remains" would better administer the Act (Murray, 1989: 61) – dispassionate professionals were preferred to the vested interests of specialist groups.

The first Inspector of Ancient Monuments was AHLF Pitt-Rivers, in post from 1st January 1883; until 1890 he received an annual salary of £250, but from then until his death (in 1900) he declined to accept the salary, preferring his post to become honorary (Thompson, 1977: 64). Pitt-Rivers' great philosophical contribution was to reject the antiquarian concept of archaeology as treasure-hunting in favour of accepting the value of everyday objects (Levine, 1986: 34).

Following the creation of the Ancient Monuments Inspectorate within the Office of Works which, by the early years of the twentieth century, "supported a small number of posts on derisory salaries" (Jones, 1984: 5), other archaeological posts slowly became established elsewhere. OGS Crawford was told of an advertisement for an archaeologist in personal columns of *The Times* in 1913 and thought "it was the only one ever to appear there" (Crawford, 1955: 90). He applied, and was then appointed to Henry Wellcome's excavations in Sudan.

In the 1920s "...there must have been scarcely more than a couple of dozen professional archaeologists in our ranks. The British Museum supplied three or four, the Office of Works one or two, the Royal Commissions and the Victoria County History perhaps half a dozen between them. A small – very small – scattering could be added from the universities, but few of these had at that time specific archaeological departments" (Wheeler, 1957: 122). In addition to these, OGS Crawford returned from Sudan and, following the First World War, had created the post of archaeological officer within the Ordnance Survey (Jones, 1984: 5). Myres (1975: 5) confirms that in the mid-1920s there were probably no more than twenty-five or thirty archaeologists working in the UK.

Following earlier establishments at Cambridge and Edinburgh, it was not until the 1930s that universities began to plan specifically archaeological courses. Hudson estimated that there might have been 50 students enrolled on courses that would deliver degrees in archaeology in 1930 and about 100 by 1939 (Hudson, 1981: 130). By that time, the Office of Works and the Royal Commissions had created more archaeological posts in the civil service (Jones 1984, 5).

The only published estimates for the numbers of people working as professional archaeologists in this period are from Wheeler's and Myres' Presidential addresses to the Society of Antiquaries of London, and from Jones (1984).

Year	total	Source
1922	24	(Wheeler, 1957: 122)
1925	30	(Myres, 1975: 5)
1930	40	(Jones, 1984: 5)

Table 12: Estimated numbers of professional archaeologists working in the early twentieth century.

Archaeology is thus a remarkably new profession. Until 1883, there was not a single individual professional archaeologist in the UK, and even by 1938 there were fewer than 50. There was effectively no career structure; archaeological work was being done “by scholars whose gainful employment lay in other fields” (Myres, 1975: 5).

That was essentially the position until the end of the 1930s, when, in the preparations for the onset of war, it was recognised for the first time that archaeological remains could have value in and of themselves - as hoped for by R.G. Collingwood who wrote “compel all the government officials responsible for looking after our ancient monuments to treat them not as objects of sentimental pilgrimage but as potential sources of historical knowledge” (Collingwood, 1939: 127) - and that professional archaeologists were needed to identify and extract this value for the public benefit. A literal demonstration of this change of attitudes took place at Sutton Hoo in the summer of 1939, where the Office of Works took over the excavation by displacing the landowner and local museum (Phillips, 1956).

5.2 War and Archaeology: 1938-1972

The Second World War led directly to two major developments in British archaeology – the first introduction of pre-development investigation, and then to the exploration of large areas of urban cores exposed following aerial bombing.

This meant that, to some, “... the Heroic Age of rescue archaeology in Britain” (Cunliffe, 1994: 7) began in 1938 when Government funds were first used to pay for archaeological excavations in the run-up to the war, an age that ended in 1972 when “the first full-time professional archaeological units came in to being” (*ibid*).

During (and immediately prior to) the Second World War, defence-related construction (principally building airfields) became a major threat to the archaeological resource (MoW, 1949: 6), and 59 sites were investigated by the Ministry of Works across Britain, following a policy of excavation taking place ahead of military developments on all known sites (Butcher and Garwood, 1994: 9). While focussing on the record, the principles of preservation *in situ* were also recognised (MoW, 1949: foreword).

The majority of these sites were in southern England, with eleven in Wales and only two in Scotland. These presented novel opportunities in terms of the completeness of these projects, as previously sites had only been sampled, rather than fully excavated. The statement that "... these excavations were in the nature of rescue work" (MoW, 1949: 7) may be the earliest reference to 'rescue' archaeology in the British literature.

What was considered to be the most significant site in that entire wartime programme was of an "early Iron Age temple" (MoW, 1949: 16-18) at Heathrow, excavated by W.F. Grimes. Methodologically and in terms of the history of practice, Grimes' work was particularly important because of the very early use of a mechanical excavator provided by Wimpey, the building contractors (Grimes and Close-Brooks, 1993: 308-9).

Towards the end of the war, there was a growing recognition that post-war reconstruction was going to affect archaeological sites, but not yet any idea of how any archaeological work would be done or who by. A conference, organised and hosted by the University of London's Institute of Archaeology in 1943 (UoL IoA, 1943), led to the establishment of the Council for British Archaeology, and with some foresight for the need for metadata, also called for a National Card Index of British archaeology (the Ordnance Survey had begun to create a record, but this was essentially destroyed in the bombing of Southampton in September 1940).

Until 1946 no excavation had been undertaken in London for purely archaeological purposes (Grimes, 1956: 111), but by 1944 nearly a third of the City of London had been destroyed by bombing (Rowsome, 2000: 87), allowing Grimes and others to recognise that before reconstruction work could begin there was going to be an opportunity for excavation (Grimes, 1956: 111-112; see MoW, 1949: 28-29 for detailed map).

In May 1944 the newly-founded Council for British Archaeology encouraged the Society of Antiquaries of London to take the lead in planning for post-war investigation. The Society set up a Committee in April 1945 and in November of that year appointed W.F. Grimes to be its 'supervisor of excavations' (Biddle, Hudson and Heighway, 1973: 6). This Committee, initially called The Roman London Excavation Committee and from 1947 The Roman and Medieval London Excavation Council retained a small paid labour force (Grimes, 1956: 112) as "... the amounts raised by the committee paid for labourers but not plant and the Director was virtually single handed until 1953" (Biddle, Hudson and Heighway, 1973: 6).

The Guildhall Museum appointed its first full-time excavation assistant in 1949 (Biddle, Hudson and Heighway, 1973: 7) and in that year the first significant archaeological work in the City of London took place alongside the east side of Walbrook at St Swithin's House (Rowsome, 2000: 87).

The construction work to replace much war-damaged property in London did not get under way in significant terms until 1953-54 (McGill, 1995: 232), then leading to an unprecedented building boom that lasted until the mid-1960s (*ibid.*). The exposure and excavation of the London Mithraeum in 1954 raised the public profile of the archaeological past, but did lead to more archaeological work in the short term, as funding was not widely available.

The end of the immediate post-war reconstruction work in London led to the Roman and Medieval London Excavation Council ceasing excavations in 1962. Some archaeological work continued to be undertaken in the City, and the Roman baths at Huggin Hill were first discovered 1964 (Biddle, Hudson and Heighway, 1973: 7), a site that would return to significance twenty-five years later (see Case Study 7: The Rose Theatre, below).

This period led to the beginnings of the development of a professional framework with a cadre of workers. Kenyon (1952: 184-190) details the numbers of posts existing at that time, the entry requirements and remuneration, together with salaries and some insight into career progression. With a total of 66 posts in the various branches of the Civil Service (primarily the Inspectorate of Ancient Monuments, but also the Ordnance Survey) and 49 posts at eleven Universities, Kenyon also discusses national, local, university and society museums, but does not specify the numbers of archaeologists employed there. By 1957, Wheeler (1957: 122) presented a believable estimate of 168 individual archaeologists in work at that time.

Generally, throughout this period, little changed from the picture Grimes had drawn for 1947, with excavations carried out by freelance archaeologists who might be paid a daily fee and a few paid labourers. By the 1960s, more assistants were employed on site to supervise and record, and archaeologists often moved quickly on to new projects before completing all stages of post-excavation work (Butcher and Garwood, 1994: 9).

This was the pre-commercial, pre-development-led phase of the history of archaeology; the forces that would emerge in the following decade were nascent, and the professional structure was undergoing philosophical and structural changes. "By the 1960s archaeology had finally broken away from the status of geology which it had in the 1890s – the part-time preoccupation of a few specialists and amateurs" (Jones, 1984: 8).

Over the period 1938-72, over 1100 sites in England were excavated as state-supported rescue projects (Butcher and Garwood, 1994: 10), the equivalent of 31 per annum. By comparison, a generation later there were over 5,000 archaeological investigations in England in the year 2007 (Aitchison, 2009e) – an increase of over 16,000%.

The Inspectorate of Ancient Monuments became part of the Department of the Environment in 197, and the establishment of Martin Biddle's project at Winchester (see Case Study 1: Winchester, below) led to the subsequent establishment of field teams in Southampton and then

Oxford. The first County and City archaeologists in England were appointed by Lancashire County Council in 1963 and Gloucester City Council in 1968 (see 5.3.1.2 The Role of Local Government, 1970-1990, below).

State funding for archaeological work rose tenfold between 1954 and 1967 (Wainwright, 2000: 913), but the Walsh report into the arrangements for archaeological provision (1969) rejected both developer funding as it was a potential “incentive to concealment” and the idea of a mobile rescue unit on the remarkable grounds that it would be “difficult to find lodgings” (Wainwright, 2000: 914).

Public and professional concern about the intensifying impact of construction on archaeological remains led to the meeting that established RESCUE taking place in February 1970 (see 5.3 RESCUE and Thatcherism, below), a meeting that “introduced the word *crisis* to the archaeological lexicon” (Wainwright, 2000: 914) – a word that enjoyed clichéd association with RESCUE from that date onwards.

Case Study 1: Winchester

In the early 1960s universities still dominated field archaeology. In 1961, Martin Biddle took the unprecedented step of leaving academia to establish and maintain a permanent excavation project in Winchester (Biddle, 1983: 93; Jones, 1984: 15).

The significance of the archaeological work at Winchester in the 1960s was that it became a model for similar developments later in the 1960s and 70s, of dedicated field teams operating year-round (Jones, 1984: 15). The Winchester project also established that it was possible to move from purely responsive salvage in the face of development to an at least partly-programmed rescue approach, showing that such work could really produce valuable research into past human activities. The project also introduced methodological changes using a model for large-scale work using volunteers that went beyond the use of untrained labourers.

The Winchester Excavations Committee was formed in 1962, and between that year and 1971 it carried out the largest programme of archaeological excavations and historical research ever undertaken in a British city to that date. For the first time the centre of interest was the city itself, the urban phenomenon and how it waxed and waned over 2000 years from the Iron Age to the emergence of the modern city in the Victorian period. The Committee aimed to carry out excavations where there would be building and also on less threatened sites to study the development of the City from its origins. This meant that “... the chance opportunities offered by threatened sites were to be grasped, but were not to become a strait-jacket. ‘Rescue’ was always subordinate to research ... All rescue was research but not all research was rescue” (Biddle 1983, 96).

A plan for ten years of research was extended to the period 1961-1971, with nineteen sites investigated over eleven years, relying on the labour of about 3,000 volunteers who were 'paid' only daily subsistence rates (Biddle, 1983: 98), with typically about 170 people working on any given day (Hudson, 1981: 142). A full-time team was also needed to undertake the post-excavation work of preparing results for publication (Biddle, 1983: 99).

The other, methodological legacy of the Winchester excavations is Edward Harris' stratigraphic matrix, developed by Harris in the post-excavation phase of the Lower Brook Street site in 1973 (Harris, 1975; Harris, 1979) (and invented quite specifically on 28th February 1973 [Brown and Harris, 1993]), which effectively became a universal tool in both excavation and post-excavation. The introduction and wide adoption of this technique would subsequently contribute to the development of methodologies that would require large numbers of skilled personnel to work on excavations (see Case Study 17: Museum of London Archaeology, below), and thus to directly influence the shape and size of professional archaeology in the UK.

This was in part influenced by a previous Winchester innovation, brought in during the 1964-65 excavations at Lower Brook Street – the use of dimensionally stable transparent drawing film which allowed one plan to be laid over another (Biddle, 1983: 100). The use of film, or permatrace as it was generally known (the use of which was also being recommended by Hope-Taylor in 1966), combined with the matrix directly influenced the development of the Museum of London' single-context recording system (Spence, 1993) (Case Study 17: Museum of London Archaeology, below), which has meant that "...the Harris Matrix has gone from being an esoteric recording format of the Winchester Research Unit to a generic research tool of archaeologists across the world" (Hammond, 1993). The Harris Matrix is popularly known by that name rather than as the 'Winchester Seriation Diagram', following a dispute between Martin Biddle and Ed Harris (John Collis pers. comm. 23rd April 2010).

Following Winchester's example, sites in other towns began to be investigated, with archaeological work being undertaken in 23 English urban areas by 1970 (McGill, 1995: 6). This led to the creation of the CBA's Urban Research Committee in 1968 and to its publication in 1972 of *The Erosion of History* (Heighway, 1972). In Winchester, responsibilities shifted away from the independent Research Unit to the municipal authority when the City Council appointed a City Rescue Archaeologist in 1972 (Biddle, 1983: 102). The City officer (and team) was seconded to the Research Unit until 1977, but this was a significant marker in the development of local authority services which would be replicated elsewhere in the UK during the 1970s.

5.3 RESCUE and Thatcherism: 1972-1990

The rescue revolution that spanned the 1970s was the greatest single change that has ever taken place in British archaeology (Jones, 1984: 150).

Although published in 1984, Barri Jones' *Past Imperfect: the story of rescue archaeology* was a contemporary history of 1970s archaeological practice. Carver's 1987 *Underneath English Towns* also contributed to that account, although less extensively, and *Rescue Archaeology*, Rahtz' 1974 Penguin book, was the reportage.

The macroeconomic changes that took place in the United Kingdom across this time, particularly those in construction and housing, affected archaeological practice directly. The period 1970-73 was characterised by a huge increase in land prices and a sharp upturn in development activity (McGill, 1995: 223). This came to a halt with the 1973 Arab-Israeli war ending a period of cheap oil, followed by a period of hyperinflation with very high interest rates, which meant that demand for property dropped. There was a mini-boom, particularly in south-east England, from 1978-81, then the recession of the early 1980s hit tenant demand. Following a worldwide stock market crash in 1987, property became much more popular as an investment, with significant amounts of investment from the banking sector.

Politically, this period in archaeology's history began when 30 archaeologists met in February 1970 to create a British Archaeological Trust and planned an open meeting for 23rd January 1971 to launch it. So many people then attended this launch meeting of RESCUE that an overflow hall seating 200 was needed.

RESCUE was a protest organisation, a pressure group which sought to react to the increasing threat to the archaeological resource at the turn of the 1970s. The rate at which archaeological sites were being developed was beyond the capacity of the archaeological profession to excavate, record or survey them, in terms of both finance and personnel (CBA, 1971: 15; Rahtz, 1975).

RESCUE's founders established it to carry out the work which the State was not doing and which the CBA was not permitted to do, as it was constitutionally unable to finance excavation work (Hudson, 1981: 146).

RESCUE was then the vehicle that took this opinion to the decision makers. In the autumn of 1972, the first issue of RESCUE News went into print and McGimsey's *Public Archaeology* was published in the United States, the book that introduced the concept that archaeological remains are a non-renewable archaeological resource.

Very soon after RESCUE's foundation, *The Erosion of History* (Heighway, 1972) was published. That was in many ways British archaeology's *Silent Spring* – the publication that brought the

issue of construction and redevelopment's impact upon archaeological remains to public attention, with a battle cry in its Introduction that "The most important towns of all historical periods will be lost to archaeology in 20 years, if not before" (Biddle, 1972).

The Department of the Environment (DoE) was also established in 1970, the body that would become the principal funder of archaeological practice through the 1970s in the UK, although its direct reach was only to England as some of its spending powers were passed to the relevant parts of the Scottish and Welsh Offices.

In 1972, the DoE established regional archaeological organisations in England which would draw funds from local authorities and developers as well as from central government. This meant that from 1972 onwards the Inspectorate was no longer directly responsible for much fieldwork (Butcher and Garwood, 1994: 9), and simultaneously central government spending on archaeology quadrupled over two years from 1971-2 to 1973-74 (Biddle, 1974: 107).

The DoE Statement of 20th September 1973 (reproduced as Appendix A to RESCUE & CBA, 1974) set out the detail of Government policy, and created a new post of Under-Secretary, Archaeology (reporting to the DoE Chief Planner), which was filled by Dennis Haselgrove, a civil servant and amateur archaeologist. However, regional units never developed in the way the government had hoped – largely because of opposition from local government, who had unexpectedly been told they would be funding this (Wainwright, 2000: 916). Within local government at this point, 15 counties had archaeological officers in post that formed the Association of County Archaeology Officers with David Baker as its first Chair.

RESCUE and the CBA jointly published an ambitious manifesto, *Archaeology and Government* (RESCUE & CBA, 1974), which called for a 'National' (= English) Archaeology Service and a centralised, cascading bureaucracy which would be separate from the Inspectorate; it recognised the existence of independent excavation teams undertaking rescue excavations on a contract basis, but felt that these teams should eventually be integrated into the proposed centralised structure (*ibid.*, 17). *Archaeology and Government* also noted that some commercial developers "have begun to recognise the important of archaeology to the extent of appointing their own archaeologists" (*ibid.*), but called for these too to be assimilated into the single body.

Following immediately after the Government's own announcement of increased funding and reorganisation, this document was not well received within Government or the Inspectorate. Wainwright (2000: 917) called it "the last illogical surge of the rescue crusade" and the document was ultimately rejected by CBA Council in January 1975 who recognised that the opportunity for the proposals to be accepted had been lost. Not long after the publication of the RESCUE and CBA document, Ralston and Shepherd (1978) presented another ambitious plan for the centralisation of archaeological services, in this case in Scotland. Some of the ideas

presented in that plan – such as a single National Monuments Record of Scotland – were adopted, but much of it was equally disregarded by the policymakers.

By the mid-1970s, there was developing frustration with RESCUE, following its successful early years. Whereas in the first half of the 1970s, during “... the intense and formative lustrum in which RESCUE was founded, Government monies for archaeology soared unbelievably...” (Thomas, 1976: 12) on a wave of popular support, “... with those 1969-70-71 meetings, amid the hubris of large scale action, flow charts on blackboards, pressurising MPs and heady talk of one million pounds ...” (*ibid.*, 5), these changes had not been universally welcomed. Thompson (1975) presented a remarkable reaction against the value of rescue archaeology which failed to appreciate the nature of the diminishing resource, with other, more grounded, changes in perceptions meaning that moves to establish professional status for archaeological workers suffered from a backlash from the numerically larger amateur sector (Thomas, 1976: 12). Following this, the move to create a professional institute for archaeologists would take a decade to recover (see 6.4.1 The Role of the Professional Association, below).

General cutbacks in state expenditure from 1977 onwards led to *Rescue archaeology: the next phase*, a DoE (1977a) report that would separate rescue projects from local archaeological presences, aimed to create multi-county units, and recognised that the 1973 initiative had run its course.

In employment terms, the formation of early rescue units – in Winchester, Southampton and Oxford – followed the recognition that whenever redevelopment was taking place, archaeology might be involved. The pace of redevelopment in various historic centres such as Lincoln, Colchester and Chester led to the creation of *de facto* excavation units elsewhere in England (Jones, 1984: 20).

The Department of the Environment (through the Inspectorate) invested in local authority provision in England throughout the 1970s and 80s, seed-funding the appointment of County Archaeologists, with the last appointment in Kent in 1989. This initiative normally supported staff within planning departments, although “To deal with *ad hoc* problems, outside experience was used, in the form of either temporary staff or, sometimes, assistance from the nearest university. Some counties, however, took a more fundamental step and established full-scale county excavation units” (Jones, 1984: 28-9). Outside England, the first local government appointment in Scotland (Ian Shepherd, to Grampian Regional Council) was made in 1975 (see 7.1 Scotland, below) and the four Welsh archaeological Trusts were established in the same year (see 7.2 Wales, below).

This meant that the mid-1970s was a period when a large number of organisations were established and there was a shortage of archaeologists to fill the posts that were created – although simultaneously the expanding number of universities were producing more

archaeology graduates than there were jobs for, which contributed to the coming into being an itinerant workforce, the 'circuit diggers' who worked for short periods for different organisations. Until the late 1970s, this was a purely English and Welsh phenomenon – no one in Scotland could work on the circuit until the establishment of the Central Excavation Unit in 1977 (see 7.1 Scotland, below).

The advent of professionalisation led to a rapidly changing situation, as until the 1970s “so all-pervasive and so remarkably effective has been the rôle of the amateur in British archaeology that until relatively recently it seemed inconceivable that anyone could habitually earn his living by being an archaeologist” (Addyman, 1989). Peter Addyman appears to have been deliberately focussing on fieldwork – that paper was written in his position as the first Chair of the Institute of Field Archaeologists, and so was not referring to the early twentieth century academics and others discussed above (see 5.1 Ancient History: 1882-1938).

Methodologically, open-area excavation, first practiced by Grimes on wartime developments (see 5.2 War and Archaeology: 1938-1972 above and Case Study 15: Heathrow Terminal 5, below), developed by individuals such as Philip Rahtz, Brian Hope-Taylor at Yeavinger in the 1950s (Hope-Taylor, 1977), and then described by Philip Barker (1977) became important, which meant that excavation became a more skilled and less mechanical task, better suited to professional practitioners. Single-context planning was being used in London at this time (Case Study 17: Museum of London Archaeology, below), but its use was far from universal elsewhere in the country.

The presence of volunteers on site was becoming an obstacle to progress – as demonstrated in January 1973 when a significant developer in the City of London would not allow Guildhall Museum time for an adequate investigation on the grounds that “we do not know who these people are, and do not want just anyone coming on to our site to delay work” (Biddle, Hudson and Heighway, 1973: 8). The introduction of the *Health and Safety at Work Act* 1974 would provide further grounds for developers to seek to limit access to their sites. Simultaneously, developers in the south-east of England were slowly becoming more sensitive to environmental and conservational issues, which meant that archaeology benefited and some financial commitments began to be made by developers (Jones, 1984: 146).

British politics then changed upon the election of Margaret Thatcher as Prime Minister in 1979. The policies of the Thatcher government – deindustrialisation, leading to mass unemployment – led painfully to archaeology's benefit, through the implementation of the Manpower Services Commission's Community Programme (introduced in 1982, although other programmes of the MSC had been contributing to archaeology since approximately 1976 – see below, 5.3.2.1 Community Programme of the Manpower Services Commission). The national heritage agencies fundamentally assumed their current form in the 1980s, and the *Local Government Act* 1987 led

to the separation of local government provision and enablement, meaning local government had a much less significant role in fieldwork, a vacuum that the private sector filled. And this tumultuous period ended - for England - with PPG 16's publication the day before Thatcher stood down as prime minister (see 6.1.1.1.4 Planning Policy Guidance note 16: Archaeology and Planning, below).

The changes in the 1970s and 80s – the emergence of new paradigms (the first developer funding), the decline to residual status of others (the role of the volunteer) establish the historical precedent for the shape of archaeological practice from 1990-2010. It was a time when local government jobs for archaeologists opened up, when the transition from 'salvage' – the opportunistic retrieval of artefactual material almost literally from the teeth of the developer's machinery to 'rescue' – focussed excavation - took place, but following a largely unplanned and volunteerist ethos. This was the era of John Collis' earnest "... bearded young man in sandals, dirty shorts and floppy pullovers" (Collis, 2010: 121) which ended with commercialisation and Brian Hobley being described as the first archaeological unit manager in England to wear a suit (Wainwright, 2000: 917).

5.3.1 Delivery in the 1970s – Units and Committees

British archaeology in the 1970s "... converted many archaeologists into professional, itinerant committee men" (Jones, 1984: 143).

Bishop (1975: 12) identified seven categories of employers of field archaeologists "i. committees at regional level; ii. trusts and research units; iii. archaeological societies and local rescue committees; iv. local government and development corporations; v. museums; vi. independent directors; vii. private contractors". Interestingly, universities do not feature on this list, and it is important to note that at this time 'committees' represented executive agencies, able to implement work, rather than mere discussion groups. Without specifically saying so, Bishop placed these categories in the order of their importance in the early 1970s. These organisations had generally developed archaeological services in an *ad hoc* way on a local basis, responding to recognised local threats and essentially delivering rescue (or on occasion, even salvage) archaeology as unprogrammed reaction to ongoing development.

Typical of 'big state' understandings, Fowler called for a national archaeology service organised regionally with centres equipped for field survey (1970: 121). *Archaeology and Government* (RESCUE & CBA, 1974) followed Fowler in calling for a state archaeological service and was rejected by the Inspectorate, probably because they had no hand in its preparation (Jones, 1984: 144), and was received unenthusiastically by many archaeologists outside local government.

A Ministerial Statement issued by the DoE and Welsh Office of 23rd May 1974 (appendix to Bishop, 1975, also to RESCUE & CBA, 1974) announced new regional arrangements of thirteen archaeological advisory committees to advise the DoE "...on policies and priorities for surveys and excavations, on applications for grants, and on back-up facilities to ensure early completion and publication of reports" (RESCUE & CBA, 1974: 13), and a junior Minister was appointed to a new post of Undersecretary of State for Archaeology within the Department of the Environment.

These proposals were opposed by local authority associations while they were in draft form, and these Regional Advisory Committees, created in 1974 were then abolished in 1979 (Jones, 1984: 145). Wainwright regretted this as a missed opportunity, lost through a lack of vision, mismanagement and rivalry (Wainwright, 2000: 917).

In retrospect, Jones (1984: 144) considered that it was the failure of the Department of the Environment to create an acceptable national policy which resulted in a proliferation of rescue units, committees and trusts as an *ad hoc* solution to the issue of applied archaeological provision in England. These responses were novel, but generally the most important of them "... was actually only a well-tried device, the dull-sounding committee. But archaeologically it broke new ground ..." (Fowler, 1974).

When a construction threat was identified – the most visible of which at that time were state-funded infrastructure projects such as trunk roads or motorways, but urban redevelopment was another significant trigger – a committee was established to coordinate the pooling of resources.

These local 'Excavation Committees' were what Heighway (1972: 19) believed to be the most effective form of archaeological organisation, bringing together local government officials and interested local people. The Committees worked independently of local authorities, financed from various sources, but with the local authority and the Department of the Environment usually the principal funders. Some, such as those in Southampton and Norwich, had links to local universities, while the most successfully established, those at Winchester (see Case Study 1: Winchester, above) and Oxford had permanent facilities.

While some Committees directly undertook or facilitated archaeological work, the 1970s also saw the wider establishment of full-time field 'units' as an alternative set of delivery agencies for archaeological work. The establishment of these, as described by Cunliffe, Rowley and Hassall (1974), was an intensely bureaucratic exercise, but they did lead to a significantly better-established employment base which meant that, by 1977, the CBA recognised that non-professionals were being assimilated into an overall structure (CBA, 1977: 7) and "the writing was on the wall for the 'summer digger'" (Hinchcliffe, 1999: 24).

Heighway (1972: 22) reported that five English County Councils had archaeologists in post and nineteen local authorities in total (all in England) employed field archaeologists with duties

specifically including rescue work in towns. Of this 19, only one post predated the 1960s (the City of London, which had an archaeologist since 1949) and only two others predate 1968. This archaeological work was most often been conducted by excavators on the staff of a local museum, but these bodies were unable to cope with complex, deeply stratified urban sites (Heighway, 1972: 19).

These individuals were still primarily undertaking fieldwork (as a service to the local authority) rather than providing archaeological advice to these authorities, although archaeology officers were beginning to be appointed within planning departments.

The scale of the fieldwork being carried out by local authorities and the numbers employed increased in the first half of the 1970s, with permanent field teams, funded by the local authorities and the Department of the Environment being established in several English counties (notably West Yorkshire, Bedfordshire and Essex) (Jones, 1984: 28), but generally when local authorities had to deal with archaeological problems, they would bring in outside experience – temporary staff or assistance from nearby universities (*ibid.*: 29).

The increased state funding for archaeology in the late 1970s was spread thinly. Active field units developed in Chester and York (see Case Study 16: York Archaeological Trust, below), and archaeological units were established in association with the Universities of Manchester, Liverpool (run down in 1983) and Lancaster (Jones, 1984: 25). At this time, these organisations were largely grafted on to universities, rather than being indicative of entrepreneurialism within academic archaeology departments.

The DoE's Central Excavation Unit was set up in 1975, with special responsibilities for the archaeology of the Roman frontier in northern England and for work carried out at Royal palaces and public buildings in London, and also to carry out a flexible programme of excavations in places where other organisations lacked the necessary resources (Hudson, 1981: 151), such as those threats that local committees couldn't reach or which the Inspectorate deemed to be too important or sensitive to be left to the committees.

These developments are all significant for the history of archaeological employment because of the emergence of the concept of a discrete enterprise undertaking archaeological fieldwork. The word 'unit' was used as a short-hand for such organisations, and this still remains as a culturally residual element in the vocabulary of twenty-first century archaeologists (although very few organisations, and almost none outside of local government, still have that word in their organisational title). These organisations were the vanguard of the transition from volunteer-led and volunteer-staffed archaeological field practice towards professionalisation, with the recognition that trained specialist workers could achieve far more than relatively less-skilled volunteers. Chris Musson argued (1974) that one good professional could do as much work as three volunteers.

The concept of 'waged volunteers', who received a stipend as well as expenses, was another crucial part of the landscape of archaeological employment in the 1970s. These people were in roles between those of employees and those of true voluntary contributors, whereby they were treated as employees in terms of their responsibilities and commitments – giving up more than just their free time - but not in terms of rewards. The existence of such posts represented a time when there was a genuine shortage both of funds to employ fieldworkers and of suitably skilled individuals to fill such posts as existed. This then allowed for the easy adoption of the MSC's Community Programme within archaeology (5.3.2.1, below), but contributed, and continued to contribute to the suppression of wages within archaeology and other poor standards of employment practice, leading to the 1986 IFA AGM passing a special resolution declaring that the use of full-time archaeologists as 'paid volunteers' contravened Rule 1.9 of the Code of Conduct "in every respect" (Fahy, 1985).

Case Study 2: Kent Archaeological Rescue Unit

The Kent Archaeological Rescue Unit may be the last survivor of the 1970s model; founded in 1971 (Philp, 2002: 7), the organisation has had charitable status since 1977.

In the 1970s, this organisation operated on central government grants and annual grants from Kent County Council (Philp, 2002: 8), undertaking excavations and providing planning advice to 13 district councils. The organisation's relationship with Kent County Council was terminated in 1988 once that authority had appointed a County Archaeologist (CBA, 1989b) and established a Sites and Monuments Record, the last County in England to do so (Darvill and Fulton, 1998: 68).

The organisation operated on limited income which did not pay substantial salaries; a full time team of about 6-10 was supported by some part-time staff and numerous volunteers, some of whom were paid subsistence fees (Philp, 2002: 14). This approach – of the 'paid volunteer' - was relatively common practice at this time (see 2.2.5 Salaries and 5.3.1 Delivery in the 1970s – Units and Committees, above and 6.4.1 The Role of the Professional Association, below).

The organisation has been wary of embracing change (the sleeve of Brian Philp (the principal of the organisation)'s 2002 book continues to call for local sponsorship of excavations), although since about 1994, they have reluctantly received funding from developers (Philp, 2002: 14).

To some, this iconoclastic style – is heroic (Mills, n.d.), part of the glorious founding myth of rescue archaeology. To others, this is old-fashioned, obstinate and out of touch. Underpinning much of this determined individualism was the issue of Philp having being disciplined by the IFA in the early 1990s, when he was possibly one of the first members to be suspended from membership of the organisation. This followed accusations and counter-accusations relating to the issue of territoriality (Wainwright, 2000: 929) (see 5.3.2.4 Territoriality, below).

5.3.1.1 Motorway Archaeology

The construction work on the first motorway in Britain, later to be part of the M6 but initially known as the Preston Bypass, began in June 1956. This was followed by the first major section of motorway (part of the M1 between Crick and Berrygrove), which opened in 1959. By 1972 1,000 miles of motorway had been built (Bridle and Porter, 2002: 223), but the oil crisis of 1973 brought this period of intense construction to an abrupt halt.

Fowler (1974: 129) considers that the ‘conception’ of motorway archaeology was in March 1969, and that it had a remarkably short ‘pregnancy’ and many shared the ‘labour’. The earliest archaeological work on the motorway routes began in 1969 in the west of southern England on the lines of the M4 and M5, with the motorways built before that date (including the M1 and the M6) having an unknown impact upon the archaeological resource.

The M4 from the Severn to Tormarton was built in the 1960s without any archaeological intervention except at one site under a service station (Fowler, 1979: 14), and the Ministry of Public Buildings and Works intended to excavate just one site on the route of M5 in Gloucestershire before the establishment of M5 Research Committee in March 1969 (*ibid*: 16). The M5 provided an archaeological section 67km in length, and the 55km of the M4 route east of Tormarton was exposed virtually simultaneously in the six months of summer 1970 (*ibid*: 14).

The archaeological work was carried out by volunteers with limited professional coordination and with limited financial support. From mid-1969 the M5 project was supported by the DoE with grants of about £2,000 for each of the four years it operated, paying “to employ a full-time archaeologist throughout and four to eight paid helpers on excavations as and when necessary” (Fowler, 1974: 121); in 1969, before the beginning of this project, there were nine full-time archaeologists in Gloucestershire and Somerset, all of whom worked in city or county museums or taught in the University of Bristol’s Department of Extra-Mural studies (*ibid.*, 118-9).

The visible nature of motorway archaeology meant that public pressure became a political catalyst through which resources were transformed in pursuit of short-term, identifiable goals (Fowler, 1979: 13). This led to motorway archaeology being debated in Parliament in 1971 (Hansard, 1971), a debate which prompted Government action in late 1971 and 1972 when £50,000 was specifically allocated in each of those years to contribute to the cost of archaeological work on motorways (Fowler, 1974: 128).

The quantity of information produced by these projects came as a surprise for which the archaeologists were totally unprepared (Fowler, 1974: 122), although there had been some precedent for linear route archaeology as, in nineteenth century railway construction had led to a great number of sites being identified, not only on routes but also in gravel pits for ballast (*ibid*: 115).

The scale of the work also led to the methodological recognition that most data would come from observation not excavation, and so the primary objective became identification rather than investigation of as many sites as possible (Fowler, 1979: 16). Throughout the M5 project, local fieldworkers were sent to "... undertake a 'watching brief' of a given length of motorway when construction began" (Fowler, 1974: 120), with full excavation only taking place very selectively.

This also led to cooperative work with the site contractors, who stripped previously ploughed topsoil to expose potential archaeological deposits, although Miles (1999) considered that even site access was down to the grace and favour of site managers and a decade later, in the 1980s, archaeology was still seen as an obstacle to be swept aside.

This was very much seen as having been a discrete episode in the history of archaeological practice; this work was described as having taken place 'During the brief phase in the early 1970s that motorway archaeology was in fashion' (anonymous writer quoted by Fowler, 1979: 12), and Peter Fowler wrote that "... no one [in England] is ever likely to be faced again by 150 miles of simultaneous motorway construction ...The great age of motorway construction, as with canals and railways before, is already over" (*ibid*: 25).

Case Study 3: M5

The M5 project involved several hundred people – almost all of them volunteers – contributing to the archaeological work over a five year period, with senior staff living on-site in a fire-damaged caravan and working seven days a week (Fowler, 2009: 46-7). This was driven by a strong volunteerist ethos, with these poor conditions submitted to because the participants "were glad to be working in archaeology" (*ibid*).

The M5's significance is that it was the 1960s - 70s motorway archaeology project case study *par excellence*. It involved work on a linear route across multiple local authorities with huge numbers of people who were motivated to voluntarily contribute their own time, and because some of the participants who held leading roles went on to very senior professional positions and whose attitudes and approaches must have been shaped in some way by their experiences on the project (most significantly, the site Director was David Miles who went on to become the Director of the Oxford Archaeological Unit and then the Chief Archaeologist at English Heritage).

5.3.1.2 The Role of Local Government, 1970-1990

Until the 1960s, the few local government archaeological officers that were in post did not have defined roles in the planning process, and so they often had responsive roles, coordinating and often undertaking considerable amounts of rescue or 'salvage' fieldwork (see 6.2.1.2.2.1 Local

Government Providers, below). In contemporary terms, these archaeologists also had significant outreach responsibilities – even pursuing funding from private sources to pay for fieldwork.

The first archaeologists in local government often worked for town or county museums (Biddle, 1974: 108), starting in 1948 at the Museum of London, but from the 1960s onwards posts became established in what would now be recognised as curatorial roles (following the definition initially set out in first (1990) edition of the IFA *Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology* “... a person or organisation responsible for the conservation and management of archaeological evidence by virtue of official or statutory duties” (IfA, 1990).

The first County Archaeologist appointed was Ben Edwards, in Lancashire in 1963 (Edwards, 2009), and the first Sites and Monuments Record (and the introduction of this term to describe a centralised repository for information about archaeological finds and sites within a defined geographical area) followed the 1965 establishment of the Oxford City and County Museum (Benson, 1973). This was fundamentally an index to sources, a repository for metadata rather than data itself.

Through the 1980s, English Heritage pump-primed the appointment of county archaeologists, and in 1989 complete curatorial coverage for England was achieved with the appointment of John Williams as Kent County Archaeologist (CBA, 1989b). In Wales, the four multidisciplinary Trusts provided curatorial services, but in Scotland coverage was incomplete until the first decade of the twenty-first century, with Historic Scotland having previously provided a skeleton service to those authorities without in-house or contracted advisors (Barclay, 1997).

The achievement of complete coverage has not represented a uniform level of provision; largely urban local planning authorities in the south-east of England, such as Essex County Council, have historically employed many members of staff in curatorial roles, while in Scotland and much of upland England, some Councils would normally employ only a single person to provide coverage across the authority’s full geographical area.

5.3.1.3 *The Rise of Cultural Resource Management in the United States*

The development of Cultural Resource Management (CRM), as both philosophy and practice, has defined how archaeology is undertaken in the United States. It is unique within the larger field of US archaeology, anthropology and history in that it operates as a set of client- and project-driven businesses (Polk, 2002), and the thinking behind this model had very significant effects upon archaeological employment in the United Kingdom.

Patterson (1999) considers that the emergence of commercial archaeological practice in the United States (as part of CRM) was a consequence of legislative changes that coincided with the transition from Keynesian to monetarist policies in response to the global economic crisis of the 1970s.

In the years immediately after the Second World War, the discipline of archaeology in the United States was made up of university and college professors, a small number of people employed by the National Parks Administration and a few museum- or foundation- supported personnel. This began to change in the late 1960s as the profession diversified when people began to work in discrete areas of research, teaching, management and outreach (McGimsey, 2004: 184).

Section 106 of the US *National Historic Preservation Act* of 1966 required US Federal Agencies to consider the effects upon cultural resources of their undertakings or any project that they were funding. Prior to the passage of this 1966 Act, CRM in the early 1960s had largely been an exercise in rapidly salvaging data as an extension of academic archaeology and anthropology (Polk, 2002: 22), but there were a few private-sector cultural resource companies in existence as early as 1962, with the first reported as being Scientific Resource Surveys, Inc., owned and operated by Roger Desautel (*ibid.*). Desautel's company's first large and notable project was a cultural resources inventory of Amchitka Island in the Aleutian Islands on behalf of the Department of Defense - prior to the test detonation of a hydrogen bomb (Phillips, 2001), the ultimate modernist symbol of the polluter paying.

The US *National Environmental Protection Act* 1969 introduced the concept of environmental impact assessment, which the European Union would adopt in 1985 from where it passed into British legislation (see 6.1.1.1.2 Environmental Assessment, below), and the publication of *Rescue Archaeology* (McGimsey, 1972) was particularly significant – Tom King considered it to function “as an encyclopaedia, as a constitution and as a bible” (1976: 236). This was soon followed by the 1974 *Archaeological and Historic Conservation Act* which made funds equivalent to 1% available for archaeological mitigation work (survey and excavation) on all federally-funded projects in the United States.

These significant Acts of Federal legislation (in 1966, 1969 and 1974) formed the legislative framework that allowed the discipline of CRM to develop, to the point that by the late 1980s, there were thousands of archaeologists working in CRM (Polk, 2002: 22) and the total number of CRM specialists in the United States in 2008 was estimated to be about 14,000, of which almost 10,000 were archaeologists (Altschul and Patterson, 2010).

The 1974 Act in particular changed the shape of the CRM industry. Any projects that required government money, permits, or licenses now had to include archaeological investigations, and the projects sponsors had to pay for them (Altschul, 2005). Many long-established contracting bodies which were largely associated with universities and museums, were unable to cope with

the sudden increase in demands for their services, which led to many private archaeological contracting firms being established (Cleere, 2006).

A decade before this, 'salvage archaeology' had been consciously non-competitive (either financially or territorially), but a level of competition for projects (largely between ambitious academics) in the late 60s laid the ground for the private companies to operate more widely (Phillips, 2001). In 1976, the field was well enough established to merit the publication of *Digging for Gold: Papers on Archaeology for Profit* (Macdonald, 1976), the first text on profit-making archaeological practice, and by the mid-1980s, most university and museum CRM operations were defunct, with those that survived adopting business principles (Altschul, 2005). This followed the impact of the *Small Business Act* in the late 1970s which prohibited large entities such as universities from bidding on federal archaeological research projects (McGimsey, 2004: 147).

As the university and museum operations closed down, the vacuum was filled by small, entrepreneurial, profit-orientated consulting firms. "Most were owned and operated by archaeologists, who had little training in business. Much like the university and museum CRM programs, most of these companies failed" (Altschul, 2005).

Those companies were not part of larger institutions whose main priorities lay outside archaeological practice, but it was shortly after their emergence that larger companies, principally architectural and engineering businesses, became involved with CRM in order to provide clients with a full range of services. However, for many of these large firms, the profits associated with CRM were too small to offset the risks associated with archaeological investigations and after a few years, many of these firms shut down their CRM units. These companies then preferred to subcontract CRM services back to the smaller, specialised companies, and there were more than 500 CRM companies operating in the United States in 2005 (Altschul, 2005), competing successfully on price and by delivering quality products. A predicted decline in the quality of archaeological work did not happen (*ibid*).

Some of these ideas first began to cross the Atlantic in the mid-1970s. Thomas (1976: 8) wrote about excited British participants attending the 1974 Cultural Resource Management Conference held in Denver eagerly anticipating changes that this would bring in British archaeology, but reaction was not uniformly positive, or rapid. By 1985, some still considered that USA-style 'contract archaeology represented "a new spectre" looming over British archaeology (Cleere and Marchant, 1985).

The changes in UK archaeological practice which began in the late 1980s, stimulated by the introduction of the *Environmental Assessment Regulations* (6.1.1.1.2, below), were to require developers to make their own arrangements for any archaeological work. This meant that archaeologists were to be directly employed by the private sector, as in the United States, rather

than directly by government, and while the pattern of development of CRM in the United States undoubtedly influenced the way that archaeological practice accepted the commercialised model in the UK, this was not a slavish reproduction. To a degree, it was a case of systems evolving in (chronologically off-set) parallel.

From the very establishment of the Institute of Field Archaeologists in 1982, the issue of transferring responsibility for funding archaeological work from government to the private sector was live and critical, with a Contract Archaeology Committee formed almost immediately (Lawson, 2006: 207). In 1990, when archaeological practice in the UK had its most transformational year, Burrow and Hunter reviewed what lessons had been, and what lessons still could be, learned from US practice.

They immediately identified that there was a widely held wariness of commercialised practice in UK archaeology, stating that “The United States of America is commonly held up as the classic example of what can go wrong when archaeological heritage management is based on commercial assumptions” (Burrow and Hunter, 1990: 194), but while they did not consider the US system to be perfect, neither did they consider it to be flawed in the ways that fearful colleagues in the UK were expressing. They recognised that it delivered sustainable development (even if that phrase wasn’t yet in common use), and that UK archaeology would be the better off for the adoption of many of the US practices.

5.3.2 Archaeology in the 1980s

By the 1980s ... the picture of the archaeologist, whether professional or amateur, as a ‘helmeted hero working into the night surrounded by mud, fumes and angry contractors’ became the unacceptable face of archaeology (Jones, 1984: 145).

In archaeopolitical terms, the 1980s begin with the passage of the 1979 *Ancient Monuments and Archaeological Areas Act* (AMAA) on the final day’s business before the General Election that brought in the Thatcher government immediately afterwards. The Act was seen as being politically non-contentious, and the government of the day wanted to get it in place before the anticipated devolution of power to an expected Scottish parliament (Foot, 1978: 13). The Act did not represent a huge change in terms of monument protection from the previous 1953 manifestation, but did very significantly lead to the switch of state funding from organisations to projects (through the application of s.45 of the Act, *Expenditure of Archaeological Investigations*), and also had some potential but ultimately unfulfilled significance in terms of the Areas of Archaeological Importance.

Part two of the AMAA allows for the designation of Areas of Archaeological Importance (AAI) and five of these were immediately created within the historic cores of Canterbury, Chester,

Colchester, Exeter and York. Within a designated AAI, developers must give notice of any groundworks to the investigating authority, a body determined by the Secretary of State which can be the local planning authority or an independent organisation. In York this was and still is the York Archaeological Trust, in Exeter it was the Royal Albert Memorial Museum, with responsibility subsequently transferred to Exeter Archaeology, the local authority's contracting arm. Any ground disturbance within an AAI requires an operations notice to be served at least six weeks before work begins in order to give the investigating authority the opportunity to intervene, which is followed by a statutory delay period of 4½ months during which archaeological investigations may be carried out without compensation to owners or developers.

This mechanism – introducing delay rather than funding - became rather a dead letter in the 1990s as it was fundamentally superseded by planning guidance, but the one area where it is still applied is regarding works that take place without planning permission under *General Permitted Development Orders* – in these instances, notice still has to be served and the investigating authorities can choose to take advantage of these opportunities.

Economically, the UK changed hugely in the 1980s, under the transformationally monetarist policies of Margaret Thatcher. This led to substantial cuts in public spending in many areas, and “Archaeological organisations, usually initially designed as field units, [which had] emerged throughout the 1970s and became consolidated in England and to some extent fossilised during the cutbacks in public spending in the 1980s” (Hunter et al., 1993: 36).

Jones (1984: 155-8) lists the UK's active archaeological ‘units’ in an appendix; of the 46 organisations listed, 17 were within local authorities and six were within universities. Very few of these commercial organisations were established in the 1980s; they are almost all 1970s formations, with The Trust for Wessex Archaeology the last to be formed in 1979. There was not a significant wave of new start-ups until after the publications of the 1988 *Environmental Assessment Regulations* and PPG 16 (DoE, 1990b).

The reductions in archaeological funding from Government during the 1980s were delivered via a transition in the application of state grants. Until 1981, organisations could receive block grants that covered core operations – and s45 of the 1979 Act allowed for a switch away from this model to one where state funding could only be received on a project by project basis (this policy was delivered through the mechanisms set out in DoE (1981). Barri Jones felt that this was so significant that he asserted that, by 1980-81, “rescue archaeology in Britain was already in relative decline” (Jones, 1984: 141).

As ‘units’ were being allocated diminishing funds, this led to redundancies, principally in the south of England. Jones (1984: 150) considered that small organisations in the northern England, such as those attached to the Universities in Lancaster and Newcastle, were so weakly

established that they would not have survived even relatively small cuts. While The Archaeological Practice in Newcastle continued to operate as part of the university until 2002, in Lancaster the commercial firm was actually in a relatively strong condition in the 1980s and survived within the university longer than the academic Department, before becoming part of Oxford Archaeology in the 1990s.

While the level of direct state spending on archaeology fell during the 1980s, the sector experienced a transformational period of indirect funding as many organisations accessed the unemployment relief monies of the Community Programme of the Manpower Services Commission (see 5.3.2.1, below). This had such an impact that by 1987 most archaeological posts were funded from this source (Crump, 1987). However, there were "... continuing difficulties in achieving the completion of projects (and post-excavation analysis and publication projects in particular) on time and on budget" (Andrews and Thomas, 1995), which led to a series of EH documents to address this problem culminating with MAP2 (EH, 1991b). Community Programme funding for archaeology ended in 1988.

Of longer lasting effect was the passage of *Local Government Act 1987*, which separated local government services in terms of provision and enabling, and introduced the requirement upon local government to invite tenders to provide services. While this led to more secure retention of the in-house curatorial / planning advice role for the local authorities, it also led to a marked decline in the number of local authorities carrying out archaeological fieldwork, and a rise in the competition between other service providers for this work.

Planning procedures changed (although not fundamentally) during the decade, with the most important development being the introduction of the Environmental Assessment Regulations (Hunter et al., 2006: 45-6). These new regulations contributed significantly to the introduction of archaeological consultancy's role in archaeological practice (see 6.1.1.1.2 Environmental Assessment and 6.2.2.3 Private Sector Consultancy, below).

Generally, the early 1980s recession and public spending cuts limited archaeological opportunities until the return of economic prosperity late in the decade (together with the *Environmental Assessment Regulations*) meant that there was increased demand for archaeological services.

Increased high-value construction in the City of London - the 'Big Bang' - from 1987-89 also proved to be extremely important. Construction projects here, and elsewhere, had been often delayed by the archaeological requirements - while developers were not yet obliged to obtain archaeological information to support their applications for planning permission, nor were conditions imposed upon them, they did often allow archaeologists access to the site for limited periods before construction began. It was realised that provision of funding from developers to the archaeological contractors could speed up the process, but this was informal at first.

The British Archaeologists and Developers Liaison Group (BADLG) – a body bringing together SCAUM (see 6.4.2 From SCUM to FAME, below) and the British Property Federation – published a code of practice (BADLG, 1986), which recognised that voluntary agreements might go beyond the requirements of Part II of the 1979 Act. It sought to make working arrangements as straightforward as possible, particularly to make sure early notice would be given by both parties. It was written from a perspective that always recognised negotiations on costs and time were strictly voluntary, but that they would best be secured by contract.

While the 1987 *Local Government Act* had introduced the concept of tendering for contracts to provide services to local authorities, this was already routine for private companies. With competitive tendering for work becoming an accepted practice, increased understanding from developers of the advantages they could gain from funding archaeological investigation and the withdrawal of state funds, the stage was set for the introduction of PPG 16 (see 6.1.1.1.4, below), which would fundamentally change the relationships between the state, archaeological contractors and their clients. However, as late as 1988, the archaeological profession was not necessarily aware of the changes that were in process - “It would be idle to expect the principle of compulsory developer funding ... to be adopted in the UK by the present Government or any other” (Cleere and Marchant, 1988) – but within eighteen months of that quoted CBA Editorial, the consultation draft of PPG 16 (DoE, 1990a) would be published and the new world of 1990s developer-funded archaeology would become a reality for the sector.

5.3.2.1 Community Programme of the Manpower Services Commission

In the mid-1980s the most significant agency influencing archaeological practice was the Community Programme of the Manpower Services Commission – and the effects it had were so wide-ranging that they directly influenced the expectations and processes of archaeology in the decade that followed.

The Manpower Services Commission (MSC) was a non-departmental public body of the Department of Education, which introduced the Community Programme (CP) in 1982 as “a constructive alternative to unemployment” (Michael Alison MP in Hansard, 1983); by the end of 1986, this was providing 230,000 long-term unemployed individuals with places on the scheme (Drake and Fahy, 1987), doing work of visible benefit to the local community – which included archaeological fieldwork. Prior to the introduction of the Community Programme, archaeology had been able to benefit from other MSC job creation schemes since at least 1976 (Beresford Dew, 1977), but these were not on the scale of the Community Programme.

The Community Programme required supported projects to do work that would not otherwise get done, that delivered tangible community benefit, and that had to provide work for people who had not worked for some time. The schemes lasted for a minimum of 52 weeks.

The ratio of men to women who participated on the Community Programme was 4:1 (as, at that time, married women were not eligible for unemployment benefits). 88% of posts created under the programme were part-time, and 56% of the participants were aged between 18 and 25 (as opposed to 36% of all long-term unemployed people) (Drake and Fahy, 1987). In general, only single people without dependants were better off in a part-time CP post than they would be if they were claiming benefits.

Significantly, the programme provided archaeological units with finance for non-rescue projects (Start, 1999). With a recommended minimum of one member of experienced staff for every five inexperienced participants, even though wages for supervisors – or ‘leading hands’ – were fixed and low (Drake and Fahy, 1987), opportunities were created for early-career development for those seeking working lives in archaeology. McAdam (1995: 97-8) considers this – only slightly tongue-in-cheek – to have been “The Golden Age”, offering continuous paid employment as diggers or supervisors, allowing units to survive and even grow. It rapidly led to a position whereby of the 2640 people working in “rescue archaeology” in 1986-7 (Plouviez, 1988), 1790 (68%) were financed by the MSC (Crump, 1987: 45).

English archaeology had become overwhelmingly reliant upon MSC funding, with it becoming the primary funders of many organisations (e.g. Ironbridge Gorge Museums Trust (Belford, 2010), Leicestershire Archaeological Unit (Mellor, 1992). Geoff Wainwright (the then Chief Inspector of Ancient Monuments at English Heritage), stated (in Sheldon, 1986: 2) that “... if the MSC pulled out it would have an absolutely catastrophic effect on the ability to undertake excavations. The great bulk of labour costs is now being met by MSC”. The programme’s influence was also felt, but not as strongly, in Wales and Scotland.

By 1987, the potential supply of experienced staff was diminishing. “Given the relatively buoyant state of the short-term job market in archaeology, plus the demand for CP supervisors, very few qualified and experienced archaeologists will be eligible” as they had to have been unemployed for six months of the previous nine if aged under 25, 12 of the last 15 months if aged 25 or over (Drake and Fahy, 1987).

The large amounts of fieldwork being funded by the Community Programme – which did not provide financial support for the relatively labour-unintensive and less visible post-excavation phases of projects – meant that responsibility for funding this work was falling increasingly to the national heritage agencies. 76% of English Heritage’s rescue budget for 1986-7 was devoted to “the preparation of reports on material excavated in the past” (Wainwright, 1987: 5), and this

backlog of incomplete and unpublished projects directly influenced the thinking behind MAP2 (EH, 1991b), which ensured separation of excavation from post-excavation.

The Community Programme was replaced by Employment Training in 1988, a scheme which put greater emphasis upon training and less upon 'public gain', meaning archaeology was no longer able to benefit as it previously had (McAdam, 1995: 98). In the short-term, this led to fewer people working in archaeology at the end of the 1980s and start of the 1990s. In 1987, the MSC funded most of the staff involved in archaeology in Britain, and provided about one third of the money going into archaeological work. Following the introduction of Employment Training, no MSC money was spent on archaeology, and several hundred archaeological jobs were lost as a result (RESCUE, n.d.: 5).

The end of the Community Programme came at a time when national unemployment was falling as the level of economic activity, including construction, was increasing rapidly (Aitchison, 2009a). These changes also led to increasing amounts of money coming in to archaeology from developers; by 1990-91, 48% of archaeological funding was being provided by developers (Spoerry, 1992: 30); four years previously the equivalent figure had been 17% (Plouviez, 1988: 1).

In retrospect, the Community Programme was a hugely important factor in the history of archaeological employment in the UK, as at the time state funding was the only major source of finance for archaeology and it became such a significant alternative supply model that, for a time, it became the dominant model.

While the Community Programme established a number of individuals in their professional careers at a time when there was no other route in to archaeology, on a larger scale its lasting importance lies in terms of having temporarily bound the state into funding the generation of archaeological data without creating responsibilities for the subsequent transformation of that data into knowledge and understanding. This left the state national heritage agencies in a position where they needed to ensure that they were not left in a comparable situation by any future government decisions – which led to their wholehearted enthusiasm for the transfer of financial responsibilities for both fieldwork and post-fieldwork to the private sector, through the implementation of PPG 16 and subsequent cognate guidance outside England.

5.3.2.2 *Development Control in the 1970s and 80s*

Development control is the part of the planning process, undertaken by local government, which deals both with applications for development and the enforcement of planning control – such as when development has been undertaken without permission.

The development control process was founded upon the *Town and Country Planning Act 1947*, which superseded all previous relevant legislative and created the framework for the system to the present date (with all subsequent Acts updating rather than replacing that system). From 1971 to 1990 the principal relevant Act was the *Town and Country Planning Act 1971*, with variants.

Planning decisions are technically made by elected members of the local planning authority, who are advised by planners. In turn, the planners have archaeological advisers – often called County Archaeologists (as shorthand, even in areas that where the local planning authority is not a County Council) – who use their local Sites and Monuments Record (SMR) as a first point of reference, and then advise the planners on what would be reasonable requests for further information (pre-determination) or conditions to be attached (post-determination).

The first SMR to be established in England was in Oxfordshire in 1965, the last in Kent in 1989. In many cases, these were maintained by individuals were based in museum services, or services other than planning, but New Towns in England benefited from having archaeologists in planning departments from their establishment (*eg* Northampton) (Jones, 1984: 76). From the mid-1970s onwards, increasing numbers of local planning authorities combined archaeological development control with having a role in undertaking archaeological fieldwork; at that time, the conflict of interest between the specifier and the deliverer was not yet apparent, and in any case it would have been considered to be offset by the benefits of local expertise.

Over time, statutory provisions moved from notification of intent to a formal procedure that ensures that permission is granted in advance of works affecting the historic environment. These were introduced for listed buildings in 1968, conservation areas (partially) in 1974 and Scheduled Ancient Monuments in 1981 (Baker, 1999: 4). Controls have tended to become less restrictive but a greater range of land or structure is affected, “reflecting the economic implications of increased constraint” (Baker, 1999: 4), but for much of the 1970s and 80s, most local authorities were hesitant to interpret their planning powers (in relation to archaeology) independently of central government until the publication of PPG 16 in 1990 (Griffiths, 1999: 84).

The establishment of archaeological advisory posts in development control was central to the formation of one of the key areas in which archaeologists were and have been employed. While systems have changed, the role of advising local authorities on the historic environment has continued to represent a significant sector of archaeological employment – and it is through the work that these people do that the criteria are set for the work that is then undertaken by the larger population of archaeologists working in the commercial sector.

Case Study 4: Anslow's Cottages, Burghfield

Opposition from elected members of Berkshire County Council to proposals for development in the area to the west of Heathrow between Reading and Bracknell coincided with a review of the Berkshire local, structure and minerals plans in 1984-85. The Council had not previously had any archaeological policies, so at that time Berkshire was operating in a policy vacuum. To address this, the planning department and county archaeologist combined to draft archaeological policies that required informed decisions on applications that would affect archaeological resources (Aitchison, forthcoming).

The crucial site was Anslow's Cottages, Burghfield where Tarmac wanted to extract aggregates. Without any predetermination work, the County Council gave permission subject to a watching brief; in May 1985 a well-preserved Bronze Age waterfront was immediately exposed (Butterworth and Lobb, 1992). The Council had to fund investigation, as *in-situ* preservation was not an option because rescinding the permission already granted was neither practical (as gravel extraction in the vicinity would lower the water table and damage the site), nor economically viable because of the likely cost of compensation for the loss of income for the gravel (*ibid.*, 78). This high-profile, high-cost test case made the Council keen to promote policies to ensure responsibility for funding archaeological investigation lay unambiguously with the applicant for planning permission.

The draft policies thereafter adopted by Berkshire County Council focused on predetermination evaluation by or on behalf of the applicant of the potential impact of proposed development or extraction works.

The Berkshire county archaeologist for Berkshire liaised fully with the English Heritage regional Inspector during the development of the Structure Plan that contained these policies, and several other County Councils, particularly but not uniquely in south-central England, began to adopt these ideas several years before their formalisation within PPG 16 in 1990 (see 6.1.1.1.4 below).

5.3.2.3 Competitive Tendering

It is worth noting that conventional wisdom amongst people used to dealing with competitive tendering in other professions states that, if properly managed, competition can indeed deliver all the benefits which are attributed to it, but that unregulated it will lead to chaos (Hinton, 1996: 7)

Competitive tendering, a process through which clients can select their preferred contractor, has caused much concern to many archaeologists. It is important to recognise that compulsory

competitive tendering is not the same as competitive tendering, and that competitive tendering is not the same as competition.

Developers will generally seek to have the work undertaken at as low a cost to them as possible, and so will often obtain prices from more than one organisation for the work that they need. This process of competitive tendering has become the accepted norm within archaeological practice. The developers may contact several contractors, providing them with the details of the brief issued by the curators. The contractors then respond with a detailed project design specifying how the work will be carried out, and a price. The developer would then be free to appoint any archaeological contractor who has provided a project design that is deemed to be acceptable to the local authority's curators.

Before competitive tendering was established as a widely accepted practice within archaeology, the British Archaeologists and Developers Liaison Group code of practice (BADLG, 1986), referred to 'voluntary agreements' regarding negotiations on costs and time, but considered that these were best secured by contract. In a conceptually different approach, that document describes developers' financial contributions as 'grants'.

The passing of the *Local Government Act* 1988 led to far-reaching changes within local government, as local authorities and other specified bodies became obliged to contract-out manual services through the process of compulsory competitive tendering; in 1991, this was widened to other local authority functions. The approach adopted was based upon the philosophy that local authorities should be enabling bodies, rather than being the direct providers of services, thus "taking on the role of the client which specifies and monitors the works to be undertaken by contracting organisations" (Cooper et al., 1995: 243). Many archaeological services were based within local authorities, and this had a significant effect upon those services.

A RESCUE and SCAUM day-conference in 1990, published as Swain (1991), followed the unprecedented events when "an 'alien' unit undertook fieldwork in two towns in the south-east which had previously been investigated exclusively by their local units" (Hinton, 1996: 7). At that conference, Paul Chadwick (1991: 7) dramatically described the first instance of competitive tendering in English archaeology, which took place in Berkshire in 1988 for work at Reading Business Park (Case Study 5: Reading Business Park, below), when "news of the contract won [by Oxford Archaeology] and the lost tender [submitted by Wessex Archaeology] broke at the IFA Conference and many were expecting a punch-up between the two Unit Directors involved. The fight never took place, and they and their Units have competed and cooperated on many occasions since". Chadwick notes (1991: footnote to p. 8) that in 1987-8, three projects in Berkshire went to competitive tender (15% of developer funded projects); in 88-89, six projects (16% of the total), and in 89-90 14 projects (37%).

This day-conference event post-dated the draft publication of PPG 16 (DoE, 1990a), but before its final adoption in November of that year.

The IFA *Code of Approved Practice for the regulation of contractual arrangements in field archaeology* (IfA, 1990) was adopted in September 1990. This had been prepared by IFA's Contract Archaeology Committee, established in 1988. In 1989, Addyman considered that "This working party has chosen not to concern itself with the far more contentious issue of 'contract archaeology' – the competitive tendering for archaeological work which has become a norm in the USA – perhaps in the hopes that it will not emerge in Great Britain and the spectre may go away" (Addyman, 1989: 306).

The *Code of Approved Practice* expects archaeologists to have a role in seeking tenders and in selecting contractors (IfA, 1990: clauses 13-16), and first defined the term 'curator' as subsequently commonly used within archaeology to describe a person or office with responsibility for the conservation and management of the archaeological resource within a specified area (note to clause 2), 'contractor' (originally was to be '*performer*') and 'client' (originally was to be '*sponsor*'), and, in the draft edition suggested that archaeology may be suitable for design competitions but not for competitive tendering (presumably because there was no one to write the design that was then tendered for) ('Gromaticus', 1989).

SCAUM subsequently produced a guide to competitive tendering, which is written defensively - "to ensure that competitive tendering gives good value for money within a framework that does not:

- breach the law;
- breach acknowledged archaeological standards;
- breach current Government policy; or
- breach the provisions of most professional indemnity insurance" (SCAUM, 1996: 2).

Upon its introduction, competitive tendering was a contentious topic for some. Some viewed competition as being likely to lead to a decline in standards (*eg* Schadla-Hall (1991: 41-50)), seeing it as bad that the client can "exercise choice in the same way that he or she might choose an architect" (McGill, 1995: 62).

Holdsworth (1991: 3) alludes apocryphally to the temptation of money leading to bad practice – an important point in retrospect, as it is an acknowledgement of changes in practice and because it refers to a creation myth which has endured but that never demonstrably existed. Another mythological reference at the same conference was to "cowboy units", which Simon Buteux (1991: 17) doubted the existence of.

Competitive tendering was blamed and then continued to be blamed for low salaries (*eg* Grenville, (2006: 168)), despite poor pay having been an issue since the early 1970s, with a

combination of PPG 16 and competitive tendering also being accused of being processes that “stunts the subject’s development. Because units have to keep their costs down, many rely on young archaeologists employed on short-term contracts – no way to build a stable profession” (Morris, 1994).

Alternatives to the competitive framework were suggested, largely in the mid-1990s. McGill (1995: 124) thought that the polluter-pays system had drawbacks, firstly because evaluation is imperfect, and so precise costs cannot be predicted (owing to the hidden nature of archaeological remains – although this isn’t unique to archaeology, as the use of *force majeure* clauses demonstrates), and secondly because all sites are different and so similar development proposals may have different archaeological costs (a very weak argument – they only have different costs because of the level of impact they are having on the resource), and thirdly because not all developers are equally able to pay, and so investigation is equated with ability to pay. This last argument holds no water at all – if the developer can’t pay for the investigation, they will not be granted their planning permission, and so the issue will simply not arise.

John Walker (1996), although recognising that tendering had provided benefits, such as making archaeologists more aware of costs and clients’ needs, called for an end to the system of competitive tendering for projects, suggesting that it could be replaced by a framework of franchises which would allow single organisations to carry out all of the archaeological fieldwork on a county-by-county basis – harkening back to a hybrid of both the days of the county unit and the regional trust. The idea resurfaces in *The All-Party Parliamentary Archaeology Group* (APPAG, 2003) report, which was written by anonymous archaeologists for the parliamentarians, but did not gain any traction with either policymakers or the archaeological community. David Jennings, the Chief Executive of Oxford Archaeology, was soon quoted as describing this idea as being “dead in the water” (anonymous, 2003: 8).

Another alternative to the system whereby developers fund specific projects was proposed by RESCUE in the organisation’s ‘Manifesto for the Millennium’ (1997), following Graves-Brown (1997). This proposal involved a hypothecated development tax, separating the link between the developer’s financial goals and the adequacy of archaeological recording and preservation (which is not unlike the system introduced in France in 2001 (Demoule, 2008). Rather than developers specifically funding the archaeological work that was required by their particular project, all developers (whether they were developing a site with archaeological potential or not) would be obliged to pay into a collective ‘pot’. RESCUE considered that such a tax might appeal to developers, giving them a predictable and fixed cost, as the level of taxation would be proportional to the scale of the development. However, Ove Arup (1991: 74) had previously explored the idea of a development levy, and considered it to be unworkable, firstly as, if it only applied within a designated area (eg the specified Area of Archaeological Importance in the city

of York), then it could deter investment and secondly that it would be interpreted as a hypothecated tax which would be unacceptable to HM Treasury.

While these alternatives have not been adopted, and competitive tendering has become the normal way in which work is allocated by clients, it has not become the universal model – some developers have preferred to establish long-term relationships with selected contractors, who continue to provide services across a series of projects, thus avoiding the need to repeat tender competitions Lawson (2001) considered that this was a beneficial arrangement, which “reduces risk all round - the client gains a more comprehensive service, greater financial security and better control of profits, while the ‘contractor’ is paid an agreed rate for each day worked”.

Predictions that competition would lead to great changes in standards showed little faith in archaeologists’ abilities to operate in the world of business (Buteaux, 1991: 18). From the point of view of developers and other clients, competitive tendering has been an efficient and effective means to obtain competent, accurate and professional advice (McGill, 1995: 62). The debate over its effectiveness was essentially held in the 1990s, and it has become orthodox and accepted practice since then.

The competitive tendering process is important because it is utterly central to the way that archaeology functions economically, and so to how funds are secured that lead to archaeological employment. It followed on from contractors initially being established within local authorities, and was the mechanism that freed them to either become or act like private enterprises, employing as many staff as they need for as long as they need.

Case Study 5: Reading Business Park

Following the landmark issue of Anslow’s Cottages (Case Study 4: Anslow’s Cottages, Burghfield, above), Berkshire County Council applied its structure plan policy EN6 on the protection of archaeological sites in 1986 (Heaton, 2007), whereby responsibility for funding archaeological work had definitely transferred to the developer.

This set the stage for an even more significant development in the history and politics of archaeology, because not only was this “one of the first sites whose discovery, excavation and publication were completely funded by the developer as a result of the local authority’s archaeological policy” (Miles, 1992), but it was also the first example of competitive tendering for an archaeological project.

The successful bidders were Oxford Archaeology, but historically Berkshire had been in Wessex Archaeology’s ‘territory’. Wessex had been commissioned to undertake the initial evaluation, between April and July 1986 (Moore and Jennings, 1992: 1), but subsequently “Further excavation and recording of the archaeological deposits were made a condition of development.

The work went to tender and the Oxford Archaeological Unit was invited to begin excavations of Area 5 in 1987" (*ibid.*, 2).

This declaration marked the beginning of a change that was as important as PPG 16 (DoE, 1990b), the start of archaeology's engagement with the marketplace, with Berkshire again setting the scene for the transformation of archaeological practice that PPG 16 was to bring.

Case Study 6: Buckler's Hard

John Walker has informed the author (pers. comm. January 2009) that in the mid-1970s, the Beaulieu estate asked potential suppliers to provide prices for archaeological work at the historic naval yard of Buckler's Hard. The regional territorial system was still in place at that time; this exploration of alternative suppliers was completely novel. It is believed that the archaeological contractors of the day were so wary that no organisation submitted a tender.

This event is notable because the landowner - Lord Montague of Beaulieu - subsequently became the first Chair of English Heritage in 1984. It also shows that there was pre-*Local Government Act* 1988 interest from clients in the idea of competitive tendering, showing that the Act was not the only driver for this.

5.3.2.4 Territoriality

Archaeological fieldwork in the 1970s and 1980s was largely a matter of excavation and of territoriality (Grenville, 2006: 166)

This issue of 'territoriality' originated as many organisations were constituted (frequently within local authorities) to undertake work within a defined geographical area. From the late 1980s onwards, these were confronted by companies that were not restricted in their geographical area of operations.

By the end of the 1980s, the range of funding sources expanded as private developers became more important and "a number of units, particularly those still based within local government, saw potential conflicts with their existing area-based curatorial roles" (Hunter et al., 1993: 35), requiring the establishment of 'Chinese walls' to minimise these conflicts of interest. Greater funding diversity and contractors maintaining ongoing relationships with clients led to the development of wider geographical remits – and this was enhanced because the new organisations were not linked to local government. This meant that, in large part, the challenge to territoriality arose concurrently with the competitive tendering process as organisations

based in various areas began to compete on price and quality rather than having work allocated to them on the basis of their geographical location.

“The idea that any archaeological organisation should enjoy exclusive rights over a defined area was never really sustainable in the economic and political climate of the UK in the late 1980s” (Darvill, 1993: 173), and the English Heritage *Statement on Competitive Tendering for Archaeological Projects* (EH, 1990b) conceded that territoriality was no longer acceptable in law and that the profession could not expect it to continue.

However, the end of territoriality took some time to take root – one of the identified benefits and rationales of territoriality had been that where an archaeological unit had been “practising for a considerable time, accumulating a database and providing a community service, then it is the most appropriate body to undertake archaeological contracts in its own neighbourhood” (Darvill, 1993: 173), and McGill (1995: 128) was still able to write that “local units are often recommended, because of their in-depth local knowledge and proven track record”.

Territoriality does survive, residually, in the Areas of Archaeological Importance designated under the 1979 Act; the specified Investigating Authorities in the five designated Areas are notified by developers of projects that both require planning permission and that are to be undertaken under General Permitted Development Orders; elsewhere, activity under the GPDO will not need to initiate work for any other archaeological organisations. Vestiges of territoriality also survive, by proxy, through the maintenance by curators of ‘lists’ of contractors who have worked in the area curated (and thus are implicitly endorsed) (see 2.2.2 Local Government Mediation, above)

Some view competition as leading to a decline in standards. However, distance travelled does not equate to loss of competence (it can lead to increased costs, but does not affect quality). What the clients of archaeologists want is a professional service, and they may recognise that cheapest does not always equate to best value to the client (McGill, 1995: 62). On occasion, a client choosing to stay with a single provider has also been a response to variable standards or demands from different curators along the route of major infrastructure projects.

Typically, the complaints that were made on the basis of the territoriality argument did not come from clients, but came from archaeologists protesting about other archaeologists.

Darvill and Russell (2002: 59-61) examined distribution maps of archaeological contractors areas of activity and suggested that “there is still a strong element of territoriality in archaeological contracting”. However, by 2002, any perception of ‘territoriality’ was economically determined, rather than politically – this is the friction of distance, as it costs more to operate further from the centre, and so distribution maps of operating areas will inevitably continue to show operations clustering around an organisation’s base location(s).

5.3.3 Declining State Investment and the Rise of Private Sector Funding

Overall, the 1970s were a period of intensive state funding for archaeology, while the eighties were a period of declining state investment from budgets that were under pressure. The process of developer-funding began in earnest in the late 1980s, and the publication of PPG 16 in 1990 formalised this and so released the state from many of its previous obligations.

Specifically addressed here are the funds allocated by the state for archaeological fieldwork in the United Kingdom in the 1970s and 1980s, and the management of that fieldwork (such as by local government). Monies made available to the national museums, to universities or that disbursed through the British Academy, which does include fieldwork albeit at that time primarily in the Mediterranean and south-west Asia are deliberately not included.

Government funding, provided through the Department of the Environment, rapidly rose in the early 1970s from a base of £210,000 in 1970 (Jones, 1984: 50), and continued to rise in the second half of that decade to a figure well in excess of £1m by 1980. However, high inflation over this period reduced the real terms of these gains.

Beresford Dew (1977) prepared the first attempt to quantify the funding of archaeological practice in the UK, in which it was estimated that £2.6m was spent on rescue archaeology in 1976-7, with £1.8m - 70% - coming from the Department of the Environment. The private sector - defined as "Business / Commercial" - contributed £12,960, 0.5% of the total.

Relatively, state funding was to decline during the 1980s; while the headline figures did normally increase year-on-year, Lambrick (1991: 23) interpreted financial predictions published by English Heritage (Page, 1990) as representing a reduction in archaeological funding from the state, in real terms, of almost 50% over the period from 1986/7 to 1993/4. This was increasingly compensated for by the proportion of funding from private, non-state sources, which rose from 1% in 1978-9 (Dennis, 1979) to 48% in 1990-91 (Spoerry, 1992).

Spoerry (1992: 29-32) presents data summarising the changing totals and relative proportions of funding sources over this period (Table 13 below).

	total	central government / national heritage agencies	Manpower Services Commission (was Jobs Creation Programme)	local authorities	developers	other
1978-79	£5,700,000	£2,800,000	£1,238,000	£1,098,000	£58,000	£506,000
1986-87	£19,776,000	£6,450,000	£5,532,000	£3,368,000	£3,336,000	£1,090,000
1990-91	£31,090,000	£9,427,000	£0	£5,450,000	£15,570,000	£640,000

Table 13: Funding sources for applied archaeological practice, 1978-91. Spoerry (1992: 29-32)

Case Study 7: The Rose Theatre

Contractual provisions dealing with the discovery of interesting objects, new or old, during the course of the work are necessary for various reasons. One important reason is the removal or disturbance of such objects may actually destroy their worth (Murdoch and Hughes, 2000: 154)

The number of building operations which received planning permission in central London rose dramatically following an episode of financial deregulation of the City of London, known as the “big bang” (Biddle, 1994: 9). The Museum of London, which had undertaken 18 excavations in 1987, carried out 54 in 1988 with £7m of developer funding (Carver, 1993: 10).

The increasing pace of development of archaeologically sensitive areas meant that 1989 was “a particularly turbulent year” (Wainwright, 2000: 924). In London, the site of Roman baths at Huggin Hill, a Scheduled Ancient Monument first partly excavated in 1964 proved to be much better preserved than had been anticipated. This site had been released for development provided the developer funded prior excavation (to an agreed cost of £0.5m), but the excavation revealed Roman walls 3m high, leading to a £3m redesign to rebury those walls. The developers then “questioned the assumption that their responsibility included the conservation of invisible monuments under ground” (Carver, 1993: 10). A settlement was reached wherein the developer received planning permission to expand their development but not at the expense of the site, which was reburied (Bluer, 1991).

On the south bank of the Thames, the Rose Theatre had been a playhouse in Southwark for which William Shakespeare and Christopher Marlowe had both written plays. Constructed in 1587 and abandoned in the first decade of the seventeenth century, the location of the Rose had been predicted by Ove Arup (engineers) in 1971 from cartographic evidence (Biddle, 1989: 755), and their report had also indicated the archaeological potential and possible public sensitivity of the site. By the late 1980s, the site (between Southwark Bridge Road, Park Street and the rather suggestively named Rose Alley) was occupied by Southbridge House, built in 1957 without any archaeological investigation (Gurr, 1992), and was owned by Postel, the Post

Office retirement fund, “who had taken the precaution of securing political support at the highest level” (Biddle, 1994: 10).

Planning permission for the redevelopment of the site was granted in 1988 and work began late in that year, with the developers having agreed to what was considered to be a routine two month archaeological investigation - and very near the end of the investigation period, in January 1989, the remains of the Rose Theatre were identified (Carver, 1993: 10).

Because of the site’s association with Shakespeare, it rapidly attracted a high degree of media attention. The developers provided more time for the investigation, which English Heritage funded, but by the middle of 1989 it had become an extremely contentious issue, with actors keeping “an all-night vigil on the 12th May turning away the building contractors” (Carver, 1993: 10). Detailed, and occasionally conflicting, accounts of the decisions, events and outcomes of the summer of 1989 (Orton, 1989; Wainwright, 1989a; Biddle, 1989; Sheldon, 1990a) tell the story of negotiation and counter-negotiation over control of the site, responsibility for which passed from The Museum of London to English Heritage’s Central Excavation Unit in June 1989, who then completed the excavation.

The actual archaeology of the site is described in Bowsher and Blatherwick (1989) and Bowsher and Miller (2009), but the site’s significance goes far beyond its value as one of a very small corpus of late sixteenth century theatres or playhouses to have been archaeologically investigated in London (two others being the nearby Globe, and The Theatre in Shoreditch (Kennedy, 2008)), because its high profile coincided with rapidly changing political sentiment regarding archaeology.

This project (and the contemporary work at Huggin Hill) was extremely expensive, with the total costs of these two projects being “about twice English Heritage’s rescue excavation budget” (‘Gromaticus’, 1989). Ultimately, massive cost overruns at the Rose meant that the developer spent £11m on six months of excavation and a subsequent redesign of the construction project (to accommodate footings of the theatre being preserved *in situ* beneath the new building) (Davis et al., 2004).

At the time, there was not yet a mechanism to ensure that developers met the full costs of archaeological work, and in any case (at The Rose), planning permission had already been granted with an agreement to allow two months investigation prior to the full potential of the site being recognised. There was no legal route to rescind planning permission on the basis of unexpected discoveries that were made during development, although the development could have been stopped if the site had been Scheduled – but in that case the State would have been liable to compensate the owners, which would have potentially led to crippling cuts to English Heritage’s budget.

In terms of archaeology's place in the planning process, what The Rose Theatre made clear was that there was a clear need for information to be gathered early, before a decision is made whether, and with what conditions, planning permission is granted. The main recommendation contained within a *CBA / IFA Statement on the Rose* (1989) was that "archaeological assessment should take place BEFORE a planning application is determined"; Shelbourne (1989) (looking more specifically at Huggin Hill) suggested that more positive planning policy was needed and changes of attitude from local government, central government, developers and the public.

The site was an embarrassment to the government, whose agents – English Heritage – were not being presented positively in the media which suggested that they were attacking the Museum of London's attitudes to these sites, with reports that ministerial fears were expressed in the House of Commons that archaeologists could turn the whole City of London into a museum ('Gromaticus', 1989).

"So anxious were politicians to issue policy guidance on the matter, that in May 1989, Virginia Bottomley - then Heritage Minister - announced Government's intention to issue new guidance on archaeology and planning. The ground had been well-prepared and the timing could not have been better. A draft policy document had been prepared and its main provisions publicised by EH before it was discussed with the Department of the Environment [Wainwright, 1989b]. The announcement was made at a time when archaeological discoveries in York and London - culminating in the Rose Theatre - had highlighted awareness and interest in archaeology, and the need to ensure that archaeological remains were being considered early on in the planning process" (Wainwright, 2000: 925-6).

The document Wainwright refers to was the draft version of PPG 16 (DoE, 1990a) (see 6.1.1.1.4 Planning Policy Guidance note 16: Archaeology and Planning, below), and the absence of curatorial oversight for Greater London, identified by Gurr (1992) was remedied through the establishment of the Greater London Archaeological Advisory Service within English Heritage (removing curatorial powers from the Museum of London in the process).

PPG 16 then became the document which firmly established archaeology's place in the planning system and which was the key publication in the opening up and expansion of archaeological practice – and employment – in the UK from 1990 onwards.

6 Archaeological Employment 1990 – 2007

What hope can there be for a government that can only evaluate anything in terms of its potential financial yield? ('Gildas', 1988)

“Le decline et la chute de l’archéologie britannique” was an anonymous article published in France under the pseudonym of ‘Gildas’ late in 1988. This article was extremely critical of the centrally-led changes which British archaeology had embraced in the second half of the 1980s as the profession became more market led. It did not foresee PPG16 and the utterly transformational changes that were still to come.

This chapter of the appendix to the critical review examines archaeological employment over the final decade of the twentieth century and much of the first decade of the twenty-first, sandwiched by the publication of PPG 16 in November 1990, as the ‘event-horizon’ that symbolises the beginning of the expansion of commercial archaeology in the UK and the onset of the global financial crisis in the autumn of 2007, marking the end to a long period of growth within the sector.

The data gathered for the three reports that constitute the published works in this thesis have to be seen against the archaeopolitical changes that took place in England in 1990, which directly affected archaeological employment in that country and that then had an indirect effect on the rest of the UK.

All local authorities in England had archaeological advisors by 1989, and in 1990, English Heritage published *Developing frameworks: policies for our archaeological past 1979-99* (EH, 1990a), a review and consultative document, subsequently updated as *Exploring our past* (EH, 1991a). Sandwiched between these two documents was the publication of *PPG 16: Archaeology and Planning* (DoE, 1990b).

The introduction of the policy of preservation by record through PPG 16, together with the formalisation of post-excavation processes (see 5.3.2 Archaeology in the 1980s, above and 6.1.1.1.1 European Policies, below) was essential for archaeological practice to expand effectively in the 1990s.

PPG 16 was introduced during the recession of the early 1990s, which led to a reduction in the number of planning applications and so to the amount of associated archaeological work. But from 1992 – 2007, Britain entered a long period of economic expansion against a background of economic stability and reducing unemployment, founded upon mass mobilisation of the markets and a housing boom, with a considerable amount of public investment from 2000 onwards (Marr, 2007: 532-43).

Commercial archaeology expanded in an unplanned way during the housing boom, a process which led to local government archaeological services becoming progressively more pressured to accommodate the increased levels of work. The individuals who engaged with commercial archaeology were opportunistic, with very few individuals admitting that they were going in to it to make money, but many embraced it entrepreneurially nonetheless – in many cases learning the painful lesson of Gerber's (1995) *The E-Myth Revisited*, which is that good technicians do not necessarily make good business managers.

Archaeological entrepreneurs (including charities) learned that growth requires human capital, and this was easy to acquire, given the popularity of the discipline at university level and thus the number of graduates seeking entry-level positions. With greater capacity, larger projects could be taken on, and in an expanding market it was easy to grow. With many of the archaeological employers being not-for-profit organisations, the reinvestment of surpluses into the organisation to fund future activities – leading to growth – was an obligation upon these organisations, as they could neither draw profits nor retain excessive reserves. There was also a transformation of managerial attitudes to become more business-focussed, both within organisations and in terms of inter-organisational competition and cooperation, which was encouraged and reinforced through archaeology's links to the construction industry.

This long period of expansion ended in the summer of 2007, when the housing boom peaked and the amount of work available for archaeologists began to decline. This decline then violently accelerated in the autumn of 2008, as what had been called the credit crunch became a global economic crisis (see 8 Archaeological Employment 2008-2010, below).

Case Study 8: Number One Poultry

there were disappointments and frustrations too: the eventual decision to demolish Number One Poultry (Beaulieu, 2000: 353)

So wrote the first Chair of English Heritage, Lord Montague of Beaulieu. He regretted the demolition of the 1870s Mappin and Webb store which stood at that address, almost immediately adjacent to the Bank of England in the City of London; the store was replaced by a post-modern structure (Rowsome, 2000: 80). Following the demolition and before the replacement's construction an enormously significant excavation took place, chronologically at the transition from the pre-PPG 16 system to current practice.

Following a 1988 Planning Inquiry, ministerial permission for development was granted in 1989, thus predating PPG 16. The consent carried a very weak condition requiring only archaeological "observation and recording" (Rowsome, 1995: 371), whereby "The developer shall afford access at all reasonable times to any archaeologist nominated by the local planning

authority and shall allow him to observe the excavation and record items of interest and finds” (Rowsome, 2000: 10). This condition is very closely based upon s.38 of the *Ancient Monuments and Archaeological Areas Act 1979*, mirroring the powers of an investigating authority within a designated Area of Archaeological Importance under part II of that Act, which the City of London was not.

Because permission had been granted months before government guidance changed (following the publication of PPG 16), the State and its advisers in England, English Heritage, were placed in a difficult position. Ultimately, fieldwork was funded voluntarily by the developers (with the work was carried out within five years of the permission being granted, from 1993-96) but post-excavation and publication were funded by English Heritage (Rowsome, 2000: 2).

The project’s importance lies in its place in the history of professional archaeology, showing that forward-looking developers were prepared to work to the spirit of the new guidance before it was in place (as was also the case with Shell Chemicals and the Grangemouth – Stanlow Ethylene Pipeline - Case Study 9: North-Western Ethylene Pipeline, below). It is also significant as the last major fieldwork project to be undertaken on behalf of private developers yet part-funded by the state. By the mid-1990s, when the fieldwork was actually undertaken, developer funding was no longer a contested issue.

6.1 Demand

Policy and economic drivers create demand for archaeological services. Planning system requirements upon development have overwhelmingly shaped the demand for archaeological work in this period, with different types of development leading to differing demands upon the profession. Overall, construction and housing development in particular has been the most significant driver of demand for archaeological work.

Although by 1990 the property boom of the previous decade seemed to have ended, this proved to be only temporary and by 1992-93 demand for property investments had strengthened again (McGill, 1995: 234-5). That year marked the start of the UK’s property boom which lasted until house prices peaked in August 2007 (Aitchison, 2009b: 44), after which house prices began to fall with a consequent reduction in housebuilding, and so a reduction in demand for archaeological work.

Throughout this long boom a variety of providers, all of whom are the employers of archaeologists, met this demand for archaeological services.

6.1.1 Policy Drivers

The demand for archaeological services and their regulation are set by policies intended to both protect archaeological remains and to facilitate development where it is needed. These are normally local government policies, which in the UK always have to fit within overall national frameworks – which, in turn, will have to implement policy decisions made at a European level.

In terms of the philosophy of policies, as Cooper (2010: 147) recognises, these have to be considered as both developing within particular models of society and taking their shape from the philosophy of governance that was dominant at that time. Accordingly, the earliest policies impacting on archaeological practice were about the preservation or conservation of something valuable to admire (e.g. *Ancient Monuments Act 1881*) whereas subsequently (in spirit since the *Town and Country Planning Act 1947* and specifically since the implementation of the EC *Environmental Impact Assessment directive* (EEC, 1985), the recognition that archaeological remains are an irreplaceable environmental resource has become key. This has led to a shift from preservation for the purposes of sentimental pilgrimage to prioritising sustainable development.

Davis *et al* (2004: 66) recognise four groups of legislation and guidance issued by Parliament that relate to archaeological sites, monuments and landscapes, of which the second is by far the most important in terms of its effects on archaeological employment.

1. Protection of ancient monuments
2. Town and country planning
3. Countryside legislation
4. Operation process of energy and utility processes

While not establishing an inflexible top-down system, the existence of such legislation shows that a framework has been democratically established which demonstrates the public value of (and demand for) archaeologists' work.

6.1.1.1 Sustainable Development

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs (UN, 1987)

The Brundtland Commission (UN, 1987) established international consciousness regarding the sustainability of the global environment. These ideas subsequently cascaded into United Kingdom government policy (DoE, 1989; DoE, 1990c), which then evolved via the 'Earth Summit' in Rio in 1992, particularly Agenda 21 (UN, 1992), and the subsequent implementation of actions on climate change through the Kyoto Protocol (UN, 1997). In their application, these

policies created the potential for linkages between environmental specialisms through working for sustainable change, locally and globally (Baker, 1999: 6).

Sustainability is now embedded in policy at local, national and global level, meaning that economic progress has to be maintained without diminishing the quality of the environment, which would represent an economic cost in itself (CABE, 2003).

Harman (2009: 25) wrote that environmental economics "...has largely concerned itself with determining what value to place upon natural assets when we are considering the case or the costs for their protection: you can look for the right way of according something its economic value and then decide if it can be traded for some other good, or you can treat it as essentially of infinite value and protect it literally at all costs". This leads to "... one of the most obvious features of environmental economics; the limited tradeability of ecological assets" (*ibid.*).

Economically, the environment is a finite (scarce) resource, with both renewable and non-renewable elements. Archaeology falls into the latter category, it is a finite and non-renewable resource; once it is gone, it is gone for ever – but this does not mean that it is literally invaluable, allowing notions of economic value and techniques for quantifying environmental assets to be borrowed for application in archaeology (Carman, Carnegie and Wolnizer, 1999: 145).

McGimsey (1972: 24) was the writer to first explicitly articulate the principle that archaeological remains are not only fragile, but also a finite environmental resource. Lipe (1974) further elaborated the idea that this resource is not developed, but consumed: "Archaeological research on any particular segment of the past is based on a non-renewable resource, and one that is being very rapidly eroded. If archaeological field-work is to continue very much into the future, we must slow down the attrition of the resource base and see that from now on it is expended very frugally." This argument was made before the sphere of 'archaeology' was hyper-extended to the immediate, contemporary past with the consequent growth of the overall archaeological resource that this has entailed – but it still remains completely valid with regard to each component of the resource, whether that is by material type, period or location.

If development pressures will damage or destroy archaeological remains, their physical preservation necessitates the redesign of the development. The principle of sustainable development means that, if the economic (and/or social) value of the development outweighs the environmental advantage of *in situ* preservation, those features or remains can only be preserved in the abstract - by record. Archaeological material has no inherent intellectual (or economic) value; it is only through the process of interpretation that material is transformed into information and then value is placed upon that information, which can be economic or aesthetic value. Sustainable development – for archaeology – does not mean replacing and

renewing the material – it means interrogating it, adding value to it, and preserving that in the form of interpreted value-rich records.

In terms of current archaeological practice and protection, the ‘polluter pays’ principle has been extended so much that, through developer-funding, impact is mitigated as the resource is transformed into an off-site record. This funding allows archaeologists to work in the interests of the archaeological resource (and consequently the greater public) by helping the developer to minimise their actions’ impact upon the resource.

Martin Biddle said (at the very event that launched PPG 16), “There has been very little written on the reasons for doing archaeology, on its rationale, except in terms of the search for knowledge” (Biddle, 1990: 26). And, in England at least from that very day onwards, archaeological practice embraced the concepts of sustainable development, funded through the polluter pays principle, and delivered through the mechanism of preservation by record. And, while much has been written about the consequences in terms of the professionalisation of archaeological practices and the need to render them robust in the eyes of a new range of professions with which applied archaeologists now come into recurrent contact, relatively little has been done to produce a critical examination of the consequences for archaeological employment. This is the central focus of this thesis.

6.1.1.1.1 European Policies

In general, the European Union takes a much less direct role in legislating for cultural heritage compared to natural heritage, “a reality related to the complex relationship of identity, memory and history in different European countries” (Cooney, 2009: 626). For example, in both the United Kingdom and the Republic of Ireland, systems of private-sector delivery funded directly by the developers can be contrasted with the French model of a quasi-autonomous stage agency (INRAP) delivering all archaeological evaluation services funded indirectly by taxation upon all developers. INRAP also undertakes the majority of mitigation work in France.

However, two key European Union policy documents establish the relationship between sustainable development and the work of archaeologists (and other cultural heritage professionals in Europe). Foremost is *The Treaty on European Union* itself (as updated) (European Union, 2010) which includes principles relating to the historic environment (article 167).

The earlier key document is *Council Directive 85/337/EEC* (EEC, 1985), which established the requirement for the environmental impact of development to be assessed, and subsequent mitigation where required – the very essence of the polluter pays principle. All member states of the Union are obliged to incorporate EU Directives into national law, and it was following this

Directive that all member states have made arrangements for the assessment of the impact of development on environmental resources, including archaeological remains. The actual ways in which this Directive is implemented vary from state to state (and even geographically within decentralized member states). In the UK this was initially brought into law in 1988 through a series of Statutory Instruments known as the *Environmental Assessment Regulations* (DoE, 1988; Scottish Office, 1988; Northern Ireland Office, 1989) and is the basis upon which environmental assessments are required in the UK (see 6.1.1.1.2, below), and then the principles were further reinforced through the spatial planning system, and regarding archaeological remains specifically through governmental planning policy guidance, firstly in England via *Planning Policy Guidance note 16* (DoE, 1990b).

Council of Europe (CoE) policy, specifically the Valletta Convention (CoE, 1992) has more visible, popular significance in European archaeology than that of the European Union as it emphasises the need for quality control (and its production incorporated some of the philosophy of PPG 16 and related documents which were produced simultaneously), but in terms of its impact upon archaeological employment over the period from 1992 to 2010 it has had much less effect than the Environmental Assessment regulations, which opened up and developed a whole new, significant area of archaeological work.

In terms of archaeological employment, European legislation is important because it stimulates all the need for archaeological work through the planning and environmental assessment processes, it regulates the quality of work (through Valletta) and it directly affects employment practices and opportunities for transnational mobility (see 8, below).

6.1.1.1.2 Environmental Assessment

Whereas planning relates primarily to the development and changing use of land, Environmental Assessment is primarily concerned with the environment and how it might be affected by human activity (McGill, 1995: 171). Environmental Assessment (often called Environmental Impact Assessment outside the UK) is a procedure that must be followed for certain types of development before they can be granted consent by state or local authorities, which involves ensuring that the environmental effects of a project are fully taken into account in the decision-making process. This is carried out through mechanisms similar to the planning process, but going significantly further than is required for planning purposes (*ibid.*: 170).

A number of types of project are exempt from planning permission but can be required to undergo EA: motorways and trunk roads (over 10km in length), afforestation, land drainage proposals, ports and harbours, marine salmon fishing, oil and gas installations and pipelines

more than 10km in length. These are often projects that span more than one local planning authority and can be of national, strategic importance. All nuclear power stations and non-nuclear generating stations with an output of 300MW or more require the authorization of the Secretary of State for Trade and Industry (McGill, 1995: 179). EA regulations initially did not apply to projects approved by private Acts of Parliament, but this was amended so that projects such as the Channel Tunnel Rail Link (Case Study 12: Channel Tunnel and Channel Tunnel Rail Link, below) effectively do (*ibid.*, 179-180).

Most marine developments are so large that the consent schemes require Environmental Assessment, including assessment of cultural heritage (Firth, 2006: 93), and the Highways Agency *Design Manual for Roads and Bridges* (Highways Agency, 2010) adopted the same principles in its first edition (DoT, 1992) that underlay PPG16 (and in subsequent editions, PPG15 (DoE and DNH, 1994) and the relevant planning guidance outside England) and sets out the requirements for Environmental Assessment of trunk road schemes.

The requirement for Environmental Assessment comes from European Directive EC 85/337 (EEC, 1985, as amended by EC, 1997), initially brought into law through the *Environmental Assessment Regulations* (DoE, 1988; Scottish Office, 1988; Northern Ireland Office, 1989). The existence of the EA procedure clearly influenced the thinking behind PPG16 (DoE, 1990b) (6.1.1.1.4, below), setting out a process of assessment, evaluation and mitigation.

Globally and historically, the first legislation formalising a role for EIA was the United States' *National Environment Policy Act* 1969 (see 5.3.1.3 The Rise of Cultural Resource Management in the United States, above) (Ralston and Thomas, 1993: 1). Many European Union countries operated EA procedures in advance of *EC 85/337*, such as France where these procedures had become compulsory in 1978 (*ibid.*).

Under the Environmental Assessment regulations, developers are required to compile an Environmental Statement (ES) describing the likely environmental effects of the development, assessing their significance and proposing mitigation measures, which allows the ES to be predictive and to form an agenda for future actions (Ralston and Thomas, 1993: 4).

The required contents of an ES are defined under the *Checklist of matters to be considered for inclusion in an environmental statement* (DCLG, 2000), which should "...include any information relating to any significant effects on material assets and the cultural heritage, such as archaeological features and other human artefacts, and the measures envisaged to avoid, reduce or remedy adverse effects" (Barber et al., 2008: 58).

Generally, this chapter of an Environmental Statement should provide a high level of detail on designated heritage assets (such as Scheduled Ancient Monuments and listed buildings), other archaeological sites, the potential for disturbance of previously unknown remains, historic

gardens and designed landscapes, conservation areas and their settings, and crucially the assessment work “... should be undertaken by a qualified archaeologist” (Barber et al., 2008: 58)

This last point means that the introduction of the Environmental Assessment regulations had a significant effect on archaeological employment. An Environmental Statement is comprised of many chapters requiring professional expertise in different disciplines, and very few predominantly archaeologically-focussed organisations can claim to have the appropriate expertise to take on the full scope of writing a complete Environmental Statement (Hunter et al., 2006: 46). Environmental consultants, who may have archaeologists on their team, will normally coordinate this work or the work of preparing the cultural heritage chapter will be subcontracted to archaeological consultants or contractors acting in an advisory way. It has been a growth area in terms of the employment of senior, more experienced archaeologists who receive some of the highest levels of financial reward in the sector, in contrast with the growth in fieldwork employment which created many more opportunities for relatively junior members of the profession.

Case Study 9: North-Western Ethylene Pipeline

The North-Western Ethylene Pipeline was the first major infrastructure project with a significant archaeological component to be completed following the introduction of the *Environmental Assessment Regulations* (see 6.1.1.1.2 Environmental Assessment, above) in 1988.

This project involved the installation of a 411km pipeline linking petrochemical works in Grangemouth (central Scotland) and Stanlow in Cheshire. The archaeological work was initially commissioned in 1988, with desk-based assessments prepared in 1988-9, field work carried out in 1990-91 (the pipeline was constructed between May and November 1991), post-excavation processing undertaken in 1992 and the written synthesis produced in 1993-4. In Scotland this was carried out on a site-by-site basis (*eg* Dunwell and Ralston, 1995).

The initial desk-based assessment was, for the first time, part of an overall Environmental Assessment, with the Environmental Statement being published in September 1989. With the route crossing the Scottish-English border, the project was also subject to differing planning legislation in each country.

The project was also significant for the involvement of several participating organisations – led by CFA at the University of Edinburgh, who took responsibility for the pipeline route in Scotland, and Lancaster University Archaeological Unit, who worked on the 253km of the route in England. Geophysical Surveys of Bradford were also actively involved. This was not a joint venture – all of these companies were directly commissioned by Shell Chemicals to undertake specific activities, but it was also one of the first instances of consultancy involvement in

archaeology, through the involvement of Alan Ryder, who was the head of environmental affairs on Shell Chemicals UK's NWEF project team (Lambert et al., 1996: viii) and who established the environmental consultancy RSK during the course of the project.

The project necessitated a great deal of archaeological work, with an average of approximately two sites being assessed for every kilometre of the pipeline's linear route. For the English part of the project alone, over 60 field staff are credited in the final publication (Lambert et al., 1996: viii).

Initial non-intrusive assessment was undertaken across a 2km wide corridor, which narrowed to 400m in width for the area of survey and trial excavation. This was then followed by additional fieldwork in previously inaccessible areas with excavation immediately prior to pipeline construction when no alternative mitigation was possible. While the route was amended during the planning process to avoid significant archaeological sites, at least five major excavations took place (Dunwell and Ralston, 1995; Lambert et al., 1996), including the points where the pipeline crossed both the Antonine Wall and Hadrian's Wall. During the construction and installation of the pipeline, a full watching brief was maintained across a 20m wide easement along the full route length.

6.1.1.1.3 Spatial Planning

In 2007, "93% of all archaeological reporting [in England] stemmed from projects initiated through the spatial planning system" (Aitchison, 2009e: 661). The spatial planning system is utterly central to the demand for archaeological work, and without this (and quite specifically from the changes that followed the publication of the first planning policy guidance document on archaeology in 1990) the sector would not have developed and grown in the way that it has.

Through the spatial planning process, the state regulates 'development' in the public interest. The legal instruments are the *Town and Country Planning Act 1990* and the *Planning etc. (Scotland) Act 2006*, and the process is mediated through local government. Delivering sustainable development is the fundamental, statutory aim of the spatial planning system – underpinned in England by *Planning Policy Statement 1: Delivering Sustainable Development* (ODPM, 2005), the governmental guidance which shapes all other English planning policies and in Scotland by *Scottish Planning Policy* (Scottish Government, 2010b).

The Acts require local planning authorities to maintain planning strategies for development in their area, which are the benchmarks against which planning applications have to be measured. These local development plans or frameworks are written locally, but must always take on board central government policies. Decisions have to be in accordance with the published

development plan unless other material considerations dictate otherwise (s38, *Planning and Compulsory Purchase Act 2004*).

In terms of decisions relating to archaeology, the role of the development control function of the planning authority in curating archaeological resources has been formalised in policy guidance to local authorities (Hunter et al., 2006: 46). This planning policy guidance was first issued in the 1990s as PPG 16 in England (DoE, 1990b), NPPG 5 (SOEnD, 1994a) for Scotland, PPG Wales (Welsh Office, 1996a) and PPS 6 (DoE [NI], 1999) in Northern Ireland – and these documents made the treatment of archaeological remains a material consideration in the planning process, thus requiring local planning authorities to have plans that related to archaeology and that followed the guidance set out at the national level.

The delivery of these plans is carried out within the local planning authorities, with decisions ultimately resting with the elected councillors. The planners in every local planning authority in the UK receives advice on the historic environment from in-house or outsourced specialists, the curators (see 6.2.2 Employment in Historic Environment Advice Provision, below). These individuals have the crucial role of judging whether a development proposal will have an impact on the historic environment and what the response – in terms of archaeological work, and thus employment – should be.

Typically, in British developer-funded archaeology, the archaeological advisor to a planning authority will respond to a development proposal by setting an outline brief for the work that is required to assess or mitigate archaeological damage. The developer (or their archaeologist) then prepares a detailed project design for the planning authority's approval or rejection. If that project design is approved, the developer commissions the archaeological work and subsequently is able to submit the report generated by that work. The planning authority then accepts – or rejects - the report. Once the report is accepted and the project archive deposited, or a binding agreement secured that this will happen, the 'planning condition' is discharged, releasing the developer from their commitment and allowing their archaeologist to complete the project (Hinton and Jennings, 2007: 102).

In terms of archaeological inputs, this process can be separated into pre- and post-determination work. Pre-determination work, such as archaeological assessment or evaluation, is required to enable the local planning authority to make its decision. Post-determination work is required following the approval of the application and the requirements for this are set under a condition or agreement.

Pre-determination, if the local planning authority decides that a development proposal has potential archaeological impact, the developers will normally be asked to provide a written assessment of the likely impact of development upon archaeological remains, which might potentially have to be supplemented by a field evaluation to determine the importance, nature

and extent of remains. Alternatively, this may be offered by the developer on the advice of their retained archaeological consultants.

Planning permission can be granted subject to conditions, which is the mechanism by which archaeological work post-determination is secured. These are normally negative conditions, which will include terms specifying that development cannot take place 'until a programme of archaeological work is secured', or similar. Alternatively, necessary work can be secured through a section 106 agreement (named after the relevant section of the *Town and Country Planning Act 1990*).

6.1.1.1.4 Planning Policy Guidance note 16: Archaeology and Planning

Nowhere did the publication of PPG-16 and its consequences have such a great effect as on the archaeology profession itself. There was nothing less than a fundamental re-shaping of the structure of the profession, not just in Britain but in the rest of Europe (Wainwright, 2000: 929)

The Walsh *Committee of Enquiry into the Arrangements for the Protection of Field Monuments by County Planning Authorities* decided against recommending that the cost of rescue excavations should be made a charge on developers (Walsh, 1969), as this work was seen as having public benefit – and therefore public funds should pay for it – and because that might become an 'incentive to concealment' that could lead to archaeological remains being deliberately destroyed in order to avoid these costs. Two decades would pass before a system was in place that ensured that the developer, as 'polluter', would pay for archaeological investigation.

The critical document that would achieve this was Planning Policy Guidance note 16 (DoE, 1990b). It combined two critical aspects of that change, as the introduction of the polluter-pays approach to cultural heritage matters was coupled with the polluter being granted freedom to choose who to pay.

The consultation draft of what would become PPG 16 was published in February 1990 (DoE, 1990a). It was immediately recognised by the archaeological profession as being hugely important, "... one glimmer of hope in the fight to reduce uncertainty about archaeological matters is the draft Planning and Policy Guidance note" (Darvill, 1990). This document's significance lay in its acceptance that responsibilities for undesignated sites affected by development lay with local authorities and thus the planning process (Sheldon, 1990b).

The draft document introduced the concept of evaluation to provide information in support of a planning application, and radically, when looking at excavations necessitated by development considered "it reasonable for developers to contribute to their cost" (DoE, 1990b: para. 24). The key word there was 'contribute' – developers were not yet expected to meet the full costs

involved, and so unspecified alternative sources – such as the state – would still have to be accessed. It offered weak advice on what would happen during development in the event of unexpected, post-determination discoveries (para. 30).

The most significant changes then made between the draft and final, adopted, versions relate to the requirement on the developer to provide pre-determination information, generated through assessment and/or evaluation – critical in terms of the amount of archaeological work that this would generate - and careful rewording regarding funding. No longer were developers expected to ‘contribute’: the final document simply stipulates the requirement for archaeological work to be done, and makes it clear that it is the applicant for planning permission’s responsibility to obtain this information – leaving the developers to pay to get this information from somewhere, and archaeological organisations (of whatever organisational cast) to realise that this was an opportunity, now underpinned by Government advice, to provide services to clients.

Some did not immediately appreciate the value of the final text to either environmental protection or to archaeological employment – the CBA considered it “... by no means a perfect document so far as strict archaeological requirements are concerned: there is a lack of statutory bite to it ... but it is without doubt the best that can be hoped for in the present political and economic climate” (CBA, 1991a: 2). However, PPG 16 had a very rapid and extraordinary impact upon the operation of archaeology in England.

Firstly, in local authorities, it gave new impetus to the scope of as well as the need for archaeological advice to planning services and for proper record-keeping (Clark, 2001). More significantly, it stimulated the growth of a large private sector in archaeology, comprising archaeological units or individuals able to provide advice and other services to developers (Aitchison, 2001), meaning that “Almost, but not quite, overnight, archaeology became a competitive, commercial enterprise” (Start, 1999: 52).

The process of the document’s development can be summarised as an accumulation of experiences, particularly within local authorities but also within English Heritage as the state agency. This was contextualised against a backdrop of changing public and political awareness of the value of the environment including archaeology, finally prompted by a series of very high profile cases which were opportunistically seized upon to allow the introduction of an expedient and ultimately very successful measure which secured the treatment of archaeological remains within the planning system (Aitchison, forthcoming).

In the mid-1980s, some local authorities (particularly those with county archaeologists in planning authorities [Fairclough, 1990: 1]) recognised how the threat to the archaeological record from development could best be accommodated through the planning process. Key amongst these was Berkshire, and the site of Anslow’s Cottages at Burghfield (see Case Study 4: Anslow’s Cottages, Burghfield, above) in particular, where the local authority realised that it had

to establish that developers must be responsible for archaeological investigations that their work necessitates – and thus for the cost of those investigations.

English Heritage – and particularly Paul Gosling, the then Inspector of Ancient Monuments responsible for pump-priming local authority posts – were keen to explore these ideas. Two other Inspectors, Mike Parker-Pearson and Graham Fairclough, produced a first outline document in 1987 (Aitchison, forthcoming). This document was further developed but not released by English Heritage until the Rose Theatre (Case Study 7: The Rose Theatre, above) provoked so much political embarrassment to the Government in 1989 that there were Ministerial demands for EH to act (*ibid.*).

The Rose Theatre confirmed the need for archaeological investigation before planning permission was granted. At both the Rose and Anslow's Cottages, planning permission had been granted before archaeology had been fully taken into account – and this was the overwhelmingly important issue. If archaeology could be identified as a matter to be considered in the planning procedure, then its treatment would be secured through the weight of the Planning Acts.

The first major change that PPG 16 introduces is conceptual – it is a statement by the Government that formally recognises archaeology as an environmental asset - “Archaeological remains should be seen as a finite and non-renewable resource” (DoE, 1990b: para. 6).

It leads to “acceptance of the need for proposal-specific impact assessment and archaeological field evaluation” (Fairclough, 1990: 2), and most importantly, in terms of process, “... it recognises the overriding needs for planning decisions to be based on adequate information (from either existing knowledge or specially commissioned field evaluation)” (*ibid.*). This becomes a requirement upon applicants for planning permission to provide information relating to the potential impact of their development upon the resource before a planning decision is determined (DoE, 1990b: para. 20-23), and then it provides the mechanism to put in place conditions upon planning permissions when granted and agreements under Section 106 of the *Town and Country Planning Act 1990* that will require archaeological work post-determination (paras 26, 28 & 30) (although Fairclough [1990] did not identify conditional, post-decision mitigation work as being a main strand or consequence of the document).

All of this is founded upon the understanding that the resource can be preserved by record (DoE, 1990b: para. 13, 24-5) and that it is the developer's responsibility - not the local planning authority's – to generate and provide that record.

By effectively forcing developers to pay for archaeological services, PPG 16's greatest effect was to normalise developer funding for archaeology. The document carefully specifies that planning authorities “should not include policies in their development plans which would require

developers to finance archaeological works in return for the grant of planning permission” (DoE, 1990b: para. 25) – it is not the paying for the archaeological work that leads to the planning decision, but the outcomes of that work. Crucially, planning agreements can cover all aspects of mitigation strategy including funding – but PPG 16 made this unnecessary, as the sums of money involved are not a planning consideration (McGill [1995: 126], quoting a Southampton City Council development control officer).

Before PPG 16, archaeological input only occurred after decisions had been made, and potentially led to delay and costs (normally to Government). Subsequently, PPG 16 placed the decision-making over the heritage in the planning process, making those who wanted to develop sites containing archaeology responsible for their own actions with the effect of requiring considerably more archaeological work and a greater level of employment within the sector.

It also heralded the standardisation of processes across England, leading to the publication of the Association of County Archaeological Officers’ set of model briefs for archaeological work (ACAO, 1993).

While PPG 16 did stop central and local government from having to pay for archaeological work when they were not the ‘polluter’, it immediately increases the workload of archaeologists advising local planning authorities. Although the total number of planning applications fell by 20% in 1990-91, County Archaeologist workloads rose by 25-50% (Lane and Vaughan, 1992: 18).

Some archaeologists reacted negatively - Martin Biddle considered that disastrous things occurred in the early years of PPG 16 and thought there was opposition to it: “It is hard now to believe that any government minister would have approved the issue of PPG 16 had she or he realised its impact both on development and on intellectual freedom” (Biddle, 1994: preface), and “it is only the recession which has so far allowed PPG 16 to go unchallenged” (*ibid.*, 8), although these views were strongly disputed by Geoff Wainwright, the Chief Inspector of Ancient Monuments at English Heritage (Denison, 1994b).

As noted above, the operation of PPG 16 was reviewed one year after its launch (Lane and Vaughan, 1992) and was then reviewed again after four years (Tym, R. & Partners & Pagoda Associates, 1995). The first review showed that by the end of 1991, the archaeological significance of virtually all planning applications in England were being properly considered. The second review confirmed that this guidance had become embedded as routine practice.

6.1.2 Process

While policy establishes demand, process explores the realities of what events or activities initiate archaeological work (and thus require the employment of archaeologists). The organisations that employ archaeologists to do this work are considered under 6.2 Provision, below.

“As clients for archaeology, the private sector is driven by the need to meet obligations placed upon it in the public interest” (Hinchcliffe, 1999: 26) – and archaeologists then provide the services that allow their clients to meet those obligations. Through the polluter-pays process, the archaeologists are rewarded for working in the interests of the archaeological resource (and thus the public) by helping their client to minimise the impact of their actions upon the historic environment (Aitchison, 2007).

Some of the most significant causes of damage to archaeological remains are simultaneously major contributors to the social and economic well-being of people and communities (Darvill and Fulton, 1998: 128). These potentially damaging causes include development; development is not the only initiating cause of archaeological work – but, using the proxy indicator of reports produced, over 92% of archaeological projects undertaken in England in 2007 were initiated by development proposals via the planning process (Aitchison, 2009a).

Examining two different datasets from the 1990s allows a limited comparison of threat (as recorded by Darvill and Fulton 1998:118) and response (as recorded by McGill 1995:36, using figures from Wessex Archaeology on the initiating causes of work in 1992-3).

	threat	response	
Development and urbanisation	22.5%	40%	Development
Demolition	15.1%		
Industry	3.0%		
Building alteration	1.7%		
Road-building	7.3%	15%	Roads
		16%	Services
Mineral extraction	7.1%	6%	Mineral extraction
		6%	Golf courses
Agriculture	8.5%	17%	Other
Natural processes	3.0%		
Forestry	0.4%		
Military damage	0.2%		
Visitor erosion	0.1%		
Vandalism	0.1%		
Unknown	30.5%		
	100%	100%	

Table 14: Factors threatening archaeological resources and initiating responses. (McGill, 1995: 36, table 2.2 - *Sample of development threats to archaeology in 1992-93*, and Darvill and Fulton, 1998: 118, table 6.8 - *Identified threats causing wholesale loss of MARS monuments since 1940*)

This demonstrates that (in the mid-1990s) the most acute threats to the archaeological resource – development, road-building and minerals extraction – are those that led to the bulk of the archaeological response; although it also identifies that there is not a universal direct correlation – Wessex Archaeology were undertaking a substantial amount of work on golf course development in the early 1990s, which may reflect the economic and planning policy conditions at the time in the core area of their work (southern central England).

This part of the thesis text, concerning process, discusses various development activities – recognised as threats to the archaeological resource – and equates these with archaeological work undertaken and thus for archaeological employment. This is not always a direct relationship, but it is often the best proxy indicator available.

below (6.1.3 Non-planning-led Demand), archaeological work unrelated to development and initiated outside the planning process will also be discussed.

6.1.2.1 Housebuilding

Housebuilding is the single largest component of the building industry. It is also the most-market sensitive, with the majority of new housing stock being built by private developers for private sale. In every year between 1990 and 2009, the spend on housing represented between 65% and 74% of the total amount spent on new build construction in the UK (National Statistics, 2010a). With this being entirely under the town and country planning framework, all housing development has potential for archaeological impact, and thus for the generation of archaeological work.

Urban expansion and development necessarily involves the process of construction and in particular the groundworks associated with it. The MARS survey considered that property development and urban expansion accounted for 27% of observed cases of wholesale archaeological site destruction and 9% of piecemeal loss (Darvill and Fulton, 1998: 237).

Historically, house building increased steadily after the Second World War. Completions peaked in 1968 when 353,000 dwellings were completed, with smaller subsequent peaks in 1976 and 1988 (DCLG, 2009a: 11). In the first decade of the twenty-first century, the Government planned to increase the numbers of houses built across England by creating a number of designated Growth Areas, Growth Points and eco-towns, while nine housing market renewal areas (or 'Pathfinders') in northern and midland parts of England were to address "problems of low demand and abandonment" (EH, n.d. a).

Since archaeology's introduction to the planning system, formalised in PPG16, there has been a direct link between levels of housing construction and archaeological work (and numbers

employed), both being high between 1992 and 2007, but manifesting a concomitant reduction in the amount of archaeological work undertaken as housing construction has reduced in 2008-10, and as it also did in 1990-91 (see Case Study 17: Museum of London Archaeology below). Archaeological work has been identified as being a ‘canary’ business, with this work falling off early in the cycle as developers stop acquiring land that needs to be prepared in advance of development, before housing starts already under way are finished (Fluendy and Atkinson, 2008).

This can be seen through comparing house prices and the numbers of new housing builds started in every year since 1990 with the figures presented for archaeological employment (in Table 15 below). This confirms that the growth in archaeological employment, with a steady rise from 1992 to 2008 and then a drop matches more closely to the graph of house prices than it does to that of the number of dwellings started (the actual generator of archaeological work) – but this may just represent the lag in the process, as drops in house prices follow drops in new build starts, rather than completions.

	Av. house price	No. house starts	Archaeologists in employment
1990	£ 59,758	11350	
1991	£ 62,455	11088	2200
1992	£ 61,336	10905	
1993	£ 62,333	12838	
1994	£ 64,787	13715	
1995	£ 65,644	11377	
1996	£ 70,626	11855	2100
1997	£ 76,103	12724	
1998	£ 81,774	11536	4425
1999	£ 92,521	10666	
2000	£ 101,550	10332	
2001	£ 112,835	10569	
2002	£ 128,625	11689	5712
2003	£ 155,627	12422	
2004	£ 180,248	14459	
2005	£ 190,760	15122	
2006	£ 204,813	15321	
2007	£ 223,405	14648	6865
2008	£ 227,765	9053	6722
2009	£ 200,307	7356	6226

Table 15: Archaeological employment, average house prices (UK), and permanent dwellings started (England), 1990-2000. (DCLG, 2010c; National Statistics, 2010b)

6.1.2.1.1 Urban Regeneration – Brownfield

within the planning process, there is now a clear presumption in favour of the reuse of previously developed land (ie brownfield sites), as opposed to allowing the development to occur on agricultural land (ie greenfield sites) (Davis et al., 2004: 15)

The Westminster government's current definition of 'previously-developed land (often referred to as brownfield land)' used in Annex B of PPS 3 (*Planning Policy Statement 3: Housing*, first published in November 2006 and updated in June 2010 (DCLG, 2010e)) is:

that which is or was occupied by a permanent structure, including the curtilage of the developed land and any associated fixed surface infrastructure.

This definition of 'previously-developed land', also guarantees that a particular site has potential archaeological importance, as (even discounting possible earlier survivals) the physical remains of the previous development are the archaeology of that site.

PPS 3 established the commitment to maximise re-use of previously-developed land. Unlike its predecessor, PPG 3 (DETR, 2000), which set a national target for 60% of new housing to be on previously-developed land (or provided through conversion of extant buildings), PPS3 (para 42) established that "At the regional level, Regional Spatial Strategies should set a target for the proportion of housing development that will be on previously-developed land over the plan period". The policy of following Regional Spatial Strategies was suspended shortly after the election of the Westminster coalition government in May 2010, pending the introduction of a *Devolution and Localism Bill* (regen.net, 2010).

Previously, under the pre-1997 Conservative UK government, the target had also been for 60% of new housing to be built on previously developed land in order to protect greenfield sites and green belts (DoE, 1996). Post-1997, the reasoning behind prioritising development on brownfield sites changed – it was then to lead to the regeneration of towns and cities – but the 60% target remained constant (DETR, 2000).

The delivery of this continuing focus on brownfield land, established under PPG3 and then PPS3, meant that local planning authorities had to prioritise development on brownfield land in their plans and had to take stronger action to bring more brownfield land back into use. By 2006, the 60% target was being exceeded, with 72% of housebuilding being on previously developed land reported in January 2006 (ODPM, 2006).

The archaeological investigation of brownfield sites has necessarily concentrated on the early modern growth of towns and cities and the industrial transition. Historically, industrial archaeology involved limited professional archaeological employment until the 1990s – it had been a volunteer pastime since the 1950s and 60s (Symonds, 2005: 59), and the recording of

industrial archaeology in towns was piecemeal before the 1980s. It was often dealt with as architectural recording rather than rescue archaeology (*ibid.*).

Once work became underpinned by the philosophies of re-use and conservation-led regeneration, it was recognised that urban deposits offered opportunities to study the material conditions and working practices of the industrial past (Symonds, 2005; Aitchison, 2009d).

These investigations represented a substantial amount of largely opportunistic work in urban cores, often on small scale (single plot) sites during the 1990s and particularly during the first decade of the twenty-first century – until the beginning of the economic crisis of 2008, when it was developers' "site investigation budgets (including archaeology) on smaller scale projects – such as housing on brownfield infill – that have been cut most heavily" (Aitchison, 2009d). This meant that relatively small archaeological contractors that concentrated on brownfield, regeneration-led archaeology were hit hardest by these changes, with ARCUS, UMAU and Ironbridge Archaeology all either stopping renewing staff contracts or ceasing to trade altogether in 2009 – a demonstrable correlation between an applied specialism and the consequences of that particular sector suffering the effects of the economic changes post-2008 (see 9.1 Effects of the Economic Deterioration on Archaeological Contractors and Case Study 22: ARCUS, below).

6.1.2.2 Infrastructure

Archaeological work is also necessitated by development of transport networks (particularly roadbuilding), energy provision and telecommunications.

From 1991-2007, spending on infrastructure developments represented between 14% and 22% of all new construction spending in the UK, in the order of between £7bn and £9bn annually (National Statistics, 2010a).

Frequently, development by utility companies such as roads, railways, pipelines and cable-laying fall outside the direct remit of local government planning control (ALGAO, 2004), although in terms of environmental impact and the requirement for archaeological work they are normally treated in very similar ways.

Major infrastructure projects that lead to significant amounts of archaeological work can become 'hub' projects, which "... absorb so much of the archaeological workforce that there is a knock-on effect, regionally and nationally, of reduction in capacity to deliver archaeological services which effectively allows those companies that are not directly involved in the infrastructure projects to remain highly active" (Aitchison, 2009a). This effect was demonstrated by the Channel Tunnel Rail Link (Case Study 12: Channel Tunnel and Channel

Tunnel Rail Link, below) and Heathrow Terminal 5 (Case Study 15: Heathrow Terminal 5, below), and the archaeological employment landscape was also been affected in this way by the M6 Toll (Case Study 10: M6 Toll, below) between 2000 and 2003 and the A46 (in 2009-10) (Case Study 23: A46, below), both affecting employment across the English midlands) and the completion of the M74 (in Scotland between 2008 and 2009) (Case Study 11: M74 Completion, below). The existence of such projects was critical in the development of the archaeological workforce, as employers were able to mobilise large, but highly skilled and professional teams to deliver on behalf of very significant developers.

However, the sector did not become entirely reliant upon this one area of activity – in contrast with the Republic of Ireland, where huge investment in the road network led to the expansion of the archaeological workforce by 263% over the five years to 2007 (McDermott and La Piscopia, 2008: 5). This expansion was supported by immigration to the extent that 45% of archaeologists working in that country in 2007 were not from the island of Ireland. When the roadbuilding programme ended, simultaneously with the onset of the global economic crisis in 2008, considerable numbers of individual archaeologists lost their jobs and several employers went out of business (Eogan and Sullivan, 2009).

6.1.2.2.1 Transport

Transport infrastructural development involves significant amounts of archaeological work; MARS identified road-building as the third most significant process impacting upon the archaeological resource (after urban development and farming) (Darvill and Fulton, 1998: 133-5). That report did not present either railway or airport development as being particularly significant categories of impact (although it must be remembered that that publication was concerned with the end effect upon the archaeological resource, rather than the process of archaeological work and employment).

Except at the local level, the development of transport infrastructure is normally outwith local government planning control, as railway, trunk road and motorway developments often span more than one authority and are too big to be managed in this way. However, they will almost universally require Environmental Assessment and therefore archaeological work will be initiated through that process (6.1.1.2 Environmental Assessment, above). Some major projects are instigated through Acts of Parliament, such as the Channel Tunnel Rail Link (Case Study 12: Channel Tunnel and Channel Tunnel Rail Link, below), and will also require Environmental Assessment and consequent archaeological work. Projects on this scale have significant effects upon archaeological employment, as they will normally be long-term projects

with considerable lead time and staged approaches as evaluation is required during the process of route refinement, together with often substantial mitigation works once the route is finalised.

6.1.2.2.1.1 Roads

Roadbuilding schemes are very public, visible and often controversial linear development projects, effectively producing semi-random samples of archaeological remains, with a significant impact on the resource. The land-take for such constructions is substantial, as motorway easement corridors are 42m wide (meaning that every kilometre of linear distance equates to 4.2ha of disturbed ground), dual carriageway corridors are 28m wide, and conventional A-class roads take a strip of land about 14m wide (Highways Agency, 1996b). Such projects have been estimated to account for 9% of cases of monument destruction and 4% of cases of monument damage (Darvill and Fulton, 1998: 133).

In the 1980s, the Department for Transport contributed to English Heritage's budget, and from 1991 directly funded archaeological work (Lawson, 1993: 251), with the Highways Agency becoming the funding body in 1994 and spending £4m on archaeology on 16 schemes completed from 1995-98 (Highways Agency, 1999: 24).

These roads were advocated in the *Roads for Prosperity* white paper (DoT, 1989), which proposed over 500 road schemes. This paper was evaluated by Environmental Resources Ltd who estimated that its implementation would lead to the total or partial destruction of 844 archaeological monuments, the mitigation of which would cost £73m in 1990 (ERL, 1990: 81). While many of the roads proposed under *Roads for Prosperity* were built, with associated archaeological work, most of the schemes were scrapped in 1996 (Lean, 1996).

The Department of Transport announced in 1992 that private sector companies would be invited to tender for Design Build Finance Operate (DBFO) contracts for motorways and trunk roads. This initiative was managed by the Highways Agency, whose objectives for DBFO projects included ensuring "that the project road is designed, maintained and operated safely and satisfactorily so as to minimise any adverse impact on the environment and maximise benefit to road users" (Highways Agency, 1996a). This requirement to minimise environmental impact is the reason why this is important in terms of archaeological employment – without that requirement, archaeologists would not be needed to carry out work that leads to the mitigation of that potential impact.

DBFO led to a greater level of archaeological monitoring than in other development-led projects as "... road construction could not take place until the archaeological work had been completed to the approved level and certificated. Archaeological delays thus represented a significant risk for the DBFO company; with serious cost implications. The road builders were more concerned

about the professionalism and reliability of the archaeological contractors than simply about minimising their costs” (Miles, 1999). This also necessitated a significant recalculation of risk by the archaeological contractors – the investigation of ‘unforseeable’ sites would be funded by the developers, but ‘unforeseen’ sites are the archaeologists’ problem, and their financial responsibility. This issue of risk exposure particularly true for those archaeological contractors that are constituted as charities, and thus unable to retain considerable reserves to financially protect themselves from these risks.

As with the development of motorways in the early 1970s, archaeologists found themselves caught up in environmental reaction to *Roads for Prosperity* projects, which manifested itself most notably at Twyford Down in 1993 (Penrose, 2007: 51) and then at the Newbury bypass in 1996. The period of road protests matched closely to that of the Major government, from the very early 1990s to 1997, as the incoming Labour government then cancelled the remaining roads schemes under the white paper *A new deal for transport: better for everyone* (DfT, 1998) and the protesters disbanded (Moran, 2009). Road-building was thereafter severely curtailed; 2000 was the first year since 1956 when no new motorways were built (Moran, 2009: 240).

The UK government subsequently committed to a new road-building programme in 2003 (BBC News, 2003), focussing on widening existing trunk roads but also with a significant amount of completely new construction. Each project went through Environmental Assessment; most involved substantial archaeological work, not only in the field but also in the reporting and synthesis of results. Carver (2009) reviewed three projects, noting the “clear and favourable climate of cooperation between government agencies, the commercial services sector and ... university-based academics” (*ibid.*, 219). In terms of archaeological employment, this was a significant and positive component of the sector’s development over the early years of the twenty-first century.

Case Study 10: M6 Toll

The M6 Toll (Birmingham Northern Relief Road) was the first toll-motorway in the UK. Archaeological fieldwork along the 43km of the route was carried out by the joint venture Oxford Wessex Archaeology (OWA) between December 2000 and August 2003. Oxford Archaeological Unit had been first appointed by the construction consortium in May 1992 to carry out an assessment of the implications of the proposed road; following a Public Enquiry in 1994, a written scheme of investigation was finalised in 2000 before the evaluative and mitigative fieldwork began in December of that year (Powell and Booth, 2008).

A programme of fieldwalking was followed by geophysical survey to establish potential of sites, trenched evaluations at 13 sites and then further investigative work at a total of 41 sites, with a

watching brief then accompanying the construction work (Booth, 2001; Powell and Booth, 2008).

The work was managed by two senior project managers, one each from Wessex Archaeology and Oxford Archaeology, and was monitored by Babbie on behalf of the developers (Midland Expressway Limited), by the local authority archaeologists for Staffordshire, Birmingham and Warwickshire and by English Heritage (Booth, 2001: 38).

The project was significant as a good example of how archaeology can be delivered under the DBFO financing model (see 6.1.2.2.1.1 Roads, above) and as a demonstration of the gravitational pull of a major infrastructure hub project, with typically more than 60 people on site at any one time (Midland Expressway Limited, n.d.). The project was also able to produce a high quality research report which was very rapidly fully published (Powell et al., 2008).

Fifteen years previously, there was an expectation that this proposed development would be a destructive force, damaging the archaeological resource with scant record (Baddley, 1988). A protest campaign against the road's construction was staged by environmentalists and local communities; archaeology was not one of the factors that they focussed on (FoE WMTC, 1998), which may represent an achievement for archaeology's place in the sustainable development process.

Case Study 11: M74 Completion

The M74 Completion project involved fieldwork over nine months between the summer of 2007 and the spring of 2008 along a five kilometre motorway corridor around the south of Glasgow. It had a contract value of over £5m (Headland Archaeology, n.d. c), up to 100 staff and a substantial community outreach and engagement element (James, 2009).

This was the last major infrastructure project of archaeology's pre-crisis boom. It had the effect discussed under 6.1.2.2 Infrastructure, above, of absorbing a very significant part of the archaeological workforce in the project's hinterland – in this case, all of Scotland – and, when combined with simultaneous road-building projects in the Republic of Ireland, may have temporarily made Headland Archaeology (UK and Ireland combined) into the largest commercial archaeological employer in the world (see Case Study 20: Headland Archaeology below).

M74 Completion was, like other major archaeological projects of the first decade of the twenty-first century, a joint venture (see 6.2.1.2.1.1 Joint Ventures, below). In this case, the client invited tenders from joint ventures, consortia or partnerships as they felt the contract, which placed a lot of risk onto the archaeological contractors, was too large for one company to handle (Russel Coleman pers. comm. 10th June 2010) – and this also meant that consortia were established at

the pre-tendering stage, rather than subsequently as at Heathrow Terminal 5. Headland Archaeology and PCA established the successful joint venture under the HAPCA name.

This project was also significant in terms of archaeological consultancy roles, and may be a marker that the profession is moving on from old conflict of interest issues (where one agency recommends work and then seeks to execute it) to more current issues, where consultancy may involve a clerk of works role as monitor (or auditor). WoSAS, the local planning authorities' archaeological advisors, acted as the Consultant's Representative (Swanson, 2008), and Historic Scotland fulfilled a more general curatorial role (as they have done on trunk road schemes since the early 1990s (Ashmore, 1993b)).

6.1.2.2.1.2 Airports

In the mid-1960s the government-run nationalised company British Airports Authority took control of a collection of former Second World War aerodromes. The Authority's initial purpose was to operate Heathrow, Gatwick and Stansted airports, as well as Prestwick in the west of Scotland, at a time when air travel was expanding and the Ministry of Defence could no longer handle the workload of a developing commercial aviation sector.

Between 1971 and 1975, BAA acquired Edinburgh, Aberdeen and Glasgow airports; the body was then privatised in the 1980s and BAA was obliged to self off some of its airports (although not in Scotland). Airports in the UK are now owned by a variety of private companies, including BAA, Peel Holdings and others.

A Department for Transport (2003) white paper included proposals for additional runways at Stansted, Heathrow and Birmingham airports, along with runway lengthening at Liverpool, Newcastle, Teesside, Leeds-Bradford and Inverness airports. Expansion of terminal facilities was proposed for a number of other airports.

Archaeologically, the largest and most significant development has been at Heathrow, where BAA contracted Framework Archaeology to undertake work ahead of the construction of Terminal 5 (Case Study 15: Heathrow Terminal 5, below). Framework Archaeology, as BAA's supplier, subsequently also worked at Stansted and Edinburgh airports.

Gifford undertook major work for Manchester Airport's second runway, in a consultancy role from 1992 and then carrying out fieldwork in 1997 and 1998 (Thompson, 1998). Manchester Airport was also significant because of the protests against its construction, which (chronologically) immediately followed on from the anti-roads, eco-warrior protests of the earlier 1990s (see 6.1.2.2.1.1 Roads, above). Anti-airport expansion campaigning has since continued (although in a different manner), as for virtually every site where proposals have

been made, local campaign groups have developed alongside the 'traditional' environmental lobby (anonymous, 2008b).

Airport work has been significant because Heathrow Terminal 5 (in particular), and also Stansted, meant a great deal of employment for archaeologists, who were able to demonstrate that they could work effectively with major construction companies.

6.1.2.2.1.3 Rail

The total length of railways in use in Britain decreased during the 1990s (BBC News, 2009), as there were relatively few new rail developments in that decade to off-set closures of lines. In total, only 4.0% of 401 (=16) Environmental Assessments that had archaeological components undertaken between 1990 and 1999 were for rail links or railway related infrastructure (Darvill and Russell, 2002: 40). However, rail projects can be enormous in scale – at different points, the three projects referred to below – the Channel Tunnel Rail Link, the Jubilee line extension and now Crossrail – have all been described as being 'the largest civil engineering project in Europe'.

The most significant project with a major associated archaeological programme in the study period was the Channel Tunnel Rail Link (Case Study 12: Channel Tunnel and Channel Tunnel Rail Link, below). There were also various light rail projects in urban areas, and some upgrade work, but this is primarily inline and thus on the same footprint as the extant structures with limited archaeological impact.

Underground rail lines are not typical linear routes, as they will normally run be tunnelled through rock and thus are below the depth of archaeological deposits. But work for ticket halls, access and services all have potential impact, and this has led to (and is leading to) amounts of archaeological work, particularly in London. MoLAS worked on the Jubilee Line extension project from Westminster to Stratford, carrying out the fieldwork between Westminster and North Greenwich and managing Newham Museum Service and Oxford Archaeological Unit on the part to Stratford (Drummond-Murray et al., 1998), and at the start of 2010, archaeological work on the Crossrail project within London was underway (Crossrail n.d.). This new east-west rail line across London has potential to be a very significant hub project – it will surpass the Jubilee line work referred to above in terms of scale and total project cost. Successful tenders for the archaeological mitigation work were submitted by MoLA and by Oxford Archaeology with Gifford (Oxford Archaeology, 2010b).

Case Study 12: Channel Tunnel and Channel Tunnel Rail Link

The Channel Tunnel Rail Link (CTRL) was the first new railway to be built in Britain since the Second World War. It extends for 109km between St Pancras station in London and the Channel Tunnel.

The CTRL was a public-private partnership (PPP) project between the UK Government and London and Continental Railways Ltd (LCR). Design, procurement and project management of the CTRL was undertaken by Rail Link Engineering, a consortium of Bechtel, Arup, Halcrow and Systra. The project was carried out under provisions of the *Channel Tunnel Rail Link Act 1996*; previously, the *Channel Tunnel Act 1987* had provided for the construction and operation of the Tunnel itself, together with associated works which included road and rail improvements.

Archaeologically, this project encompassed all the Works authorised by the CTRL Act, namely the building of the Channel Tunnel Rail Link itself, widening of the A2/M2 trunk roads in Kent and a substantial London Underground redevelopment at King's Cross/St. Pancras.

All fieldwork was conducted in accordance with a written *Agreement for the Provision of Archaeological Services* (URS, 1999) which defined the scope, aims and methods for the CTRL project as a whole. English Heritage had responsibility for 'signing off' the archaeological work upon completion.

The initial work to facilitate the construction of the Tunnel in the 1980s included what was potentially the first desk-based assessment of archaeological potential in British archaeology. This was produced for the English land-side portal site; the entire project was being carried out to reach the legally required minima in both England and France, and French environmental impact assessment regulations exceeded those in place in England at the time (and predated the introduction of European Union-wide regulations via EEC 85/337) (Tim Darvill pers. comm. September 2009).

The archaeological work on Tunnel itself and its portals, on both sides of the channel, was entirely funded by the developers, Eurotunnel. This meant that "...more money was spent on this [archaeological] work around Folkestone in 1988 than the Department of Transport spent on archaeological work along road schemes over the whole of England" (CBA, 1989a).

The cultural heritage chapter for the CTRL's Environmental Statement was written by Oxford Archaeology (in 1991) who developed a matrix technique to consider the significance of assets and the severity of impacts expected (Lambrick, 1993).

At the London terminal end of the Link was the St Pancras Burial Ground, a cemetery that had been partly disturbed by the construction of St Pancras station in the 1850s, raising such controversy that this contributed to the passage of the *Burial Act 1857*, under which human remains can only be disturbed by the holders of a permit from the state.

RLE, the project consultants, had their own in-house archaeologists, but the fieldwork was carried out by multiple contractors (Geophysical Surveys of Bradford, Oxford Archaeology, Canterbury Archaeological Trust, Wessex Archaeology and MoLAS) (anonymous, 2000). This was not a joint venture or consortium – each of these contractors had defined, separate roles and contractual arrangements with the clients.

The Tunnel and the Rail Link in particular are important for the early introduction of procedures and techniques that would later become routine, such as the preparation of a desk-based assessment and contributions to Environmental Statements, but above all as it formalised the concept of the developer paying for all archaeological work, which would later strongly influence the writing of the Valletta Convention and PPG 16 (Thomas, 1989). It was also notably because of the confusion over the *Burial Act* showing that a development driven by Act of Parliament still has to fit in to other protocols, and above all because of the number of people involved – these were the first of a series of infrastructure hub projects that involved large numbers of archaeologists in the 1990s and first decade of the twenty-first century.

6.1.2.2 Energy

Energy production and delivery is an area where archaeological sites are threatened by permitted developments carried out by statutory undertakers, which fall outwith the planning process, but which are nonetheless mediated through parallel processes including Environmental Assessment.

Between 1990 and 2010, archaeological work relating to energy production has been particularly focussed on the development of wind farms, but there has also been work at nuclear power station sites, with potentially more of both of these in the future together with possible redevelopment work at coal and gas-powered sites.

The development of the gas and electric grids has a more extensive landscape impact, and thus potential for archaeological work. Pipelines have more immediate effect than pylons, but a line of pylons still has a substantial footprint with their impact including monument setting issues, access routes and the removal of old structures. In terms of methodologies and the number of archaeologists involved in projects, pipelines are generally similar to roadbuilding linear developments; pylons comparable to windfarms and telecoms developments.

National Grid are now planning to spend £22bn over the five years from 2010 on infrastructure, “connecting up new sources of power generation; handling new sources of gas; laying new gas pipelines ; and reinforcing the core electricity transmission system” (Cooper, 2010). This will

also involve linking in to the overall grid submarine cables and pipelines, which also stimulate archaeological work (see 6.1.2.4 Maritime Archaeology, below).

Several archaeological contractors have established service or framework agreements with energy suppliers, such as MoLA who have a framework agreement with electricity service supplier EDF Energy (MOLAS, 2003) and Network Archaeology which specialises (although not to the complete exclusion of other works) in “the provision of archaeological works to the natural gas industry across the country” (Wood, 2010).

6.1.2.2.1 Renewable Energy

some renewable energy technologies have the potential to cause serious damage to irreplaceable historic sites, which are themselves an integral part of the wider environmental and sustainability agenda (EH, n.d. e)

An emergent area of archaeological practice has been in contributing to the planning for and work alongside the installation of renewable energy generating facilities. In terms of wind-generated electrical power, this area of work quite simply could not have existed before 1990 - although hydroelectric power has been harnessed since the 1950s, the first commercial windfarm in the UK was opened in Delabole, Cornwall in 1991 (with archaeological impacts being recognised since at least 1993 onwards (Aldous, 1993)). Since then, provision has expanded rapidly, both on- and off-shore, and since 2009 the UK has been the largest offshore energy producer in the world.

Under Article 4 of the *European Renewable Energy Directive (2009/28/EC)*, each European Union Member State has to prepare a National Renewable Energy Action Plan. The UK plan (DECC, 2009b) sets the target of 15% of energy consumption in 2020 to be from renewable sources - but the Scottish Government has announced a target of 80% of Scottish electrical consumption to come from renewable sources by 2020 (Scottish Government, 2010c).

Renewable energy exploitation can, in one sense, be compared with mineral extraction (see 6.1.2.3 Minerals Extraction below), in that the facilities can only be installed where the resource is commercially accessible (although this may require state subsidy). This has meant that commercial wind farms have generally only been installed in upland or offshore areas, possibly with the significant exception of Orkney.

Such developments have potential to impact upon archaeological resources (EH, n.d. e), and thus there is archaeological work involved in mitigating this impact. Because precise location is not quite as critical as in other areas of development, advice during the planning process can lead to redesign leading to archaeological preservation, rather than universal investigation and recording. Individual turbine footings are substantial sub-surface structures, but ground

disturbance within the overall footprint of a wind farm may be comparatively limited, as there is normally flexibility in the siting of individual structures which provides opportunities to avoid damage (although access roads can still have a significant impact). Within a typical development of six turbines, spread across a total wind farm area of 14 hectares, the actual footprint of the turbines and their associated infrastructure may be limited to 1% to 2% of the overall development area (EH, 2005: 7).

Wind turbines are projects listed under the current Environmental Assessment regulations. In England and Wales, where a development involves the construction of more than two turbines or the hub height of any turbine exceeds 15 metres an environmental impact assessment will need to be undertaken and submitted in support of any planning application (EH, 2005). As well as the direct impact of the construction process, the installation of wind turbines can also have indirect impacts upon visual amenity and monument settings.

During most of the study period, there was a longstanding lack of “guiding policy as to where it is appropriate to site wind farms and as a result there is a considerable number of speculative applications for new developments. The SPICe briefing paper on Renewable Energy 03/89 (Cook and Dewar, 2003) describes how companies may make as many as 8 separate applications in the hope of 1 success” (CSA, 2004).

At the end of 2008, there were 186 operational windfarms in the UK (both onshore and offshore), a total of 2,120 turbines, with 42 further windfarms in construction, another 134 consented and 268 in planning (Nixon, 2008). Between May 2007 and January 2010, Scottish Ministers gave consent to 14 wind farm applications (Scottish Government, 2010a). By 2009, Europe's largest operating onshore wind farm was Whitelee near Glasgow, with 140 turbines and plans for further extension (Scottish Government, 2009), where archaeological survey and evaluation was undertaken by CFA in 2006 (Hastie and Richardson, 2006), although Whitelee has since been eclipsed by the Clyde wind farm in South Lanarkshire, with 210 turbines and over 32km of tracks. This was subject to an Environmental Impact Assessment followed by a Public Inquiry, where Headland Archaeology presented evidence on behalf of the developer (Headland Archaeology, n.d. b). An application for an even larger, 181-turbine windfarm on Lewis was rejected on environmental grounds in 2008 (Ross, 2008).

Despite early doubts – “Current developments suggest that the technologies for offshore energy sources will not develop beyond an experimental phase before 2010” (CSA, 2004), the volume of offshore energy installation has overtaken onshore. Offshore arrays are larger, with more and bigger turbines, which have different potential archaeological impacts upon resources which include wrecked vessels or evidence for submerged prehistoric dry-land archaeological remains – particularly given that “The raised areas of seabed suited to turbine construction may also be areas of high potential for submerged prehistoric remains” (EH, 2005). These impacts can be

caused through construction activities, such as cable ploughing, piling and excavation offshore, and through the construction of shore-side infrastructure facilities (Wessex Archaeology, 2007: vi).

Wind energy is having a much bigger impact on archaeological practice than the development of mobile telecommunications did (6.1.2.2.3 Telecommunications below). While it has led to a great deal of consultancy work, there have also been substantial amounts of fieldwork – and because of the archaeological profession’s prior experience of working with large area developments, general methodologies have been successfully applied to windfarm developments (as foreseen by Lynn (2005)).

The pattern of development can be reviewed, using Scotland as the sample area. Using Archaeology Scotland’s annually published *Discovery and Excavation in Scotland* (DES), which includes notes on nearly every archaeological intervention undertaken in Scotland in any given calendar year, the increasing numbers of windfarm-related interventions can be reviewed. The graph below (Figure 1) has been constructed from intelligent searches of the published text, looking for keywords “windfarm”, “wind farm” and “turbine” (but excluding non-windfarm turbine references), adding a count for each intervention recorded – if, for example, a watching brief was recorded at a particular site in one year, that would be counted once (regardless of how many turbines a site might ultimately feature). If the record for one site had a desk based assessment, a survey and a watching brief in that year, then that would be three counts. If a site is reported in subsequent years, all interventions in those years will be recorded against the particular year for which they appeared in DES.

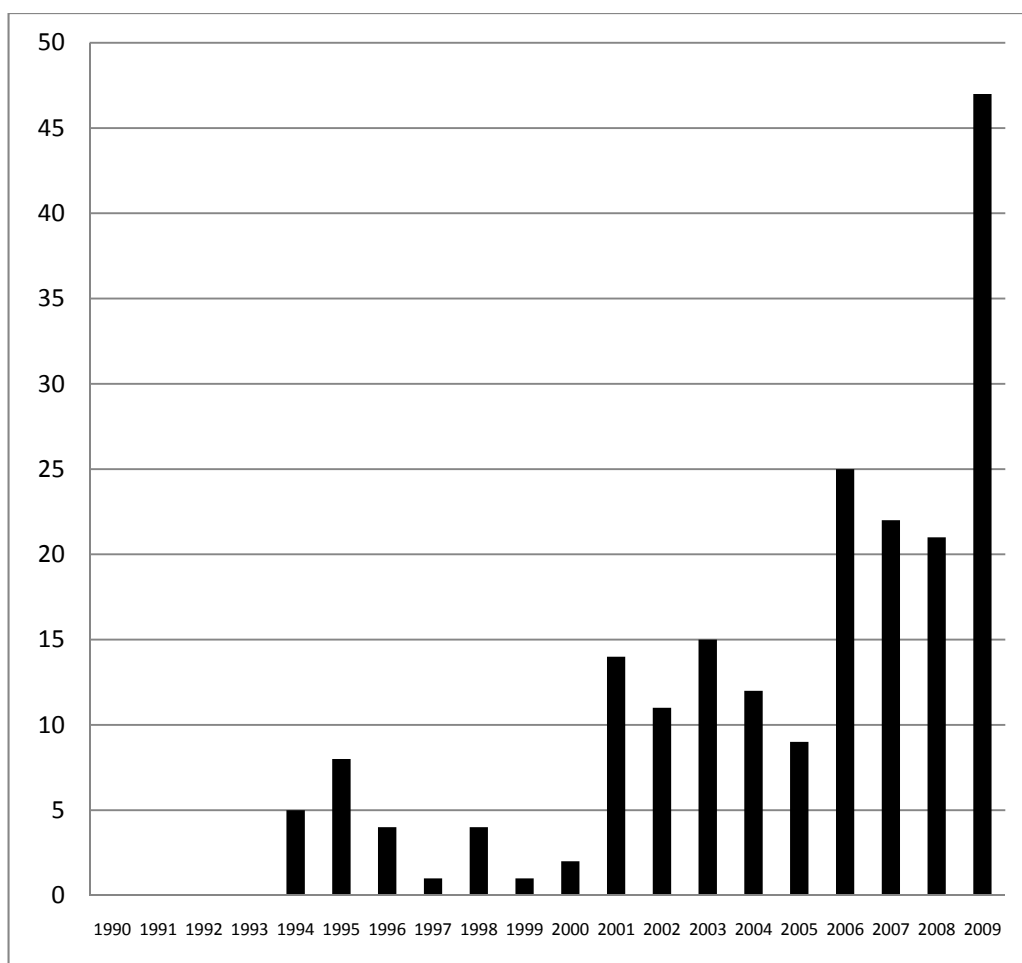


Figure 1: Windfarm-led archaeological interventions in Scotland, 1990-2009. (Discovery and Excavation in Scotland, 1990 – 2009)

While the numbers of interventions have fluctuated on a year-by-year basis, there has been a steady upward trend, from the first recorded interventions in 1994. Purely offshore developments are not recorded in DES, and so are absent from this dataset. This compares significantly with the equivalent graph for telecommunications (see 6.1.2.2.3 Telecommunications, below), which shows a very slightly earlier start, a peak in the years around 2000, declining back to no activity in 2008 or 2009.

The rapid expansion of offshore energy development has led to considerable changes in archaeological employment, as demonstrated by Wessex Archaeology’s opening of a specifically Coastal and Maritime office in Edinburgh in 2010 (see Case Study 13: Wessex Archaeology, below).

In terms of future work, in the short-term, this kind of work will continue. The outgoing UK government published a *Consultation on a Planning Policy Statement: Planning for a Low Carbon*

Future in a Changing Climate in April 2010 (DCLG, 2010a). As a historic environment legacy, it has been separately recognised that development in the coming decades will mean that “The infrastructure and buildings that are to be put in place will far outlast the climate crisis, which essentially has to be solved or succumbed to within 50 years or so” (Fyson, 2010).

6.1.2.2.2 Nuclear Energy

In 2009, the UK Government was planning for the development of a new suite of nuclear power stations over the next fifteen years, which would require a significant amount of archaeological work.

The *Draft National Policy Statement for Nuclear Power Generation (EN-6)* (DECC, 2009a) identifies ten potential sites for the deployment of new nuclear power stations by the end of 2025 (*ibid.*, 44). These have been assessed through a Strategic Siting Assessment, with each potential site having had an Appraisal of Sustainability – typically recognising that there is potential for substantial, permanent and irreversible impact upon both the designated and undesignated historic environment, within the boundary of each power station site and in its immediate surroundings (*ibid.*, 26). These impacts will be mitigated through archaeological fieldwork and recording (*ibid.*, 62).

Significant amounts of preparatory infrastructure work have been undertaken at Hinkley Point C ahead of EDF being awarded the full site licence (Pagnamenta, 2009; Oliver, 2010), and this has included archaeological assessment (desk-based assessment both on and off-shore, and geophysical survey [EDF, 2009]), with substantial evaluation work of up to 130 trenches being opened over the autumn of 2009 and early 2010 (*ibid.*). Comparable work is planned for Sizewell C in Suffolk (Oliver, 2010).

6.1.2.2.3 Telecommunications

In the late 1990s and at the very start of the twenty-first century, the installation of mobile phone masts and associated infrastructure led to a significant amount of archaeological work.

There are higher levels of demand for these installations in urban areas, but greater archaeological impact rurally, as the masts that are located in rural areas will often be in remote locations with potentially ‘undisturbed’ archaeology. Masts also require electricity cables, normally underground, and access tracks. In comparison with wind farms (6.1.2.2.1 Renewable Energy, above) the site will typically represent only a single mast, rather than multiple installations, and the archaeological work involved will normally be a watching brief, requiring relatively low levels of staffing.

The very first mobile phone masts in the UK were erected in the mid-1980s (potentially in 1984/5 (BBC News, 2005)), and at the start of 2009 there were approximately 51,300 base station sites in the UK, a figure that was anticipated to rise to approximately 52,500 by the end of 2009 (Mobile Operators Association, n.d.).

In terms of archaeological work, a review of the data presented in *Discovery and Excavation in Scotland* for the period from 1990 to 2009 shows a fluctuating level of activity, peaking in the years around 2000 and declining back to no recorded activity in 2008 and 2009 (Figure 2 below). More recent base station construction has been increasingly on a smaller scale and in urban contexts, without necessitating archaeological interventions (although there has been some impact upon historic buildings (Historic Scotland, 2009), this has not led to considerable amounts of archaeological work).

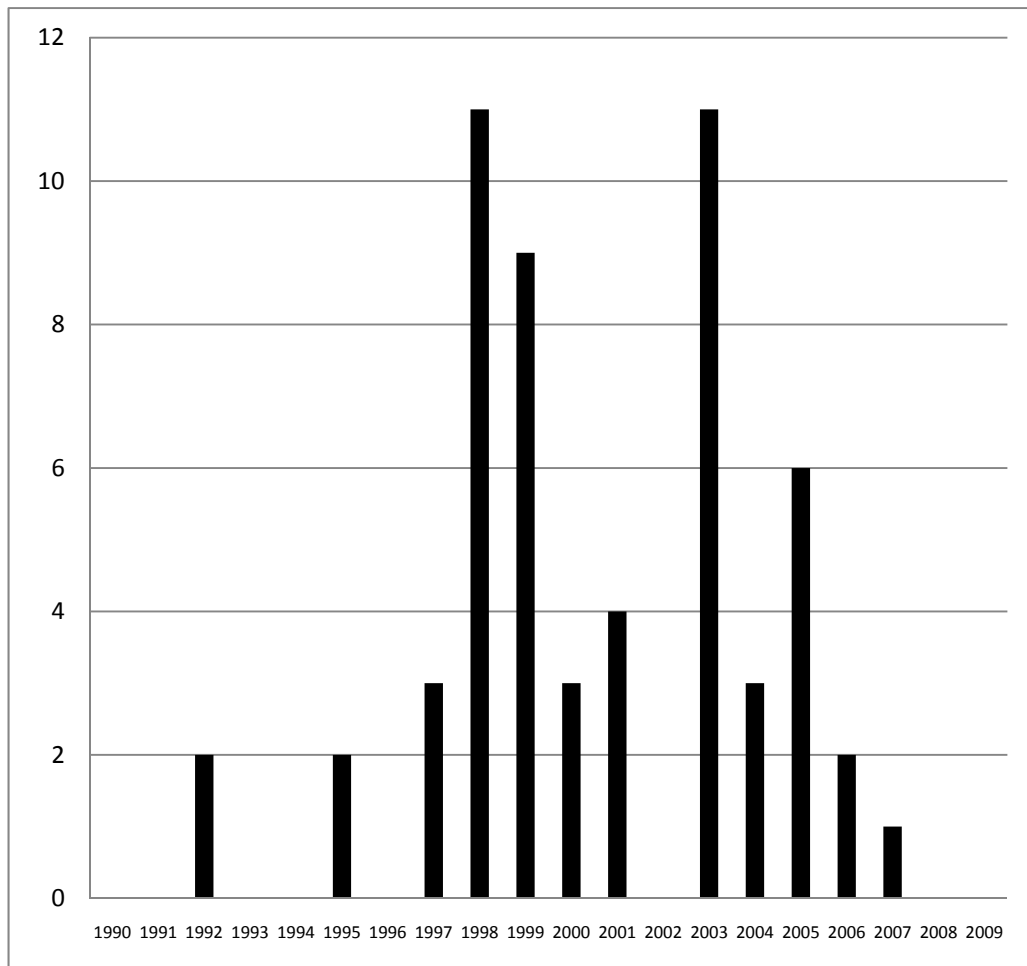


Figure 2: Telecommunications-led archaeological interventions in Scotland, 1990-2009. (Discovery and Excavation in Scotland, 1990 – 2009)

The graph presented is based upon intelligent searching through the text of *Discovery and Excavation in Scotland*, which represents brief accounts of all developer-led fieldwork events in Scotland (searching for telecom / phone /mast, avoiding double counting of the same event in the same year). Scotland is not necessarily representative of the entire UK, with a differing geography (a greater proportion of the landmass is in the upland zone) and a subtly differing planning system, but this represents an illustrative review of the issue. Overall, this was not an activity that led to any archaeological work before 1990, and the levels of work are now diminishing.

6.1.2.3 Minerals Extraction

gravel extraction, still today the most totally destructive of all archaeological threats in the countryside (Fowler, 1974: 117)

Historically, minerals extraction has long been recognised as having a substantial impact upon the archaeological resource. The first recorded find of a Palaeolithic tool in association with extinct megafauna – a mammoth – was made during gravel extraction on King’s Cross Road in London in 1690 (Brown, 2009: 11). As minerals can only be extracted where they are found, there is limited scope for redesign solutions to accommodate issues relating to the historic environment.

About 0.35% of the total area of the UK has had permission granted for minerals development and ancillary works (EH, 2008d: 1), but minerals extraction has been identified as accounting for 12% of cases of monument destruction (Darvill and Fulton, 1998: 135) and it is the second most common trigger for Environmental Assessment with archaeological components (after road schemes) (Darvill and Russell, 2002: 40, ill 23).

Minerals extraction, like development, is also mediated through local government planning, but following Minerals Policy Statements, from which Minerals Local Plans are written, rather than Planning Policy Statement, and this can also be subject to Environmental Assessment. It is a key principle of mineral planning that extraction, unlike many other forms of development such as housing, roads and commercial premises, is actually a temporary use of land and can occur only where the minerals are found (DCLG, 2006). However, although this land use is temporary, that does not mean it is short-term – minerals extraction can be undertaken over lengthy periods.

Mineral Planning Guidance notes have been issued since 1988; the current statement of Government policy in England, *Minerals Policy Statement 1: Planning and Minerals* (DCLG, 2006) emphasises that the provision of minerals must be undertaken in accord with the principles of sustainable development in terms of minerals supply (EH, 2008d: 2), and any unavoidable adverse impacts should be reduced to a minimum by mitigation. This involves pre-

determination appraisal of the impacts of development proposals upon the historic environment, with consideration of the options and recommendations for appropriate mitigation measures (*ibid.*, 17).

Archaeologically, the issue is with the removal of topsoil and overburden rather than the minerals extraction itself. The threat was recognised as long ago as 1950 when the Sand and Gravel Association of Great Britain published *Gravel Pits and Archaeology*, highlighting the need for cooperation between minerals extractors and archaeologists, with the Welland Valley Research Committee (which included representatives of local gravel extraction companies) appointing a full-time archaeologist in 1962 (Brown, 2009: 11). In 1982, the Confederation of British Industry published an *Archaeological Investigations Code of Practice for Mineral Operators*, subsequently updated in 1991 (CBI, 1991) which relates to establishing whether work would affect a site as defined under the *Town and Country Planning Act General Development Order 1988* (McGill, 1995: 71). Despite this publication, mineral permissions that pre-date 1990s planning advice and that do not benefit consistently from appropriate planning conditions remain a significant issue for the historic environment sector (EH, 2008d: 12)

Off-shore aggregates extraction accounts for about 21% of the sand and gravel used in England and Wales (EH, 2008d: 10), and although formulated originally for the terrestrial archaeological resource, the principles of PPG 16 have been considered to be relevant and transferable to the marine environment (*ibid.*, 17).

In terms of archaeological impact and employment, minerals extraction is extremely significant, leading to long-term projects with large area scales, following a framework of rules that are similar but different to those that apply regarding other spatial planning issues.

As well as matching sustainable development objectives through ensuring the polluter pays for mitigation (almost inevitably recording), two other environmental policies have contributed to archaeological work in relationship to minerals extraction – the creation of the Aggregates Levy Sustainability Fund and the Landfill Tax.

The Aggregates Levy Sustainability Fund (ALSF) is generated by a hypothecated tax on minerals extraction which aims to reduce the environmental impacts of the extraction of aggregates and to deliver benefits to areas subject to these impacts in England (Defra, 2009). A similar scheme operates in Wales. English Heritage has distributed the historic environment funding stream of ALSF on Defra's behalf from 2002 and will continue to do so until 2010-11. Over the six years to 2008, English Heritage provided £23.5m of grant-aid from this source to historic environment research and interpretative projects (not primary field investigation) (EH, 2008b: 2-3), and is anticipated to disburse a further £4.5m between 2008 and 2011 (Flatman and Doeser, 2010: 161).

The Landfill Tax (and its redistributive arm, the Landfill Tax Credit Scheme) is also an environmental levy aimed at changing producer and consumer behaviour, which has funded some archaeological work (generally relating to community benefits). This is indirectly related to aggregates extraction, as it often relates to the subsequent backfilling of extraction sites.

6.1.2.4 Maritime Archaeology

An emergent component of archaeological work between 1990 and 2010 has been the level of maritime, primarily off-shore, archaeological activity. Firth (2006: 85) considered that the amount of change that took place between 1993 and 2006 to have been “striking”.

Archaeological material in inland waters and lakes is legally treated in the same way as terrestrial remains, and the same planning system applies. The principles, if not the detailed technicalities, of the planning-led system used on land have been extended and applied offshore (EH, 2008d: 17).

There are 60 Wreck sites Designated under part one of the *Protection of Wrecks Act 1973*, which restricts certain activities within specified areas. To be Designated under part one of the Act a wreck must be of “historical, archaeological or artistic” importance, but not necessarily of national importance. The national heritage agencies and the Advisory Committee on Historic Wreck Sites (which advises Government on the Designated wreck sites) are assisted by a team of contract diving archaeologists. From May 2003 English Heritage has administered the contract for all UK waters, which was held by the Archaeological Diving Unit of the University of St Andrews from 1986 to April 2003; since that date, the retained diving contractor is Wessex Archaeology.

A small number of wrecks are also Scheduled Ancient Monuments, and so have that particular level of restriction on who can work on them, and under the *Protection of Military Remains Act 1986* it is also an offence to excavate for the purpose of discovering whether any place comprises any remains of an aircraft or vessel lost in service.

The other legal mechanism is the reporting of wreck under the *Merchant Shipping Act 1995*, under which any finders of wreck are legally obliged to report their finds to the Receiver of Wreck. This is obligatory, but compliance is and has been limited (Firth, 2006: 90).

The investigation of wreck sites is a relative minor primary reason for archaeological work to be done – much more work is initiated through aggregates extraction (0, above) with significant Aggregates Levy Sustainability Fund investment (Flatman and Doeser, 2010), and wind farm development. There is a range of marine consents required for off-shore development work

(Firth, 2006: 92-3), and major schemes will generally require the preparation of an Environmental Statement.

There has been a considerable amount of archaeological work ahead of the construction of offshore wind farms in many areas around the United Kingdom (6.1.2.2.2.1 Renewable Energy, above), with particularly significant amounts around the Western Isles and Orkney. In the Pentland Firth, this has not just related to wind power exploitation but wave and tidal energy as well.

It is very difficult to quantify the numbers of individuals working in maritime archaeology, as the three labour market intelligence surveys did not obtain particularly high quality data in this area – in 2007-08 (Aitchison and Edwards, 2008), there was no particular category of post titles, and only one “Head of Maritime Archaeology”, one “Maritime Archaeologist” and one “Marine Planner” could be identified as being particularly related to maritime archaeology. There were no such titles identifiable in 2002-03 (Aitchison and Edwards, 2003), although Aitchison (1999) reported one “Boatman” and four “Underwater Archaeologists”.

As noted above, Wessex Archaeology holds the UK maritime ‘call out’ contract, and responds on behalf of DCMS to threats to Designated Wrecks in all of the UK’s coastal waters. Wessex is the most significant operator in maritime archaeology, and opened an office in Edinburgh in the spring of 2010 to concentrate on maritime activities. There is relatively little competition in this area; other significant actors in maritime archaeology are Headland Archaeology (Case Study 20: Headland Archaeology, below), and EMU (a consultancy staffed in part by former Wessex personnel, also doing some fieldwork and advertising for new positions in the IfA Jobs Information Service Bulletin in June 2010).

Case Study 13: Wessex Archaeology

Since 1997, Wessex Archaeology, the trading name of a registered charity, The Trust for Wessex Archaeology, has consistently been one of the three largest commercial archaeological employers in the UK (the others being Museum of London Archaeology and Oxford Archaeology), and since 2005 has been second in size only to Oxford Archaeology. In 2008-09, the organisation had a turnover of £7.0m and 193 employees (in the previous year, annual income was the highest the organisation has recorded at £8.2m) (Charity Commission, 2010c).

Wessex Archaeology was established in 1979 as the Wessex Archaeological Committee in Salisbury during the 1970s, at a time where perceived gaps in district or county provision led to the establishment of ‘units’, regional bodies such this Committee, where “a centralised organisation was regarded as a better structure than dealing with a number of dispersed individual archaeologists” (Lawson, 1993: 150). The Wessex Archaeology Committee was the

last regional unit to be founded on this model when it combined with the M3 Archaeological Rescue Committee (MARC3), although it had effectively existed (in a different form) since 1974.

One of the members of the small team that took up appointments in 1979 was Sue Davies, as Senior Post-Excavation Assistant (Wessex Archaeology, 2009a). She has been Wessex Archaeology's Chief Executive since 2003.

In the earliest years, the organisation, in common with other fieldwork operators, relied principally upon state funding, but the Treasurer's Report for 1986-7 marked the changes in archaeological funding (and thus in archaeology as a whole) of the previous years, reporting that: "It is now true that the existence of the Trust, and the archaeological unit, is not dependent on Central Government funding" (Wessex Archaeology, 2009a).

The organisation has been an early adopter of new approaches to business in archaeology – they were early participants in the first competitive tendering competitions in British archaeology (Case Study 5: Reading Business Park, above) and have been actively engaged in joint ventures with several organisations, leading the way with Oxford Archaeology in the establishment of Framework Archaeology to work for BAA (see 6.2.1.2.1.1 Joint Ventures, below).

The company has also developed a position as market leaders in coastal and maritime archaeology, having worked on major coastal projects since 1994 (Wessex Archaeology, 2009a) and, crucially, holding the diving contract issued by English Heritage on behalf of the Advisory Committee on Historic Wreck Sites since 2003. This means that Wessex are essentially on a call-out contract to investigate threats to any of the protected wrecks in the coastal waters of the UK (although the contract is administered by English Heritage, this does not just apply to English waters (DCMS and Devolved Administrations, 2002), see 6.1.2.4 Maritime Archaeology, above).

The organisation's return to the Charity Commission states that it works throughout England and Wales, in the Netherlands, Northern Ireland, the Republic of Ireland and in Scotland (Charity Commission, 2010c), and it opened its first remote office near Waterloo Station in London in 2003 to allow the firm to more easily access the increasing amount of work being carried out in London and south-east England (Wessex Archaeology, 2009a), although this office subsequently closed when a new office was opened in Maidstone, Kent in January 2009 (Wessex Archaeology, 2009c).

The organisation has continued to geographically expand, taking advantage of opportunities presented by the economic downturn to acquire new business in Sheffield, taking over contractual responsibilities and some staff members from ARCUS in December 2009 (Wessex Archaeology, 2009d) (see Case Study 22: ARCUS, below) which opened up opportunities for the company in the north of England, and then established a wholly new Coastal and Maritime office in Edinburgh, which began advertising for staff in February 2010 (Wessex Archaeology, 2010a).

During 2010, Wessex Archaeology and Cotswold Archaeology formally discussed a potential merger between the two companies, but this did not ultimately come to fruition (see 6.2.1.1.1 Commercial Companies and 9.1.3 Consolidation, below).

Although the organisation's confident approach to geographical expansion has allowed significant numbers of new members of staff to enter employment with Wessex, this has masked a certain number of redundancies which the company had to make as clients' priorities changed in the post-2008 period (Peter Hinton pers. comm. 23rd July 2010).

6.1.2.5 Buildings Archaeology

The archaeological investigation of standing buildings, as opposed to their appreciation in architectural historical terms, is relatively new and contentious even though their archaeological value has long been appreciated (*cf* Biddle, 1974). The professional development of this subsector matches the review period of this study very closely.

Wood (2006: 105) considers that buildings archaeology begins with Warwick Rodwell's *The Archaeology of the English Church* (1981), and "... the early experience of archaeologists in this field was largely gained studying the 'bones' of historic buildings and monuments, rather than their surface finishes" (Wood, 2006: 105-6), but once buildings are examined as primary sources of archaeological information, rather than just illustrations of historic processes, they become archaeological artefacts and sites, which allows for comprehensive archaeological investigation.

'Buildings archaeology' was only agreed upon as a term to describe this work in 1993 at a special conference of the IfA's Buildings Special Interest Group (itself only established in 1991); "prior to that, buildings archaeologists had been called several different things: building recorders, architectural archaeologists, or archaeological surveyors amongst others" (Morriss, 2000: 10).

One of the primary purposes of buildings archaeology is recording, pre-development, for conservation, interpretation and preservation, as the scaled drawings in particular are often essential bases for detailed work proposals and consent applications, being records of what is there rather than architects' drawings of what is proposed. Recording techniques have been established through a series of best practice guides for recording historic buildings which essentially become the accepted model for levels of detail of record in England (RCHME, 1996; EH, 2006b).

Buildings archaeology between 1990 and 2010 was largely carried out in response to development pressures. Urban regeneration often involves either the demolition or

redevelopment of extant, but otherwise redundant, industrial (and other) buildings, and in rural contexts there has been considerable redevelopment of vernacular agricultural buildings to become residential properties (EH, 2006a: 3).

The most significant motor for this work was the publication of PPG 15 (DoE and DNH, 1994), the planning policy guidance note which applied to work on historic buildings. It was not as revolutionary a text as PPG 16, being somewhat more descriptive and circumspect, but it did ensure that measures were in place for the sustainable development of above-ground heritage.

ALGAO published guidance (Baker and Meeson, 1997) which focused on the requirements for the control of works, emphasising that local planning authorities' archaeological advisers have a role here – complimenting that of conservation officers – and describing the process in terms that were already familiar to the archaeological community through PPG 16 and the model briefs and specifications that ALGAO (and its predecessor ACAO) had previously prepared. This properly brought non-designated above ground historic environment assets into the planning system.

There has been long-standing amateur study and interest in historic buildings, which has contributed even more significantly to the body of knowledge about these sites than the amateur contribution ever was to subterranean archaeology. This was recognised by Morriss (2000: 17), who noted that "... there are surprisingly few full-time professionals and we have a distinct disadvantage over amateurs. To earn our corn we mostly work in a competitive market place. We do not have the luxury to spend more time and effort than our clients are willing to pay for". There was a certain note of reluctance to accept the inevitable in that text – but the realities of the market were rapidly accepted and became the orthodox, dominant approach during the decade from 2000.

However, as Morriss had noted, there are few individual archaeologists who are specifically 'buildings archaeologists'. Aitchison and Edwards (2008: 173) only identify 12 individuals as working in posts that can be categorised as "buildings archaeologists", while in 2003 (Aitchison and Edwards, 2003: 71) 19 individuals were recognised although Aitchison (1999: 60) was able to identify 35 individuals whose job titles included the word 'building' and which had not been categorised elsewhere. In 1997-98, 29 of the 35 individuals identified worked for national heritage agencies, whereas in the subsequent studies the majority of buildings archaeologists were working for commercial enterprises.

These figures should not be read as representing a decline in the numbers working in this subsector – firstly, there is a certain level of variability within the responses to the three studies (with the 1997-98 figures including 26 "historic buildings architects" (Aitchison, 1999: 108), a post title which does not recur in the two subsequent studies); secondly, there is a degree of integration of the archaeological study of buildings which means that the technical skills needed

for above- and below-ground have become increasingly shared by individuals who do not work in posts specifically designated as being 'buildings archaeologists'. As much of this work is done on a small-scale by individual practitioners, they might be particularly unlikely to identify themselves in questionnaire returns as having post-titles that would fit into this category.

The integrated services approach is supported by the fact that of the 62 Registered Organisations listed in the IfA Yearbook 2010 (IfA, 2010: 36), 54 identify building analysis as one of the fieldwork or post-fieldwork services that they can provide – with 50 of those 54 providing this as an in-house service (the other four obtain it from subcontractors).

6.1.3 Non-planning-led Demand

Some demand for archaeological work originates outside the planning system – although that initiated through work requiring Environmental Assessment (6.1.1.1.2, above) or by an Act of Parliament (such as for the Channel Tunnel Rail Link (Case Study 12: Channel Tunnel and Channel Tunnel Rail Link, above) is not technically subject to planning controls, but is effectively treated as though it has been (when permission has been granted by Parliament it is above the remit of local authorities to make decisions on a project).

In addition to these major works, specific limited or minor forms of development are permitted without planning permission under Schedule 2 of the *Town and Country Planning (General Permitted Development) Order 1995* (GPDO). Work under the GPDO is exempt from planning permission, but not from other consents, such as Listed Building Consent, Scheduled Monument Consent or Conservation Area Consent.

When a resource is threatened outside the planning system and beyond the controls referred to above, archaeological work may still be initiated. This can be caused when work is necessitated by natural processes, agricultural activities or when invasive archaeological fieldwork is undertaken for research or training purposes.

The actual level of non-planning initiated archaeological work recorded by the *Archaeological Investigations Project* has remained remarkably consistent over the 20 years since 1990, although as a percentage of all archaeological work undertaken it has fallen considerably, and thus its importance in terms of archaeological employment has also declined (Table 16 below).

Year	Total archaeological investigations	Planning-led	Non-planning-led	Non-planning led as % of total
1990	1040	814	226	21.7%
1991	1670	1403	267	16.0%
1992	2038	1697	341	16.7%
1993	2504	2132	372	14.9%
1994	2641	2305	336	12.7%
1995	2635	2255	380	14.4%
1996	2840	2470	370	13.0%
1997	3219	3033	186	5.8%
1998	3233	3090	143	4.4%
1999	4740	4546	194	4.1%
2000	4788	4460	328	6.9%
2001	4934	4579	355	7.2%
2002	4382	3991	391	8.9%
2003	4839	4443	396	8.2%
2004	4734	4335	399	8.4%
2005	4726	4333	393	8.3%
2006	4800	4458	342	7.1%

Table 16: Planning-led and non-planning-led archaeological investigations, 1990-2006. (Ehren Milner pers. comm. 17th October 2008, Darvill and Russell, 2002: table 2, 3, 8, 9; p21, 28, 42, 47) 1990-99 figures = Desk-based assessments+evaluations+post-determination mitigation

6.1.3.1 Agriculture and Forestry

While “agriculture/cultivation” is identified by Darvill and Fulton (1998: 128) as being the most significant activity in the destruction or damage of archaeological sites – principally through ploughing – it is one of the least important in terms of archaeological employment, as it is undertaken fundamentally beyond the realms of the Town and Country Planning legislation and so there is generally little requirement for the damage caused by agricultural processes to be mitigated against. This is exacerbated because the degree of damage is slow, largely invisible and progressive.

A certain level of work is undertaken on agricultural buildings (particularly if they are being converted for residential use, and thus can be considered to be development under the planning system), and through evaluations of the archaeological resource linked to environmental payments. Natural England (2009) advises farmers that their farm has environmental value, that the historic environment is part of this, and that by positively managing their farm it can improve their access to Environmental Stewardship funds and means they can be financially rewarded for reducing risk to the archaeological resource.

But as these are voluntary agreements to carry out prescriptions, such as not damaging features of archaeological or historical interest, “... positive archaeological management is generally

optional for farmers" (Macinnes, 2006: 334) and the full potential of agri-environment schemes for archaeology is seldom met (McCrone, 1999). The monitoring of compliance with these schemes can involve some archaeological work.

Forestry work can be even more destructive (to archaeological remains) than agriculture. Crawford (1974) considered forestry to be the greatest threat to the Scottish archaeological resource, as woodland expanded (predominantly through conifer plantations) during the twentieth century from covering 5% of the UK's land mass at the century's start to 11% at its end (and 15% of Scotland) (Yarnell, 1999: 103).

Like agriculture, afforestation is beyond the remit of planning controls – but in the late twentieth century, its impact upon archaeology was reduced to a negligible level. This happened because, in comparison with other forms of land-use change or development (including agriculture), the financial return per forested hectare is limited and long term. There is thus not pressure to plant every available space – and the planting process is the most costly aspect of the entire forestry cycle, so much so that almost none of it is undertaken without grant assistance. These grants (from a set of separate national funds, formerly collectively known as the Woodland Grant Scheme) cannot be obtained without the landowner entering into some form of stewardship agreement that protects and manages the archaeological resource, and so bypassing the need for labour-intensive archaeological intervention; in Scotland in 1998/99, 22% of applications for Woodland Grant Scheme funding needed detailed archaeological advice to preserve archaeological sites *in situ* (Swanson, 2001: 6).

These schemes are and have been used defensively to protect archaeological remains (grant aid being withheld if proposed schemes impacted on archaeologically significant areas) (Breeze, 1989), rather than being used proactively to fund investigation pre-afforestation. The amount and level of detail contained within the information sought to support applications is less than would be required to support an application for planning permission, but this does mean that there is some archaeological work done to facilitate these applications, and Forest Enterprise Scotland employs a full-time archaeologist who contributes to the monitoring of these applications and any subsequent work (Forestry Commission Scotland, 2008).

6.1.3.2 Natural Process Threats

Where the archaeological resource is threatened by a natural process, rather than by immediate human action, the polluter pays principle cannot be directly applied.

Many of the threats coming from natural processes are erosional, with surface erosion, including animal activity (Dunwell and Trout, 1999) and indirect human agency, such as footpaths,

agricultural activities or visitor erosion accounting for up to 5% of observed cases of wholesale destruction and 24% of cases of piecemeal monument loss (Darvill and Fulton, 1998: 137-8).

Much of the erosional threat to the archaeological resource is related to climate change. Unrecorded shoreline erosion (and accretion) is a particularly significant issue (Ashmore, 1993a). This is also related to the exhaustion of off-shore sand supplies since the last glaciation and many anthropogenic factors such as beach stabilisation transferring risk between different parts of the coastline. This can lead to the potential involvement of national heritage agency funding, and Historic Scotland has been funding coastal zone assessment surveys in order to better inform management options and resource allocation (Dawson, 2008: 11). In terms of the consequences for archaeological employment, the potential financial resource is currently limited and many of the thousands of miles of threatened coastline are distant from the main, urban centres of archaeological employment, meaning that much of the current work has involved monitoring only, carried out on a voluntary basis by unpaid participants.

Where engineered works, such as bridge repairs or flood defences require archaeological mitigation this work will normally be commissioned by funders of the engineering works, such as the Highways Agency or Environment Agency, and so is carried out in the same way as any other development-led work (as set out in Environment Agency, 2010: chapter 5).

6.1.3.3 *Non-threat-led Intrusive Investigation*

A very small amount of archaeological investigation is undertaken when the resource is not under threat. This will typically be undertaken by universities or local archaeological societies for research or training purposes, and will normally be outside the planning controls and rely only on the landowner's consent.

Without the structured nature of application within the planning process, such investigations will often lack clarity and purpose, with concepts such as the project design being rejected (Faulkner, 2000) exemplifies this and the mind-set that prioritises the act of discovery over the protection of an environmental resource – an attitude which makes some of these enterprises smack of having artefact recovery as a primary objective (and thus a return to antiquarian intent). The provision for subsequent archiving is often overlooked, and on-site considerations of health and safety matters frequently do not match those required in professionally-undertaken projects.

Over the period from 1990-1999, 534 investigations (2% of all investigations, equating to 19% of all non-planning led investigations) were undertaken by voluntary organisations (Darvill and Russell, 2002: 49), with “... little correspondence between the pattern of activity represented by

voluntarily executed projects and the overall profile of non-planning related investigations for the same period" (*ibid.*).

This is a relatively minor issue in terms of archaeological employment, except perhaps in the specific area of 'training excavations' undertaken by universities, as this will be part of future professionals' formative experience and may also lead to some work for paid archaeologists in supervisory positions. This is potentially a growth area, as this practice is becoming increasingly commercialised through students making financial contributions to fund their training.

6.2 Provision

Following on from identifying where the demand for archaeological services originates, this study reviews how commercial archaeological services are provided, what kinds of organisations this involves and what effect this has on archaeological employment.

Specifically, this looks at who employs archaeologists – what kind of tasks they undertake, and what kind of organisations they are.

This is done by recognising that archaeological practices are service providers, and those services can be categorised under field investigation, advice provision, museum services and education and academic research. Aitchison and Edwards (2003) first used this four-way division and subsequently it has become a standardised basis for categorising the services that archaeological employers provide (as distinct from the organisational bases of those providers). Three of these areas are discussed in detail immediately below; the discussion of employment in education and academic research is presented in the chapter on Supply, under 6.3.3.2 Employment in Education and Academic Research, below.

6.2.1 Employment in Field Investigation and Research

Throughout the study period, field investigation and (related) research has been the occupational area in which the largest proportion of archaeologists has worked. This conforms to the popular perception of archaeological practice – the generation of primary archaeological data through excavation and survey, and through the interpretative process the transformation of that data into archaeological information.

All other archaeological work relies upon this being undertaken in the first instance – curators are doing secondary work on data, museums on material, and university personnel secondary or even tertiary work (which can be almost unrelated to the generation of archaeological data

although it can directly or indirectly lead to the transformation of archaeological information into archaeological knowledge).

Over the three surveys, the absolute numbers of individuals carrying out this work trebled, while the proportion of the profession engaged in this work nearly doubled.

	Estimated number working in Field Investigation & Research	Estimated overall total	Field Investigation & Research as percentage of total
1997-98	1341	4425	30.3%
2002-03	2826	5712	49.5%
2007-08	3888	6865	56.6%

Table 17: Numbers of archaeologists working in field investigation and research. (Aitchison, 1999: 6, table 6; Aitchison and Edwards, 2003: 20, table 15; Aitchison and Edwards, 2008: 39, table 18). Figures for 1997-98: numbers working for ‘archaeological contractors’

This work is predominantly delivered by organisations operating within the marketplace on behalf of external funders. It is important to note that in these figures, not-for-profit organisations that compete in the marketplace to provide field services have been categorised as ‘private sector’, rather than as ‘other’.

	Nat govt / agency		Local govt		Universities		Private sector		Other	
2002-03	42	1.5%	498	17.6%	278	9.8%	1932	68.4%	76	2.7%
2007-08	85	2.2%	299	7.7%	308	7.9%	2929	75.3%	267	6.9%

Table 18: Distribution of archaeologists working in field investigation and research by employer’s structural basis. (Aitchison and Edwards, 2003: 20, table 15; Aitchison and Edwards, 2008: 39, table 18). Nb the figures presented here for ‘Universities’ primarily relate to staff working for commercial companies within the universities, rather than academic staff who also do fieldwork.

6.2.1.1 Commercialisation and Delivery from Service Providers

The majority of archaeologists recognise that clients ... rarely request their services in order to add to the sum of archaeological knowledge (Blockley, 1995: 101)

The recognition that archaeology includes services for which there is a demand and that this can be commercialised has been the single most important transformation that the discipline of archaeology has undergone.

While archaeology has been viewed as “essentially a non-economic field of endeavour in that it has no product that has a monetary value” (Handley and Schadla-Hall, 2004: 136), it has entered

the marketplace of the knowledge economy – what is valued by curators, clients and sectors of the public is the knowledge that archaeologists hold and can extract from the material remains of past activities.

Most archaeological services – specifically fieldwork investigation, but also some consultancy services - are delivered on a commercial basis, by providers for clients. These service providers are constituted on a variety of bases, including some not-for-profit enterprises.

Prices for archaeological work, as in any unregulated marketplace, are set through the interaction of buyers and sellers – the government does not directly intervene to set prices, except in so far as it also commissions work through its agencies and thus is also a significant buyer. This has led to imperfect competition: purchasers do not buy standardised services; and there is information asymmetry, with purchasers often poorly informed as to the services that they are buying. But even if they are poorly informed, Hinton and Jennings (2007: 107-8) identify four key elements of clients' strengths as buyers.

- Archaeological services are relatively standard and undifferentiated
- Buyers face low costs in switching from one provider to another
- Buyers earn low profits directly from the archaeological work they commission (although their overall projects may return high profits)
- The archaeological product or service is normally perceived as unimportant for the quality of the clients' products or services.

Furthermore, many buyers are now well-informed, particularly if they are using consultants (*ibid.*, 108).

As barriers to entry to most sub-fields of applied archaeology are low with almost no constriction on the number of archaeological service providers (*ibid.*), buyer power is further strengthened.

Commercialisation has not led, however, to applied archaeology always being done for the cheapest possible price – market forces have generally controlled the prices that archaeological enterprises can charge and remain viable. “The influence of customer on price is critical as ultimately the client decides whether the price is set at the correct level” (Blockley, 1995: 111-2), but very importantly “the perceived cost for a client is any negative outcome – not just the price charged – including the difficulties encountered in having to obtain a service, such as time spent waiting or a bad working relationship” (*ibid.*, 112), and so the cheapest price quoted might not always equate to the lowest cost to the client. This is particularly important when a client returns to an archaeological provider who has worked for them before, although it must be noted that most potential clients – particularly relatively small developers – may commission archaeological services so infrequently that this will not always apply.

Intellectually, some archaeologists have found it difficult to come to terms with archaeology's role in the marketplace - “somehow a view has arisen in some quarters that by signing a

contract intellectual ability is uncoupled and ethics are compromised” (Lawson, 1999: 30), but competition for resources has always been part of archaeology; the signing of a contract is merely the way that archaeologists and their sponsors have demonstrated that they understand what is to be done -

“It may be remarked that this structure reflects a much broader trend in Britain since 1979 to adopt ‘market based’ solutions for the provision of services of all kinds. ... This supposed commercialisation of an activity which was previously centrally funded and controlled has provoked much comment and distinguishes the present situation in Britain from the ‘state archaeological service’ found in some other parts of Europe” (Andrews and Thomas, 1995: 191). Over the fifteen years since Andrews and Thomas wrote that, state monopolies in Europe have come under challenge, not least because of European Commission funding and competition rules, most visibly through the breaking of the INRAP monopoly in France both internally and externally, as local authority archaeologists (*collectivités territoriales*) and foreign commercial companies such as Archeodunum and Oxford Archaeology have all sought to work in that country.

Applied commercial archaeology can only exist if someone will pay for it to be undertaken. And so the compulsion on developers to pay is a direct consequence of legislation and other regulations protecting and managing archaeological remains – without this no-one would be paying for it to be recorded – so archaeological mitigation is a consequence of the positive protection and management of the environmental resource, and applied commercial archaeology is the consequence of the state’s withdrawal from the field and the incapacity of other publicly funded bodies – such as museums and universities – to fulfil this role.

Without control over the impact of development on archaeological remains, and the introduction of archaeologically-led management strategies, field archaeology in the UK would be in danger of becoming sidelined as an obscurely interesting but ultimately irrelevant academic pursuit. And development would have continued, and archaeological sites would have been destroyed unrecorded, uninterrupted and unknown, as was routinely the case until relatively recently.

But instead, by embracing market forces, archaeology has matured to become an environmental practice that employs significant numbers of professional practitioners.

6.2.1.1.1 Commercial Companies

Companies with differing constitutions compete in the archaeological services market. Some of these organisations are truly private-sector organisations, seeking to return a profit to the

shareholders and/or owners, while others are technically not-for profit organisations. It is important to note that charities can also be limited companies – that does not differentiate between whether a company intends to return a profit to its owners, or whether it intends to reinvest surpluses to achieve charitable objectives.

The operation of private sector companies located within archaeology is very new (as opposed to private companies commissioning archaeologists to do work for them, which has a longer history) – in 1990, Gifford considered that they had created the first private sector ‘unit’ in the UK (CBA, 1990). In 2010, Pre-Construct Archaeology and Headland Archaeology (Case Study 20: Headland Archaeology, below) are the two largest archaeological contractors that have shareholding owners – and these shareholders are often also Directors of the companies. The only public limited companies that are IfA Registered Organisations in 2010 are the large, multidisciplinary consultancy firms Jacobs and RSK.

The overwhelming majority of practices on the IfA Register of Organisations are commercial businesses (although a small number of non-commercial enterprises, such as the Royal Commission on the Ancient and Historical Monuments of Scotland are also on that Register).

In 2010, the 62 Registered Organisations (ROs) employed 2286 people (IfA, 2010: 38-46). With archaeology as a whole employing 6233 individuals in April 2010 (Aitchison, 2010c), ROs were employing 37% of the total in the sector – and with the total number employed in commercial archaeology across the UK calculated on 1st April 2010 as 3444 (*ibid.*), ROs employed 66% of all archaeologists working therein.

It can thus be seen that while ROs do not include the entirety of the UK’s commercial archaeological workforce, they do employ a significant majority of this group, with all the largest commercial practices represented in this dataset (the largest commercial company operating in applied archaeology that is not an IfA Registered Organisation are probably ASDU, the commercial arm of the Department of Archaeology at the University of Durham and Suffolk County Council Archaeological Service, both of which have approximately 25-30 members of staff).

The distribution of IfA Registered Organisation sizes, as of 1st April 2010, follows the rank-size rule remarkably closely, with the second largest company (by workforce) being $\frac{1}{2}$ the size of the largest, the third largest $\frac{1}{3}$ the size of the first *etcetera* (Figure 3 below).

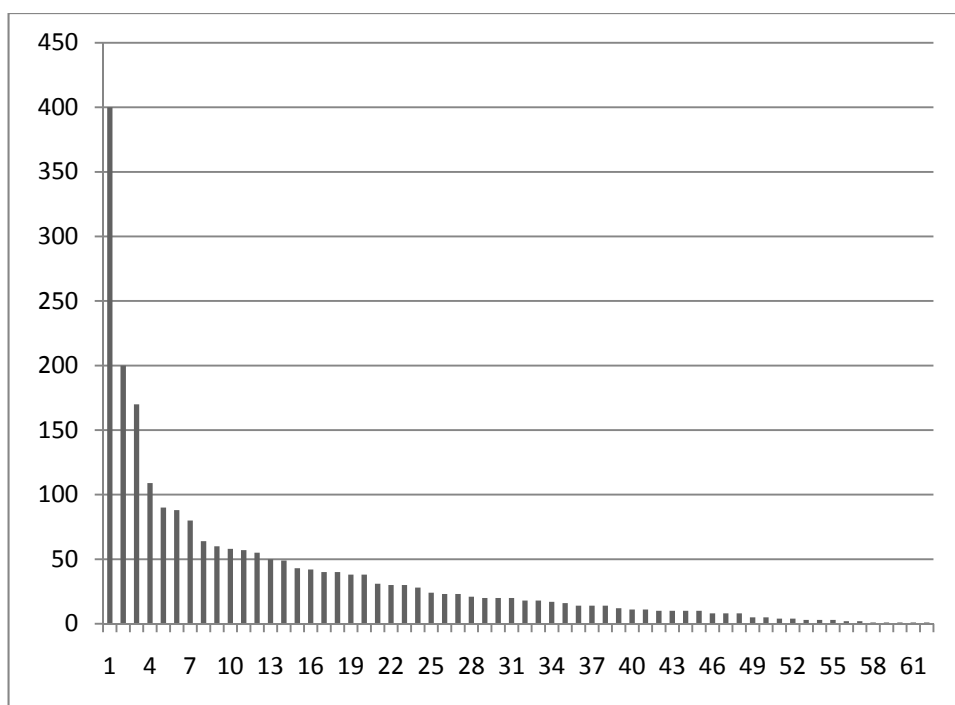


Figure 3: IfA Registered Organisations in 2010, ranked by numbers of employees.

Maclachlan considers that a distribution like this is likely to result where “... markets are monopolistically competitive with each firm producing a unique product, but one that buyers could substitute with the products of other firms in the same market” (Maclachlan, 2009: 3), particularly where the market is sufficiently small that effectively all sellers are known to their competitors. For a market to be monopolistically competitive there should be many producers, many consumers with no business having total control of the market; consumers should be able to perceive non-price differences between the competitors; there should be few barriers to entry and exit; and producers should have a degree of control over price (Gans et al., 2000).

Commercial archaeology in the demonstrates many of these characteristics, with the possible exception of there being limited barriers to exit as some practices have been ‘protected’ from the full power of the markets by their parent bodies (see 6.2.1.2.2 Not for Profit Organisations and Charitable Status, below).

The Pareto Principle holds that 20% of businesses will control 80% of the market – but in archaeology (using numbers of staff employed as a proxy measure for market share), the largest 20% of businesses between them have 63% of the workforce of the 62 ROs, and it is the businesses that make up 35% of the total number of practices that have 80% of the market. So in fact archaeology has a ‘longer tail’ than might be expected – and that tail is even longer when the non-RO commercial providers are considered, as these are typically smaller organisations, with many sole traders operating (see 6.2.1.1.1.1 Microbusinesses, below).

This means that even the largest businesses trading in the market can command only a very small market share. “Market leaders with turnovers in the order of £6-8million could only claim to have approximately 5% of the market, and therefore do not have the capacity to set market prices or influence them to any degree” (Hinton and Jennings, 2007: 108). In this situation, competition within the crowded archaeological marketplace is intense and profit margins are limited.

Figure 4 below graphs the size of all IfA Registered Organisations from the start of the Registered Organisation scheme in 1997 to 2010, using figures for staff numbers published in the IfA’s annual Yearbooks. The right hand axis names the six largest (in 2010).

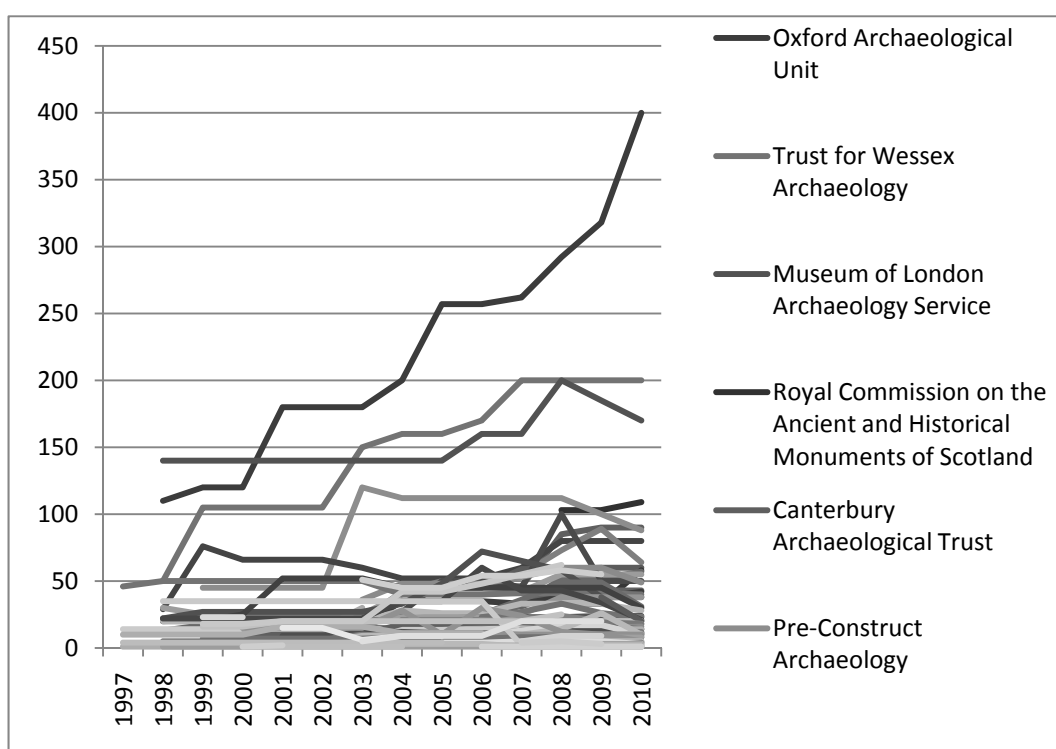


Figure 4: IfA Registered Organisations staff numbers, 1997-2010.

Very significantly, of these ten largest ROs in 2010, five are charitable limited companies, one is a state agency, two are parts of universities, one is within a local authority, and only one is a private company. This dominance of not-for-profit organisations undoubtedly contributes to the limited profitability of the archaeological sector, as competition is not undertaken on an equal base or with competitors having equivalent intentions (see 6.2.1.2.2 Not for Profit Organisations and Charitable Status, below).

A convenient advantage to the researcher, however, of so many of these firms' charitable status is that their annual accounts are returned annually to the Charity Commission and then published on that organisation's website.

Oxford Archaeology		(rank on Figure 4 = 1)				
	2008-09	2007-08	2006-07	2005-06	2004-05	
Income	£11,681,088	£10,416,526	£9,132,557	£7,922,205	£7,676,885	
Spending	£11,901,088	£9,132,557	£8,855,462	£7,978,366	£7,382,718	
Profit	-£220,000	£1,283,969	£277,095	-£56,161	£294,167	
Profit Margin	-1.88%	12.33%	3.03%	-0.71%	3.83%	
Staff (IfA Yrbook)	318	292	262	257	257	
Source: (Charity Commission, 2010b)						
Wessex Archaeology		(rank on graph = 2)				
	2008-09	2007-08	2006-07	2005-06	2004-05	
Income	£7,029,499	£8,234,355	£7,252,970	£6,307,361	£6,077,672	
Spending	£7,370,856	£7,706,485	£6,829,877	£6,391,198	£6,075,395	
Profit	-£341,357	£527,870	£423,093	-£83,837	£2,277	
Profit Margin	-4.86%	6.41%	5.83%	-1.33%	0.04%	
Staff (IfA Yrbook)	200	200	200	170	160	
Source: (Charity Commission, 2010c)						
Cotswold Archaeology		(rank on graph = 8)				
	2008-09	2007-08	2006-07	2005-06	2004-05	
Income	£2,587,274	£3,515,962	£3,503,991	£1,867,423	£1,562,800	
Spending	£2,542,051	£3,107,157	£3,107,229	£1,785,312	£1,501,499	
Profit	£45,223	£408,805	£396,762	£82,111	£61,301	
Profit Margin	1.75%	11.63%	11.32%	4.40%	3.92%	
Staff (IfA Yrbook)	89	73	55	50	50	
Source: (Charity Commission, 2010a)						

Table 19: Size, turnover and profit margins: Oxford Archaeology, Wessex Archaeology and Cotswold Archaeology.

After this table was constructed for the purposes of illustrating the sizes, turnovers and profit margins of some of the market leaders, it was announced on 28th July 2010 that Wessex Archaeology and Cotswold Archaeology were in formal discussions regarding a potential merger (Cotswold Archaeology, 2010; Wessex Archaeology, 2010b), (see Case Study 13: Wessex Archaeology, above and 9.1.3 Consolidation, below) which would have potentially created an organisation that is much closer to Oxford Archaeology in staff numbers and turnover, and in so doing reducing the number of large contractors in competition. However, this proposal was not completed and the planned merger was abandoned in October 2010 (Mark Collard pers. comm. 4th October 2010).

6.2.1.1.1 Microbusinesses

The European Commission (EC, 2003) considers that micro, small and medium-sized enterprises are defined by their staff headcount and turnover total.

A medium-sized enterprise is an enterprise which employs fewer than 250 persons and whose annual turnover does not exceed €50 million, a small enterprise is an enterprise which employs fewer than 50 persons and whose annual turnover does not exceed €10 million, and a microenterprise is defined as an enterprise which employs fewer than 10 persons and whose annual turnover does not exceed €2 million.

Comparing Table 10 of Aitchison and Edwards (2008: 36) with the EC definitions, 78% of archaeological workplaces are microbusinesses, a further 17% are small enterprises and 5% are medium-sized. Only one archaeological workplace reported employing more than 250 people – and as its turnover is unknown, it may well have still been a medium-sized enterprise by the EC's definition.

Of those microbusinesses, more are single-operator businesses (46% of all archaeological workplaces) than are those with between 2 and 10 members of staff (32% of businesses).

This confirms that archaeology has a 'long tail' – the pattern is in fact very much more extended than is shown by simply comparing the sizes of IfA Registered Organisations (see 6.2.1.1.1 Commercial Companies, above).

Over time, there might have been a 'stretching' of the market, with slight trends both towards smaller archaeological workplaces (75% were microbusinesses in 2002-03, 78% in 2007-08 – Aitchison and Edwards (2008: 122)) and to larger workplaces (3% employed over 50 people in 2002-03, 5% in 2007-08) but this is not a strong correlation.

The increase in the numbers and relative proportions of microbusinesses in archaeology may reflect both the rise of self-employment, particularly for specialists, following trends towards flexibility and outsourcing and an increase in subcontracting within the sector. More individuals now work on behalf of larger organisations which would previously have employed them directly – and those organisations can now very easily interrupt the supply of their expertise and 'lay them off'. This brings up an important difference which the labour market intelligence (LMI) data does not easily distinguish, between small business owners (who may take on others from time to time) and those who are effectively single traders, niche providers who are "simply taking on paid work tasks other than through being engaged by an employer" (Watson, 1995: 368).

This evolving admixture of enterprise sizes is how archaeological practice is engaging with post-modern capitalism, which has meant the end of a job for life and the rise of self-employment, together with a concomitant increase in the number of small businesses, remote working, together with the erosion of established occupational identities. Individuals have been able to take advantages of opportunities that the market has created, but as service providers their business models may be fragile, owing to lack of capacity within such small organisations.

6.2.1.2 Market Leaders

Within UK archaeology since 1995, there have been four commercial companies (Oxford Archaeology, Wessex Archaeology, MoLA and Pre-Construct Archaeology) who have, at various times, regularly and normally employed over 100 individuals. Within such a small market, these four organisations – have a significant, but not overwhelming share of the workforce (and thus, by proxy, of the market).

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Oxford		110	120	120	180	180	180	200	257	257	262	292	318	400
Wessex	46	50	105	105	105	105	150	160	160	170	200	200	200	200
MoLA		140	140	140	140	140	140	140	140	160	160	200	185	170
PCA			45	45	45	45	120	112	112	112	112	112	100	88

Table 20: Staff employed by four largest IfA Registered Organisations, as reported in IfA Yearbook and Directory of Members 1997-2010.

Headland Archaeology is the only other company to have reported employing 100 or more individuals to the IfA’s Registered Organisations scheme, in 2008.

Wessex Archaeology’s reported income (turnover) reached £8.2m in 2008 (dropping to £7.0m in 2009); Oxford Archaeology’s highest reported annual income has been £11.7m in 2009 (Charity Commission, 2010c; 2010b).

These organisations operate on a scale that facilitates engagement with major development projects, and when they are busy and focussed on such projects, smaller opportunities open up for other businesses. This happened repeatedly from the late 1990s – mid 2000s, when successive infrastructure projects followed one another, such as the Channel Tunnel Rail Link (Case Study 12: Channel Tunnel and Channel Tunnel Rail Link, above), Heathrow Terminal 5 (Case Study 15: Heathrow Terminal 5, below) and the M6 Toll (Case Study 10: M6 Toll, above). Most of the projects at this scale have involved these major players either leading consortia with third parties or working together, which Oxford and Wessex have demonstrated particular

confidence in doing through the two models of Framework Archaeology and OWA (see 6.2.1.2.1.1 Joint Ventures, below).

These companies are also able to take advantage of international opportunities (Oxford Archaeology have two offices in France) and they are able to acquire smaller, businesses, as happened when Oxford Archaeology took over the Lancaster University Archaeology Unit to form Oxford North and the Cambridge County Council unit to form Oxford East, and when Wessex absorbed ARCUS (Case Study 22: ARCUS, below) to establish a presences in Sheffield.

The four organisations discussed above together employed 804 individuals in 2008; Aitchison and Edwards (2008: 39, table 18) estimated 2929 people were working in private sector – field investigation and research – so the biggest four make up only 27% of the subsector’s workforce (the staff of the largest, Oxford, representing 10% of the total). Over time, this has been a relatively stable proportion: in 2003, they employed 590 people (31% of private sector – field investigation and research, a total of 1932 individuals – Aitchison and Edwards, 2003: 20, table 15), in 1998 these four organisations employed an estimated 345 – 26% – of 1341 ‘contractors’ (Aitchison, 1999: 6: table 6) (Pre-Construct Archaeology was not an IfA Registered Organisation at that time, but had been trading since 1993).

Case Study 14: Oxford Archaeology

Founded in 1973, with nearly 400 staff in 2009 (Oxford Archaeology, n.d.), Oxford Archaeology is the largest direct employer of archaeologists in the United Kingdom. The company is a registered charity, and its published accounts for 31st March 2009 show an income in that year of £10,467,133, spending of £9,760,245 with 285 employees (Charity Commission, 2010b).

The Oxfordshire Excavation Committee was constituted in July 1973. That Committee immediately established the Oxfordshire Archaeological Unit, which appointed a Director and was functioning “as an independent county unit” from 1st October 1973 (Cunliffe, Rowley and Hassall, 1974: 95). It was the Committee that was the charity, rather than the ‘unit’ or fieldworking organisation, and it effectively replaced, or subsumed, several small, overlapping operations that had existed in Oxford in the early 1970s. In 1974, the organisation employed six archaeologists, one admin assistant and a flexible pool of diggers (Bishop, 1975: 14).

Originally operating only in Oxfordshire (the main predecessor organisation operated only within the city of Oxford), the organisation additionally became the regionally responsible body for undertaking archaeology in Bedfordshire, Buckinghamshire and Northamptonshire, funded by the Department of the Environment under the Government’s 1973 and 1974 settlements.

Following the end of core government funding for organisations, and the opening up of the market, Oxford Archaeology began to compete assertively and opportunistically, becoming the

first organisation to successfully tender for work outside their 'territory' at Reading Business Park in 1987 (Case Study 5: Reading Business Park, above).

Over time, the organisation has expanded, first by absorbing Lancaster University Archaeological Unit in 2001. When LUAU was externalised, the decision on which organisation that unit should become part fell to the alternatives of AOC or Oxford Archaeology. The Lancaster staff endorsed the choice of Oxford. Subsequently, CAM ARC – the Cambridgeshire County Council unit – was acquired in October 2008. The geographically separate offices now trade as Oxford Archaeology South, Oxford Archaeology North and Oxford Archaeology East. There are in addition two offices in France - Oxford Archéologie Méditerranée and Oxford Archéologie Grand Ouest.

This international expansion has also been led by opportunities – following work at Chateau Mayenne in the 1990s (Miles and Early, 1998), Oxford Archaeology then successfully applied to be added to the list of potential deliverers of archaeological services in France, with an some work arising in Montpellier. That operation went from a project-to-project basis to becoming an established business base in southern France by 2008, with a similar process subsequently taking place in Normandy and Brittany. There have been issues regarding the organisation's charitable status and competition law in France, which have been resolved by having the French offices operate as a fully separate business entity (OA France, 2010). In France Oxford Archaeology is permitted to work on sites of all periods, which very few organisations other than INRAP (the French quasi-autonomous state agency) are.

The company also undertakes consultancy work in China, where it was providing conservation advice to the Darning Palace in China in 2009 with involvement in that project set to increase in the following year (Oxford Archaeology, 2009: 6) (see 8.1 UK Archaeological Employers Working Outside the UK, below).

As the largest archaeological organisation operating in UK commercial archaeology, it has the greatest capacity to be involved in major projects – and this has been enhanced through its corporate willingness to participate in joint ventures. A history of successful collaboration with Wessex Archaeology (Oxford's largest competitor) started with the Framework Archaeology model at Heathrow (Case Study 15: Heathrow Terminal 5, below) and has also included OWA (Oxford Wessex Archaeology), the joint venture that the companies use to deliver road scheme projects (see 6.2.1.2.1.1 Joint Ventures, below).

In France, from 2008, Oxford have been one of three archaeological contractors working on the Canal Seine-Nord Europe project, together with a Swiss-registered commercial company, Archeodunum (Oxford Archaeology and Archeodunum are, in 2010, the only two foreign members of ANACT, the closest equivalent to FAME (see 6.4.2 From SCUM to FAME, below) in France (ANACT, n.d.)) and INRAP. This is not a joint venture – the three organisations have

separate contracts and geographically defined responsibilities – but it is a very significant step in closer working with non-UK partners, on an extremely large project.

In the UK in 2010, Oxford Archaeology is working on two of the largest ongoing construction hub projects, Crossrail (Oxford Archaeology, 2010b) (see 6.1.2.2.1.3 Rail, above) and the Thames Gateway project, which also has potential to be a major driver of archaeological employment in coming years (Oxford Archaeology, 2010a; DP World, 2009).

Oxford Archaeology's significance in UK archaeological employment cannot be understated. From employing seven people in 1974, they now employ more archaeologists than any other organisation, private or public, in the UK. Their corporately assertive approach to engaging with new markets and taking new approaches inevitably impacts upon all of their competitors. This expanding business model actually fits well with the company's charitable status, under which it should not retain excessive surpluses – so when these surpluses are produced, they have been reinvested in expansion (although charities the size of Oxford Archaeology are required by law to have their accounts audited, and, under the *Charities [Accounts and Reports] Regulations 2008* must make a risk management statement in their trustees' annual report confirming that "...the charity trustees have given consideration to the major risks to which the charity is exposed and satisfied themselves that systems or procedures are established in order to manage those risks").

6.2.1.2.1.1 Joint Ventures

Since the 1990s, it became increasingly common for major archaeological contractors to enter into joint venture or consortium agreements, particularly on major infrastructure schemes.

In terms of archaeological employment, this has had a very major impact - "the big step forward in terms of numbers of staff was 1998 and the start of joint ventures" (Sue Davies pers. comm. 12th January 2010).

The first time this took place between two applied archaeological companies in UK field archaeology was with the establishment of Framework Archaeology, which brought together Oxford Archaeology and Wessex Archaeology to undertake work for BAA (formerly British Airports Authority) (although the joint venture formed by Headland Archaeology and SUAT to work on the Scottish Parliament site (Case Study 19: Scottish Parliament, below) was also being developed at the same time, and at least one other consortium was formed around this period but didn't necessarily win the contract they tendered for). Framework Archaeology first worked at Heathrow (Case Study 15: Heathrow Terminal 5, below), and has subsequently also worked at both Stansted and Edinburgh airports.

A joint venture is a formal legal entity, which can be established for one specific project only (technically making a consortium, which is dissolved when that project's goal has been reached) or as a continuing business relationship. The joint venture agreement will specify the partners' mutual responsibilities and goals, but this does not have to be a precisely equal division of responsibilities (and/or rewards) - for example, on the A46 project (Case Study 23: A46, below), Cotswold Archaeology was responsible for all recruitment (Mark Collard pers. comm. 22nd February 2010) on a joint Cotswold Archaeology – Wessex Archaeology project

There are several different models for the governance of joint ventures, and on occasion a shell company will be formed which does not have any assets in itself, but which becomes the mechanism by which clients interact with the joint venture partners. Whichever mechanism is used will depend upon the preferences of the partners and their client. The primary advantage of successful joint ventures is the facility to share costs and risks, but normally each partner will also have defined liabilities; they can also lead to increased capacity, the opportunity to access greater staff, technological and financial resources and to open access to new markets.

As well as the Framework joint venture, which was established in 1998, Oxford Archaeology and Wessex Archaeology have also operated together since 1999 as Oxford Wessex Archaeology (OWA), working on the M6 Toll (Case Study 10: M6 Toll, above) and the East Kent Access Road, which was expected to be “the largest excavation in Britain in 2010, covering approximately 40 hectares” (Oxford Wessex Archaeology, 2009). OWA does not use the detailed Framework methodological approach (Case Study 15: Heathrow Terminal 5, below).

Wessex Archaeology have also worked in a joint venture with Cotswold Archaeology (as Cotswold Wessex Archaeology) on the A46 Newark to Widmerpool in 2009 (Case Study 23: A46, below), and joint ventures have also been established to undertake other significant infrastructure projects, such as the M74 completion project (Case Study 11: M74 Completion, above), where Headland Archaeology and PCA worked under the HAPCA name (2007-9). This project was also significant because it marked the establishment of alternative consortia at the tendering stage – the ‘Quattro’ consortium of CFA, AOC, GUARD and SUAT was established as a limited liability partnership incorporated in March 2007 (Companies House, 2010) but withdrew from the tendering process at a late stage.

Previously, between 1998 and 2001 Headland Archaeology had also experienced working in a joint venture with SUAT at the site of the Scottish Parliament (Case Study 19: Scottish Parliament, below); Kirkdale Archaeology plus Addyman and Kay also contributed to that project as subcontractors but not full joint venture members.

The archaeological investigation of the east London Olympic Park land and waterways was undertaken by MoLAS (now MoLA) and PCA. The MoLAS-PCA joint venture began work in 2003

in the pre-application phase of the project, and carried through all of the fieldwork and post-excavation phase which extended until 2008.

The most significant project to involve multiple archaeological partners but that was not a joint venture was the Channel Tunnel Rail Link (Case Study 12: Channel Tunnel and Channel Tunnel Rail Link, above, where the work was managed by Rail Link Engineering and fieldwork undertaken (at different times and in different locations) by Geophysical Surveys of Bradford, Oxford Archaeology, Canterbury Archaeological Trust, Wessex Archaeology and MoLAS. Another major long-distance infrastructure projects with multiple contractors was the Shell Chemicals North-Western Ethylene Pipeline from Grangemouth to Stanlow (Case Study 9: North-Western Ethylene Pipeline above), involving CFA, Lancaster Archaeological Unit and Geophysical Surveys of Bradford (Lambert et al., 1996).

In some instances, joint ventures have been established at the request of the client (as at Terminal 5) seeking to spread the risk particularly where archaeology is seen as a small but crucial project component with potentially fragile partners. This has become an increasingly well understood and widely applied approach (for large scale projects), as demonstrated by formation of consortia at the development stage, rather than just for delivery (which has been demonstrated by the fact that some joint ventures are unsuccessful at the tender stage, as happened for the M74 Completion and has also seen Pre-Construct Archaeology and CgMs unsuccessfully bidding for work on Crossrail).

Case Study 15: Heathrow Terminal 5

In terms of employment practice and history, Heathrow Terminal 5 was an enormously significant project for archaeology. This was the first major joint venture project in British archaeology, bringing historic and economic rivals Wessex Archaeology and Oxford Archaeology together to work on a very prestigious construction project, with approximately 60 individuals on site at any given time at the fieldwork's peak in 1999.

The site was at Perry Oaks, a sludge works immediately west of Heathrow Airport, located between runways one and two. Heathrow itself had been the site of W.F. Grimes' 1944 excavations on behalf of the Ministry of Works during wartime pre-airfield construction (Grimes and Close-Brooks, 1993) (see 5.2 War and Archaeology: 1938-1972, above).

The first phase of Framework's archaeological work was carried out between 1996 and 2000 and "21 hectares were exposed in a single phase in 1999, making it one of the largest open area excavations at the time. ... The excavations at Perry Oaks were ... carried out with the expectation that the construction of the proposed fifth passenger terminal ('T5') at Heathrow Airport would be approved" (Framework Archaeology, 2006: 2), which it subsequently was.

Organisationally and intellectually, this archaeological project was different from any predecessor. The client wanted to set new benchmarks for construction standards inspired by *Rethinking Construction* (Egan, 1998), and designed an approach to all aspects of the project that minimised and shared risk by encouraging teams to be formed from different companies to work on subprojects.

The 'T5 Agreement' (BAA, n.d.) was the result, a legally binding contract between BAA and its key suppliers. Through the agreement BAA accepted that it carried all of the risk for the construction project, thus allowing the contractors to concentrate on the project and solving problems rather than avoiding possible litigation for problems arising and time delays.

In terms of the archaeological work, it was considered that the size of the excavation would stretch the resources of any one archaeological contractor and the developer, BAA, was instrumental in the establishment of a joint venture between Oxford Archaeology and Wessex Archaeology, under the name of Framework Archaeology (Andrews, 2006).

Where MAP 2 (EH, 1991b) sought to defer historical interpretation, by separating post-excavation analysis from excavation, the methodology applied in the Framework system sought to reintegrate interpretation 'at the trowel's edge'. Gill Andrews, as the project consultant, and John Barrett, who had previously considered that to regard the point of data characterisation "... as the end point of our labours or as material which can await interpretation by others, is an abdication of our responsibility" (1995: 8-9), together defined a new methodology of investigation. This aimed to empower "... members of the excavation team to undertake historical research, rather than to require them simply to record archaeological deposits prior to their destruction" (Andrews, Barrett and Lewis, 2000: 526).

Framework Archaeology also operated on behalf of BAA at their other sites of Stansted and Edinburgh airports, using the methodology defined for T5, but the methods have not percolated into archaeological practice beyond those projects. Indeed, Oxford and Wessex will work together on other, non-Framework joint ventures as OWA (Oxford Wessex Archaeology), such as on the M6 Toll (Case Study 10: M6 Toll, above) but without using the Framework methodology.

The significance of this project was firstly in the establishment of joint ventures as an accepted business practice within archaeology (see 6.2.1.2.1.1 Joint Ventures, above), allowing the pooling of resources and the sharing of risk – a philosophy that has been successfully exported from the Heathrow project. Secondly, it was one of a series of major, late 1990s infrastructure hub developments that involved so many archaeologists that all had the gravitational effect (*eg* Case Study 12: Channel Tunnel and Channel Tunnel Rail Link and Case Study 10: M6 Toll, above) that more opportunities opened up for other commercial providers to fill the gaps behind Oxford and Wessex's commitments.

6.2.1.2.1.2 Remote Offices

A new phenomenon at the start of the twenty-first century was a trend for commercial archaeological contractors or consultancies to open remote offices, often just with a single member of staff, giving broader geographical market coverage. Examples of businesses using this approach include AOC, which in addition to having sizeable teams in Loanhead and Twickenham also has a further ten addresses listed on its website (AOC Archaeology Group, 2010), and GUARD which established Edinburgh and Aberdeen offices remote from the organisation's Glasgow base (GUARD, 2008), each with one member of staff who primarily undertook consultancy work. This represents a decentralising tendency linked to the increase in private sector consultancy work (see 6.2.2.3, below), allowing firms that had originally been focussed on fieldwork to deliver additional services across a wider geographical area.

6.2.1.2.2 Not for Profit Organisations and Charitable Status

Not all commercial archaeological enterprises are privately-owned, profit-generating operations. A significant number are constituted as not-for-profit (NFP) enterprises, which do not provide dividends or other returns to stakeholders. These organisations can be constituted with the aim of providing a service – such as trading arms of local government authorities – without producing surpluses; alternatively they can reinvest any surpluses within the organisation or use surpluses to achieve stated charitable aims.

Under the *Charities Act 2006*, charities are organisations established for “exclusively charitable purposes only” which must be able to demonstrate that their aims are for the public benefit (Charity Commission, 2008b). The charity's purposes must fall within a prescribed set of descriptions and most (if not all) archaeological charities aim to meet the purposes of “the advancement of education” or “the advancement of environmental protection or improvement”.

Generally, most charitable organisations are technically unincorporated charities, but within archaeology these bodies are normally companies limited by guarantee. One organisation constituted on a different basis is Museum of London Archaeology (Case Study 17: Museum of London Archaeology, below), part of the Museum of London, an exempt charity established by Act of Parliament.

The benefits of charitable status include rates relief, exemption from corporation tax, the ability not to charge VAT on work that is deemed to contribute towards their charitable purposes, different auditing requirements and access to some specific funding sources that profit-making businesses do not have. Charities generally do not pay tax as there is no tax on charitable income applied for charitable purposes, primary purpose trading is exempt and there are other

trading exemptions. Trading arms of charities carry out trading for the charity, donate all taxable profits to the charity so thus they have no corporation tax to pay.

In addition to these social enterprises, there are a series of other not-for-profit models operating within archaeology. A relatively high proportion of archaeological employers are (still) fieldwork-focussed operations based within a larger structure – either within local government or within universities. In these cases, the organisations do not realise profits but aim or are obliged to return surpluses to their parent bodies.

This means that many organisations “do not face the complete economic reality of the market. For instance, organisations based within local authorities and universities do not have to pay attention to cash flow, as their cash requirements are absorbed by being part of a much larger entity. Given that most bankrupted businesses are profitable but simply run out of cash, this is a significant factor. It can be argued on occasion that these organisations may not be paying the real cost for services, or their lack of profitable performance might be tolerated for other ‘political’ reasons” (Hinton and Jennings, 2007: 108-9); on the other hand, “many archaeological organisations that are part of these larger entities have to face disproportionately burdensome overhead charges, and other factors that make it difficult for them to compete” (*ibid.*).

There are also a very small number of cooperatives within archaeology, businesses run on a democratic model by the staff of the company which can either be not-for-profits or profit making enterprises.

Four of the five largest IfA Registered Organisations in 2010 (by staff numbers) were charitable limited companies, and nine of the ten largest were not-for-profit organisations of one sort or another.

	Of the 5 largest	Of the 10 largest	Of the 15 largest	Of the 20 largest
charitable limited company	4	5	5	6
part of university	0	2	3	4
part of local authority	0	1	4	5
state agency	1	1	1	1
private company	0	1	2	4

Table 21: Constitutional status of largest IfA Registered Organisations.

On the basis of these figures, it can be argued that it is the norm for a commercial archaeological enterprise to be an NFP. Of all those employed by ROs in 2010, 1845 of 2286 (82%) work for NFPs (including university and local authority ‘units’).

The not-for-profit business ethos can often lead to a reluctance to maximise surpluses, especially as they cannot be directly realised as profits, which then becomes a restraint on salaries. The largest organisation operating in the field of applied archaeology, Oxford Archaeology, had 322 employees in 2008-09 and spent £6.6m on salaries. One member of staff (presumably the Chief Executive) earned between £60,000 and £70,000 (Oxford Archaeology, 2009: 18). In the same year, no employee of Wessex Archaeology earned more than £60,000 (Wessex Archaeology, 2009b). These are relatively large businesses, operating (in Oxford's case) with international subsidiaries, to be paying their most senior staff so modestly.

It is worthy of note that, in general, the not-for-profit enterprises in archaeology are long-established businesses, with very few recent setups being NFPs.

Case Study 16: York Archaeological Trust

The York Archaeological Trust for Excavation and Research Ltd (YAT) is the largest archaeological contractor based between Edinburgh and the English midlands, consistently reporting staff numbers between 40 and 50 in the IfA Yearbooks from 1998 to 2010. This organisation had a relatively early foundation, and from a fieldwork-focussed start has diversified by managing a registered museum and several visitor attractions, with fieldwork progressively decreasing in comparison with other revenue production streams.

While an attempt to set up an archaeological coordinating committee for the city in the 1950s “foundered on the rocks of local personal difficulties” (Addyman, 1974: 159), the stimulus that led to the establishment of YAT was when York was selected in 1966 by the Minister of Housing and Local Government for detailed study “to discover how to reconcile our old towns with the twentieth century without actually knocking them down” (*ibid.*: 156). Simultaneously, major excavations around York Minster also raised archaeology's profile in the city (Jones, 1984: 134-5).

The result of the governmental study was Lord Esher's (1968) report on conservation within the historic city of York, which made firm recommendations for town planning within the city walls of York to be conservation-led. This philosophy was accepted by the City Council and became absolutely critical in York's adoption of an attitude which valued the historic environment over unrestricted economic development – a ‘conservation’ rather than a ‘development’ town.

In response to the Esher Report (which did not actually make mention of archaeology, although the conservation-led management of archaeological remains could be construed to fit within its overall philosophy relating to standing buildings), The York Archaeological Trust for Excavation and Research was founded in 1972, financed the Department of the Environment, the City of

York and North Yorkshire County. The Trust's first Director, Peter Addyman, moved from an academic position at the University of Southampton to take up the post (Jones, 1984: 135). The Trust initially had a staff of eleven (Addyman, 1974: 162), larger than almost every comparable body at the time.

The highest profile site that YAT worked on in the early years of its establishment was Coppergate, partly funded by a Scandinavian bank loan, reflecting geographically-specific overseas interest in the Viking period of the site (Jones, 1984: 139), where large-scale redevelopment was planned for a site near the centre of the city at the confluence of the Fosse and the Ouse.

Under Part II of the *Ancient Monuments and Archaeological Areas Act 1979*, York Archaeological Trust became the Investigating Authority in York, and so had to be notified of any proposed development within the designated archaeological area (including works carried out under the GPDO). This has led to the organisation undertaking considerable amounts of work within the City, and thus to maintaining its employment base.

YAT was a fieldwork company – a 'unit' – that became a museum, rather than *vice versa*. Tourism relating to archaeology is very significant in York (Visit York, n.d.), with the city's application for World Heritage list status being expressly linked to the "economic, social and tourism benefits" that this would bring (Stead, 2010). The 1984 opening of the JORVIK Viking Centre, a visitor attraction owned and operated by YAT on the Coppergate site, was the key to solidifying this relationship. The Trust now also operates three other attractions in addition to JORVIK, and had 114 staff in total in 2010 (with only 40 of them being archaeologists) (Charity Commission, 2010d; IfA, 2010). This suggests that every archaeological post at YAT supports the existence of two non-archaeological posts, a pattern that is not replicated at any of the other bodies that enjoy charitable trust status while operating within applied commercial archaeology in the UK.

York City Council did not employ its first professional curatorial archaeologist until 1989 (Hyde, 1993: 77), relatively late for a planning authority to take on an in-house archaeological advisor. Previously, the existence and status of YAT meant that it had been felt (Ove Arup & Partners, 1991) that no city archaeologist was needed.

Ove Arup (*ibid.*: 80) recommended that YAT surrender the Investigating Authority designation under part 2 of the 1979 Act in favour of the City Council, but this did not happen, and shortly after the publication of the Arup report, English Heritage considered that the planning system was working well for archaeology in York, both from the perspective of developers and archaeologists (Fraser, 1992).

After years of an uneasy relationship with the University of York – which, after initially providing accommodation (Addyman, 1974: 162), became less co-operative – the two bodies are now working much more closely together as the Trust funded the establishment and maintenance of a new Fellowship in Historical Archaeology at the University in 2010 (Richards, 2010), with the Fellow also contributing to YAT's work.

Part of the reason behind the earlier friction was competition for fieldwork - Field Archaeology Specialists was established in 1993 by Martin Carver as a commercial enterprise that was then part of the University's Department of Archaeology. After twelve years, this organisation was disestablished from the University but still continues to operate in association with the Department (anonymous, 2008a).

Even with the recent difficult economic situation, YAT has thrived, with staff numbers remaining steady and income increasing. The organisation's total income in 2008-09 was £7,439,711, an increase from £4,720,340 in 2007-08, with 'exploration income' – the amount of turnover generated by the work of the Trust's 40 archaeologists - increasing from £1,199,000 in 07-08 to £1,427,000 in 2008-09. The increase over that year resulted from intense activity on a significant project which commenced in 2007-08, the extensive set-piece excavation of Hungate, which has become "the biggest ever dig in York city centre" (YAT, 2010).

The distribution of work recorded in the Trust's annual report for 2008-09 (YAT, 2009) shows many watching briefs and evaluations, across a very limited geographical distribution, with very little work being carried out outside the City of York. This is primarily because of their position as the investigating authority under the 1979 Act leading to numerous small-scale interventions under GPDO within the City, and some potential competitors might not commit to so much minor work with limited potential returns – but YAT have philosophically gone along with Colcutt's view that "... from a commercial viewpoint, field evaluation is seen by many units as a troublesome, scrappy process, but necessary to win commissions for more substantial excavations; indeed, they may hold a very significant competitive advantage over less diversified firms by loss-leading in both desk-based assessment and field evaluation" (Colcutt, 2006: 225-6).

This has meant that, in 2010, YAT experimented with a new approach to costing pre-determination fieldwork. "A new way of working ... We'll provide upfront work free of charge on selected projects; on the basis that you appoint us to carry out any work that's required on site once the project gets underway ... No other commercial archaeological service provider works in this way" (YAT, n.d.). To date, this has not been very enthusiastically embraced by significant developers, who would all still prefer to let major works go out to tender, but it does illustrate a novel approach to small-scale fieldwork, of treating this entirely as a loss-leader (although it

may only be offered where there is an expectation of substantial sub-surface deposits and thus considerable follow-on work).

6.2.1.2.2.1 Local Government Providers

A number of providers of commercial fieldwork services are commercial services within local planning authorities. These authorities also retain archaeologists providing curatorial, advisory services to the local planning departments. In principle the two types of service should be discrete and not conflict with each other, nor should the in-house unit be given advantages over external competitors.

These fieldwork organisations can be constituted so that the parent authority manages their cashflow or insurance issues. Such direct subsidies to in-house providers of archaeological services within local authorities may be justified as the organisation as can be seen as providing a service to the local taxpayers, or as a source of a potential revenue stream for the authority.

In the 1970s and 80s, the provision of fieldwork services was the primary function of archaeologists within many local authorities. Following the introduction of section 1 of the *Local Government Act 1988*, local authorities had to separate services into enabler and provider divisions, with the requirement placed upon the authorities to seek tenders from potential suppliers to provide services on their behalf. This led to the market testing of local authority services and "... effectively imposed market forces on local authority archaeologists", at least for some of their activities (Blockley, 1995: 102).

Not every authority had in-house provision of fieldwork services before 1988, and not every authority that did continued to provide this service. In England, where these services still exist, they are normally at the county level, and while separate from the advisory services, many of these organisations are still managed by the County Archaeologist. The situation in Worcestershire, as described by Bryant (2010), is typical – the county council supports the curatorial and HER functions, while external funding has to be raised for fieldwork aspects of the organisation's work (although is not clear whether this is the universal pattern, and whether this covers all associated costs or whether some hidden subsidies – for example in payroll or pension management – are still provided by the authority).

Most field units housed in local authorities have retained names that identify them with the parent authority, such as in Wiltshire or Gloucestershire; the Essex County Council Field Archaeology Unit has a particularly old-fashioned name. Others are now promoted under disguised names, such as NAU Archaeology which became part of NPS Property Consultants, a multi-disciplinary property service consultancy wholly owned by Norfolk County Council in 2006 (NPS Group, n.d.) and Albion Archaeology, the Bedfordshire County Council field

archaeology service, thereby concealing their association with the local authority. Albion Archaeology was rebranded in 1999 prior to an externalisation bid which did not come to pass (Cooper-Reade, 2010).

Some local authority field archaeology organisations have been externalised and left local authority control over recent years: in 2008, Cambridgeshire County Council’s archaeological field unit, CAM ARC, was taken over by Oxford Archaeology as Oxford Archaeology East, following a decision by the county council that outsourcing would reduce risk to the authority and offer the organisation greater freedom to compete effectively (Tindall, 2008).

In 2002-03, 496 of 1248 individual archaeologists in local government worked for such field teams (39.7%); this declined to 299 of 1151 in 2007-08 (26.0%). With the exception of the four Welsh Trusts which are not actually within local authorities (see 7.2 Wales, below), this is an exclusively English phenomenon – the City of Aberdeen was the only local authority in Scotland which made a sustained effort to deliver a service like this, but the fieldworking part of that service has now closed.

The absolute numbers of people working for such organisations is declining, as is their share of the market, although these local authority-based units are still significant participants in the market - five of 20 largest operators in commercial archaeology in 2010 are local authority units (see 6.2.1.2.2 Not for Profit Organisations and Charitable Status, above).

	National govt / agency		Local govt		University		Private sector		Other	
2002-03	42	1.5%	498	17.6%	278	9.8%	1932	68.4%	76	2.7%
2007-08	85	2.2%	299	7.7%	308	7.9%	2929	75.3%	267	6.9%

Table 22: Numbers of individuals working in providing field investigation services by organisational basis, local government providers emphasised. (Aitchison and Edwards, 2003: 20, table 15; Aitchison and Edwards, 2008: 39, table 18)

To a degree, these field units within local authorities are a uniquely English hangover from 1970s provision, with some still run by the individuals who were in post when they were established in the early 70s (although those individuals are typically retiring around 2010). Some promote this longevity – Exeter Archaeology is proud of its antiquity (Exeter CC, n.d.). The model of housing field archaeological units within local authorities is however in decline, with no new establishments since the 1970s (the reducing numbers of organisations, and of individual archaeologists working for them can now be compared with a decline in comparable applied firms within universities – see 6.3.3.4 University-based Commercial Archaeological Practices, below). There also remain issues relating to the ‘Chinese walls’ that should be in place between the curatorial and contracting arms, and a serious concern about the influence such

organisations, as subsidised not-for-profit organisations, have on the market and its ability to function properly, together with the consequential impact that this has on employment and salary structures (see 6.2.1.2.2 Not for Profit Organisations and Charitable Status, above).

6.2.1.2.2.2 Museum Providers

From a position in the 1970s where museums were significant providers of archaeological field services, this is now very much a rarity. Occasionally, planning advisory services are still based within a museum or museum service (for example, in Colchester, Warwickshire and the Cities of Aberdeen and Edinburgh) and a few of these - such as Warwickshire - also provide commercial field services.

A museum that still undertakes commercial fieldwork without also providing planning advice is now very rare indeed - Museum of London Archaeology (Case Study 17: Museum of London Archaeology, below) and Tyne and Wear Museums (now trading as TWM) are the last remaining examples known to the writer. Ironbridge Archaeology may have been the last example outside the public sector (from 2009, Ironbridge Archaeology was reduced to a staff complement of one part-time member of staff). York Archaeological Trust (Case Study 16: York Archaeological Trust, above) owns and operates museums, but is not a fieldwork company based within a museum.

There are also local authority archaeology units within local authority Museum Services (as opposed to being part of 'planning'), but they are not part of the Museum *per se*. Bristol (BARAS) and Exeter Archaeology fall into this category - however they are not 'museum units' in the way that MoLA is, because their association with the local authority museum is purely an administrative convenience.

The Museum Services of Guernsey and Jersey have active archaeology sections, which undertake a certain amount of fieldwork ahead of development. However, these are not commercial enterprises designed to return profits nor do they provide planning advice to their respective Governments.

The significance of the history of museum-service-based field archaeology units is that a once dominant model of engagement with development-led field archaeology has become extremely peripheral, as other types of enterprise have arisen and taken their place in the market. While there may still be a residual public perception that 'the museum' is where field archaeologists are based, away from the City of London this is now very rarely the case. Museum-based field units have suffered all the financial disadvantages encountered by local authority field teams, such as overwhelming overhead charges, and these have been combined with the difficulties ensuing from being placed within local authority services that are often seen as being primarily

cultural or recreational (and thus less economically important than those housed in planning departments.) As non-statutory, non-commercially orientated services, these bodies find it very difficult to compete (even within their own authorities), on both cost and tender-qualification requirements.

Case Study 17: Museum of London Archaeology

Museum of London Archaeology (MoLA) is a commercial organisation providing fieldwork and archaeological research services, based within the Museum of London, a public museum with charitable status which is jointly funded by the Corporation of London and the Greater London Authority.

The establishment and operation of this organisation (and its antecedents) have been a significant part of the provision of archaeological services within the greater London area, and particularly within the City of London, which forms the historic core and financial centre of the metropolis.

At the end of the 1960s, both the London Museum (principally a museum of social history) and the Corporation of London's Guildhall Museum (which carried out much more archaeology) were working on field archaeology projects in London (although Roy Canham of the London Museum was considered to be "the sole professional field worker in Greater London (outside the City)" ('Gromaticus', 1969).

Following the 1972 excavation of Baynard's Castle by volunteers under the direction of Peter Marsden of the Guildhall Museum, which was carried out under extreme time and money pressures and the publication of *The Future of London's Past* (Biddle, Hudson and Heighway, 1973) which called for the foundation of an archaeological unit for London, the Guildhall Museum established its Department of Urban Archaeology (DUA) as an in-house field unit in 1973 (Spence, 1993: 24; Rowsome, 2000: 88).

Brian Hobley was appointed to head this Department as Chief Urban Archaeologist in December 1973 (anonymous, 1973). Wainwright (2000: 917) described Hobley as "the first unit director to wear a suit". With his powerful personality and entrepreneurial attitudes, Hobley's guidance, together with the dynamism of the City of London property market, meant that "relations with City developers prospered to the extent that [by the end of the 1980s - before the publication of PPG 16] virtually all City excavations [were] funded by direct grants from the implicated developer" (Spence, 1993: 24).

The Future of London's Past recommended the creation of a City Unit with 74 permanent staff assisted by up to 150 seasonal volunteers; the DUA was not (initially at least) quite of this scale. Elsewhere in London the Inner London Archaeological Unit was created in 1974 under the

auspices of the London and Middlesex Archaeological Society (LAMAS) and funded largely by the Department of the Environment, and small amounts of DoE funded fieldwork was being undertaken on behalf of other societies, such as the Surrey Archaeological Society and the Southwark and Lambeth Archaeological Society (DoE, 1975). The Kent Archaeological Rescue Unit (Case Study 2: Kent Archaeological Rescue Unit, above) was also working in south-east London.

The DUA was complemented by a Department of Greater London Archaeology within the London Museum, carrying out work outside the City of London. In 1975 the London Museum and the Guildhall Museum merged to form the Museum of London which provided a coordinated museum service for all of Greater London, with the two field archaeology Departments continuing in their previous roles. In comparison with the rest of the United Kingdom, organisational structures in London were evolving extremely rapidly. LAMAS set up a research committee in 1976 to examine the employment of archaeologists in London, with the survey being carried out in 1976/7 and responded to by two-thirds of the 77 archaeologists then employed by 'units' working in London.

Time on Our Side? A survey of the archaeological needs in Greater London (DoE, 1977b) attempted to achieve for Greater London what Biddle, Hudson and Heighway (1973) did for the City, but it fell short in its recommendations ('Gromaticus', 1978). This document called for a centralised sites and monuments record and advisory service for London, which was then established within the Museum of London in 1980 at a total cost of £200,000 per annum, with the Department of the Environment paying for half of this, the Greater London Council one seventh and London Boroughs the remainder ('Gromaticus', 1980). This meant that the Museum was operating as both the curator and as a contractor within Greater London.

The Department of Urban Archaeology and the Department of Greater London Archaeology continued to operate separately until they formally merged in 1991 to become the Museum of London Archaeology Service (renamed Museum of London Archaeology [MoLA] in 2008).

MoLA (and its predecessors) has made considerable contributions to the development of methodology in archaeological field practice, frequently working on high-profile, high-pressure and deeply stratified urban sites, which need continuous excavation and recording systems that accommodate this. The technique of single-context recording was developed by DUA in 1975 for the General Post Office site in central City of London with all relationships being made via Harris Matrix (Case Study 1: Winchester, above) (Spence, 1993: 25). This led to more responsibilities being placed on individuals, but with a more accurate record and a greater level of interpretation at the recording stage, leading to the generation of a site-wide stratigraphic matrix which then facilitates post-excavation analysis, with consequential implications in terms

of the need for greater numbers of skilled personnel on site and working in post-excavation processing.

By 1992, single-context recording and planning was one of only three main recording systems in use in Britain (Chadwick, 1997), and its use (together with the accompanying 'red book' – the Archaeological Site Manual (Spence, 1990)) spread across commercial archaeology during the 1990s and first decade of the twenty-first century. However, there remains a disconnect with initial training as received at universities, as it is “rarely taught to undergraduates in the field, yet should they want to work in London or most urban centres, practical experience of single context planning is a requirement” (Greatorrex, 2004).

This recording system has been the consistent uniform controlling influence upon MoLA's work (Spence, 1993). Following experience of sites with significant amounts of timber piling and skeletal remains, the recording system - specifically, the written record - was redesigned in the late 1980s, at a time when the emergence of “... competitive contract or tender-based archaeology, it was considered important, for several reasons [including the maintenance of a skilled workforce, maintaining archival standards], that the DUA be able to secure excavation tenders in the City at the expense of outside contractors” (*ibid.*: 34).

Simultaneously, Barker (1977) had been promoting open area excavation, and Carver (2010: 29) considers that the methodological approach of single-context recording on open area excavation has subsequently become overwhelmingly the dominant approach used in commercial fieldwork in the UK (and much of western Europe) – and because it requires a large, skilled workforce, this has been one of the methodological drivers in the expansion of the labour market in archaeological fieldwork.

The applied archaeology departments of the Museum encountered serious difficulties at the start of the 1990s as the levels of development and construction dipped. “[T]he severe slump in development work in the capital has led to the loss of nearly 300 jobs during the latter [*sic*] months of 1990. At the height of the property boom, in 1989, the Museum of London's Departments of Urban and Greater London Archaeology were employing well over 400 archaeologists, most of them working on excavations funded by developers rather than English Heritage” (CBA, 1991b: 1). A number of new, competitor organisations emerged following these job losses, as senior former members of staff developed new businesses in the post-PPG 16 environment (see 9.1.2 Fissioning, below).

One of the often overlooked consequences of the Rose Theatre (Case Study 7: The Rose Theatre, above) was that the Museum lost its role as archaeological advisor to the London Boroughs' planning services, which was taken on by English Heritage through the Greater London Archaeology Advisory Service. By 1994, Max Hebditch reviewed whether MoLAS should be formally separated from the Museum of London - as MoL is permitted, but not obliged, to

provide archaeological services under the *Museum of London Act* of 1965 (which incorporated the museum) and of 1986 (which governs it) (Denison, 1994a). This led to an increased degree of separation of commercial archaeological services, but still under the Museum's organisational structure. MoLAS relocated to Eagle Wharf Road (north of the City of London) in 1998, at which point MoLSS (Museum of London Specialist Services) separated from the fieldwork organisation. MoLSS was recombined with MoLAS upon the establishment of MoLA in 2008.

In 2010, Museum of London Archaeology remains part of the Museum of London, but as a self-financing business unit within the Museum, with a turnover of £8.6m in 2008-09 (London, 2009). As the Museum is an exempt charity as defined by Schedule 2 of the Charities Act 1993, this means that MoLA is technically a not-for-profit organisation (see 6.2.1.2.2 Not for Profit Organisations and Charitable Status, above).

Museum of London Archaeology (and its predecessors) has been important in the history and development of archaeological employment in the UK for three very important reasons. Firstly because of its capacity to deliver services in the centre of London, where the earliest and biggest development fieldwork projects were undertaken and where it demonstrated that professional archaeological practice can work alongside major development projects. The second area of influence has perhaps been the most direct of all, in the development of fieldwork methodologies to accommodate such sites, which have been widely adopted and which require large numbers of skilled individuals. In doing so this has created a demand for the work of many more individual archaeologists than the sector would otherwise need. And through the considerable part it played (especially under Brian Hobley's direction) in changing client understandings of the benefits of developer-funding (facilitated by its location in the most booming area for commercial development in the UK), the organisation established the financial framework that allows for the employment of these individuals.

6.2.1.3 Business Failures in the 1990s

A series of archaeological businesses failed in the mid-1990s. Three exemplars were based within local government, and all failed within a year, c.1995. In each of these cases, successor organisations, constituted on different lines, but with many of the predecessor organisations' staff, rapidly filled the vacuums that were left.

The Milton Keynes Archaeological Unit was established in 1971 when Milton Keynes Development Corporation appointed two archaeologists, following pressure from local societies and Buckinghamshire County Museum (Farley, 2006). The Unit became established in the 70s and transferred to Buckinghamshire County Council Library and Museums Service under an agency agreement in 1984. By mid-1989 it had about 50 staff, but then began to wind down,

with its final excavation in 1991 and formally ceasing trading on 31st March 1994 following the demise of the Milton Keynes Development Corporation in 1992, which had effectively been the organisation's only client (Zeevat, 1994: 404).

Following this, Archaeological Services and Consultancy Ltd was established in 1995, with the former key staff at MKAU as its principals. As a company without links to the local authority, they were then free to work in any geographical area they chose.

Leicestershire was the first local authority museums service in the country to appoint a field archaeologist in 1961 (Mellor, 1992). There was then a joint attempt by that museum and the University of Leicester to provide a county-wide service in 1972, with Leicester City Museums becoming part of the Leicestershire Archaeological Unit in 1974. That organisation closed in 1995, with two former senior members of staff immediately establishing ULAS, the University of Leicester Archaeological Service. By 2005, ULAS had "over 55 staff and an annual turnover of over £1,000,000" (University of Leicester, 2005).

A clear separation was made in 1993 between the South Yorkshire Archaeology Service (providing planning advice to four metropolitan boroughs) and South Yorkshire Archaeology Field and Research Unit (SYAFRU), which undertook fieldwork services. Previously these had coexisted as the South Yorkshire Archaeology Unit (Cumberpatch and Francis, 1993: 2).

Sheffield City Council decided to close SYAFRU in 1996. It had been facing competition during the early 90s; while core funding provided by the four boroughs dwindled, other commercial field archaeological units entered into direct competition with SYAFRU for work in south Yorkshire. This external pressure on the finances of the unit, "coupled with the lack of a sound internal management structure, resulted in the unit being unable to cover its running costs and ultimately generating a large overspend", leading to its closure (Whiteley, 1998: 2).

ARCUS (Case Study 22: ARCUS, below) were one of the competitors that SYAFRU had faced, having been founded in 1992. It was then the main beneficiary of SYAFRU's demise. ARCUS, like ULAS, was a university-based company, in this case part of the University of Sheffield. It continued trading until 2009 when the University withdrew support and agreed for a transfer of liabilities to Wessex Archaeology.

What these business failures had in common was that they were organisations within local government structures that were insufficiently flexible to respond to changing business environments. They were particularly hampered by concepts of territoriality, often not able to operate outside the geographical boundaries of the local authorities of which they were part.

The fact that two of the successor organisations to these businesses were based within universities is notable; university units (in England) had previously been established to deal with very specific funding issues (in the north of England) or to lead on student training (in the

south) (see 6.3.3.4 University-based Commercial Archaeological Practices, below). What was perhaps not apparent at that time was that while a university base would mean territoriality was no longer an issue, crushing overheads and top-down management still could be. In 2000, the University of Edinburgh unit (the Centre for Field Archaeology) closed and then reopened as CFA Archaeology Ltd, a separate limited company, and as noted above, the University of Sheffield ultimately divested itself of ARCUS.

These three business failures are important because they show that it was not inevitable that businesses would always be successful in an expanding market. Insufficient organisational flexibility leads to failure, but in each case it was demonstrated that individual entrepreneurial attitudes were able to form or reform successful businesses in the gaps left by the failures.

6.2.2 Employment in Historic Environment Advice Provision

A significant proportion of the archaeological workforce is employed in advisory or 'curatorial' roles. These people principally work for, or on behalf of, local planning authorities.

The archaeological services that support local planning authorities typically have two distinct but related roles, of providing advice and of maintaining records: "The history of protecting the heritage has been bound up with, and indeed cannot be separated from, the process of creating inventories" (Clark, 2001: 67).

The Walsh Report (Walsh, 1969) recommended that planning authorities (at county level) in England should hold records of all known field monuments within that county, and that they should appoint archaeological officers. By 1975 nearly half of English counties had direct access to a Sites and Monuments Record (Darvill and Fulton, 1998: 62) (see 5.3.1.2 The Role of Local Government, 1970-1990 and 6.1.1.1.3 Spatial Planning, above), and by 1989 all English counties had a record with full-time staff to maintain it (Baker, Smith and Shepherd, 2006: 135; CBA, 1989b).

By 2010, every local planning authority in the United Kingdom had formal archaeological advisers, either based within planning departments or providing advice to them. In Northern Ireland, this is provided centrally (see 7.3 Northern Ireland, below); in Wales, this advice is outsourced and is provided from four charitable Trusts (see 7.2 Wales, below), and in Scotland, authorities also receive advice from Trusts (Perth and Kinross, and Shetland Islands) and another three buy in advice from a private consultancy (see 6.2.2.1 External Providers of Curatorial Services for Local Authorities, below).

The databases that these services maintain have increasingly included historic buildings and historic landscape characterisation data, thereby becoming Historic Environment Records

(HERs). Others have become parts of wider environmental databases (Baker, Smith and Shepherd, 2006: 135). The development of HERs (in England) followed on from PPG 16 having recognised the key importance of SMRs, but PPG 15 did not acknowledge the need for structured and comprehensive information systems to underpin advice given under it. As SMRs formed a base that could be expanded, they began to include the built environment and so become Historic Environment Records (Pickering, 2002: 67, quoting Dave Batchelor).

Across England, advisory services are almost universally in-house, with the exception of three which are, or are based within, organisations external to the local authority (National Museums and Galleries, Liverpool; GLAAS [EH London Region] and Greater Manchester Archaeological Unit, University of Manchester). In addition to these, three Lincolnshire districts (Boston, South Kesteven and North Kesteven) receive a joint service from an externally hosted provider.

Archaeological services to English local planning authorities normally work directly with County Councils or Unitary authorities, rather than District Councils. Six of these are joint services (within former metropolitan county areas). This contrasts with the advice provided by Conservation Officers (on the built historic environment), which is normally received at District level. In employment terms, this means that there will typically be fewer, but slightly larger, archaeological services than there are conservation officer teams.

National Parks either have in-house advisors or share services with overlapping local authorities.

For a time at the start of the twenty-first century, Northamptonshire had no advisory service, a situation that was seen as 'toxic' (ALGAO, FAME & IFA, 2009), but by 2010 this had been resolved and in-house advice was being provided to the planners at that County Council. Membership of the Association of Local Government Archaeology Officers (ALGAO: UK) in 2008 covered all local authorities in England and Wales at county or unitary level, with the exception of Southend-on-Sea Unitary authority and Walsall MBC (Ingle, 2008) and all bar five in Scotland, three of which receive outsourced services from one private consultancy.

The total staff numbers employed in providing advice to local planning authorities has remained relatively constant as the profession as a whole has grown across the survey period, representing approximately 11% of the total workforce in 2002-03 and again in 2007-08 (Table 23, below).

	Number employed providing advice to local planning authorities	Percentage of total archaeological workforce
1997-98	605	13.7%
2002-03	614	10.8%
2007-08	724	10.5%

Table 23: Archaeologists providing advice to local planning authorities. (Aitchison, 1999: 6, table 6; Aitchison and Edwards, 2003: 20, table 15; Aitchison and Edwards, 2008: 39, table 18) “Local Government Curators” in 1999, “Local Government Historic Environment Information and Advice” in 2003 and 2008

As well as advice at the local level, historic environment advice is provided by the national bodies (6.2.2.2 Employment in National Heritage Agencies, below).

6.2.2.1 External Providers of Curatorial Services for Local Authorities

In early 2010, all local planning authorities in England, Wales, Scotland and Northern Ireland had archaeological planning advisers. In-house archaeological advisers are the norm, but this is not universal; several authorities share services (particularly in the areas of the former metropolitan county councils in England and in the National Parks). A small number of authorities receive services from outsourced suppliers; in several cases from charitable trusts. English Heritage provides this service for most of the greater London boroughs, and Northern Ireland Environment Agency: Built Heritage does this for all of Northern Ireland.

Currently, Perth and Kinross Council and Shetland Islands Council receive advice from charitable trusts. In Wales, most local planning authorities receive curatorial advice from one of the four archaeological trusts (see 7.2 Wales, below), with the exceptions of Denbighshire County Council and the Snowdonia and Pembrokeshire Coast National Parks, each of which has an in-house archaeologist.

Since 1988, three districts within Lincolnshire (Boston, North Kesteven and South Kesteven) have received planning advice from the Heritage Trust of Lincolnshire (Start, 1999: 53), which also has a fieldwork arm, Archaeological Project Services. The other three districts within Lincolnshire receive archaeological planning advice from the County Council, and Lincoln City Council has its own in-house service.

The only wholesale externalisation of archaeological advisory services in England has been in Berkshire, where Babbie provided an out-sourced planning service – covering more than just archaeology - from 1993. When the County Council was abolished on 1st April 1998 it was replaced by six unitary authorities, each with their own SMR held centrally by Babbie Group who continued to provide the archaeological advisory services (anonymous, 1998).

West Berkshire district took their service in-house in 2000, and Berkshire Archaeology (established in 2004 as part of Reading Borough Council) now provides this service to the other five district councils of the former County Council.

The University of Manchester hosts the Greater Manchester Archaeological Unit, a joint service funded by the ten local planning authorities within the area of former Greater Manchester. A joint service based within the Museum of Liverpool, part of the National Museums Liverpool Group, provides archaeological advice to Liverpool and the four other metropolitan boroughs of Merseyside.

Unlike in England, full curatorial service coverage was not achieved in Scotland in the 1980s or 1990s. However, Rathmell Archaeology, a private archaeological contractor and consultancy based in Ayrshire, filled longstanding 'gaps' during the first decade of the twenty-first century. In North Lanarkshire (where WoSAS had formerly provided the service), Rathmell provides advice to the local planning authority but not the HER, which is being developed in-house (North Lanarkshire Council, 2010); for the City of Dundee, Rathmell maintains the HER and for East Dunbartonshire they maintain the SMR – in both of these cases, these act as trigger maps and the authority staff then make decisions on planning advice and compliance. Rathmell also operate as commercial contractors outside these areas.

The outsourcing model may continue to be examined by local planning authorities as they experience funding pressures, which would then directly impact upon the makeup (and potentially the numbers) of the archaeological workforce.

6.2.2.2 Employment in National Heritage Agencies

Archaeologists work for four national heritage agencies (English Heritage, Historic Scotland, Cadw, plus the Environment and the Built Heritage department within the Northern Ireland Environment Agency) on behalf of the Westminster government and the devolved administrations, with a similar arrangement in the Isle of Man. Heritage protection in both Guernsey and Jersey is undertaken by governmental planning / environment departments (Clark, 2008).

These are primarily curatorial agencies – Northern Ireland's is in particular – dealing with designated sites and the Crown's portfolio of owned or cared-for monuments, but they also have policy advisory roles. These bodies have different relationships with the state – fully integrated, in the cases of Historic Scotland (an arm of the Scottish Government which answers directly to Ministers), Cadw, which is part of the Welsh Assembly Government and the Northern Ireland Environment Agency, which is an agency within the Department of the Environment (NI).

English Heritage (formally the Historic Buildings and Monuments Commission for England) is different – it is a non-departmental public body (a quango), sponsored by the Department for Culture, Media and Sport. The Royal Commissions on the Ancient and Historical Monuments of Scotland and of Wales are also non-departmental public bodies directly funded by, respectively, the Scottish Parliament and the Welsh Assembly Government.

Archaeologists also work directly for other state agencies, such as the Defence Estates Agency, British Waterways and the Forestry Commission GB. Here they act primarily as curators for the land and sites held by those bodies but are also advised by the main national heritage agencies. Archaeologists also work for the Environment Agency, where they manage the commissioning of archaeological work, and thus act in more of a curatorial consultancy role than the others above. There are also some archaeologists who are employed by the state but are not involved in heritage management, such as those that work for the national museums.

The National Trust and National Trust for Scotland employ archaeologists in advisory roles who contribute to the curation of their properties.

While the total number of archaeologists working for national heritage agencies increased from 1997-98 to 2002-03, the relative proportion of all archaeologists remained very similar; however, there were considerably fewer archaeologists working for state agencies in 2007-08, the total having reduced to approximately the levels of ten years previously and representing a substantial drop in the subsector’s share of all archaeological employment.

	Total number of archaeologists working for national heritage agencies	% of total number of archaeologists
1997-98	680	15.4%
2002-03	881	15.4%
2007-08	666	9.7%

Table 24: Archaeologists working for national heritage agencies. (Aitchison, 1999: 6, table 6; Aitchison and Edwards, 2003: 20, table 15; Aitchison and Edwards, 2008: 39, table 18)

Case Study 18: English Heritage

the administrative structure ... seemed calculated to produce a condition of chronic inertia. The administrators, who held the purse strings, the inspectors, who did the academic work, and the works staff, who actually looked after the day-to-day running of the properties, sometimes seemed only to have the power of preventing their colleagues from actually doing anything. This was exercised with gusto (Beaulieu, 2000: 232)

English Heritage (EH) is the government’s advisory body on the historic environment in England. Unlike the national heritage agencies elsewhere in the UK, which are embedded in

government, English Heritage is an executive non-departmental public body, primarily funded by the Department of Culture, Media and Sport, with a tripartite role: providing advice, caring for monuments and regulating the sector.

The *National Heritage Act* 1983 created English Heritage (under the formal name of the Historic Buildings and Monuments Commission for England), and it is this Act that sets out the organisation's powers and responsibilities. EH officially came into being in 1984, assuming responsibilities for archaeology and the historic environment that had previously been held by the Department of the Environment, and represented a transformation from the established model to a new, more public-focussed and entrepreneurial approach. This was not welcomed by all; the President of the Society of Antiquaries of London thought that "It has yet to be proved that enhanced showmanship and commercialism are compatible with the care and skill and scholarship which have been so great a tradition in the former Inspectorate" (Brooke, 1984: 4).

The other state-funded archaeological agency in England, the Royal Commission on the Historic Monuments of England (established in 1908 and which had taken on the archaeological functions previously held by Ordnance Survey in 1983), was merged with EH in 1999.

A Central Excavation Unit, founded within the Inspectorate in 1975, was designed to provide a rapid response to deal with emergency fieldwork and excavations on monuments in the care of the state. In 1989 it was reviewed and re-named as the Central Archaeology Service, subsequently becoming (together with the Ancient Monuments Laboratory) the Centre for Archaeology, principally an advisory body undertaking much less fieldwork with only a small core staff.

The numbers of individuals employed by English Heritage increased at the start of the twenty-first century, to a total of 2,043 in 2009-10 (EH, 2010a: 72), but the number of EH archaeologists represents only a small proportion of that. Aitchison and Edwards (2008: 64) estimated that 391 archaeologists worked for national government or agencies in England, the vast majority of whom worked for EH, representing approximately one in five of the 1,935 (fte) individuals employed in total by the organisation in that year (EH, 2008a: 60).

English Heritage receives approximately three-quarters of its funding from HM Treasury to carry out its statutory role as the Government's adviser on the historic environment. In 2009-10, this represented £130.9m (EH, 2010a), with the Funding Agreement covering the three year period 1st April 2008 – 31st March 2011 (DCMS and EH, 2009). The 2010-11 budget was cut by £4m in May 2010 (EH, 2010b), a reduction of 3% of the total grant-in-aid budget which had been recalculated as £131.7m (EH, n.d. c). The *Comprehensive Spending Review* 2010 established that the English Heritage budget for the four years from 2011-2015 would then be reduced from the 2010-11 levels by 32%, to which English Heritage responded by announcing a reduction in

grants disbursed of “around one third” and to “take out at least 200 posts [10% of all staff] which will affect a wide range of our services” (EH, 2010d).

The remainder of the organisation’s funds are generated separately as earned, operating and interest income (£54.4m in 2009-10). The body also has individual members (who have no say in the running of the organisation), and it has the same tax status as a charity (although it has no charity number), which means that any donations to English Heritage are eligible for gift aid and any bequest is exempt from inheritance tax (EH, n.d. b).

The body still has grant-giving functions, which prioritise both significant elements of the historic environment at risk and proposals that seek to strengthen the ability of the sector to manage the historic environment (EH, n.d. d), although as noted above these will be reduced in the period 2011-2015. For archaeology, these funds have been disbursed through the Aggregates Levy Sustainability Fund (see 6.1.2.3 Minerals Extraction, above) and the Historic Environment Enabling Programme, the budget for which in 2009-10 was £4,668,000 (EH, 2009).

In 2005 EH started the process of relocating the headquarters of the organisation from London to Swindon. This was badly managed and has proved to be both expensive (costing £13.8m over four years) and disruptive, with staff retention becoming an issue as many individual members of staff did not want to relocate. In order to keep as many staff as possible, mobility clauses in staff contracts were not enforced, which meant that some teams completely moved from London to Swindon and others did not.

English Heritage’s significance for archaeological employment has been primarily in terms of the way that they have contributed to – or developed – government policy on the historic environment. These policies have directly led to the establishment of relatively solid local government provision for archaeology, to the fostering of entrepreneurial attitudes (following the end of block grants), and to the development of the private sector in applied archaeology – the last especially because of the organisation’s role in the production of PPG 16 in 1990.

The organisation’s significance as an actual employer and as a funder of archaeological employment (through project grants) has diminished in relative (and absolute) terms over time. From 1990 onwards the organisation had to reorientate itself as having a guiding rather than an executive role in shaping archaeological practice. In 2010, the organisation’s future appears insecure. Prior to the May 2010 general election, the Liberal Democrat party’s policy was to merge English Heritage with the Heritage Lottery Fund (Liberal Democrat Party, 2009), a fundamentally unrealistic and poorly thought out idea. But it is clear that the coalition government will reconsider the roles of the organisation in the future. It is very unlikely that EH will grow in terms of budget or staff, nor will it take on more responsibilities.

When the announcement of the first post-election cuts was made in May 2010, EH had to reduce its annual budget by £4m with immediate effect (see 2.4.1.3 Effects of the Economic Crisis on National Heritage Agencies, above). While the Chief Executive was able to say that this had already been planned for (EH, 2010b), the reality is that not all relevant staff had been fully informed beforehand, and the announcement compounded insecurity within the organisation. The publication of the Government's *Comprehensive Spending Review* in October 2010 (discussed above) set out imminent and long-term budgetary reductions, leading to a 1/3 reduction in grants given and a 10% reduction in staff numbers (EH, 2010d).

6.2.2.3 Private Sector Consultancy

The use of the term 'consultancy' to describe the process of performing a variety of different, sometimes cognate, roles has led to a degree of confusion over its use in applied archaeology. The roles that archaeological consultants play can be broadly broken down into the two areas of mediating between interested parties, such as archaeological contractors, clients and advisers to local planning authorities and of providing technical advice. Colcutt (2006: 215) considers that some of those individuals who provide the latter and who concentrate on particular areas of expertise would be better described as 'consultant specialists'.

Colcutt (1993: 158-9) set up four definitions of the types of archaeological consultant businesses, all of which remain appropriate in 2010.

1. A freelance consultant offering consultancy services as an unattached individual - an example would be Gill Andrews
2. An institutional consultant who offers services from within an archaeological organisation with wider objectives than consultancy - such as Oxford Archaeology
3. A mixed-practice consultant is an archaeologist operating from within a broader -based consultancy firm - such as Jacobs
4. An archaeological practice consultant who operates from within a specifically archaeological (or heritage consultancy firm - such as CgMs

Given the consultancy role can be considered to be almost purely within the knowledge economy, there is little to hold back companies from provide advice internationally - as Oxford Archaeology has done in China, and as Arcadis (a Dutch company) have started to do in the UK.

The role first emerged in UK archaeology in the very late 1980s, with the roles of consultants being formally recognised in the publication of the IFA *Code of Approved Practice for the regulation of contractual arrangements in field archaeology* (IfA, 1990) and particularly in PPG 16 (DoE, 1990b), which makes reference to consultants three times (in paragraphs 20, 25 and 26) - as potential suppliers of archaeological assessments, as advisors on mitigation strategies, and as intermediaries in reaching a Section 106 agreement.

By 1993, consultants' roles were still not widely understood, and Collcutt (Colcutt, 1993: 158) didn't know whether "the present visibility of consultants is a fad, a transient reflector of factors outside archaeology, and how much a real phenomenon, representing significant shifts in professional philosophy and structure". Hunter et al. (1993: 37) described them as "the latest group to be spawned by the demands of the commercial world". McGill (1995) recognised that consultants would have technical roles such as writing chapters for Environmental Statements, but did not appreciate that the mediation role would also become significant.

Bell et al. (1993: 360) estimated that in 1991 there were just over 20 archaeological consultancies in the UK, with these typically employing three to five people each. That survey discussed consultants' activities in terms of their areas of technical competence, very much in line with the idea of consultant specialists.

By 2010, in terms of advising developer clients, consultants are now frequently involved at the non-invasive, pre-determination assessment phase of projects, producing desk based assessments of archaeological potential and in contributing to Environmental Statement chapters for projects requiring Environmental Assessment. This can also extend to appearing as expert witnesses at Planning Inquiries.

Some consultancies perform a completely different advisory role in providing development control advice on behalf of local planning authorities, as was done by Babbie group in Berkshire in the late 1990s and is currently provided by Rathmell Archaeology to several authorities in Scotland (6.2.2.1 External Providers of Curatorial Services for Local Authorities, above).

The other key area that archaeological consultants work in is to mediate between the differing interests and objectives of developers, archaeological contractors and advisers to local planning authorities, advising and negotiating on issues such as the reasonableness of planning authorities' demands or the estimated costs of work (Lawson, 2001: 703), which sometimes involves managing the appointment of archaeological contractors to undertake fieldwork.

As well as documenting the requirements of contractors work, consultants will then normally be asked to monitor that work alongside the curatorial archaeological advisers to the local planning authority. "Experience suggests that there are considerable benefits on both sides in having projects monitored by an appropriately qualified person who is not a member of the project team and can therefore take a detached view of the progress of the project" (Andrews and Thomas, 1995: 204).

The results of the three labour market intelligence surveys show that this subsector has expanded, both in terms of the numbers of individuals working within it and as a proportion of the total archaeological workforce (Table 25, below).

	Total number of archaeologists working as consultants	% of archaeological workforce
1997-98	153	3.5%
2002-03	390	6.8%
2007-08	487	7.1%

Table 25: Archaeologists working as consultants. Figures taken from “Consultants” (Aitchison, 1999: 6, table 6); “Commercial organisation – historic environment advice and information services” (Aitchison and Edwards, 2003: 20, table 15); “Private sector – historic environment advice” (Aitchison and Edwards, 2008: 39, table 18)

The importance of the emergence of archaeological consultancy has been firstly in the creation of a new area of employment, which has led in some instances to a change to the dynamics of how projects are run.

Consultants are a relatively well-rewarded part of archaeological practice, and this meant that by 1993 (when Andrew Lawson wrote that archaeology had become a profession that attracted reasonable fees), “archaeological consultants could attract remuneration ... comparable to the lowest rate for, say, generalist solicitors (but still significantly below those for most other types of professional consultant” (Colcutt, 2006: 228).

But it has been suggested that the involvement of consultants is a contributory factor in the suppression of pay rates for archaeological contractors. The involvement of consultants helps the market function more efficiently – as discussed under Salaries (2.2.5, above), but it is the laws of supply and demand in an unregulated market that have set salary levels, not the consultants. Indeed, “it is a naïve commonplace in British archaeology that the role of the archaeological consultant is to limit the cost and duration of all aspects of archaeological work through the ‘evil’ of competitive tendering” (Hawkins, 2006: 6), as keeping costs down is not the consultant’s sole objective – “cost is not the only factor in the selection of a contractor. More significant perhaps is the assurance of ‘deliverability” (*ibid.*), as underbudgeted tenders are unlikely to be successful where a consultant mediates.

6.2.3 Employment in Museum and Visitor Services

There remains a popular misconception that museums are where all archaeologists work. As discussed above, this was in some measure the case until the 1970s, at which time and subsequently a small number of planning advisory services and fieldwork contractors were set up within local authority museum services (although fewer still remain). But in terms of curating and presenting archival material, only a small proportion of all professional archaeologists now work in such a role.

Pearce (2006) still presents residual views – claiming that competitive tendering means that “... when the work is carried out by a non-local unit, [this] has tended to disrupt the good working relationship built up over a number of years between museums and local excavation teams” (328). This was never the case in Scotland, where the different status of portable antiquities under Treasure Trove meant that these relationships were not critical

However, the vast increase in the amount of archaeological work undertaken has led to a concomitant rise in the amount of archival material produced, which has to be presented to the appropriate designated depository, which in most cases is the local museum. This is often the only growing collection area for those museums, and this has led to a position where “many regional and local museums and other repositories are experiencing difficulty in housing new and especially large archaeological collections, with some stores close to capacity” (Archaeological Archives Forum, 2010). Archaeological contractors were holding an estimated total of 15,000 boxes of undeposited material in 2010, at an estimated total annual cost of £250,000 (FAME, 2010). This has also been identified as an emerging issue in Scotland (Campbell and Ralston, 2010).

In 2002, 128 museums in England actively collected archaeological material, with 100 of these having curators with archaeological expertise (and 19 of those had less than one FTE post) (Bott, 2003).

Aitchison (1999: 6) identified an estimated 190 individuals as working for ‘local government others’ (not as historic environment curators) plus 156 working for national museums, making a total of 346 people working as ‘museum archaeologists’; Aitchison and Edwards (Aitchison and Edwards, 2003: 20) estimated (using a different methodology) that 469 individuals were working for organisations that provided museum and/or visitor services, with a comparable total of 310 individuals in 2007-08 (Aitchison and Edwards, 2008: 39). This latter number is corroborated by the Society of Museum Archaeologists having around 300 individual and organisational members in 2007 (Wise, 2007). It can now be considered that the 2002-03 figure presented by Aitchison and Edwards was in error – there are no identifiable external factors that would justify an increase of 36% over five years followed by a decrease of 51% over the next five years.

Given that the total number of individual archaeologists in employment across the whole profession reported in each of the surveys was steadily increasing, the relative (and absolute) size of this subsector has declined.

Throughout the three surveys, by museum type, more archaeologists work for local authority museums than national museums, university or private museums. The one area of archaeological museum services that has expanded is that delivered through the Portable Antiquities Scheme in England and Wales, which employs 56 members of staff in 2010, 36 of

whom are Finds Liaison Officers (Portable Antiquities Scheme, 2010), an increase from 11 in 2006 (Pearce, 2006: 33).

6.3 Supply

This work is expressly not a study of the experience of individuals who work as archaeologists or who have recently worked in archaeology in the UK; rather, it is a study of the structures and organisations within which they work, particularly within applied archaeology, and the political, economic and legislative changes that have impacted on those organisations as employers of archaeologists. However, it is appropriate to examine these factors from the perspective of those individuals who become archaeological employees. This is not the supply side of archaeological economics – the suppliers of archaeological services are the employers (although there is a strong element of self-employment) – but consideration of these people and practices is important to assess the effects that they have on the nature of their employers.

Archaeology in and of Britain is a relatively small profession with very limited entry routes; competition for posts is generally intense. 95% of professional archaeologists are graduates, and 99% of those aged in their 20s are (Aitchison and Edwards, 2008: 128, 130). A degree (although not necessarily in archaeology) has become an informal but *de facto* entry requirement.

In comparison with a workforce estimated at 6,865 in 2007-08, there were 16,125 students enrolled on archaeology and forensic science degree courses in the same year (Ramsden, 2009).

Even recognising that many of these students do not intend to pursue a career within professional archaeology, with such a potential oversupply of graduates pursuing a limited number of vacancies at present (an oversupply that has gone on for at least three decades (Hudson, 1981)), meaning that non-graduates have little chance of gaining entry-level jobs. Until the introduction of the NVQ in Archaeological Practice in 2008, there were no alternative measures that archaeological employers could use to assess applications from candidates (Aitchison, 2008).

After a long time when there was a tension between employers and educators (Aitchison, 2004), across the sector it is now being recognised that the end-point of training and career development is not the sole purpose of the initial formation of would-be archaeologists at university. Both individuals and employers are taking on increasing responsibility for improving the skills and capabilities of the archaeological workforce (Aitchison, 2008). Taught postgraduate degrees have become one of the important mechanisms by which the skills base within specialist areas of archaeology has been maintained.

6.3.1 Training Archaeologists

Chitty (1999) found that vocational training for archaeologists was unregulated, diverse and unrelated to the core competencies needed for archaeological work. Since that date, considerable effort has been made in developing vocational training structures, but the principal mechanism by which archaeological practitioners receive their initial training remains through the academic matrix of university degrees.

In 2007, 93% of professional archaeologists were graduates, and 99% of archaeologists aged in their 20s were graduates (Aitchison and Edwards, 2008). The sector has effectively become a graduate profession, but without any link from qualification to licence to practice. Given the age profile of the non-graduate practitioners, many of them will have come in to archaeology through the Community Programme of the MSC (5.3.2.1, above), meaning that they are now at least mid-career.

There has been enduring process of criticism and counter-criticism, as employers complain that graduates are insufficiently skilled while universities protest that it is not their job to focus on applied practice (Aitchison, 2004). This is slowly being engaged with, with advice and guidance for higher education institutions and students presented by Aitchison and Giles (2006), and employers recognising that graduates are not the finished item, acknowledging that training in the workplace has effectively become the way that graduates are transformed into employees.

In the early 1970s, oversupply was not yet a problem, with RESCUE and the CBA calling for "... universities to increase their output of graduate and postgraduate archaeologists" (RESCUE & CBA, 1974: 17). That document also considered that the establishment of a professional institution would "enable those working in non-professional capacities in excavation teams and units to acquire professional qualifications through on-the-job training combined with study through extra-mural departments and other further education organisms" (*ibid.*, 17-18), and hoped that the Open University would introduce archaeological courses as soon as possible (*ibid.*, 18) – suggesting that the authors still could not envisage a non-university trained profession.

The rapid expansion of professional archaeology since the start of the 1980s then led to a widespread training deficit, as it occurred without due consideration for the vocational development of the practitioners involved (Bishop et al., 1999). One of the mechanisms that has been utilised to attempt to develop a skilled archaeological workforce has been vocational qualifications. An attempt to develop these was made in the early 1990s, with the NVQ and SVQ in Environmental Conservation (Archaeology and Field Archaeology) (COSQUEC, 1994). Batchelor (1993) explained that system, identifying that archaeology was within the target 80% of sectors to be covered by NVQs, with a hope that there would be assessment centres for archaeology by spring 1994 and that candidates will be able to register by that summer.

However, that qualification failed to gain currency as neither employers nor aspirant practitioners recognised it as bringing them benefits, and it fell into abeyance. Following Chitty's (1999) recommendations, the Archaeology Training Forum encouraged the development of National Occupational Standards for Archaeological Practice, benchmarks of competence demonstrable in the workplace, the production of which was then commissioned by English Heritage and the Sector Skills Development Agency. These Standards (NOS) can be used in multiple contexts (Carter and Robertson, 2002b), but are particularly valuable as performance criteria in a new NVQ in Archaeological Practice (Carter and Robertson, 2002a).

The Archaeology Training Forum's *Vision for Training and Career Development in Archaeology* (Aitchison 2008) recognised that "The introduction of the NVQ will not be an immediate panacea, but by using it to link high-level qualifications to high-level skills, the first big step towards asserting archaeologists' professional competence can be achieved. This in turn strengthens the argument for the sector gaining professional respect and rewards" (Aitchison, 2008: 30). The first Qualification was awarded in 2009 (Geary, 2009), the award has now also been mapped across to the IfA's membership validation structure (IfA, 2009b), and a significant move towards demand for the qualification was shown with an advertisement placed by Albion Archaeology in the IfA's Jobs Information Service bulletin of 21st April 2010 requiring applicants' competence to be "PIfA / NVQ level 3" – the first time an employer had publicly sought the qualification.

6.3.2 Educational Policy

Ask me my three main priorities for government, and I tell you: education, education, education
(Blair, 1996)

Government policy has directly impacted on archaeology through the prioritisation of skills development and through the increase in the number of people attending university. The philosophy that underpinned this strategy (the policies of the Labour government from 1997-2010) was about aiming to have the UK compete as a high-skill provider, rather on the basis of being a low-cost provider.

The Leitch *Review of Skills* (2006) recommended that the government's aims should be to support more than 90% of the population in achieving at least level 2 qualifications (five GCSEs grades A*-C or a vocational equivalent) and more than 40% of adults in achieving at least level 4 (a degree or equivalent qualifications).

The delivery of the skills agenda is coordinated through the UK Commission for Employment and Skills, which oversees 25 Sector Skills Councils (SSCs). Each of these represents a number of

related industries, with the intention that organisations and employers will be enabled, via SSCs, to have a far greater impact on policies affecting skills and productivity.

Crucially, training courses cannot receive public subsidy unless they have been through an SSC approval process. The SSC which has archaeology within its footprint is Creative and Cultural Skills (established in 2004), although there is some overlap with both Lantra, the sector skills council for land-based and environmental industries, and Construction Skills. The NVQ in Archaeological Practice has been accredited by Creative and Cultural Skills, and the Institute for Archaeologists was the first assessment centre to have candidates successfully achieve the Qualification (Geary, 2009).

As noted above, the governments of the UK have successfully increased the numbers of people attending university. This deliberate policy drive has in the last years of the first decade of the twenty-first century been magnified by the effects of the economic situation. The overwhelming majority of archaeological practitioners are graduates, but the degrees do not often focus upon archaeological practice, more commonly providing a broad educational experience focussed upon the physical remains of human lives in the past. A combination of factors has contributed to the decline in practical archaeology components of undergraduate degrees, such as the costs of fieldwork, students seeking to find paid employment in vacations, and the pressure on staff to publish. Some work has been done on enhancing the employability aspects of degrees (Aitchison and Giles, 2006), but this has had relatively little effect.

6.3.3 Universities

With effectively all new entrants to the profession being graduates, the fundamental location of their educations – if not their trainings – are the universities.

The data presented in Aitchison and Edwards (2008) show that the overwhelming majority of archaeological practitioners are graduates, with this effectively being universal amongst archaeologists aged in their 20s (who are all new graduates).

	All archaeologists	Those aged under 30
Secondary school	5%	1%
Foundation degree	2%	62%
First degree	53%	
Postgraduate (Masters)	29%	34%
Doctorate	11%	3%
Post-doctoral	<1%	

Table 26: Highest levels of qualification gained by professional archaeologists. (Aitchison and Edwards, 2008: 128 & 130, tables 136 & 137)

In 2002-03, the percentage of archaeologists who were non-graduates was 10% (Aitchison and Edwards, 2003: 37, table 47) (questions relating to highest qualification achieved were not asked in the 1997-98 study).

The increasing percentage of archaeologists holding a taught postgraduate Masters degree (29% in 2007-08 from 21% in 2002-03 (Aitchison and Edwards, 2003: 36-7)) represents the results of individuals seeking to distinguish themselves in an increasingly competitive job market, even though very few advertisements for posts outside universities require postgraduate qualifications. "There are a number of Masters courses that aim to support career development, but several of them have closed ..." [in the years immediately before 2010] (Kenneth Aitchison quoted in Doeser (2010: 25)).

Several universities have established commercial companies delivering applied archaeological services, which should in theory have been able to both enhance students' learning experiences and employability. This has largely been a missed opportunity (see 6.3.3.4 University-based Commercial Archaeological Practices, below), with few university 'units' being routinely involved in teaching applied techniques.

6.3.3.1 Number of Educational Providers

Archaeology was being taught in universities by the 1930s at Cambridge, Edinburgh and Liverpool, and twenty years later Kenyon (1952) identified eleven universities where archaeology was being taught. As universities in general expanded from the 1960s, so too did the numbers of places where archaeology was taught, although several archaeology providers (Lancaster, Leeds, Aberdeen [since re-established] and St Andrews) closed in the 1980s. Relatively few of the post-1992 universities teach degree courses in archaeology, although Bournemouth University is a notable exception, and many do teach some archaeology modules.

Henson (1999) identified 28 Departments of Archaeology and 35 other Departments or higher educational institutions teaching archaeology within other degree courses. In addition to this group of deliverers he also identified ten departments offering part-time courses only, four colleges offering HND or HNC "Sub-degree level qualifications", and 32 continuing education departments and centres.

In early 2010 there were 29 members of SCFA (The Subject Committee for Archaeology, formerly the Standing Committee of University Professors and Heads of Archaeology) (SCFA, n.d.); Doeser (2010: 20) considers that "nearly 50 UK universities now offer courses in archaeology, and around 35 of them offer an honours undergraduate degree". Some archaeology departments have been amalgamated into Schools, such as Newcastle, Cardiff, Manchester,

Edinburgh and Glasgow. In March 2010 there were six HEIs offering Foundation degree courses in archaeology, archaeological practice or archaeological heritage management (whatuni.com, 2010).

University Continuing Education is a diminishing model, with provision of archaeology courses dropping by 60% over the decade from 1999 (from 1327 in 1999/00 to 515 in 2008/09) (Lee, 2009: 4). This reflects a general decline of this subsector which extends beyond archaeology. There are currently less than ten active members of SCACE, the Standing Conference of Archaeology in Continuing Education (Don Henson pers. comm. 3rd March 2010), most of which are not providing applied archaeological training.

6.3.3.2 Employment in Education and Academic Research

Kenyon (1952) identified 49 archaeological posts at eleven universities, detailing the post titles of Professorships, Readerships, Lectureships, Faculty Assistant Lecturer, Technical Instructors, Recognised Lecturers, Technical Assistant and Research Assistants. Ralston and Shepherd (1978: 8) referred to a “recent estimate” of 200 archaeologists working in British universities.

Over the study period between 1997-8 and 2007-8, the figures for those employed in university education and academic research showed the absolute numbers of archaeologists working for universities as being generally stable, while declining in relative terms as a proportion of the whole profession.

	total	% of all archaeologists	
1997-98	644	14.6%	University archaeology departments and research groups
2002-03	565	9.9%	University – educational and academic research services
2007-08	668	9.7%	University – educational and academic research services

Table 27: Numbers of archaeologists working in education and academic research at universities. (Aitchison, 1999: 6, table 6; Aitchison and Edwards, 2003: 20, table 15; Aitchison and Edwards, 2008: 39, table 18) (there were also a further 94 individuals providing educational and academic research services outside universities in 2002-03, and a further 168 individuals doing this outside universities in 2007-08)

Alternative sources of information on the numbers working in these roles provide slightly different figures; 572 “research-active” individuals were identified in the Research Assessment Exercise 2008 (RAE, 2009), while Doeser (2010: 20) quotes HESA (Higher Education Statistics Agency) data which reported that there were 1,025 individuals employed in UK archaeology departments. The latter figure includes all university archaeology department staff whether they are directly delivering teaching and research or not, and matches very closely to Aitchison

and Edwards' (2008: 39) estimate of 1009 individuals working as archaeologists for universities (including the staff of university commercial archaeological businesses).

The levels of qualification held by university archaeologists are higher than for any of the professions other subsectors, with 76% of staff holding a doctoral or post-doctoral qualification (Aitchison and Edwards, 2008: 166); concomitantly, this subsector is also relatively highly rewarded. In 2002-03 the highest average earnings of any post profile were for Academic Staff; in 1997-98 they were second highest (to Inspectors), and in 2007-08 they were again second highest (to Director or Manager).

	Average salary	Average for all archaeologists		
1997-98	£24,443	£17,562	139%	
2002-03	£31,131	£19,161	162%	62% doctorate
2007-08	£36,701	£23,310	157%	76% doctorate or post-doc

Table 28: Average salaries of archaeologists working for universities

6.3.3.3 Numbers of Students

When archaeology as a whole employed few people, there were few students of the subject. Hudson (1981: 130) estimated that "... in 1930 there may possibly have been fifty young men and women who fell within this category and in 1939, on the outbreak of war, possibly a hundred". This is likely to represent the total numbers studying archaeological courses, rather than those who would graduate with a degree labelled as 'Archaeology'.

The number of students increased as more university departments started to teach archaeology in the 50s and 60s. Addyman (1989: 305) presents annual estimates for the numbers of students graduating with archaeology degrees growing from 60 in 1972 (a year when there were nine graduates in archaeology from the University of Edinburgh alone, Ian Ralston pers. comm. 18th October 2010) to 270-280 in 1986.

In 1974, it was considered that "only a minority of those employed full-time [in archaeology] probably hold a degree in archaeology" (anonymous, 1974), but by the start of the 1980s, Hudson considered that "an unrealistic number of graduates continues to pour out of the archaeology departments of our universities each year" (Hudson, 1981: 138). Andrews (1999: 92) confirmed that in the mid 1990s there was an ongoing oversupply of graduates competing for a limited number of jobs, and that less than half of archaeology graduates actively pursued a job in the profession.

UCAS (Universities and Colleges Admissions Service) data, which are available from 2002-03 onwards, demonstrate that the numbers of annual university applicants wanting to study

archaeology has exceeded the number in employment within the sector; the actual numbers accepted annually are typically around 1/3 of the total number in employment, but this means there can be twice as many archaeology students as workers at any given time (data from Universities UK, research led by Ramsden, Table 29 below).

	Students studying archaeology (Foundation, Bachelors, Masters levels)																
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Physical Sciences	1197	1242	1636	2134	2247	2200	2375	2560	3065	4085	6140	8535	9115	10030	9490		
Humanities	2299	3777	4189	4126	4441	4490	5120	5785	7900	7690	7315	7455	7250	6185	6190		
Total	3496	5019	5825	6260	6688	6690	7495	8345	10965	11775	13455	15990	16365	16215	15680		
% change on previous year		44%	16%	7%	7%	0%	12%	11%	31%	7%	14%	19%	2%	-1%	-3%		

Table 29: Numbers of students studying archaeology on university degree courses (F, B, M levels). Studying data (Ramsden, 2001; 2003; 2004; 2005; 2006; 2007; 2008; 2009; 2010; Ramsden and Brown, 2002)

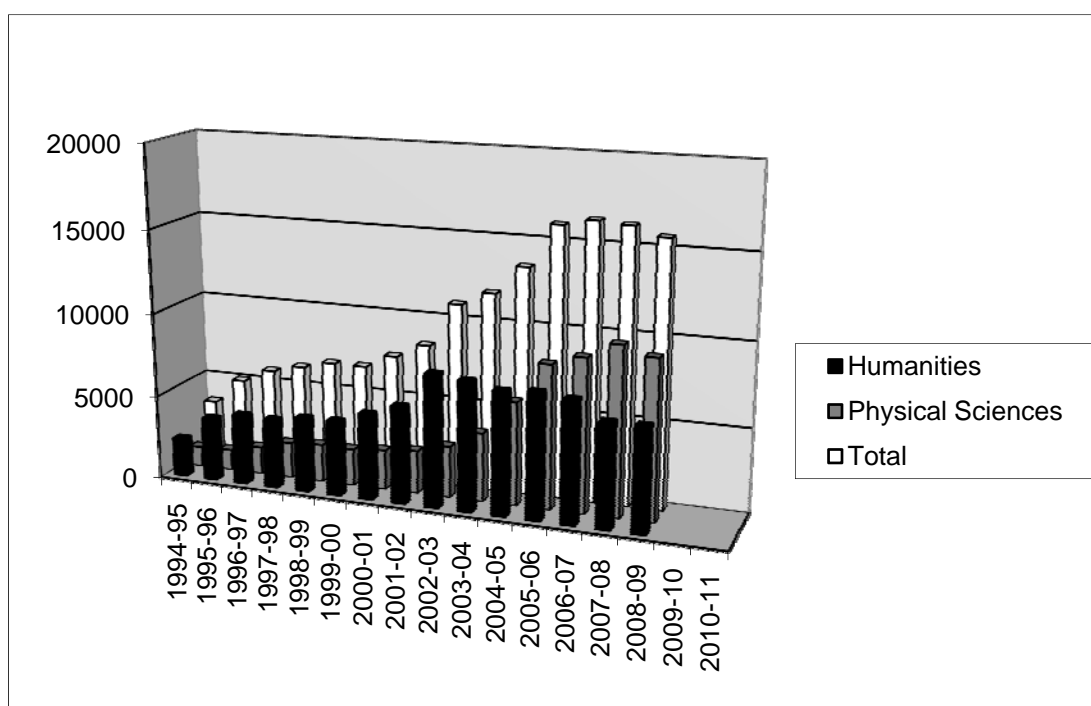


Figure 5: Numbers of students studying archaeology on university degree courses (F, B, M levels)

The number of applications to study archaeology fell from academic year 2006-07 to 2008-09, but then (in common with the total number of applicants for all subjects) rose significantly in 2009-10 and rose again in 2010-11, in response to the economic climate as more people sought to enter higher education as an alternative to the uncertain workplace. However, applications to study archaeology were lower than the aggregate increase for all subjects; (UCAS, 2010a)

identifies that overall applications to universities rose by 22.9% for the 2010-11 intake, but archaeology rose by only 2%.

Students applying to study archaeology (Foundation, Bachelors levels)																	
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Physical Sciences									5152	6740	7996	8496	8648	8422	7567	8101	8261
Humanities									2744	2603	2796	3037	3078	2447	1988	2117	2198
Total									7896	9343	10792	11533	11726	10869	9555	10218	10459
% change on previous year										18%	16%	7%	2%	-7%	-12%	7%	2%

Table 30: Numbers of applications to study archaeology on university degree courses (F, B levels). (UCAS, 2009a; 2010a; 2010b; 2010c). From 2002-03 onwards, the Physical Sciences figures represent combined Forensic and Archaeological Science. Before 2008-09, candidates were able to apply to six courses; from that year onwards, they could apply to only five

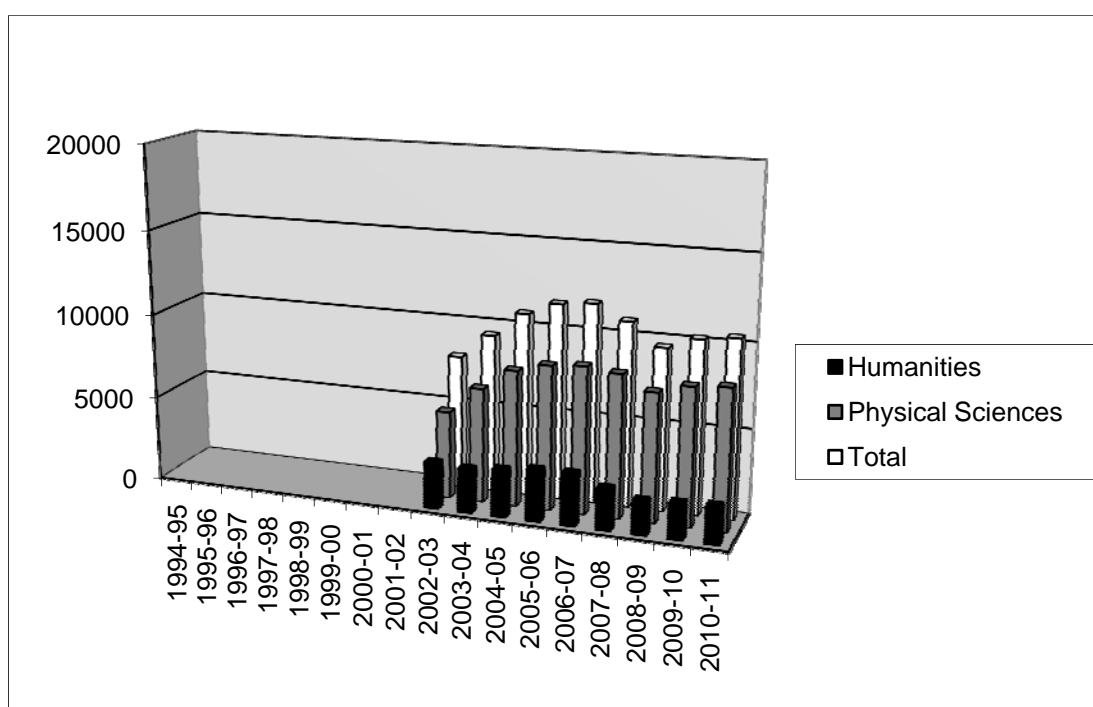


Figure 6: Numbers of applications to study archaeology on university degree courses (F, B levels)

The numbers of students accepted on to degree courses has followed the pattern of applications closely.

	Students accepted to study archaeology (Foundation, Bachelors levels)																
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Physical Sciences									1186	1488	1738	1849	1878	1781	1851	1871	1862
Humanities									557	558	586	681	614	538	558	500	537
Total									1743	2046	2324	2530	2492	2319	2409	2371	2399
% change on previous year										17%	14%	9%	-2%	-7%	4%	-2%	1%

Table 31: Numbers of students accepted to study archaeology on university degree courses (F, B levels). (UCAS, 2009a; 2010a; 2010b; 2010c). From 2002-03 onwards, the Physical Sciences figures represent combined Forensic and Archaeological Science.

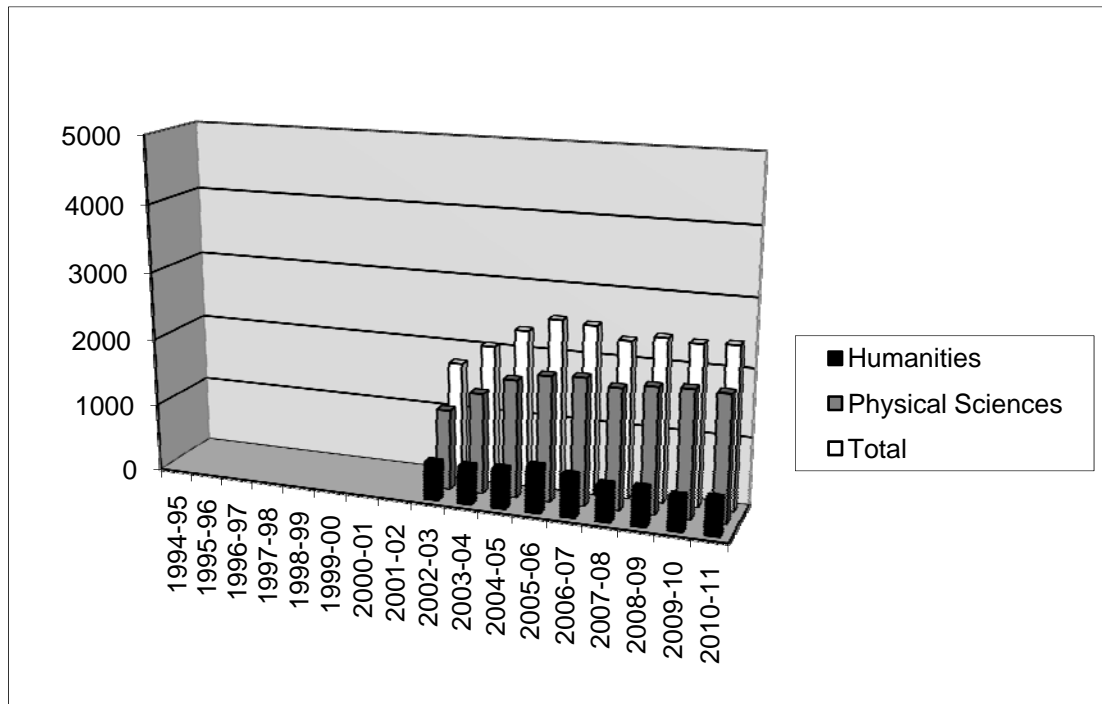


Figure 7: Numbers of students accepted to study archaeology on university degree courses (F, B levels)

6.3.3.4 University-based Commercial Archaeological Practices

A number of commercial archaeological businesses have been established within or attached to universities.

This was initially a northern English phenomenon, with the establishment of commercial arms to the Departments of Archaeology in Manchester, Liverpool and Lancaster (Jones, 1984: 25) with subsequent establishments in central England (at Leicester and Sheffield), but, with the exception of the unit within UCL’s Institute of Archaeology, this approach was not extensively adopted in the south of England. Initially, Bournemouth University might have been the most obvious candidate, having a strong vocational aspect to their teaching programme, but Professor Tim Darvill had such close connections with Cotswold Archaeology that there could have been a

conflict of interest. Bournemouth Archaeology has subsequently been established as a commercial arm of Bournemouth University.

In London, the Department of the Environment funded the establishment of a field team within the UCL Institute of Archaeology in 1974-5 (Drewett, 1987: 130), which took over responsibility for all publicly-funded archaeology in Sussex in 1974 (*ibid.*). In 1981 the Department of the Environment block grant ended, and in 1982 this organisation - the Sussex Archaeological Field Unit - changed its name to Field Archaeology Unit (*ibid.*, 133) and this was accompanied by the introduction of a MA in Field and Analytical Techniques in Archaeology, the first vocational Masters course in UK archaeology. The organisation was renamed and restructured as Archaeology South East in the 1990s (Archaeology South East, 2006a), since when it has been operating as “an independent cost-centre, working without either subsidy or bureaucratic constraint” (Archaeology South East, 2006b).

The other organisation within a university that was funded by the Department of the Environment as a regional unit was the Birmingham University Field Archaeology Unit (BUFAU), which is still trading but now under the name of Birmingham Archaeology – but in October 2010, the posts of the entire Birmingham Archaeology Heritage Services fieldwork team were made redundant (RESCUE, 2010) (see 2.4.1.2 Effects of the Economic Crisis on Universities, above).

The establishment of such organisations has occasionally continued, on a relatively small basis – such as by ARCA at the University of Winchester and Archaeology, Forensic and Environmental Scientific Services (AFESS) within the University of Reading. One relatively recent establishment, the Orkney Research Centre for Archaeology (ORCA), founded in 2007 (ORCA, 2009) is housed within the Orkney College campus of the UHI Millennium Institute (University of the Highlands and Islands) together with the archaeological advisor to Orkney Islands Council and the Council’s Sites and Monuments Record.

As well as functioning as discrete commercial companies, there was always potential for these organisations to directly facilitate training (as delivered from an early date by Archaeology South East) and to create a direct link to the world of commercial practice for student experience (Aitchison, 2004: 211). However, these opportunities to contribute to teaching were not always fully engaged with, and “Their level of integration within academic archaeology departments is variable; there should be scope here for the best of cross-fertilization to be taking place, for teachers to practice and practitioners to teach. But this is not the norm” (*ibid.*).

The table below sets out data drawn from the submissions to the 2008 Research Assessment Exercise, specifically from Table RA4 External Research Income. This lists all of the Departments of Archaeology that made submissions to the RAE in 2008, and ranks them by their total reported external research income. Presented alongside this are the sums identified as having

been sourced from “UK industry, commerce and public corporations” together with the percentage of the total external research income that these figures represent. The final column is the name of the university ‘unit’ then operating. Also shown is *The Guardian* newspaper’s calculated average rating for each Department.

	Rating	External Research Income			
University	Guardian average	Overall total Departmental external research income (partial 2006-07)	Income from UK industry, commerce and public corporations (partial 2006-07)	% of total	commercial arm
Leicester	2.80	£ 2,371,923	£ 1,866,971	79%	ULAS
Durham	3.05	£ 1,823,919	£ 565,389	31%	ASDU
Oxford	1.90	£ 1,427,305	£ -	0%	none
Cambridge	2.90	£ 1,385,444	£ -	0%	Cambridge Archaeological Unit
UCL	2.80	£ 1,298,773	£ -	0%	ASE
QUB	2.75	£ 1,019,715	£ 4,430	0%	CAF
York	2.75	£ 851,045	£ -	0%	none
Birmingham	2.55	£ 683,897	£ 97,038	14%	Birmingham Archaeology
Glasgow	2.45	£ 551,151	£ 54,217	10%	GUARD
Sheffield	2.75	£ 508,927	£ -	0%	ARCUS
Reading	2.95	£ 508,902	£ 3,973	1%	AFESS
Southampton	2.80	£ 439,886	£ 684	0%	none
Bradford	2.60	£ 430,092	£ 2,773	1%	none
Liverpool	2.85	£ 377,696	£ -	0%	none
Nottingham	2.70	£ 295,941	£ 48,431	16%	Trent and Peak
Exeter	2.75	£ 254,827	£ -	0%	none
Bournemouth	2.15	£ 220,689	£ -	0%	Bournemouth Archaeology
Lampeter	2.50	£ 205,667	£ 186,090	90%	UWLAS
Manchester	2.65	£ 198,115	£ -	0%	UMAU
Bristol	2.45	£ 197,477	£ -	0%	none
Cardiff	2.60	£ 164,247	£ -	0%	none
UHI	1.85	£ 134,209	£ 20,435	15%	ORCA
Newcastle	2.50	£ 126,076	£ -	0%	none
Winchester	1.90	£ 54,348	£ 42,502	78%	ARCA
Central Lancs	1.90	£ 5,913	£ -	0%	none
Nottingham Trent	2.10	£ -	£ -	0%	none
		£ 15,536,184	£ 2,892,933	19%	

Table 32: University Archaeology Department External Research Income. (Guardian, 2008; RAE, 2008)

This table firstly shows that there was a remarkable lack of consistency in reporting. It would appear that some University departments – such as those at Leicester and Winchester – may have reported all of the commercial company's income; some, such as Birmingham and Glasgow, reported only a small fraction of their in-house company's turnover (if indeed these figures represent any at all) and some – such as Manchester and Sheffield – reported nothing at all. There will without doubt be many and differing reasons for the Universities' or the Departments' reporting strategies, but it is tempting to believe that those where there was not any income reported were not being considered to “really” be part of the Departments in question.

These organisations have been, and could continue to be, a vital interface between supply and demand, furthering the employability of graduates from their parent Departments. But they are often hampered by high structural overheads, and this inefficient model means that in all academic areas University spin outs are frequently not profitable (ESRC, 2004).

In review, Hunter *et al* (2006: 53) note that there was a period of establishment of units pre-PPG 16 “until in some instances commercialisation required rethinking of functional and operational effectiveness ... certain institutions have targeted more specialist markets, such as forensic application of archaeological practice [*eg* AFESS]. Numbers of archaeological units remain housed within, or associated with, university academic departments, but changing regimes of cost recovery instigated by government and other pressures within universities may lead to more of these moving into the private sector”.

The commercial archaeological companies at the Universities of Edinburgh (CFA) and York (Field Archaeology Specialists) successfully disestablished themselves from the parent Universities in the early years of the first decade of the twenty-first century and continued to trade successfully, while The Archaeology Practice at the University of Newcastle-upon-Tyne failed and closed in this period.

Both ARCUS (at the University of Sheffield) and UMAU (at the University of Manchester) closed in 2009 (see Case Study 22: ARCUS below). Notably, both of these organisations were within Departments of Archaeology that reported zero income from UK Industry in 2008. Both the Universities of Glasgow and Birmingham reported low levels of income from UK industry – and now GUARD (at the University of Glasgow) was reported to be under threat in mid-2010, and as noted above, redundancy notices were issued to the staff of Birmingham Archaeology in October 2010.

6.4 External Influences

Beyond clients, employers and workers, there are bodies with political, social or economic agenda which can, or may wish to, influence or have influenced both how archaeological work is undertaken and the structure of the workforce.

Because the imperfect nature of the archaeological business market prevents Adam Smith's 'invisible hand' – the self-regulation of the market - from functioning at its best (see 2.2.1 Market Failure, above), there are particular reasons, discussed individually below, why the professional institute, the employers' association and trade unions seek and have sought to influence the nature of archaeological employment.

6.4.1 The Role of the Professional Association

the image of archaeologists is that of a few unskilled enthusiasts digging at random for interesting objects. The concept of professionalism in archaeology has yet to be grasped outside interested circles (Heighway, 1972: 19-20)

As the Society of Antiquaries of London begat the Council for British Archaeology (CBA) in response to the archaeological world that would emerge after the Second World War (UoL IoA, 1943: 99), in turn the CBA begat the Institute for Archaeologists (via an Association for the Promotion of an Institute of Field Archaeologists and the Institute of Field Archaeologists) in the very different conditions of the 1970s.

In 1973, CBA recognised that a transition to professionalism was accompanying the expansion of archaeological practice at that time (Darvill, 1999), and established a Working Party on Professionalism in Archaeology, with a view to founding a "British Archaeological Institution". It was then announced (in the autumn of 1974) that "An inaugural meeting will be held in London on Saturday 11 January 1975, to which all those who are being considered as Founder Associates and Members will be invited. It is hoped that the Institution will come into being on that day, with the election of provisional officers and council members" (anonymous, 1974).

This meeting and establishment did not come to pass. The idea encountered such negativity that these plans to create a professional institution were abandoned in 1975, coincidentally the same year that the Society of Professional Archaeologists (SOPA) was established as a professional association in the United States (Addyman, 1989: 303-4). Jones (1984: 142) described this reaction against the attempt to form a body to guarantee standards of competence among practising archaeologists as an "amateur backlash", which Myres (1975: 8) had recognised as "... any attempt to embrace all those concerned with archaeology in a single professional body is

bound to run up against the great tradition of amateurism on which the strength and viability of so much valuable work in the subject still depends”.

Hinton (forthcoming) quotes CBA (1974) to show that anti-Institute propaganda and tensions between the higher education community and other archaeologists both predate the existence of the IFA. At that time, “contrary to ill-informed correspondence in the press, it [the establishment of a professional body] will offer an avenue for mid-career entrants to the profession, since a university degree in archaeology will no longer be the main indication of professional qualification” (CBA, 1974: 7).

Following reconsideration of the potential aims and interfaces of a professional association, a new body – the Association for the Promotion of an Institute of Field Archaeologists (APIFA) was founded in 1979. APIFA was not a professional association – it was a body which intended to create one, and it gained 500 members (Addyman, 1989: 304).

APIFA was successful in its aims, and the Institute of Field Archaeologists (IFA) was established in 1982. One contentious issue was the matter of the use of “Field” in the title, and Hinton (forthcoming) reports that amongst the Institute’s founders the voting was 8 to 7 for including it. Its presence has undoubtedly provided an excuse if not a reason for many in higher education and museums (both of which subsectors already had internal network organisations – the Society of Museums Archaeologists and the forerunner body to the Standing Committee of Professors and Heads of Department in Archaeology) to feel excluded – although there was good university engagement at the establishment of the Institute, as of the 18 members of the first IFA Council, six worked for fieldwork contractors and five for universities (Darvill, 1999: 37-8). Until the mid-1990s, the majority of Chairs of the Institute were university academic staff. The words “of Field” were replaced with the word “for”, giving the Institute the trading name of “Institute for Archaeologists” in 2008 (IfA, 2008).

In the first issue of the Institute’s magazine, *The Field Archaeologist*, Martin Carver, then the Honorary Secretary of the Institute, wrote that the IFA would be concerned with “... the problems of protecting the standards, principles and livelihood of its members” (Carver, 1984: 5), and to this end the IFA’s *Code of Conduct* and associated governance documents were registered with the Office of Fair Trading under *The Restrictive Trades Practices Act 1976* “so what they contain can be recognised as being in the public interest rather than having any restrictive effect on trade” (Darvill, 1999: 40). This Act was repealed in 2000 without it ever having been tested with regard to archaeology.

By the end of 1985/86, the Institute had 520 members (Addyman, 1989: 305). IFA then faced what (forthcoming) considers to have been the most divisive issue the Institute had confronted, the Institute’s sponsoring of the initial World Archaeological Congress (WAC) which decided to

ban attendance by South African and Namibian delegates (Baker, 1986), which led to John Coles, who was the then Chair, and other Council members, resigning from their positions.

Much attention was paid to working conditions in the early years of the Institute, with a Working Party on Employment established in 1985. This led to the significant step towards the establishment of a policy regarding paid reward for archaeological work, when, at the fraught 1986 AGM (the AGM at which the WAC issues were hotly debated) a resolution was passed that the Institute “regards the system of ‘paid volunteers’ as directly contrary to the ‘highest standards of ethical and responsible behaviour’ professed by the Institute” (IFA, 1986).

By the end of the 1980s, IFA had become established, if under-resourced, with the then Chair considering that “Now that the IFA exists in Great Britain it seems inconceivable that we could have done without it” (Addyman, 1989: 307).

The IFA’s *Code of Conduct* is concerned with professionalism in the course of work, the *Code of Practice* (below), together with Standards and Guidance documents, is concerned with the practical matters of working in archaeology. While WAC was IFA’s most contentious issue, the most far-reaching debate within the IFA was to write the *Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology* in 1990 (Darvill, 1999: 45), the document that recognised that archaeology was functioning within an economic marketplace.

This was in part triggered by the discussion of competitive tendering which was the mainstay of several IFA conferences in the late 1980s and early 1990s, and fears that the end of territoriality would lead to competitors undercutting ‘local’ quality drove demands for greater regulation – principally through this *Code of Practice*, but also through a portfolio of quality assurance standards.

Employment matters continued to be central to the Institute’s objectives, and in 1996 IFA Council adopted the report of the *Archaeological employment in Britain* working party (Schaaf, 1996). The report recommended that the IFA continue to take an interest in employment matters and career structures, introduced to the *Code of conduct* Principle 5 (‘the archaeologist shall recognise the aspirations of employees, colleagues and helpers with regard to all matters relating to employment...’) and accompanying rules, and proposed a set of minimum salary recommendations.

Reformed in draft in 2009, those salary recommendations appear now generally to be met and widespread employment abuses are a thing of the past, but archaeological salaries still fail to reflect the skills and responsibilities of the sector, falling behind those of comparator disciplines by some margin (Price and Geary, 2008).

At the start of the twenty-first century, the Institute developed a model for training and career development, which was (and still is) intended to provide archaeologists with recognised, skills-

based qualifications which ultimately will allow for full parity of esteem and reward with comparable professionals. The first steps towards this were the occupational mapping of the sector, the development of National Occupational Standards in Archaeological Practice and a suite of National Vocational Qualifications (see 6.3.1 Training Archaeologists, above). These mechanisms have not yet had a great impact on normal working practices in archaeology, but they remain central to the IfA's training-related objectives.

By 2010, IfA has over 2,850 members (75% of whom are corporate members, the rest being Student or Affiliate members), but this is less than 50% of all archaeologists in paid employment. That means that the Institute's Chief Executive considers that "a small majority of paid archaeologists are not professionals. Closer examination of the IfA's membership reveals that a minority of unpaid archaeologists are professionals" (Hinton, forthcoming).

In early 2010, contrary to the overall trend of a shrinking archaeological workforce, the IfA's membership was growing (unlike union membership in the same period, see 6.4.3 Trade Unions in Archaeology, below). Individual members appeared to be joining as 'insurance' against the threat of redundancies, while employers are convincing members of staff to join to show that the organisation is committed to standards. This has been particularly true at IfA Registered Organisations.

It is interesting that this IfA initiative, the Register, which is closest to the trade association end of the professional institute spectrum is perhaps its most successful enterprise, rigorously assessing organisations' compliance with the *Code of conduct* and expanding suite of standards, with 62 Registered Organisations listed in the IfA Yearbook 2010 (IfA, 2010), employing 2286 individuals.

With a corporate membership that equates to 31% of the workforce (in June 2010), and Registered Organisations employing (an overlapping) 33%, it could be argued that IfA represents the majority of individuals working in archaeology.

If IfA does indeed represent a majority of the sectoral workforce, then a potential obstacle to Chartership is overcome. Currently, the IfA membership carries out self-regulation without legal recognition, the model of professional regulation with least government interaction. At the other end of this scale, some professions are directly regulated by law, such as doctors or lawyers – and between these are professional associations incorporated by Royal Charter, which many of archaeology's working partner sectors are, such as engineers, planners or architects.

Much of the thinking behind IfA's professionalism agenda can be seen in Darvill (1999), which drew heavily upon Harold Wilensky's (1964) article, *The professionalization of everyone?* Wilensky argued that there is increasing pressure upon all occupations to professionalise by defining their activities (and the actors) on the basis of technical competence and shared ethical

norms. This is the Situated Professionalism model, wherein the 'Pillars of Professionalism' are content and control, used to shield professional practices from external interference. This perspective continues to underpin IfA corporate philosophy, as set out, for example, in Hinton (2010b).

Ever since its first attempts at establishment in the mid 1970s, the professional institute has encountered criticisms of its aims and intentions. ACT (Archaeologists to Communicate and Transform) was established as a short-lived entryist group, critical of IFA in the mid-1980s and agitated by the same problems that IfA was seeking to tackle, of "unequal salaries, short-term contracts, no career structure, unsympathetic management" (Hinton, 1985), but which sought to act as a "... pressure group upon the IFA, whose ruling council was seen to be unrepresentative of the majority of field archaeologists" (*ibid.*). This group was particularly concerned by the idea of "... contract archaeology, which could destroy regional units and demolish professional standards" (*ibid.*). It could be argued that ACT achieved their manifesto goal that "ACT will change the IFA from within" (CBA, 1986) when Peter Hinton was appointed as IFA's first executive Director in May 1997 (Hinton, 1997). Alternatively, it could be seen that most 'ACTivists' actually recognised the benefits of the IFA's existence, allowing the group to wither on the vine (Hinton, forthcoming).

6.4.2 From SCUM to FAME

FAME, the Federation of Archaeological Managers and Employers, describes itself as "the only organisation which exists solely to represent and support employers in commercial archaeological organisations" (FAME, n.d.). It is an employers' association, effectively a trade organisation that is only open to business owners and managers, and thus has a different composition and perspective from that of a professional association such as IfA which is open to individuals in all roles across the sector.

Established in 1975 during a time of rapid expansion of archaeological provision, the founders, seeking counter-culture credibility with their colleagues and friends who had become their employees, deliberately chose a name with a self-mocking acronym: "To help co-ordinate the professional units - a Standing Conference of Unit Managers has been formed: obviously nothing will stop a good archaeologist floating to the top!" (anonymous, 1976).

In 1985, the organisation changed its name but not its *raison d'être* or objectives, introducing the word 'archaeological' between 'conference' and 'unit', becoming SCAUM - "The new acronym is close enough to German *Schaum* (froth, foam) to preserve the intimation of fragility and impermanence implicit in SCUM!" (CBA, 1985), and in 2008 changed the name again, this time "... to FAME to reflect more accurately our purpose and membership" (FAME, n.d.).

Some of the organisations publications have been of some importance – the cautious paper on competitive tendering (SCAUM, 1996) helped to ensure a shared understanding of the processes involved, the *Occasional Paper on Archaeology and Employment* (SCAUM, 1999) expanded upon Principle 5 of the IfA Code of Conduct (that part pertaining to employment practice), and gave rise to SCAUM's other significant publication, the *Employment Practice Manual* (SCAUM, 2006). This is very much a guide to employment law as it applies in archaeology (and from a management perspective).

In 2010, the FAME membership consisted of approximately seventy commercial practices (Tindall, 2010), and there is a high level of overlap between the membership of FAME and the IfA Registered Organisation scheme. At times, the desires of the IfA's Registered Organisations Committee and of FAME seem to be very closely aligned. It is easier to join FAME than to join the RO scheme, and it brings less-visible benefits; IfA Registration brings a peer-reviewed charter mark that is then of value to clients (and potentially to employees), while FAME is a network, support and lobbying organisation.

As an industry trade organisation, FAME plays a crucial role in the establishment and maintenance of a social dialogue within archaeology, ensuring that employers have a vehicle to collectively express their views, balanced by the trade unions as the mechanism by which employees are able to have a voice. This traditional, bipartite view of the social dialogue does not work in the classic way within archaeology, given the existence of the IfA which aims to service the needs of both individual members and of (Registered) organisations and thus simultaneously overlaps with both FAME and the trade unions, which meant that FAME played a significant role in the IfA-led pay benchmarking exercise (Price and Geary, 2008), as it was very important that IfA was not seen as representing either the employer or the employee side. However, within such a small sector, the three agencies are able to work together relatively well to maintain harmonious relationships between employers and employees, and this can be argued to have contributed to the historically low level of industrial disputes within the sector. Two other alternatives to explain this can be presented; it could be argued that this is due to low levels of union engagement and activity within archaeology, or it could be argued that simply given archaeology's small size and early stage of its development as a sector, when essentially all of the managers have 'served their time on the shop floor' as practicing archaeologists in the field, employers have always been aware of and sympathetic to employee desires. As company sizes have grown, this 'band of brothers' model has become less pertinent, but it still has residual influence.

6.4.3 Trade Unions in Archaeology

At its inception, the founders of the IFA realised that to take on the function of a trades union would be beyond the scope of the fledgling institute, and would detract from its primary aims (Turner, 1994)

In 1994, Turner identified four unions “under whose umbrella archaeologists might be protected” – AUT, IPMS, MSF and Unison – and recognised that restrictions on membership of these unions was generally workplace related, with AUT covering the university sector, IPMS “for civil servants and for staff of quangos, trusts and museums”, MSF with no specific restrictions and Unison for public service workers. MSF is now part of Unite, AUT part of UCU, IPMS part of Prospect and Unison is still UNISON. Generally, membership remains workplace related, although Prospect – which is the most active in the archaeology-specific sector – brings together workplace chapters under an Archaeologists branch and a wider Heritage branch.

The three LMI surveys asked whether trade unions were recognised in the workplace.

	Workplaces	Workers in these workplaces (% of all archaeological workers)
1997-98	201 (58%)	2041 (72%)
2002-03	145 (64%)	2146 (71%)
2007-08	128 (53%)	2327 (78%)

Table 33: Trade union recognition in archaeological workplaces. (Aitchison and Edwards, 2008: 149)

These figures do not mean that all of these individuals are union members, but it does show that trade unions are recognised in the majority of archaeological workplaces. Nine different trade unions were reported as being recognised in 2007-08 (Aitchison and Edwards, 2008: 95), with Prospect, Unison, UCU and Unite still being the major four. Thirteen unions were recognised in 2002-03 (Aitchison and Edwards, 2003: 52), seventeen in 1997-98 (Aitchison, 1999: 49), but this declining trend relates largely to union amalgamation over time.

Unison has consistently been the union recognised in the highest number of workplaces in all three surveys; in terms of the numbers of employees working for organisations where unions are recognised, Unison and Prospect have each been most represented, Prospect in both 1997-98 and 2007-08, Unison in 2002-03 (Aitchison and Edwards, 2008: 150).

Historically, there has been very little industrial action within sectoral workplaces, with the most significant exception being at the Museum of London in 1990, where approximately 300 staff were made redundant (Young and O'Sullivan, 1991). IPMS (later to become part of Prospect) supported dismissed staff in taking the case to an Industrial Tribunal, which, on 25th September 1991, ordered the Museum to pay £400,000 compensation to 206 archaeologists

who were made redundant without 90 days notice: "the Tribunal strongly criticised the Museum's administration for what it called its 'extraordinary complacency' over the employment prospects for its archaeologists in the late summer of 1990, when it was abundantly clear that the recession was under way" (CBA, 1991b).

Generally, the archaeologists' unions currently act in supportive roles, often focussing on becoming learning facilitators rather than being agents of confrontation; they tend not to be highly politicised. Of the four most significant unions that archaeologists join, UCU and Prospect have political funds, but are expressly not linked to political parties; Unison and Unite both have formal links to the Labour Party.

Even within the UK's pluralist economic system, attempts have been made to find social market solutions through cooperation between the employers' association, trade unions and professional institute (pay benchmarking), but this has been hampered largely by the low-level of trade union membership within the archaeological profession. A minority of Everill's respondents (27%) were trade union members (Everill, 2009: 74), and he recognised that "... it is possible that only a direct threat to their jobs would encourage [those that said they would consider joining a union] to actually join a union, by which time it may be too late" (*ibid.*, 73), and in the current economic situation, trade union membership is, perhaps surprisingly, declining. The Archaeology Branch of Prospect lost 16.7% of members in 2009 (Staniforth, 2010). This has to be measured against a reduction of commercial archaeology's workforce of 6.3% in 2009 (Aitchison, 2010b), but also needs to be read against an overall increase in Prospect membership of 1.6% over the same period (Louise Staniforth pers. comm. 19th January 2010).

7 Devolved Patterns: aspects of archaeological employment outside England

The 1999 devolution of political power from Westminster led to the responsibility for setting and administering legislation that relates to archaeology also being fully decentralised.

Long-standing differences in this legislation already existed between that which applied in England and Wales, and that applying in Scotland. Northern Ireland also has clearly separate legislation. Separate national heritage agencies which were set up in the 1980s now deliver responsibilities previously managed through pre-devolution Departments of the UK Government.

Over the study period, the numbers of archaeologists in each of the constituent parts of the UK remained relatively consistent with the total populations, although the numbers of archaeologists working in Scotland, Wales and Northern Ireland increased more rapidly than the English figure did.

	Total Population		Archaeologists					
	2001		1997-98		2002-2003		2007-08	
England	49,138,831	83.6%	3787	85.6%	4767	83.5%	5437	79.2%
Scotland	5,062,011	8.6%	369	8.3%	456	8.0%	848	12.4%
Wales	2,903,085	4.9%	234	5.3%	387	6.8%	422	6.1%
Northern Ireland	1,685,267	2.9%	53	1.2%	73	1.3%	126	1.8%
Channel Islands & Isle of Man	n/a		8	0.2%	29	0.5%	31	0.5%
UK Total	58,789,194		4425		5712		6865	

Table 34: Distribution of archaeologists in the United Kingdom. (Aitchison, 1999: 10, table 10; Aitchison and Edwards, 2003: 32, table 37; Aitchison and Edwards, 2008: 47, table 29; Office for National Statistics, 2002)

7.1 Scotland

In comparison with England, archaeological practice developed differently and more slowly in Scotland – there was practically no ‘rescue’ in the 1960s or first half of the 1970s, and when such work began in the later 1970s and during the 1980s, it was not on the scale of work in England – “three decades of a high intensity of archaeological work did not happen in Scotland” (Barclay, 1997: 11). This was largely because of the vagaries of allocation of central government monies (Jones, 1984). Crawford (1974) showed that only 1.8% of UK mainland rescue funds in 1967/68 were spent in Scotland, and the annual state budget for rescue archaeology in Scotland in 1975 was a mere £25,000 (Jones, 1984: 109), although it did begin to rise rapidly from then on.

Before 1970 there was very limited urban archaeological work, partly because of a "... shortage of archaeologists of sufficient experience, particularly in urban rescue archaeology" (Jones, 1984: 111-3). The low levels of activity "stunted development of the type of local archaeological structures that grew directly or indirectly out of rescue funding in England (locally based archaeological units, locally based archaeological trusts; local museum development and, most important for the long-term development of archaeological structures, county archaeologists)" (Barclay, 1997: 11). Ralston and Shepherd (1978) had called for a strengthening of local government's responsibilities and services, to be facilitated centrally, but by 1983 there were only two Regional archaeologists in Scotland, covering Tayside and Grampian (Jones, 1984: 120).

In terms of field work, in the 1970s, "a pattern developed of two country-wide field units; SUAT dealing with urban sites and the Central Excavation Unit dealing with rural sites. The CEU was funded entirely by national government, SUAT largely so" (Carter, 2002: 871). The CEU was established in 1977, housed in Falkirk (Jones, 1984: 120). There were also archaeological surveyors, nominally under the management of the Society of Antiquaries of Scotland, but effectively controlled by the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS).

By 1990, the Historic Buildings and Monuments Division of the Scottish Office, which was to become Historic Scotland in 1991, issued over 70% of the commercial fieldwork contracts, with only two organisations undertaking significant numbers of projects – SUAT and AOC (then an abbreviation for Archaeological Operations and Contracts), which was the successor name of the Central Excavation Unit (Carter, 2002). Other organisations were emerging – such as CFA within the University of Edinburgh – but they were not yet major competitors of the two organisations referred to above. At this time there was no obligation upon developers in Scotland to provide archaeological information to support planning applications, and so there was no obligation upon them to fund investigations.

From their establishment, AOC were the only 'one stop shop' in Scottish archaeology – they had in-house specialists (and conservation facilities) as well as fieldworkers, which ensured that they were nearly able to do all kinds of archaeological work. They were spun-out from Historic Scotland in 1992 and operated as a commercial company from that point onwards, which was a critical two years before NPPG 5 (SOEnD, 1994a) was introduced, the document that would emulate PPG 16's achievements in England. Other commercial companies were beginning to emerge, but this separation of the provider body ensured that there would be more than one major potential provider in the marketplace when Scottish archaeology was opened up to competition by NPPG5.

In order to fully and properly implement the requirements of NPPG 5, local planning authorities had to receive archaeological advice, and before local government reorganisation in 1997, the local authority archaeological services were mostly provided by the regional councils. Tayside and Lothian Regional Councils, however, provided no service (though the Cities of Edinburgh and Dundee District Councils did towards the end have in-house services), and in each of Shetland and Orkney trusts funded largely from oil revenues provided the service (Jewell and Raemakers, 1999). Post-1997, there were nine authorities with in-house services, four which bought in from neighbours, and eleven were in a joint service (WoSAS). Two were provided by trusts and three had no service (*ibid.*, 376-8).

By 2010, all of the local planning authorities in Scotland (including the two National Parks) do receive archaeological advice, with joint services relatively common together with the phenomenon of Rathmell Archaeology, a private firm, which provides services (on differing bases) to three authorities – the City of Dundee, East Dunbartonshire and North Lanarkshire. Rathmell Archaeology also works as an archaeological contractor outside those three Council areas (see 6.2.2.1 External Providers of Curatorial Services for Local Authorities, above).

WoSAS (the West of Scotland Archaeology Service) originally provided advice for 11 of the 12 Councils in the area of the former Strathclyde Region, with the exception of East Dunbartonshire. In 2010, WoSAS also provides for West Lothian, but no longer for North Lanarkshire. East Lothian also provides the service for Midlothian, Stirling provides for Clackmannanshire, while Aberdeenshire, Angus and Moray have a joint service which also includes most of the Cairngorms National Park, with the part of that National Park which is in Perth and Kinross receiving the service from Perth and Kinross Heritage Trust. The Loch Lomond and the Trossachs National Park overlaps three curatorial areas and advice is provided from each of those services (Perth and Kinross, WoSAS and Stirlingshire).

At the end of the 1980s, in addition to AOC and SUAT already mentioned, GUARD and CFA (both established as commercial arms of university departments – on different bases - in Glasgow and Edinburgh respectively) were the only other commercial operations in Scottish archaeology (Pollard, 2006: 1).

Commercial archaeological companies are concentrated (like the Scottish population as a whole) in the central belt. For a time, Headland Archaeology (Case Study 20: Headland Archaeology, below) was considerably larger than its competitors, but in 2010, while it may be the largest of several, it is no longer disproportionately so.

Together with Headland, there is a set of medium sized companies - CFA, AOC, GUARD – typically employing between 20 and 40 individuals, with a set of organisations that have smaller core staffs but that are able to take on more when needed for larger fieldwork projects, such as

Kirkdale, Rathmell and Scotia Archaeology. Pollard (2006) estimated that there were about twelve commercial practices operating in Scottish applied archaeology.

There have been some particularities of demand for archaeological services in Scotland, related to geography and economic development. Historically, and recently, there has been a great deal of demand for pre-afforestation surveys, and increasing amounts of work on windfarm developments, both on and off-shore (see 6.1.2.2.2.1 Renewable Energy and 6.1.2.4 Maritime Archaeology, above), which has led to Wessex Archaeology opening an office in Edinburgh in 2010 (Case Study 13: Wessex Archaeology, above). With the exception of a small amount of archaeological work onshore, early (1970s) North Sea oil and gas exploitation occurred without the recognition of the potential for archaeological impact, although Gaffney *et al.* (2007) subsequently used seismic data from petrochemical exploration surveys to present interpretations of the now submarine early Holocene landscape beneath the southern North Sea.

The sparse population of the highlands and islands means that there has been less development pressure and better monument survival in these areas, and conversely intense development in the central belt means that nearly all commercial companies (with the exception of some sole traders) are in this area. Significant projects in the central belt have included the M74 Completion (Case Study 11: M74 Completion, above) and the Scottish Parliament site (Case Study 19: Scottish Parliament, below), with another major infrastructure project that led to significant amounts of archaeological work having been the widening of the A1 to the south-east of Edinburgh. Prior to all of these was the Shell Ethylene pipeline project, which crossed from Scotland into England (Case Study 9: North-Western Ethylene Pipeline, above).

NPPG 5 (SOEnD, 1994a) was replaced by the very short-lived SPP 23 in February 2008 (Scottish Government, 2008), the rapid demise of which was caused by the publication of the Scottish Planning Policy (Scottish Government, 2010b), a document which replaced all extant NPPG and SPP documents. PAN 42 (SOEnD, 1994b), which supplied the technical advice to support NPPG 5 remains current however, and is in need of appropriate updating to support the parts of the Scottish Planning Policy which relate to the historic environment.

Before the Parliamentary elections in 2007 which led to the Scottish National Party (SNP) forming a minority government, SNP policy had favoured a merger between RCAHMS and Historic Scotland (Scottish National Party, 2007), but this was not implemented. The *Historic Environment Amendment (Scotland) Bill* was introduced to the Scottish Parliament on 5th May 2010, with the intention of modestly harmonising and consolidating legislation in Scotland.

Over the study period, the numbers of archaeologists working in Scotland grew by 143%, while the total number of archaeologists in the UK grew by 55%. While this does represent, to a large degree, the maturation of the commercial sector in Scottish archaeology, the 2007-08 figures are

likely to have been skewed to a degree by the M74 completion project (Case Study 11: M74 Completion, above), which considerably increased the numbers of short-contract fieldworkers in employment at the time.

	archaeologists in Scotland	archaeologists in UK	
1997-98	350	4425	7.9%
2002-03	456	5712	8.0%
2007-08	848	6865	12.4%

Table 35: Professional archaeologists in Scotland, 1997/98 – 2007/08. (Aitchison, 1999: 10, table 10; Aitchison and Edwards, 2003: 32, table 37; Aitchison and Edwards, 2008: 47, table 29). In 2007-08 the Scottish workforce, in all sectors of the economy, represented 9% of UK total

At the time of writing in mid-2010, taking into account the effects of the economic situation in 2010 (and using the data received in the production of Aitchison (2010)), a realistic estimate of the number of archaeologists employed or self-employed in Scotland would be around 625, representing a loss of approximately 25% of posts from the 2007 high.

Case Study 19: Scottish Parliament

The site of the Scottish Parliament was not only “... the largest urban archaeological excavation in Scotland's history” (Scottish Parliament, n.d.), with the archaeological work having a total value of approximately £1m (Russel Coleman pers. comm. 10th June 2010) but it was also the first significant development-led archaeological project in Edinburgh’s World Heritage Site core.

The site incorporated Queensberry House and largely lay beneath the substantial Younger’s Abbey and Holyrood breweries (Barclay, 1998). Kirkdale Archaeology carried out the early evaluation work with Addyman and Kay undertaking historic building analysis. The mitigation work “... was put out to competitive tender and the contract awarded in 1998 to a consortium formed between SUAT Ltd and Headland Archaeology Ltd” (Holyrood Archaeological Project Team, 2008: 3). The joint venture partners chose to work together as their expertise was complementary - SUAT’s strengths were in urban, medieval excavations and in finds, while Headland’s were in environmental archaeology and they were also based close to the site (Russel Coleman pers. comm. 10th June 2010). Fieldwork took place between September 1998 and March 2000, with further work in spring 2001.

The project’s significance in the history of archaeological employment was in the demonstration of successful joint venture working on a very high profile, non-infrastructure project, with a high associated risk attached (this was also a very early joint venture, given that Framework Archaeology also first operated in 1998) (see 6.2.1.2.1.1 Joint Ventures, above) and the

demonstration that the archaeologists would be able to share a site with the building contractors, meaning that “...it was possible to devise a strategy, timetable and costs for the excavation of a potentially very large area within a tight timetable and while sharing the site with other contractors” (Holyrood Archaeological Project Team, 2008: 4).

Another important point is that if one of the reasons to form a consortium or undertake a joint venture is to access greater staff resources, this opened up opportunities for individuals to move between firms. Russel Coleman was initially in charge of the site on behalf of SUAT, and he later moved (before the project was complete) to become a Director of the other partner in the venture, Headland Archaeology.

7.2 Wales

Archaeological practice in Wales is dominated by four charitable Trusts, each of which provides curatorial services for defined geographical areas and each of which also has a commercial arm, which typically undertakes fieldwork within ‘their’ area and across the rest of Wales (and potentially beyond). The Trusts are not integrated within local authorities, but provide services on their behalves.

The Trusts were established in 1975 “... in response to the inability of museums and universities to respond to the impact of development on archaeological remains” (Jones, 1984: 103). Dai-Morgan Evans, the Department of the Environment’s Inspector of Ancient Monuments in Wales was the promoter of this initiative (Owen-John, 1986: 17). This had followed on from the radical establishment of the Rescue Archaeology Group (RAG) in 1970 (*ibid.*, 14), which used a system where one person would take responsibility for a project from inception to completion, while the next project was taken on by the next person – leading to a system of rotating directorships. Chris Musson was the principal leader of this initiative, and Morgan-Evans picked up his thinking.

“The aim of RAG, as expressed by Dai Morgan-Evans ... was to eliminate salvage work altogether” by transforming this into programmed, preventive, research archaeology (Jones, 1984: 99). The RAG work at Moel-y-Gaer in 1972, which was 50% funded by the developers (Flintshire Water Board) was a significant step towards regularising developer funding (*ibid.*, 99-100).

Upon the establishment of the four Trusts, the government (through the Inspectorate) committed to providing a grant to pay two salaries (soon expanded to four), plus overheads at each organisation. RAG became Clwyd-Powys Archaeological Trust and Directors were

appointed to other three. "By late 1975, all four Trusts had been formally constituted; full-time professional rescue archaeology had arrived in Wales" (Owen-John, 1986: 17).

By the mid 1980s, funding for the Trusts still came almost entirely from central or local government. In 1985 GGAT recorded £527,421 of income, £524k of which was from "Welsh Office / Cadw / Local Authorities / MSC" and only £3,059 from "Sundry receipts and donations" (wages were £438,365) (Owen-John, 1986: 56).

The national heritage agency in Wales is Cadw: Welsh Historic Monuments. Cadw was constituted in November 1984, linking the Monuments and Historic Buildings sections of the Welsh Office with a marketing and commercial branch largely staffed by personnel mainly drawn from Welsh Tourist Office. Almost simultaneously, section 45 of *Ancient Monuments and Archaeological Areas Act 1979* was enacted in Wales (requiring state funding to go only to projects, not to fund organisational core costs) (Owen-John, 1986: 50).

The establishment and dominant roles of the Trusts has led to a number of perceived issues relating to archaeological employment – firstly that, with the Trusts having dual curator and contractor roles, there is potential for conflicts of interest, and secondly that there is also a perceived difficulty for non-Trust organisations to get commercial work in Wales.

The curatorial work of the Trusts is funded by Cadw (as an ongoing project, rather than as core-funding), the Royal Commission on Ancient and Historical Monuments of Wales and local planning authorities, although a small number of LPAs have separate, in-house advisors - in the 1980s, Clwyd County Council employed an archaeological officer and held an SMR (Owen-John, 1986: 52); in 2010, Denbighshire County Council have an in-house archaeologist providing planning advice as do Snowdonia and Pembrokeshire Coast National Parks (Kate Geary pers. comm. 20th May 2010). The HERs at the Trusts are the primary source of data for planning related matters.

The Welsh Archaeological Trusts' Curators' Code of Practice (Welsh Archaeological Trusts, 1997) addresses the conflict of interests issue. It establishes that:

"An Archaeological Trust may therefore both provide advice on archaeological matters as part of the planning process (curating) and competitively tender for contracts arising from that advice (contracting). This code of practice, drawn-up at the request of Cadw, identifies the procedures that the Trusts have introduced to ensure that there is a clear separation between their advisory (curatorial) and contracting roles. It complements, rather than replaces, other codes of practice and conduct and professional standards (see Appendix)", and that

"1. Curating and contracting functions will be carried out independently by separately staffed sections within each organisation."

This Code of Practice is founded upon a planning circular (Welsh Office, 1996b) which provides advice on the handling of archaeological matters within the planning system, supplementing *Planning Guidance (Wales)* (Welsh Office, 1996a) and acknowledges the role of the Trusts in as providers of advice to local planning authorities.

In terms of it being difficult for outside organisations to get work in Wales, there is nothing to prevent any developer from selecting the contractor of their choice. However, a *List of Archaeological Contractors* is a nominal appendix to the Code of Practice referred to above. There is no information relating to this on the Gwynedd Archaeological Trust’s website; both the Clwyd-Powys Archaeological Trust and Glamorgan-Gwent Archaeological Trust websites point to the IfA Register of Organisations, but Dyfed Archaeological Trust still presents a list of archaeological contractors wishing to tender for work in Wales which “... is not intended to be a list of 'approved' or 'validated' contractors, nor should inclusion on it be seen as a recommendation by the Trusts or as any form of guarantee of a contractor's work. It simply contains the names of individuals or organisations that have put themselves forward as wishing to tender for archaeological work in Wales and its sole purpose is to assist those needing to secure archaeological services. The list is not exhaustive and many other archaeological contractors exist” (Dyfed Archaeological Trust, 2002).

Despite this disclaimer, this will inevitably shape the opportunities for work in this part of Wales, as small developers in particular, when acting as uninformed consumers, will have no better tool to help them select potential contractors to invite tenders from – and as this list has not been updated since July 2002, there is no mechanism whereby new entrants can be added to it (see 2.2.2 Local Government Mediation, above).

In total, the number of archaeologists working in Wales grew at the same rate as was experienced across the UK between 1997 and 2007.

	Archaeologists in Wales	% of UK Archaeologists
1997-98	227	5.1%
2002-03	387	6.8%
2007-08	422	6.1%

Table 36: Professional archaeologists in Wales, 1997/98 – 2007/08. (Aitchison, 1999: 10, table 10; Aitchison and Edwards, 2003: 32, table 37; Aitchison and Edwards, 2008: 47, table 29)

7.3 Northern Ireland

Historic Monuments in Northern Ireland have been protected by legislation since 1869 (Hunter et al., 1993: 37), with the law particularly differing from that of Britain in that, through the 1926 *Ancient Monuments Act (Northern Ireland)*, all archaeological finds have to be reported to the

Ancient Monuments Advisory Committee and through the supplementary 1937 *Ancient Monuments Act (Northern Ireland)* excavations for archaeological purposes are restricted except under licences issued on behalf of the State (Foley, 2006: 177), in line with practices in the Republic of Ireland. The current legislative instrument is the *Historic Monuments and Archaeological Objects (NI) Order 1995*.

At the end of the first decade of the twenty-first century, between 200 and 300 licensed archaeological excavations were undertaken in Northern Ireland every year (NIEA, 2009). Because of the licence-granting system, Northern Ireland complies better with Article 3 of the Valletta Convention (CoE, 1992) than any of the other constituent parts of the UK.

Historically, there was no Manpower Services Commission programme in Northern Ireland in the 1970s or 80s (Hunter et al., 1993: 37), and by 1993 there was “some development of contract archaeology, though not on the Great Britain scale, and there is little developer funding” (*ibid.*). Following the commencement of the peace process in 1995, the amount of commercial development greatly increased, leading to significantly more archaeological work (Hunter et al., 2006: 49).

Archaeological input to planning development control in Northern Ireland is completely centralised, and undertaken by Built Heritage Directorate of the Northern Ireland Environment Agency (NIEA: Built Heritage). The Northern Ireland Monuments and Buildings Record is maintained by NIEA: Built Heritage, which provides all planning advice as DOE (NI) has responsibility for all local government services. This is comparable with joint curatorial services in Britain, and particularly with the Greater London Archaeology Advisory Service.

District councils have limited powers and there are no county councils. Some district councils “... run local museums, in which a few archaeologists are employed, but there are no local authority curatorial archaeologists and no county units or SMRs” (Hunter et al., 2006: 49).

Planning Policy Statement 6 (*PPS 6: Planning, Archaeology and The Built Heritage*) (DoE [NI], 1999) replaced PPG 16 in Northern Ireland. This document ensures that comparable processes for dealing with archaeological remains within the planning and development process exist across the entire United Kingdom.

There are only a small number of archaeological contractors based in Northern Ireland, one of which - The Centre for Archaeological Fieldwork (CAF), part of Queen’s University Belfast - has the contract to undertake excavations on behalf of NIEA: Built Heritage (Williams, 2010); while CAF carries out work for other clients, “the vast majority of its work remains that commissioned by NIEA: Built Heritage” (QUB, n.d.).

There is considerable cross-border working as several companies that are established in the Republic of Ireland also having offices in the North (see 8.2 Non-UK Archaeological Employers

Working Inside the UK, below). Some British firms (based in England, Wales or Scotland) have potentially been wary of engagement owing to the need to comply with differing employment regulations in Northern Ireland which ensure cross-community equal opportunities, but this is only an issue if a company is recruiting within Northern Ireland, it does not apply to staff employed outside the Province and only working there temporarily.

Even considering that Northern Ireland only makes up 3% of the United Kingdom’s population, the archaeological profession is very small in Northern Ireland – although over the ten years from 1997-98 to 2007-08 it grew by 138%, considerably faster than the UK total which grew by 56% over that same period (Aitchison and Edwards, 2008: 125, table 131).

	Archaeologists in NI	% of UK Archaeologists
1997-98	53	1.2%
2002-03	73	1.3%
2007-08	126	1.8%

Table 37: Professional archaeologists in Northern Ireland, 1997/98 – 2007/08. (Aitchison, 1999: 10, table 10; Aitchison and Edwards, 2003: 32, table 37; Aitchison and Edwards, 2008: 47, table 29)

The data collected in 2007-08 should have been able to be combined with that collected for the Republic of Ireland as part of the *Discovering the Archaeologists of Europe* project, but the Institute of Archaeologists of Ireland (who were the project partners in Éire) found that they were unable to integrate the Northern Ireland data set into the IAI data “... as it would create national, regional and sectoral imbalances in the resulting data set. This outcome is to be regretted at a critical time in the development of the profession in Northern Ireland when comparative data would be most useful. This is particularly the case as both commercial companies and a large number of archaeologists work in both jurisdictions” (McDermott and La Piscopia, 2008: 9). This meant that an opportunity to further analyse transnational work in the island of Ireland was missed, particularly in terms of identifying how many individual archaeologists employed in one state were also working in the territory of the other (see 8 Transnational Mobility, Below).

It can be seen that Northern Irish archaeology from 1990-2010 has developed very differently from that in the rest of the UK. With DoENI being both the curator and an occasional contractor, it could be interpreted as being comparable with Britain pre-PPG 16 (or even pre-1980), but this is not really the case. There is a commercial sector, which has been relatively underdeveloped, largely because of limited development (although there was a brief building boom post-1995 in Belfast, which may have been an archaeological missed opportunity) but also because of competition with the much better developed sector in the Republic of Ireland.

8 Transnational Mobility

There has been a long tradition of UK archaeologists practicing their craft abroad, established with late nineteenth- and early twentieth-century colonial and east Mediterranean adventures and continued through the enduring popularity of non-UK university fieldwork.

In the mid-1990s, there was a period when individual UK archaeologists were able to find paid work relatively easily in Europe – particularly in the eastern Länder of Germany (as shown by the IfA's *Archaeological Employment in Britain Working Party's* report (Schaaf, 1996) including reported pay rates for work in Dresden comparable with those reported across the UK) and elsewhere, such as the 157 foreign archaeologists who found paid work in Beirut between 1993 and 1996 (Perring, 2006: 26).

This movement of archaeological workers has continued – in the first decade of the twenty-first century, companies have been operating transnationally and this is a two-way process, with examples both of UK professional activity outside the country and some work by non-UK companies inside the UK (particularly in Northern Ireland).

This has largely been facilitated by Article 45 of the *Consolidated Version of the Treaty on the Functioning of the European Union* (European Union, 2010) which establishes the rights of individual workers to freely move and work within the member states of the European Union. The *Discovering the Archaeologists of Europe* project has explored how much movement within Europe of individual archaeologists within Europe there has been, identifying that 7% of archaeologists working in the UK in 2007-08 (immediately pre-economic decline) were from other countries (Aitchison and Edwards, 2008: 53-4), with a total aggregate figure for non-national workers across the 12 countries that participated in that project of 8% (Aitchison, 2009c: 18).

8.1 UK Archaeological Employers Working Outside the UK

Some UK archaeological employers do carry out commercial work outside the United Kingdom – most obviously in the Republic of Ireland (with the advantages of geographical proximity and shared language).

The Republic of Ireland is very unusual in global archaeological terms because of the high levels of transnational mobility that exist, both for individual archaeologists and for commercial archaeological companies. It is easy for non-Irish archaeologists to work in the country and for non-Irish (especially EU-based) commercial enterprises to trade there, although it is significantly more difficult for non-Irish individuals to obtain licences to direct excavations.

Dolan (2010), a directory of commercial fieldwork providers, lists 34 companies as providing archaeological services in Ireland, of which five have offices in Northern Ireland – ADS Ireland, The Centre for Archaeological Fieldwork, Farrimond McManus, Gahan & Long (which considers itself to be “the market leader in Northern Ireland” (Gahan and Long, n.d.)) and Northern Archaeological Consultancy. A further three have very significant links to British organisations - TVAS (Ireland) is closely associated with Thames Valley Archaeological Services, AC Archaeology is a UK company that provides archaeological services in both the UK and Ireland and the Headland Archaeology Group (Case Study 20: Headland Archaeology, below) is now a truly multinational organisation, with separate trading bodies in the UK and Ireland.

Irish archaeology underwent a period of remarkable growth until 2008 – over 20 years from the mid-1980s, the number of archaeological excavations *per annum* increased to a level 40 times as great (UCD, 2006: 15-6) – and this was fuelled particularly by state infrastructure projects and then increasingly by private investment. The number of archaeologists working in Ireland grew even faster than in the UK, increasing from 650 in 2002 to 1,709 in 2007 (McDermott and La Piscopia, 2008: 5) – and then employment in the sector plummeted, as “... between July 2008 and January 2009 there was a 52% reduction in the total number of archaeological staff employed in Ireland ... an 82% reduction in contract [commercial] archaeologists employed in the same period” (Eogan and Sullivan, 2009).

Atkins, RSK, Gifford and Nexus Heritage are all UK consultancies that also undertake overseas work, Wessex Archaeology carries out contracting and consultancy work outside the UK (Case Study 13: Wessex Archaeology, above), but, aside from Headland Archaeology, the most significant UK operator working abroad is Oxford Archaeology (Case Study 14: Oxford Archaeology, above), which has been working in France since 1996 when it won the first archaeological project to ever go to tender in that country (Miles and Early, 1998), and now has two permanent offices in France, where it carries out significant amounts of development-led fieldwork. In 2010 it is working alongside INRAP (the French quasi-autonomous state service) and Archeodunum (a Swiss private company) on the Canal Seine-Nord Europe project. Oxford Archaeology has also worked in a consultancy role in China, while several other contractors have also worked outside the United Kingdom and Ireland, such as CFA which has carried out commercial work in Jordan.

In employment terms, this will sometimes involve the company placing a full team temporarily in the host country, although for some operations (such as Oxford Archaeology’s activities in France) this will involve the relocation of managerial staff for longer periods and the recruitment of local staff to undertake the day-to-day work.

Case Study 20: Headland Archaeology

Headland Archaeology was formed in Edinburgh in 1996 by four individuals who formerly worked for AOC, itself the former Historic Scotland Central Excavation Unit. These four Directors (Stephen Carter, Tim Holden, Chris Lowe and Magnar Dalland) immediately took the company into competition with AOC and others in central Scotland, becoming larger than AOC within a decade.

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Headland	17	17	21	27	50	50	45	100	50	50
AOC			51	45	45	54	54	58	55	55

Table 38: Staff numbers, Headland Archaeology and AOC. (As reported in IfA Annual Yearbook and Directories. Note – these are figures for IfA Registered Organisations, which AOC did not become until 2003; the AOC staffing figures for 2010 are taken from the IfA Registered Organisations page of the IfA website, as no entry for that organisation appeared in the 2010 Yearbook. The Headland figures are for their UK office only)

The company established an Irish office as a wholly owned subsidiary in 2002, and then grew to be (in terms of the numbers of people employed) possibly the largest commercial archaeological company in the world, with 420 employees across the group (120 permanent) at a peak in 2008 (Headland Archaeology, n.d. a) when work on Irish roadbuilding schemes simultaneously overlapped with the M74 Completion project in Scotland (Case Study 11: M74 Completion, above). At this time the whole group’s turnover was around £12m (Stone, 2009). In 2008 the company restructured to become Headland Group Ltd and in 2010 has two subsidiary companies in the UK and in Ireland, with five offices, having opened an English office in 2010 with the acquisition of Archaeological Investigations Ltd.

In 2008, Irish archaeology was hit harder and faster than the profession in the UK with the onset of the global economic crisis (Eogan and Sullivan, 2009), and several archaeological contractors had exposed themselves to so much risk that they ceased trading, but Headland demonstrated that their flexibility – including the ability to rapidly recruit and to equally rapidly shed staff when necessary - allowed them to survive and continue to win major projects in the immediate aftermath.

Headland Archaeology represents a case study of a company that managed rapid growth and coped with retrenchment. This has been fundamentally achievable because they have the efficiency and flexibility of a private company (being one of the two biggest truly private companies in UK archaeology – the other being Pre-Construct Archaeology), demonstrating that, despite the lack of a ‘level playing field’ in UK archaeology, with charitable trusts and trading

arms of local authorities having some considerable commercial advantages, a suitably managed private company can be a more successful model (Stone, 2009; Holden, 2010).

8.2 Non-UK Archaeological Employers Working Inside the UK

There are very few non-UK firms working in the England, Scotland or Wales, although several companies based in the Republic of Ireland also work in the Northern Irish counties (and vice versa – this is a very permeable border – see 8.1 UK Archaeological Employers Working Outside the UK, above).

Elsewhere, Nexus Heritage are part of ‘the SRI family’ – SRI being an Arizona-based operation with offices in five western states of the USA – but Nexus Heritage are associated with SRI, rather than owned by that company. Jacobs Engineering Group Inc is a multinational consultancy which undertakes archaeological work in the UK (indeed, is an IfA Registered Organisation). Dutch consultancy firm Arcadis, through buying UK quantity surveyors AYH in 2005, is now offering archaeological consultancy services in the UK (Mark Spanjer, pers. comm. September 2010).

No other European or US firms have provided commercial archaeological fieldwork services in the UK, although *Arkeologikonsult*, "Sweden's largest archaeological consultancy practice" did seek to do so, taking a full page advertisement in the 1996 IfA Yearbook (IfA, 1996: 108).

9 Archaeological Employment 2008-2010

The credit crunch of 2007 became the financial crash of 2008 and the recession of 2009 (Gamble, 2009b)

In the autumn of 2008, the effects of the late-2000s global economic crisis suddenly and seriously impacted upon commercial archaeological practice in the United Kingdom. With 93% of all archaeological work in the UK being developer-led, initiated through the planning process and delivered by companies competing on the open market (Aitchison, 2009b), the volume of work available reduced sharply when small- and medium-scale development was effectively halted as the global economic crisis deepened severely both within the UK and globally.

House prices in the UK had peaked in the summer of 2007 (Aitchison, 2009b), and the early effects of the economic crisis – then referred to as ‘the credit crunch’ – had already led to a slowing of archaeological work over the year that followed (between 2007 and 2008, new build housing completions decreased by 19%, from 175,000 to 142,000 (DCLG, 2009a: 11)). But the effects of September and October 2008 were an order of magnitude more severe, with hundreds of archaeologists losing their jobs and several archaeological companies ceasing trading (see 9.1.1 Job Losses, below).

The date of the cover letter that accompanied the request for data for the 2007-08 labour market intelligence survey (Aitchison & Edwards, 2008, p.234) was the very day – 14th September 2007 – that the run on Northern Rock began, one of the landmark events of the start of the economic decline. Effectively, this means the data in that report represent the peak of the boom, at archaeology’s apogee in employment terms, before the recession bit.

Subsequently, the Institute for Archaeologists has been gathering data on the effects of the crisis upon archaeological practice since the start of 2009, reviewing labour market indicators and business confidence every quarter. Capital investment by the Westminster government led to a certain level of recovery in the sector during the summer of 2009, but by the start of 2010 archaeological businesses still remained uncertain about the future effects of the economic situation. The end point for data collection in this analysis is the start of April 2010, at the end of financial year 2009-10, and the end point for political input is the end of November 2010.

9.1 Effects of the Economic Deterioration on Archaeological Contractors

By 2007, the applied archaeology sector in the UK – the commercial companies and their charitable-status competitors - was operating in a crowded marketplace. This was not a saturated market, which would imply that every potential customer was already being supplied

and so there was little prospect of new sales, as many new customers were still coming to the marketplace (often with no previous experience of working with archaeologists – and therefore the market could still absorb more ‘product’. But it was a relatively small market, with a relatively high number of suppliers and little room for new entrants unless some existing providers dropped out. When the marketplace began to shrink, the recession began to identify which businesses were strong, as defined by their abilities to make profits, their bank balances and the status of their order books - and which were weak.

Whilst size and strength are not always directly related, larger organisations, in the main, have greater resources (both human and technical) to draw upon which can lead to greater flexibility. They may also have greater reserves – and this might be where the not-for-profit model can become exposed, as Charities’ Annual Reports need to identify the levels of reserves held and the reasons for this (Charity Commission, 2008b); meeting shortfalls in core business is unlikely to be an acceptable reason to retain profit.

While many individual firms became relatively busier in mid-2009 than they had been in the autumn of 2008 when the first significant effects took place, the completion of major fieldwork phases for significant projects meant that the total number of people in work at large archaeological contractors continued to fall in aggregate, with the sector in mid-2010 being approximately 1/6 smaller than it had been in 2007 (see 9.1.1 Job Losses below).

There has been a certain amount of market restructuring, with a little fissioning (as individual members of staff leave one firm to establish another) and significantly more consolidation, as larger companies take over smaller, less-successful but potentially viable organisations. This restructuring, together with a small number of business failures and very few new startups means that the market is less crowded in 2010 (in absolute terms – less organisations competing, but the total amount of work has also dropped) than it was at the end of 2008.

9.1.1 Job Losses

The most immediate impact of the economic downturn upon archaeological practice, which became apparent in the autumn of 2008, was upon jobs in the commercial sector. Invitations to tender reduced, clients began to negotiate on extending timetables and delaying schedules of payment, and with reduced cashflow and emptying order books, commercial practices began to reduce their numbers of staff, and in some cases to move to working shorter hours (Aitchison, 2009a; 2009b).

IfA with FAME then started undertaking quarterly surveys of FAME member organisations and IfA Registered Organisations, seeking to get information about the numbers of people employed

and business confidence for the future, using the survey date for Aitchison and Edwards (2008) of 13 August 2007 as a baseline.

Deploying the Registered Organisations and FAME members as the sampling frame (two overlapping populations, combining to produce a potential 94 respondents), figures were extrapolated from the reported numbers employed by each respondent organisation to calculate estimates for the entirety of commercial archaeological practice.

By subtracting the estimated numbers working in commercial archaeology from the overall total of all practitioners in all sectors estimated in Aitchison and Edwards 2008, estimated figures for the total working archaeological population could also be calculated.

	13 Aug 07	01 Oct 08	01 Jan 09	01 Apr 09	01 Jul 09	01 Oct 09	01 Jan 10	01 Apr 10
Commercial Archaeology	4036	3906	3559	3323	3472	3526	3316	3404
Entire Profession	6865	6735	6388	6152	6301	6355	6145	6233

Table 39: Numbers employed in commercial archaeology and entire profession, August 07 – April 10. (Aitchison, 2010b)

These figures show that there was a modest decline in the number of people employed between August 2007 and October 2008. Very significant numbers of jobs were lost in the final quarter of 2008 and the first quarter of 2009.

Over the middle two quarters of 2009 (from April to September), the number of people in archaeological employment stabilised, but the numbers fell again in the final quarter of 2009. On 1st January 2010 there were fewer people in archaeological employment than at any time since this series of surveys began, with approximately 700 fewer people in archaeological work than at the August 2007 peak. There was a modest recovery in the quarter to 1st April 2010, but the responses to that survey expressed less business confidence in the future than had been notified previously (Aitchison, 2010b).

There has been some surprise expressed that so few businesses have in fact failed. As of April 2010, perhaps as few as eight archaeological contractors had ceased trading – and these business closures have normally led to either new formations (led by the principals of the former organisations) or takeovers (again, with many of same staff in position) (see Case Study 21: SUAT, below).

Business failures and job losses are an inherent part of engagement with the market – while it has created the opportunities for archaeology to expand and for jobs to be created, those same forces then operate in the other direction when the market shrinks.

Headland Archaeology acquired Archaeological Investigations in 2010, with former Archaeological Investigations staff joining the payroll of Headland, Wessex Archaeology took on some of the former staff and liabilities of ARCUS in 2009 (Case Study 22: ARCUS, below), with other ex-ARCUS employees establishing a remote office of the York Archaeological Trust. The University of Manchester Archaeological Unit closed in 2009 but essentially immediately re-emerged, under the same principal, as the Centre for Applied Archaeology at the University of Salford. In the first week of October 2010, Birmingham Archaeology (the commercial archaeological company within the University of Birmingham) notified approximately 40 members of staff—effectively, the entire Birmingham Archaeology Heritage Services fieldwork team—that their posts were being made redundant, and inviting them to apply for 13 replacement posts (RESCUE, 2010).

Case Study 21: SUAT

SUAT (The Scottish Urban Archaeological Trust) was established by the Society of Antiquaries of Scotland (Hunter et al., 2006, p.45) in Perth in 1982 as the Scottish Urban Archaeology Unit, but could trace its origins to urban rescue initiatives in the 1970s (Carter, 2002), such as the short-lived Urban Archaeology Unit, also overseen by the Society of Antiquaries of Scotland and the Scottish Burgh Survey. It effectively became the first commercial archaeological 'unit' in Scotland, and by 1990 SUAT was one of only two organisations undertaking significant amounts of invasive contract work in Scotland (the other was AOC, the former Central Excavation Unit of the Inspectorate in Scotland) (*ibid*). Established as a charitable Trust on the model used by several organisations in England (although originally named the Scottish Urban Archaeology Unit), it was the only commercial archaeological organisation with a base in Scotland to be a charity until Wessex Archaeology opened an office in Edinburgh in 2010. The organisation was a medium-sized contractor, with twelve staff in 2007, plus seven temporary field staff (SUAT, 2007).

SUAT ceased trading in August 2009 following a Creditors Voluntary Liquidation (Edinburgh Gazette, 2009), when outstanding liabilities meant that it was unable to meet its contractual obligations. Just prior to SUAT's liquidation on 13th August 2009, Alder Archaeology Ltd was established (on 4th August 2009 (Companies House, 2009)), trading from the same address as SUAT. Alder's core staff formerly all worked for SUAT (Alder Archaeology, n.d.).

This is one example of business continuity being achieved through the closure of one business entity – SUAT – with the liabilities of that organisation being discharged (in this case by being defaulted on), but allowing the lead individual to immediately start trading under a different identity (although normally this also results in job losses in at least the short-term). Elsewhere in UK archaeology a very similar pattern has been followed by several organisations, such as

Lindsey Archaeological Services Ltd which closed in February 2009 (London Gazette, 2009) and was immediately succeeded by Naomi Field Archaeological Consultancy, again established by the former director of the closed business and trading from the same premises and Prospect Archaeology Ltd which replaced On-Site Archaeology Ltd in February 2010 (London Gazette, 2010). In the examples given there will not have been TUPE (Transfer of Undertakings – Protection of Employment) issues, as technically these were not transfers of business from one owner to another – the earlier businesses ceased trading with all of the staff becoming redundant. The new businesses just coincidentally happened to start at the same addresses, undertaking very similar business activities.

9.1.2 Fissioning

Following large-scale redundancies at the Museum of London in 1991-92 (see Case Study 17: Museum of London Archaeology, above), former staff of the Museum established several separate, new enterprises – particular examples were Compass Archaeology and Mills Whipp. The latter was particularly significant, as the two eponymous owners had held senior roles and were sufficiently well established and experienced to find themselves a niche in the new role of archaeological consultancy.

Fissioning has, fundamentally, not happened in 2008-2010; several companies which have ceased trading have been immediately re-established in the same place (if not on the same governance bases) by their former chief executives and some new owner-operator businesses have emerged; staff from Aberdeen City archaeology unit were made redundant, but a new company – Cameron Archaeology – has been established by a former staff member in Aberdeen (Crawford, 2010, p.2), but there has not been a significant wave of new startups seeking to undertake fieldwork activities. This may be because doing this is much more expensive in 2010 than it was 15 or 20 years previously – reports can no longer be produced with a word processor, a drawing board and pens – and this means that money has to be found from somewhere which, given the ongoing ‘credit crunch’, is difficult to borrow.

However, in terms of microbusinesses (6.2.1.1.1.1, above), a long-feared loss of specialists from the profession (Aitchison, 2000) may not have happened. There has been steady maintenance of specialist services, and possibly an expansion in the number of specialists working from outside larger organisations. These are very often female archaeologists who have sought or are using this as an opportunity to improve their work/life balance by running home-based businesses with flexible operating hours.

9.1.3 Consolidation

In times of economic crisis, opportunities arise for acquisitions and there has been significantly more consolidation in archaeology than fissioning and the emergence of new startups, as larger companies take over smaller, less-successful but potentially viable organisations.

Headland Archaeology absorbed Archaeological Investigations in January 2010 (Headland Archaeology, 2010) and in 2009 ARCUS became the Sheffield office of Wessex Archaeology (although some former ARCUS staff established ArcHeritage, under the aegis of York Archaeological Trust) (Case Study 22: ARCUS, below). The Sheffield office was Wessex' second new office of 2009 – another was set up in Maidstone, with Wessex then opening an Edinburgh office in 2010.

Oxford Archaeology had previously acquired the Lancaster University Archaeology Unit (in 2001), which became Oxford North, and acquired CAMArc in 2008 as Oxford East.

Theoretically, mergers are a normal process in business. Some companies are more successful than others when there are limited resources to exploit and as these resources become more limited in difficult economic times there are more opportunities for mergers or takeovers.

Historically, mergers or takeovers in archaeology have not always been successful - Bradford University bought Carlisle City Council's Carlisle Archaeological Unit in 1999, forming Carlisle Archaeology Ltd, with the unit then closing in 2001 (potentially with outstanding post-excavation liabilities) (anonymous, 2002b).

The consolidation of businesses in archaeology seem to be primarily driven by economies of scale, where one company takes over another to increase its market share which can lead to better profits, rather than the alternative drivers of increasing cash flow or acquiring knowledge, but both of these have also been contributory factors.

As privately owned companies are rare in archaeology, there are not normally shareholders to deal with and often these mergers are about the transfer of outstanding responsibilities (liabilities, staff and contracts), and it is important to note that these have all been 'friendly' takeovers, without hostile bids being made to acquire an unwilling organisation - and there has not yet been a significant merger of comparable operations. Wessex Archaeology and Cotswold Archaeology entered negotiations on just such a merger in mid-2010, but this failed to take place and the proposal was abandoned by October 2010 (see 6.2.1.1.1 Commercial Companies, above).

Case Study 22: ARCUS

ARCUS (Archaeological Research and Consultancy at the University of Sheffield) was established in 1992 as a commercial arm of the Department of Archaeology at the University of Sheffield. Originally physically located within the Department's buildings, it relocated to off-campus accommodation in 2007.

Its early years of operation were linked to the demise of the South Yorkshire Archaeological Field Research Unit (see 6.2.1.3 Business Failures in the 1990s, above), which had been based within Sheffield City Council and had originally been the only company undertaking fieldwork and based in the former county area of South Yorkshire. It closed in 1996.

ARCUS was relatively successful, and was for a long time the only established commercial archaeological practice in Sheffield, which is (by population) the fifth biggest city in England, undertaking a considerable amount of brownfield work, particularly through urban regeneration, and at its peak employed around 60 staff, approximately 35 of whom were on temporary or short-term contacts (Anna Badcock, pers. comm., 27th May 2010).

However, ARCUS staff made limited contribution to teaching within the Department of Archaeology, and there was limited input in the other direction from academic staff to ARCUS activities. In its latter years, the company was not perceived by all academic staff as being part of the Department; the RAE 2008 submissions include figures for "external research income" – the Sheffield Department recorded £508, 927 (RAE, 2008), with 0% of this coming from "UK industry, commerce and public corporations" – which all of ARCUS's turnover, probably close to £1million at the time (Anna Badcock pers. comm. 27th May 2010), could have been counted towards.

The University of Sheffield imposed a financial model on ARCUS (and potentially the same on all of its other commercial enterprises) which required a substantial overhead element being charged on all projects which was then provided to the University. This model was sustainable (barely) when income was increasing year-on-year, but following the economic changes of autumn 2008, the figures no longer were viable and the University withdrew support from ARCUS in 2009, "apparently after the discovery of a substantial financial deficit" (Cumberpatch, 2009).

Simultaneously, all University of Sheffield staff were offered voluntary severance (Newman, 2009a); all at ARCUS chose to take it, and by 27th August 2009, it was announced that 320 members of University staff – 5% of the total workforce - would be leaving over the next three months (Newman, 2009b).

Without any remaining staff in post, the University was left with outstanding contractual liabilities; these, together with some former staff members, were taken on by Wessex

Archaeology. Some other ex-members of ARCUS staff started ArchHeritage as a trading name of York Archaeological Trust, but overall there was a reduction in the number of people still earning their livings from these companies.

In the same summer of 2009, the University of Manchester Archaeology Unit (UMAU) also ceased trading. The closures of ARCUS and UMAU can be seen not only as an effect of the recession on these businesses, which relied on development-led funds, but “also of the fragile state of the finances at a number of our major universities” (Cumberpatch, 2009). These business units were no longer valued sufficiently by their parent universities to continue to operate. This phenomenon is being repeated at the Universities of Birmingham and Glasgow (see 2.4.1.2 Effects of the Economic Crisis on Universities, above), leaving very few university-based commercial operations working within applied archaeology at the end of 2010.

9.1.4 Capital Expenditure as Fiscal Stimulus

In the autumn of 2008, the Westminster Government brought forward major spending projects with the aim of boosting economic activity. This capital expenditure programme was carried out alongside a simultaneous programme of quantitative easing – the provision of monetary stimulus to the economy.

The Pre-Budget Report (HM Treasury, 2008) identified (para 6.13) a fiscal stimulus package involving moving £3 billion of capital spending from 2010-11 to 2009-10 and 2008-09. £700m of this was for road and rail projects (Klettner, 2008), and archaeology benefited directly from this at the A46 in Nottinghamshire in 2008-09 (Case Study 23: A46, below).

This was an important, but short term, alternative source of demand for archaeological work which ended in 2009-10. By 2010-11, the largest archaeological project in the UK, the East Kent Access Road, an Oxford Wessex Archaeology joint venture project on as large a scale as the A46, was funded by Kent County Council and the Department for Transport, but this was programmed expenditure, rather than a stimulus funding project.

Case Study 23: A46

On Monday 16th March 2009, Cotswold Archaeology placed advertisements in the IfA's Jobs Information Service bulletin for fieldstaff and supervisors. This was the first time for six months that any archaeological fieldwork jobs had been advertised, and they were for work on a project funded by the UK Government's capital expenditure programme. Cotswold Archaeology undertook the recruitment for the project as one of their roles within a joint venture with Wessex Archaeology, together acting as Cotswold Wessex Archaeology.

The A46 follows the line of the Roman Fosse Way, and this work was evaluation and mitigation ahead of the road between Newark and Widmerpool in Nottinghamshire being upgraded to dual carriageway. With the work having to take place within a predetermined easement without any scope to vary the route, this became a project that needed a significantly sized workforce on the ground.

During the summer of 2009 this project had the most visible effect on archaeology of capital expenditure spending, as it contributed to a significant slowing in the rate of job losses across the UK (Aitchison, 2009a), with further companies across the English Midlands being directly or indirectly positively affected.

9.1.5 Future Jobs Fund

The *Future Jobs Fund* was announced in the 2009 Budget, the last of the Labour administration, as a mechanism to create jobs. It was aimed particularly at people aged 18-24 years old who had been out of work for a year and at 'unemployment hotspots' across the UK. The funding was to be spent between October 2009 and March 2011 (DWP, 2009).

Within the archaeological profession, this prompted some interest – particularly among those who were aware of how archaeology benefited from the Community Programme of the MSC (5.3.2.1, above), and early adopters of this funding source included Colchester and Ipswich Museum Service (2009), York Archaeological Trust (Peter Connelly, Jon Kenny, John Walker pers. comms 18th January 2010) and English Heritage (Tate, 2009), where additional (fixed-term) posts were established to manage the 100+ individuals that would be participating.

However, these initiatives were not seen as becoming major, transformative developments within archaeology or even within the participating organisations. The jobs created were part-time and paid at the national minimum wage. With the ending of the 1970s-80s volunteer-reliant model, there are now relatively few roles which are suited to inexperienced, part-time contributors.

From May 2010, no further bids to the Fund were accepted (HM Treasury, 2010b), and the English Heritage scheme was immediately closed following simultaneous reductions in that organisation's budget (see 2.4.1.3 Effects of the Economic Crisis on National Heritage Agencies, above).

9.2 Effects of the Economic Deterioration on Other Areas of Archaeological Practice

Outside the commercial sector, the number of people in employment providing archaeological advice in or to local government began to decline in this period, although not as sharply as in commercial archaeology; detailed local government finance settlements are decided annually, but 2010-11 is the third year of a three year overall settlement for local government in England, after which serious cuts are anticipated. Similarly, other bodies that are also largely funded from central or devolved government – the national heritage agencies and the universities – did not suffer severe impacts immediately, but these are also anticipated in the period from 2011-2013. Detailed, speculative discussion of the potential future impacts in these sectors is addressed elsewhere (see 2.4.1 The Future of Publicly-Funded Archaeological Employment, above) in an attempt to present informed foresight into how this process may continue over the short- and medium-term, on the basis of evidence available to the author in November 2010.

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Kenneth Robert Aitchison

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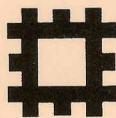
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Kenneth Aitchison

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Summary

Profiling the Profession is a survey of the organisations in the UK that employ professional archaeologists, on a full-time or part-time basis. The survey was undertaken with seven objectives:

- to identify the numbers of professional archaeologists working in Britain
- to analyse whether the profession is growing, static or shrinking
- to identify the range of jobs
- to identify the numbers employed in each job type
- to identify the range of salaries, and terms and conditions, applying to each job type
- to identify differences in employment patterns between different geographical areas
- to help those seeking to enter the profession

The survey was conducted by postal questionnaire sent to organisations that employ archaeologists. The questionnaire asked for information applying to organisations on 16 March 1998. This survey, therefore, provides a ‘snapshot’ profile of the archaeological profession on that date.

Profiling the Profession provides a greater volume of information about the archaeological profession than any previous survey. The number and types of archaeological organisations, their geographical distribution, and the services they offer, have been established. The survey has learned the size of the workforce, and its distribution by gender, age, and geographical area. The range of job titles within archaeology and the number employed in posts with each job title have been identified. The project has also determined the range of salaries and the terms and conditions applying to each archaeological post.

Objective 1: to identify the numbers of professional archaeologists working in Britain

We estimate that there are 4425 professional archaeologists in the UK. These comprise 153 independent consultants, 1341 contractors, 605 local government curators, 190 working in other local government-funded jobs (mainly museums), 644 in universities and colleges, 680 in national heritage agencies, 156 in national museums, 25 working for archaeological societies, 170 in other commercial organisations, and 461 in other organisations (such as independent museums, trusts and charities).

The returned questionnaires contained information about 2829 archaeologists. The total figure of 4425 was reached by scaling up the results of the returned questionnaires to take account of non-returned questionnaires. Full details of how this was done can be found in Chapter 2, pages 6–8.

In addition, it is estimated that there are 367 dedicated support staff working with these archaeologists, giving a grand total of 4792 people in the UK who rely on archaeology for their livelihood. The numbers of support staff are estimated on the basis of the returns from archaeological contractors, and then scaled up to reach an approximate figure for the profession as a whole (page 29).

Around one third (35%) of archaeologists are female. This figure is roughly consistent across the

employment sectors identified in this study, with the exception of independent consultants, of whom over half (56%) are female (pages 16–17).

The average age of archaeologists was found to be 36 (34 for women and 37 for men), and the profession is dominated by people in their 20s, 30s and 40s (page 16).

5% of archaeologists are self-employed (page 36).

Objective 2: to analyse whether the profession is growing, static or shrinking

Overall, the profession appears to have grown over the past five years, with further growth expected over the next few years.

Accurate staffing numbers for the past are not available. However, one third of organisations (102/306) providing information on past staffing numbers reported that they employed fewer staff in 1993 than at present, while a further 12% (36/306) were not in existence in 1993. One quarter (79/306) employed more staff in 1993. Similarly, one third of organisations (100/306) expected to employ more staff in 2001, while only 8% (25/306) expected to employ fewer (page 8).

Contractor organisations report significant growth. A third of those providing information (16/49) reported that they employed fewer staff in 1993, while a further quarter (12/49) are not trading at all in 1993. One quarter (13/49) reported that they employed more staff in 1993. Nearly half (21/49) expected to employ more in 2001, while only 1% (2/49) expected to employ fewer.

Amongst local government curator organisations, a third (24/73) employed fewer staff in 1993, and 10% (7/73) did not exist in 1993. Just under a third (21/73) employed more in 1993. One quarter (18/73) expected to employ more in 2001, while 15% (11/73) expected to employ fewer.

These figures, however, do not take account of any organisations that may have ceased to exist over the past five years. Full details are given in Chapter 2, pages 9–10.

The number of advertised jobs in archaeology has risen over the past five years, from 134 in 1993 to 176 in 1997, representing an annual turnover of approximately 4% of the workforce (page 104).

Objective 3: to identify the range of jobs

There is little consistency in the use of job titles in archaeology. Returned questionnaires reported 455 separate job titles held by 2132 archaeologists – nearly one title for every five archaeologists. A full list of post-titles is given in Appendix IV: Post-titles

Broad similarities of job titles, however, have allowed us to construct profiles of 34 similar jobs in archaeology, including three catch-all profiles of ‘junior posts’, ‘senior posts’, and ‘other posts’, encompassing job titles that could not be included in any other profile. Details of post profiles can be found in Chapter 4.

Objective 4: to identify the numbers employed in each job type

Our 34 archaeological profiles (see Objective 3, above), encompassing the jobs of 2132 individuals, range from those covering only a few dozen archaeologists to others covering over one hundred.

Profiles with few members include conservation archaeologists (14 individuals, or 0.6% of the sample), photographers (15 individuals, 0.7%), and assistant archaeologists (17 individuals, 0.8%). Those with many members include academics (211 individuals, 10%), archaeologists and field archaeologists (137 individuals, 6%), excavators and site assistants (185 individuals, 9%), museum curators (122 individuals, 6%), project officers (105 individuals, 5%) and inspectors (102 individuals, 5%). The non-specific ‘other posts’ profile includes 150 individuals (7% of the sample), many of whom may be undertaking unique or near-unique types of work. Full details can be found in Chapter 4.

Numbers included in each profile reflect the broad relative numbers of archaeologists working in each job type. We have not attempted, however, to scale up these figures to reach credible estimates of the total numbers of archaeologists working in each job type.

Archaeological posts are divided between those that are financed by establishment funding and those that rely on project income. This split is nearly equal, with 48% of archaeologists in establishment-funded posts and 52% in posts that are project-funded (pages 37–39).

Objective 5: to identify the range of salaries and terms and conditions applying to each job type

The average full-time salary of all archaeologists in the UK – that is, the average salary of all archaeologists who we know work full-time – is £17,079. This compares with the national average full-time salary for all occupations of £19,167. The median full-time archaeological salary is £15,905. 50% of archaeologists earn more than this figure, 50% earn less.

The average salary of all archaeological workers – full-time, part-time, and those whose working hours are not known – is £17,562. The median archaeological salary of the same group is £15,866.

The highest paid profile is that of inspector, who earn on average £27,586. Academic staff earn an average of £24,443. Buildings archaeologists earn an average of £23,905. Directors earn an average of £22,245. At the low end of the scale, excavators or site assistants each receive £10,094 on average. Details of all these salaries can be found in the post profiles, in Chapter 4. Further break-down of salaries by organisation-type, gender, age and geographical area can be found in Chapter 3, pages 39–43.

Female archaeologists are paid slightly less on average than male archaeologists; the female full-time average is £16,753 and the male full-time average is £17,768. Female archaeologists, however, are on average younger than male archaeologists – 67% of female archaeologists but only 58% of male archaeologists are under the age of 40. In addition, more females than males work part-time. Further details can be found in Chapter 2, page 17, and Chapter 3, page 42.

Two-thirds of archaeologists are on permanent contracts, while the average length of temporary contracts is 10 months (page 35). The post profiles in which temporary contracts are commonest are those of archaeological assistant (87%) and site assistant (87%). The profile in which permanent contracts are most common is that of senior archaeologist (99%).

70% of all archaeologists have been in their posts for more than two years; 27% for less than a year (page 35).

Full-time archaeologists work on average 38 hours per week. This compares with a national average of 42 hours a week in 1997. Those working the longest hours, however, were found among contractors and ‘other’ organisations. In this survey, 23 individuals were found to be working 48 hours a week or more, with some working as many as 70 hours a week.

Archaeologists receive on average 23 days holiday a year. Amongst different types of archaeological organisation, universities offered the highest average number of days (27), societies the lowest (18).

Trade unions are recognised at 58% of responding organisations (201/349), covering 72% of archaeologists in the survey. Further details can be found on pages 48–49.

Employers make contributions to the pension funds of 71% of archaeologists overall. This benefit is almost universal in universities and National Heritage Agencies, but much rarer in societies and contracting units, and among consultants (page 47).

Objective 6: to identify differences in employment patterns between different geographical areas

The survey identified significant variation in the range of employing organisations across different regions. For example, 52% of archaeologists in the south east work for contractors, but only 11% in the east and 18% in London. Only 7% of archaeologists in Yorkshire and Humberside work for local government curators, but 20% do so in the West Midlands and 51% in the east. Further details are in Chapter 2, pages 10–15.

We also found a range in the services offered in each region. For example, 82% of organisations in the north east offer interpretation to the public, 62% in Yorkshire and 50% in London. Teaching is offered by 75% of organisations in Wales, 62% in the east and 40% in the West Midlands (pages 22–27)

Salaries were examined across the UK. Responses suggested that average salaries are highest in Wales

and Northern Ireland. This is thought to be statistical error, however, as full datasets were received from universities and national heritage agencies in Wales and Northern Ireland, with fewer details received from other organisations. Average salaries in Scotland were also reported to be high, but this is thought to reflect a similar – though less severe – statistical error.

Excluding these aberrations, highest average salaries were London (£20,963). Average salaries were also relatively high in Yorkshire and Humberside (£17,453), possibly boosted by the large number of university archaeological departments in the region, and also in the West Midlands (£18,016). In most parts of the UK, the average archaeological salary is below the regional average for all workers. Full details can be found in Chapter 3, page 41.

Objective 7: to help those seeking to enter the profession

This survey does not contain explicit advice on ways of entering the profession. However, by detailing the range of archaeological jobs, and the salaries and conditions attached to those jobs, we believe this survey will be informative for those seeking to enter the profession.

The study of archaeologists' ages revealed that very few (0.3%) are aged under 20, strongly suggesting that a degree or equivalent qualification is a prerequisite of entry.

Note: the geographical regions used in this report are those of the Government Area Offices (see Appendix VI: Government office regions).



Map data: Bartholomew (1997). Map by Keith May

Organisations

Profiling the Profession received responses from 617 organisations. Of these, 349 employ professional archaeologists.

Full details of the way in which organisations were contacted, and of the levels of response, are given in Appendix I: Methodology.

Types of organisations

The 349 employing organisations were divided into 10 categories, as follows:

- Independent consultants or specialists
- Archaeological contractors
- Local government curators
- Local government – others
- University archaeology departments and research groups
- National Heritage Agencies and Royal Commissions
- National museums
- Archaeological societies
- Other commercial organisations
- Other organisations

This categorisation was necessarily a little crude in some cases. To clarify:

- Archaeological offices in the National Parks have been categorised as local government curators
- Almost all of the ‘other local government’ organisations are museums run by local government
- The Welsh Archaeological Trusts have been categorised as archaeological contractors, although they undertake many development control responsibilities
- Contracting units attached to universities have been classified as archaeological contractors, rather than as university archaeology departments and research groups
- The category of ‘other organisations’ includes local and regional museums not run by local authorities, trusts and charities such as the National Trust and the Council for British Archaeology

Number of organisations

The numbers of responding organisations are given below, and the estimated total number of organisations in each category in the UK.

2 Organisations

The total figures were reached by extrapolating figures from responding organisations to non-responding organisations. The calculations were conducted differently for each category of organisation. Full details of the way the calculations were made can be found in Chapter 2, pages 6–8.

Consultants and specialists account for one fifth of all archaeological organisations in the UK, but employ only 3% of the workforce. Contractors account for 15% of organisations but employ nearly a third of the workforce. Further details on archaeologists employed can be found in Chapter 2.

Table 1: Number of organisations

	<i>Number responding</i>	<i>Estimated total number</i>	<i>% of workforce employed</i>
Independent consultants or specialists	48	123	20%
Archaeological contractors	51	93	15%
Local government – curators	72	98	16%
Local government – others	38	65	11%
University archaeology departments and research groups	47	72	12%
National heritage agencies and royal commissions	9	9	1%
National museums	4	15	2%
Archaeological societies	13	12	2%
Other commercial organisations	16	31	5%
Other organisations	51	96	16%
Total	349	614	100%

Note: the 15 national museums include 11 individual departments of the British Museum, which were sent questionnaires separately.

Services provided

The questionnaire asked responding organisations about the archaeological services they offer. They were invited to tick from a list of 17 services, plus ‘other’. Details of these ‘other services’ were then requested.

We found that three-quarters of organisations are engaged in research (258/349), while roughly two-thirds are involved in fieldwork (208/349) and public interpretation (224/349). Other frequently-provided services – offered by more than 40% of organisations – include teaching, resource management, historic building recording, documentary research, project management, planning authority advice, post-excavation analysis, publishing, and preparation of archives.

Table 2: Services provided

	<i>All organisations</i>			<i>All organisations</i>	
Research	258	75%	Museum curatorial	103	30%
Teaching	168	49%	Interpretation to the public	224	65%
Archaeological fieldwork	208	60%	Post-excavation analysis	171	49%
Archaeological resource management	199	57%	Post-excavation conservation	65	19%
Underwater archaeology	25	7%	Illustration	127	37%
Aerial archaeology	47	14%	Publishing	163	47%
Historic building recording	143	41%	Preparation of archaeological archives	154	45%
Documentary research	179	52%	Other	69	20%
Project management	162	47%			
Planning authority advice	156	45%	Total number of organisations	349	

Services provided by organisational category

The full list of services provided, broken down by organisational category, follows in Table 3. The percentage figures refer to the percentage of organisations within each category that offer the service in question.

As expected, the services offered by different organisational types varies. Research, for example, is conducted by 56% of other commercial organisations, 77% of contractors and 100% of national museums. Project management is provided by 10% of other local government organisations, 28% of universities and 74% of contractors. Fewer than 50% of contractors are involved in interpretation to the public or publishing. Three quarters of universities are involved in fieldwork, but again fewer than half are involved in public interpretation.

Table 3: Services provided by organisational category

	<i>Consultants</i>		<i>Contractors</i>		<i>LG curator</i>		<i>LG other</i>		<i>Universities</i>	
Research	32	67%	39	77%	46	62%	30	79%	41	87%
Teaching	19	40%	28	55%	30	40%	24	63%	44	93%
Archaeological fieldwork	15	31%	46	90%	41	55%	8	21%	35	74%
Archaeological resource management	11	23%	33	65%	65	88%	23	60%	16	34%
Underwater archaeology	1	2%	6	12%	3	4%	1	3%	6	13%
Aerial archaeology	0	0%	14	28%	19	26%	1	3%	2	4%
Historic building recording	11	23%	38	74%	29	39%	8	21%	16	34%
Documentary research	15	31%	42	82%	34	46%	16	42%	24	51%
Project management	16	33%	38	74%	42	57%	4	10%	13	28%
Planning authority advice	10	21%	21	41%	63	85%	17	45%	11	23%
Museum curatorial	5	10%	1	2%	15	20%	36	95%	6	13%
Interpretation to the public	16	33%	22	43%	65	88%	35	92%	19	40%
Post-excavation analysis	19	40%	39	76%	29	39%	12	32%	28	60%
Post-excavation conservation	3	6%	10	20%	7	10%	12	32%	15	32%
Illustration	9	19%	36	71%	25	34%	9	24%	15	32%
Publishing	11	23%	25	49%	36	49%	16	42%	25	53%
Preparation of archaeological archives	14	29%	37	72%	33	45%	12	32%	14	30%
Other	16	33%	12	24%	9	12%	4	10%	6	13%
Total number of organisations in category	48		51		74		38		47	

	<i>National agencies</i>		<i>National museums</i>		<i>Societies</i>		<i>Other commercial</i>		<i>Others</i>	
Research	7	78%	4	100%	8	67%	9	56%	43	86%
Teaching	3	33%	4	100%	5	42%	4	25%	26	52%
Archaeological fieldwork	9	100%	3	75%	7	58%	10	62%	35	70%
Archaeological resource management	7	78%	1	25%	3	25%	9	56%	33	66%
Underwater archaeology	3	33%	0	0%	3	25%	1	6%	1	2%
Aerial archaeology	4	44%	1	25%	1	8%	2	12%	3	6%
Historic building recording	7	78%	0	0%	2	17%	8	50%	24	48%
Documentary research	6	67%	3	75%	4	33%	9	56%	27	54%
Project management	7	78%	1	25%	2	17%	12	75%	28	56%
Planning authority advice	9	100%	2	50%	4	33%	8	50%	11	22%
Museum curatorial	4	44%	4	100%	5	42%	1	6%	27	54%
Interpretation to the public	9	100%	4	100%	6	50%	6	38%	43	86%
Post-excavation analysis	2	22%	4	100%	4	33%	8	50%	27	53%
Post-excavation conservation	4	44%	1	25%	2	17%	2	12%	10	20%
Illustration	4	44%	2	50%	4	33%	6	38%	17	34%
Publishing	6	67%	2	50%	10	83%	4	25%	29	58%
Preparation of archaeological archives	5	56%	2	50%	4	33%	6	38%	27	54%
Other	2	22%	0	0%	3	25%	6	38%	11	22%
Total number of organisations in category	9		4		12		16		50	

4 Organisations

Services offered by region

The survey also analysed the archaeological services offered in different geographical areas. The areas chosen were those covered by Government Area Offices (see map, page xii, and Appendix VI: Government office regions).

We found distinct variations. Research, for example, is performed by 82% of organisations in the north east, but only 68% in the south west and London. Interpretation to the public is offered by 86% of organisations in the north west but only 62% in Yorkshire and Humberside. Aerial archaeology is provided by 19% of organisations in the north west by only 3% in the east and by no organisations in London.

Table 4: Services provided by geographical area

	<i>North East</i>		<i>North West & Mersey</i>		<i>Yorks & Humber</i>		<i>East Midlands</i>		<i>West Midlands</i>	
Research	14	82%	14	67%	28	82%	14	67%	21	75%
Teaching	10	59%	12	57%	19	56%	10	48%	11	40%
Archaeological fieldwork	11	65%	14	67%	18	53%	10	48%	18	64%
Archaeological resource management	13	77%	15	71%	20	59%	10	48%	19	68%
Underwater archaeology	1	6%	0	0%	1	3%	0	0%	2	7%
Aerial archaeology	2	12%	4	19%	5	15%	3	14%	5	18%
Historic building recording	9	53%	10	48%	9	26%	7	33%	14	50%
Documentary research	12	71%	10	48%	14	41%	13	62%	19	68%
Project management	10	59%	9	43%	15	44%	11	52%	15	54%
Planning authority advice	9	53%	12	57%	15	44%	6	29%	13	46%
Museum curatorial	6	35%	6	29%	10	30%	6	29%	9	32%
Interpretation to the public	14	82%	18	86%	21	62%	14	67%	19	68%
Post-excavation analysis	10	59%	7	33%	18	53%	12	57%	15	54%
Post-excavation conservation	4	24%	3	14%	4	12%	7	33%	6	21%
Illustration	7	41%	7	33%	15	44%	9	43%	12	43%
Publishing	9	53%	9	43%	20	59%	16	76%	13	46%
Preparation of archaeological archives	8	47%	8	38%	17	50%	10	48%	14	50%
Other	2	12%	6	29%	11	32%	2	10%	6	21%
Total number of organisations in region	17		21		34		21		28	

	<i>South West</i>		<i>Eastern</i>		<i>London</i>		<i>South East</i>	
Research	42	68%	23	79%	15	68%	40	71%
Teaching	29	47%	18	62%	10	46%	29	52%
Archaeological fieldwork	36	58%	11	38%	10	46%	36	64%
Archaeological resource management	32	51%	16	55%	5	23%	29	52%
Underwater archaeology	3	5%	0	0%	1	4%	8	14%
Aerial archaeology	6	10%	1	3%	0	0%	6	11%
Historic building recording	27	44%	9	31%	8	36%	24	43%
Documentary research	33	53%	9	31%	9	41%	25	45%
Project management	29	47%	11	38%	10	46%	25	45%
Planning authority advice	29	47%	9	31%	4	18%	31	55%
Museum curatorial	14	23%	9	31%	7	32%	18	32%
Interpretation to the public	34	55%	16	55%	11	50%	31	55%
Post-excavation analysis	28	45%	14	48%	12	54%	27	48%
Post-excavation conservation	8	13%	1	3%	6	27%	13	23%
Illustration	19	31%	6	21%	6	27%	24	43%
Publishing	30	48%	9	31%	12	54%	27	48%
Preparation of archaeological archives	24	39%	11	38%	8	36%	27	48%
Other	8	13%	7	24%	4	18%	16	29%
Total number of organisations in region	62		29		22		56	

Table 4 (cont.): Services provided by geographical area

	Wales		Scotland		Northern Ireland		Channel Islands		Isle of Man	
Research	15	75%	26	81%	4	80%	1	100%	1	100%
Teaching	15	75%	18	56%	4	80%	1	100%	0	0%
Archaeological fieldwork	18	90%	19	59%	5	100%	1	100%	1	100%
Archaeological resource management	13	65%	22	69%	2	40%	1	100%	1	100%
Underwater archaeology	1	5%	5	16%	2	40%	1	100%	0	0%
Aerial archaeology	4	20%	8	25%	2	40%	0	0%	0	0%
Historic building recording	12	60%	10	31%	3	60%	0	0%	1	100%
Documentary research	16	80%	13	41%	5	100%	1	100%	0	0%
Project management	10	50%	14	44%	3	60%	0	0%	0	0%
Planning authority advice	8	40%	15	47%	3	60%	1	100%	1	100%
Museum curatorial	4	20%	10	31%	2	40%	1	100%	1	100%
Interpretation to the public	13	65%	26	81%	5	100%	1	100%	1	100%
Post-excavation analysis	10	50%	12	38%	5	100%	1	100%	0	0%
Post-excavation conservation	5	25%	4	12%	2	40%	1	100%	1	100%
Illustration	8	40%	10	31%	3	60%	1	100%	0	0%
Publishing	7	35%	13	41%	3	60%	1	100%	0	0%
Preparation of archaeological archives	8	40%	14	44%	3	60%	1	100%	1	100%
Other	1	5%	4	12%	2	40%	0	0%	0	0%
Total number of organisations in region	20		32		5		1		1	

Other services

69 organisations responded that they provide 'other' archaeological services. These services break down as follows:

Table 5: Other services provided

	Number of organisations		Number of organisations
Archaeological geophysics	7	Environmental assessment	1
Consultancy	6	Experimental	1
Editing	4	Forensics	1
Advice	3	Heritage Lottery Service	1
Archive storage	3	Impact assessment	1
Artefact analysis	3	Land management	1
Grant giving	3	Landscape survey	1
SMR	3	Library	1
Artefact ID for the public	2	Loans	1
Expert witness	2	Management consultancy	1
IT advice and systems	2	Membership services	1
Palaeoenvironmental	2	Mitigation by engineering design	1
Photography	2	Monument management advice	1
Access to archives	1	On-site conservation	1
Air photo interpretation	1	Other historic advisory	1
Site conservation & repair	1	Palaeopathology	1
C14 dating	1	Picture library	1
Collections care/management	1	Promotion of best practice	1
Commissioning archaeologist	1	Supply of tools	1
Community outreach	1	Topographic survey	1
Construction	1	Tourism	1
Course organisation	1	Training	1
Dendrochronology	1	Treasure Trove enquiries	1
Design	1	Wetland archaeology	1
Education and information	1	Writing up excavation backlog	1

To break these figures down by geographical area and by organisational category would not provide useful data.

Archaeologists

Profiling the Profession provides the most comprehensive information to date on the size and composition of the archaeological profession in Britain. For summaries of earlier surveys, see Appendix III: Previous surveys.

Size of the workforce

349 organisations responded that they employ archaeologists, providing information about 2829 individual archaeologists working in Britain. From this information, and from the level of ‘non-responses’ to the questionnaire, we have estimated a total archaeological workforce of 4425 people in 614 organisations.

We further estimate that 367 people work as dedicated support staff in archaeological organisations (page 29), giving an approximate total of 4792 people in Britain who rely on archaeology for their livelihood.

Detailed job profiles for 2132 of these archaeologists were received (see Chapter 4).

Table 6: Archaeologists working in the UK by organisational category

	<i>Known number in workforce</i>	<i>Numbers added</i>	<i>Estimated total numbers</i>	<i>% of all archaeologists</i>
Consultants	60	93	153	3%
Contractors	766	575	1341	30%
LG curators	440	165	605	14%
LG others	111	79	190	4%
Universities	373	271	644	15%
Nat htg agencies	680	0	680	15%
Nat museums	42	114	156	4%
Societies	25	0	25	1%
Other commercial organisations	88	82	170	4%
Other organisations	244	217	461	10%
Total	2829	1596	4425	100%

Method of calculation

Estimates of the total numbers employed in each organisational category were worked out in different ways for different categories. Full details of the level of response in each category are given in Appendix I: Methodology.

Independent consultants or specialists

Questionnaires were sent to 162 organisations, yielding 58 responses, 13 duplicates and 91 non-responses. There were no refusals. 48 responded as having paid archaeologists, 10 as not, for a total 60 individuals.

The 91 non-responses were considered to represent paid archaeologists in proportionally the same ratio as those that had responded, thus adding 93 individual archaeologists to the total (from 75 organisations).

Total individuals in the *Independent consultant / specialist* category: 153. Total organisations: 123.

Archaeological contractors

Questionnaires were sent to 109 organisations. 54 responded, with 16 duplicates. 51 of the responding organisations pay archaeologists, 3 do not, for a total of 766 individuals. There were 38 non-responses and one refusal.

The 39 non-responses were studied individually. All were considered to be employing organisations. It was estimated that each employs the average number of archaeologists working for those organisations responding that they employed archaeologists in this category.

This adds 575 individuals to the total.

Total individuals working for *Archaeological contractors*: 1341. Total organisations: 93.

Local government curators

Questionnaires were sent to 160 organisations in this category. These included National Park archaeologists.

These break down as follows: 89 responses; 35 duplicates; 35 non-responses. There was 1 refusal. 72 responded as paying archaeologists, 17 as not, giving a total of 440 individuals.

The 36 non-responses were considered to represent organisations employing/not employing archaeologists in the same proportions as those organisations that had responded. Each was considered to employ the average number of archaeologists for the category. This adds 165 individuals to the category total (26 organisations).

Total individuals working as *Local government curators*: 605. Total organisations: 98.

Local government others

Questionnaires were sent to 92 organisations in this category. These break down as follows: 50 responses; 7 duplicates; 35 non-responses. There were no refusals. 38 responded as paying archaeologists, 12 as not, giving a total of 111 individuals.

The 35 non-responses were considered to represent employing/non-employing organisations in the same proportions as those that had responded, each with the average number of archaeologists for this category. This adds 79 individuals to the category (27 organisations).

Total individuals working in *Local government others*: 190. Total organisations: 65.

University archaeology departments or research groups

Questionnaires were sent to 161 *Archaeology departments or research groups* (excluding contracting units attached to universities, which have been treated as part of the archaeological contractors sector). These break down as follows: 71 responses; 27 duplicates; 63 non-responses. There were no refusals. 47 responded as paying archaeologists, 24 as not, for a total of 373 individuals working in this category.

The 63 non-responses were then examined individually. Those that were research groups or extra-mural departments were considered to have no separate members of staff. The websites of those that were full archaeology departments were examined, all of which gave staff details (25 organisations). This adds 271 individuals to the category total.

Total individuals working for *University archaeology departments and research groups*: 644.

Total organisations: 72.

National Heritage Agencies and Royal Commissions

Questionnaires were sent to 46 organisations in this category. (This number is high because questionnaires were sent to different parts of English Heritage and the former RCHME, both of which subsequently answered centrally.) These break down as follows: 26 responses; 20 duplicates; 0 non-responses. There were no refusals. 9 responded as having paid archaeologists, 17 as not (they were all part of larger organisations that answered centrally), for a total of 680 individuals.

8 Archaeologists

As there were no non-responses, this represents all of the organisations and individuals working for *National Heritage Agencies and Royal Commissions*.

Total individuals working for *National Heritage Agencies and Royal Commissions*: 680. Total organisations: 9.

National museums

Questionnaires were sent to 20 organisations. (This number is high, principally because the individual departments of the British Museum were contacted separately.) From these 20 postings, there were 5 responses, 4 duplicates, and 11 non-responses. There were no refusals. 4 responded as having paid archaeologists, 1 as not, giving a total of 42 individuals.

The 11 non-responses were then examined individually, referring to the *Museums Handbook* (Museums Association 1997). Archaeologists were considered to work for each of these in proportionally the same ratio as those that had responded. This added 114 individuals.

Total individuals working for *National museums*: 156. Total organisations: 15 (including 11 individual departments of the British Museum).

Archaeological societies

Questionnaires were sent to 188 archaeological societies. From these, there were 88 responses, 15 duplicates and 85 non-responses with no refusals. Of the responses, 12 responded as having paid archaeologists and 76 as not, giving a total of 25 individuals.

The 84 non-responses were then examined individually; all of the societies that had not responded were considered to have no paid members of staff, thus adding 0 individuals to the category total.

Total individuals working for *societies*: 25. Total organisations: 12.

Other commercial organisations

Questionnaires were sent to 118 other commercial organisations, yielding 74 responses, 4 duplicates, 39 non-responses and 1 refusal. 16 responded that they pay archaeologists, 53 that they do not, for a total of 88 individuals.

The 40 non-responses were then examined individually. 15 of these organisations were considered to have archaeologists working for them in average numbers for this category. This added 82 individuals to the category total.

Total individuals in the *Other commercial organisations* category: 170. Total organisations: 31.

Other organisations

Questionnaires were sent to 234 organisations in this category. There were 139 responses, 27 duplicates, 66 non-responses, and 2 refusals. 51 responded that they pay archaeologists, 59 that they do not, for a total of 244 individuals.

The 68 non-responses were then examined individually. 43 of these organisations were considered to have archaeologists working for them, in average numbers for this category. This added 217 individuals to the total.

Total individuals in the *Other organisations* category: 461. Total organisations: 96.

Growth of the profession

The questionnaire asked respondents to indicate how numbers of members of staff had changed over the last few years, requesting comparative information for 1993, 1995 and 1997. Organisations were also asked whether they expected staff numbers to increase or decrease in 1999 and 2001.

We do not have details of actual numbers of employees in the past, or projections of actual numbers into the future. We only have broad comparative indications of staff numbers in relation to the present.

Overall staffing changes

Overall, the archaeology profession appears to be growing. More organisations had fewer staff in 1993, 1995 and 1997 than had more staff, compared to the present; while more expect to employ more staff in 1999 and 2001 than expect to employ fewer.

Any organisations that may have ceased trading in the last five years, however, were not included in these figures.

306 organisations provided comparative staffing information for 1993, 1995 and projections for 2001. One other organisation provided additional data for both 1997 and 1999, while a further three provided additional data for 1997 only.

Table 7: Past and future staff numbers – all organisations

	<i>Employed fewer than present</i>		<i>Employed same as present</i>		<i>Employed more than present</i>		<i>Not trading</i>	<i>Not known</i>	<i>Total number of responding organisations</i>
1993	102	33%	87	28%	79	26%	36	2	306
1995	88	29%	116	38%	76	25%	24	2	306
1997	60	19%	192	62%	48	16%	8	1	309
	<i>Expect more in future</i>		<i>Expect same in future</i>		<i>Expect fewer in future</i>				
1999	77	25%	194	63%	19	6%		20	310
2001	100	33%	113	37%	25	8%		68	306

Staffing changes in archaeological contractors

Details of past and future staffing changes in two contrasting categories of organisation are presented here – contractors and local government curators (see below).

49 contractors provided information on staffing change – although only 48 provided information for all five years requested. The survey established that amongst contractors, past growth and projected future growth is greater than in the profession as a whole.

Table 8: Past and future staff numbers – archaeological contractors

	<i>Had fewer than present</i>		<i>Had same as present</i>		<i>Had more than present</i>		<i>Not trading</i>	<i>Not known</i>	<i>Total number of responding organisations</i>
1993	16	33%	7	14%	13	27%	12	1	49
1995	21	44%	5	10%	15	31%	7	0	48
1997	13	27%	24	49%	9	18%	3	0	49
	<i>Expect more in future</i>		<i>Expect same in future</i>		<i>Expect fewer in future</i>				
1999	22	45%	19	39%	1	2%		7	49
2001	21	43%	8	16%	2	4%		18	49

Staffing changes in local government curators

73 local government curator organisations provided data on past and future staffing numbers. The results show that more organisations expect growth in the future than expect contraction, and more have grown over the past few years than have shrunk.

Table 9: Past and future staff numbers – local government curators

	<i>Had fewer than present</i>		<i>Had same as present</i>		<i>Had more than present</i>		<i>Not trading</i>	<i>Not known</i>	<i>Total number of organisations responding</i>
1993	24	33%	21	29%	21	29%	7	0	73
1995	17	23%	30	41%	18	25%	7	1	73
1997	16	22%	46	63%	10	14%	1	0	73
	<i>Expect more in future</i>		<i>Expect same in future</i>		<i>Expect fewer in future</i>				
1999	11	15%	52	71%	7	10%		3	73
2001	18	25%	28	38%	11	15%		16	73

Geographical distribution

The survey has established the broad distribution of archaeologists working in different parts of Britain. Archaeologists have been placed according to the postal address of their organisation's head office.

The areas used are those covered by the Government Area Offices (for further details, see map, page xii, and Appendix VI: Government office regions).

All of the following data are based upon the extrapolated figures for the total size of the archaeological workforce (see pages 6–8).

The overall pattern

One fifth of archaeologists work in London, with a further 15% in the south east. 16% work in the south west – a figure that includes all returns for the former RCHME (employees in regional offices have been classified by their organisation's HQ in Swindon).

Table 10: Geographical distribution of archaeologists

	All archaeologists	% of all archaeologists in Britain
North East	232	5%
North West & Mersey	213	5%
Yorks & Humber	368	8%
East Midlands	220	5%
West Midlands	265	6%
South West	697	16%
Eastern	277	6%
London	861	20%
South East	654	15%
Wales	227	5%
Scotland	350	8%
Northern Ireland	53	1%
Channel Islands	3	1%
Isle of Man	5	1%
Total	4425	100%

Consultants

Table 11: Geographical distribution of archaeologists working as consultants

	<i>Archaeologists in area</i>	<i>Consultants in area</i>	<i>% of area total</i>	<i>% of all consultants</i>
North East	232	4	2%	3%
North West & Mersey	213	4	2%	3%
Yorks & Humber	368	9	2%	6%
East Midlands	220	14	6%	9%
West Midlands	265	9	4%	6%
South West	697	31	4%	20%
Eastern	277	21	8%	14%
London	861	18	2%	12%
South East	654	31	5%	20%
Wales	227	5	2%	3%
Scotland	350	6	2%	4%
Northern Ireland	53	0	0%	0%
Channel Islands	3	0	0%	0%
Isle of Man	5	1	20%	1%
Total UK	4425	153	3%	100%

Contractors

Table 12: Geographical distribution of archaeologists working for contractors

	<i>Archaeologists in area</i>	<i>Contractors in area</i>	<i>% of area total</i>	<i>% of all contractors</i>
North East	227	66	29%	5%
North West & Mersey	213	57	27%	4%
Yorks & Humber	368	133	36%	10%
East Midlands	220	77	35%	6%
West Midlands	260	87	34%	6%
South West	697	127	18%	9%
Eastern	277	44	16%	3%
London	861	152	18%	11%
South East	649	340	52%	25%
Wales	227	98	43%	7%
Scotland	345	154	45%	11%
Northern Ireland	53	6	11%	1%
Channel Islands	3	0	0%	0%
Isle of Man	5	0	0%	0%
Total UK	4425	1341	30%	100%

Local government curators

Table 13: Geographical distribution of archaeologists working for local government curators

	<i>Archaeologists in area</i>	<i>Curators in area</i>	<i>% of area total</i>	<i>% of all curators</i>
North East	232	24	11%	4%
North West & Mersey	213	47	22%	8%
Yorks & Humber	368	25	7%	4%
East Midlands	220	43	20%	7%
West Midlands	265	57	22%	9%
South West	697	121	17%	20%
Eastern	277	134	51%	22%
London	861	45	5%	7%
South East	654	44	7%	7%
Wales	227	19	8%	3%
Scotland	350	46	13%	8%
Northern Ireland	53	0	0%	0%
Channel Islands	3	0	0%	0%
Isle of Man	5	0	0%	0%
Total UK	4425	605	14%	100%

The high figure for eastern England (51% of area total) suggests a possible responding error, in which some local government field archaeology units may have responded as curators rather than contractors. Such an error cannot be corrected: questionnaires were differentiated only by addresses, and some field units and curatorial divisions share an address.

Local government others

Table 14: Geographical distribution of archaeologists working for local government others

	<i>Archaeologists in area</i>	<i>LG others in area</i>	<i>% of area total</i>	<i>% of all LG others</i>
North East	232	49	22%	26%
North West & Mersey	213	10	5%	5%
Yorks & Humber	368	18	5%	9%
East Midlands	220	8	4%	4%
West Midlands	265	13	5%	7%
South West	697	13	2%	7%
Eastern	277	16	6%	8%
London	861	0	0%	0%
South East	654	30	5%	16%
Wales	227	13	6%	7%
Scotland	350	19	6%	10%
Northern Ireland	53	0	0%	0%
Channel Islands	3	1	33%	1%
Isle of Man	5	0	0%	0%
Total UK	4425	190	4%	100%

The high number of local government others working in the north east is explained by a large number working at one museum which undertakes archaeological fieldwork.

Universities and research groups

Table 15: Geographical distribution of archaeologists working in universities

	<i>Archaeologists in area</i>	<i>Universities in area</i>	<i>% of area total</i>	<i>% of all universities</i>
North East	232	54	24%	8%
North West & Mersey	213	34	16%	5%
Yorks & Humber	368	100	27%	15%
East Midlands	220	53	24%	8%
West Midlands	265	47	18%	7%
South West	697	56	8%	9%
Eastern	277	30	12%	5%
London	861	58	7%	9%
South East	654	99	15%	15%
Wales	227	46	20%	7%
Scotland	350	40	12%	6%
Northern Ireland	53	27	51%	4%
Channel Islands	3	0	0%	0%
Isle of Man	5	0	0%	0%
Total UK	4425	644	15%	100%

National heritage agencies

Table 16: Geographical distribution of archaeologists working in national heritage agencies

	<i>Archaeologists in area</i>	<i>Nat htg agcies in area</i>	<i>% of area total</i>	<i>% of all nat htg agencies</i>
North East	232	0	0%	0%
North West & Mersey	213	0	0%	0%
Yorks & Humber	368	0	0%	0%
East Midlands	220	0	0%	0%
West Midlands	265	0	0%	0%
South West	697	234	34%	34%
Eastern	277	0	0%	0%
London	861	370	43%	54%
South East	654	0	0%	0%
Wales	227	18	8%	3%
Scotland	350	40	12%	6%
Northern Ireland	53	16	30%	2%
Channel Islands	3	0	0%	0%
Isle of Man	5	2	40%	1%
Total UK	4425	680	16%	100%

National museums

Table 17: Geographical distribution of archaeologists working in national museums

	<i>Archaeologists in area</i>	<i>Nat museums in area</i>	<i>% of area total</i>	<i>% of all nat museums</i>
North East	232	0	0%	0%
North West & Mersey	213	8	3%	5%
Yorks & Humber	368	0	0%	0%
East Midlands	220	0	0%	0%
West Midlands	265	0	0%	0%
South West	697	0	0%	0%
Eastern	277	0	0%	0%
London	861	124	14%	79%
South East	654	0	0%	0%
Wales	227	10	4%	6%
Scotland	350	10	3%	6%
Northern Ireland	53	4	8%	3%
Channel Islands	3	0	0%	0%
Isle of Man	5	0	0%	0%
Total UK	4425	156	4%	100%

Archaeological societies

Table 18: Geographical distribution of archaeologists working for societies

	<i>Archaeologists in area</i>	<i>Societies in area</i>	<i>% of area total</i>	<i>% of all societies</i>
North East	232	0	0%	0%
North West & Mersey	213	0	0%	0%
Yorks & Humber	368	0	0%	0%
East Midlands	220	0	0%	0%
West Midlands	265	0	0%	0%
South West	697	3	1%	12%
Eastern	277	0	0%	0%
London	861	4	1%	16%
South East	654	13	2%	52%
Wales	227	0	0%	0%
Scotland	350	5	1%	20%
Northern Ireland	53	0	0%	0%
Channel Islands	3	0	0%	0%
Isle of Man	5	0	0%	0%
Total UK	4425	25	1%	100%

Other commercial organisations

Table 19: Geographical distribution of archaeologists working for other commercial organisations

	<i>Archaeologists in area</i>	<i>Other commerc in area</i>	<i>% of area total</i>	<i>% of all other commercial</i>
North East	232	11	5%	6%
North West & Mersey	213	12	6%	7%
Yorks & Humber	368	11	3%	6%
East Midlands	220	11	5%	6%
West Midlands	265	24	10%	14%
South West	697	13	2%	8%
Eastern	277	0	0%	0%
London	861	53	7%	31%
South East	654	34	6%	20%
Wales	227	0	0%	0%
Scotland	350	1	1%	1%
Northern Ireland	53	0	0%	0%
Channel Islands	3	0	0%	0%
Isle of Man	5	0	0%	0%
Total	4425	170	4%	100%

Other organisations

Table 20: Geographical distribution of archaeologists working for other organisations

	<i>Archaeologists in area</i>	<i>Other orgs in area</i>	<i>% of area total</i>	<i>% of all other orgs</i>
North East	232	24	11%	5%
North West & Mersey	213	41	20%	9%
Yorks & Humber	368	72	20%	16%
East Midlands	220	14	7%	3%
West Midlands	265	28	11%	6%
South West	697	99	15%	21%
Eastern	277	32	12%	7%
London	861	37	5%	8%
South East	654	63	10%	14%
Wales	227	18	8%	4%
Scotland	350	29	9%	6%
Northern Ireland	53	0	0%	0%
Channel Islands	3	2	67%	1%
Isle of Man	5	2	40%	1%
Total	4425	461	10%	100%

Gender and age

The questionnaire asked for information on the gender and age of employees. Exact ages were not requested, but ages in 10-year brackets.

The results of this question gave the gender and age of 2106 archaeologists (74% of archaeologists in the survey). We emphasise that the following information does not cover the entire archaeological profession, but only the sample responding to the question.

Age range

We found that nearly 90% of archaeologists are aged 20–50. Two thirds are aged 30–50. The average age is 36. This reflects the national pattern of economically active individuals.

The overall age range of males and females in archaeology is similar, but a larger proportion of female archaeologists than males are in their 20s and 30s and a smaller proportion are in their 40s and 50s.

The lack of archaeologists under the age of 20 reflects the need for a degree to proceed in the career. It is perhaps more surprising that there are so few archaeologists aged over 50 – this groups represents 12% of all archaeologists – as people of this age represent about 20% of the UK workforce (IDS 1996).

See also *Salaries by age* (page 43).

Table 21: Archaeologists' age-range by gender

Age	Female	% of all females	Male	% of all males	Male and female	% of all archaeologists
<20	1	1%	6	1%	7	1%
20–29	188	25%	260	19%	448	21%
30–39	312	42%	523	39%	835	40%
40–49	168	23%	405	30%	573	27%
50–59	68	9%	142	10%	210	10%
60 +	10	1%	23	2%	33	2%
Total numbers	747	100%	1359	100%	2106	100%
Average age	34 years		37 years		36 years	

Gender balance

Approximately one third of archaeologists (35%) are female. These findings mirror those of the *Equal Opportunities in Archaeology Working Party* (Morris 1992) which also found that 35% of archaeologists were women. However, women account for 42% of archaeologists aged 20–29.

See also *Salaries by gender* (page 42).

Table 22: Archaeologists' gender balance by age-range

Age	Female	% of all age range	Male	% of all age range	Male and female
<20	1	14%	6	86%	7
20–29	188	42%	260	58%	448
30–39	312	37%	523	63%	835
40–49	168	29%	405	71%	573
50–59	68	32%	142	68%	210
60 +	10	30%	23	70%	33
Total numbers	747	35%	1359	65%	2106

Age by employment category

The survey discovered distinct imbalances in the age range of different employment categories. Nearly half of all consultants who responded to the question are aged over 50, and all are over 30. Almost all archaeologists working for national heritage agencies are aged over 30. A third of contractors, archaeologists working for other commercial organisations, and those working for non-curatorial local government bodies, however, are aged under 30.

Table 23: Age by employment category

	<20 % of employment category		20–29 % of employment category		30–39 % of employment category		40–49 % of employment category		50–59 % of employment category		60 + % of employment category		Total
Consultants	0	0%	0	0%	5	15%	13	38%	11	32%	5	15%	34
Contractors	2	1%	210	35%	253	42%	115	19%	21	3%	2	1%	603
LG curators	5	1%	82	19%	170	40%	128	30%	41	10%	0	0%	426
LG others	0	0%	42	30%	54	39%	27	19%	16	11%	1	1%	140
Universities	0	0%	56	18%	85	27%	94	30%	62	20%	14	5%	311
Nat htg agencies	0	0%	9	3%	176	54%	113	34%	28	9%	2	1%	328
Nat museums	0	0%	2	22%	3	33%	3	33%	1	11%	0	0%	9
Societies	0	0%	2	8%	2	8%	10	40%	7	28%	4	16%	25
Other commercial	0	0%	16	34%	18	38%	10	21%	3	6%	0	0%	47
Other orgs	0	0%	29	16%	69	38%	60	33%	20	11%	5	3%	183
Total	7	1%	448	21%	835	40%	573	27%	210	10%	33	2%	2106

Gender by employment category

Overall, 35% of archaeologists are female (see above, page 16), and this proportion is broadly reflected across the employment sectors. The exceptions are among consultants, of whom over half of those responding to the survey are female, and among other commercial organisations where women account for only one fifth of the workforce.

Table 24: Employment in archaeology by gender and organisational category

	Female		Male		Total
Consultants	19	56%	15	44%	34
Contractors	203	34%	400	66%	603
LG curators	160	38%	266	62%	426
LG others	48	34%	92	66%	140
Universities	109	35%	202	65%	311
Nat htg agencies	117	36%	211	64%	328
Nat museums	3	33%	6	67%	9
Societies	10	40%	15	60%	25
Other commercial	9	19%	38	81%	47
Other orgs	69	38%	114	63%	183
Total	747	35%	1359	65%	2106

Age and gender by employment category

Although roughly twice as many men as women work in archaeology, a proportion reflected across most employment sectors (see above), for archaeologists in their 20s the proportions of men and women are more nearly equal among contractors, curators, universities, national heritage agencies, national museums and societies. For archaeologists in their 30s, the proportions of women to men remain relatively high in universities, national heritage agencies and other organisations, while in this age group there are far more women than men working as consultants (for this group, note the relatively small sample size). For archaeologists in their 40s, contractors and other commercial organisations employ relatively more men than the category average, while consultancy continues to employ more women than men.

Table 25: Age and gender by employment category

	<20		20–29		30–39		40–49		50–59		60 +		Total
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	
Consultants	0	0	0	0	4	1	8	5	4	7	3	2	34
Contractors	0	2	92	118	77	176	24	91	8	13	2	0	603
LG curators	1	4	38	44	68	102	40	88	13	28	0	0	426
LG others	0	0	10	32	20	34	8	19	10	6	0	1	140
Universities	0	0	24	32	34	51	29	65	20	42	2	12	311
Nat htg agencies	0	0	4	5	75	101	33	80	5	23	0	2	328
Nat museums	0	0	1	1	1	2	1	2	0	1	0	0	9
Societies	0	0	2	0	0	2	5	5	2	5	1	3	25
Other commercial	0	0	6	10	3	15	0	10	0	3	0	0	47
Other orgs	0	0	11	18	30	39	20	40	6	14	2	3	183
Total	1	6	188	260	312	523	168	405	68	142	10	23	2106

Specialist services

Organisations were asked about the use of archaeologists from outside their own organisation in the previous year. 173 organisations responded that they had used a total of 1821 outside specialists in order to perform archaeological tasks. The numbers of individuals called upon ranged from 1 to 300, with the average being 11.

These specialists were called upon to provide 53 distinct services, which can be crudely broken down into six categories: fieldwork, artefact studies, environmental / scientific work, project management, report production, and other services.

The data in the tables that follow represent the number of organisations that called upon outside specialists for each particular service in the year before the questionnaire was completed.

Specialist services by employment category

(1) Fieldwork

The majority of fieldwork services were used by curators (34%), 'other' organisations (25%), and contractors (17%).

Table 26: Fieldwork services provided by specialists, by organisational category

	All organisations	Consultants	Contractors	LG curator	LG other
Geophysical survey	58	2	16	17	2
Excavation	29	2	2	6	3
Topographic survey	26	2	1	16	
Buildings survey / recording	18		2	6	1
Aerial photography and analysis	17	1	4	7	
Documentary research	17		4	5	1
Photography	9	1	2	1	
Architectural	6		3	1	1
Watching brief monitoring	5			3	
Evaluations	4			3	
Field assessment	2				
Marine archaeology	2			1	1
Landscape survey	1				
Remote sensing	1			1	
Total	195	8 4%	34 17%	67 34%	9 5%

Table 26 (cont.): Fieldwork services provided by specialists, by organisational category

	<i>Universities</i>	<i>Nat agencies</i>	<i>Nat museums</i>	<i>Societies</i>	<i>Other commercial</i>	<i>Other organisations</i>
Geophysical survey	4	2	1		2	12
Excavation	3	4			1	8
Topographic survey	1	2				4
Buildings survey / recording		2		1		6
Aerial photography and analysis					1	4
Documentary research						7
Photography	1					4
Architectural						1
Watching brief monitoring					2	
Evaluations						1
Field assessment						2
Marine archaeology						
Landscape survey						1
Remote sensing						
Total	9 5%	10 5%	1 1%	1 1%	6 3%	50 26%

(2) Artefact studies

The bulk of artefact services were used by contractors (38%), curators (21%) and 'other' organisations (18%).

Table 27: Artefact study services provided by specialists, by organisational category

	<i>All organisations</i>	<i>Consultants</i>	<i>Contractors</i>	<i>LG curator</i>	<i>LG other</i>
Non-ceramic artefact analysis	59	1	21	17	2
Pottery / ceramic analysis	42	1	20	6	3
Conservation	40	1	13	9	7
Identification reports	10		3		3
Post-excavation work	8		3	2	1
Artefact valuations	1				1
Total	160	3 2%	60 38%	34 21%	17 11%

	<i>Universities</i>	<i>Nat agencies</i>	<i>Nat museums</i>	<i>Societies</i>	<i>Other commercial</i>	<i>Other organisations</i>
Non-ceramic artefact analysis	4	1	2		1	10
Pottery / ceramic analysis	4		1	1	1	5
Conservation		1		1		8
Identification reports			1			3
Post-excavation work						2
Artefact valuations						
Total	8 5%	2 1%	4 3%	2 1%	2 1%	28 18%

(3) Environmental / scientific

Again, the main users of these services were contractors (37%), curators (26%) and 'other' organisations (14%).

Table 28: Environmental / scientific services provided by specialists, by organisational category

	<i>All organisations</i>	<i>Consultants</i>	<i>Contractors</i>	<i>LG curator</i>	<i>LG other</i>
Palaeoenvironmental analysis	47	3	18	11	1
Animal bone analysis	23	2	7	5	2
C14 dating	18	1	6	4	
Palaeobotany	12	1	3	5	1
Human bone analysis	9	3	3	2	
Pollen analysis	9		4	2	
Sedimentology / soil analysis	7		4	2	
Fishbone analysis	5		3	1	
Mollusc analysis	4			3	
Dendrochronology	3		1	2	
Geology	2		2		
Geomorphology	2			1	
X-ray fluorescence	2		1		
Insect analysis	1		1		
Total	144	10 7%	53 37%	38 26%	4 3%

	<i>Universities</i>	<i>Nat agencies</i>	<i>Nat museums</i>	<i>Societies</i>	<i>Other commercial</i>	<i>Other organisations</i>
Palaeoenvironmental analysis	1				4	9
Animal bone analysis	2			1		4
C14 dating	4	1	1			1
Palaeobotany						2
Human bone analysis						1
Pollen analysis	1					2
Sedimentology / soil analysis					1	
Fishbone analysis	1					
Mollusc analysis						1
Dendrochronology						
Geology						
Geomorphology	1					
X-ray fluorescence	1					
Insect analysis						
Total	11 8%	1 1%	1 1%	1 1%	5 3%	20 14%

(4) Report production

Report production services were mainly used by curators (30%), contractors (23%) and universities (14%).

Table 29: Report production services provided by specialists, by organisational category

	<i>All organisations</i>	<i>Consultants</i>	<i>Contractors</i>	<i>LG curator</i>	<i>LG other</i>
Illustration	24	2	9	3	2
Report production	16			10	
Design	3		1		1
Total	43	2 5%	10 23%	13 30%	3 7%

	<i>Universities</i>	<i>Nat agencies</i>	<i>Nat museums</i>	<i>Societies</i>	<i>Other commercial</i>	<i>Other organisations</i>
Illustration	3	1			1	3
Report production	3	1				2
Design		1				
Total	6 14%	3 7%	0 0%	0 0%	1 2%	5 12%

(5) Project management

Project management services were used mainly by curators (38%), national agencies (16%), 'other' organisations (16%) and contractors (13%).

Table 30: Project management services provided by specialists, by organisational category

	<i>All organisations</i>	<i>Consultants</i>	<i>Contractors</i>	<i>LG curator</i>	<i>LG other</i>
Project management	12		2	6	
Planning control / advice	7		1	1	1
Project design	4			2	
Project monitoring	1				
Total	24	0 0%	3 13%	9 38%	1 4%

	<i>Universities</i>	<i>Nat agencies</i>	<i>Nat museums</i>	<i>Societies</i>	<i>Other commercial</i>	<i>Other organisations</i>
Project management		2		1		1
Planning control / advice					2	2
Project design		1				1
Project monitoring		1				
Total	0 0%	4 16%	0 0%	1 4%	2 8%	4 16%

(6) Other services

These services were mainly used by 'other' organisations (30%), contractors (19%), curators (19%) and universities (15%).

Table 31: Other services provided by specialists, by organisational category

	<i>All organisations</i>		<i>Consultants</i>		<i>Contractors</i>		<i>LG curator</i>		<i>LG other</i>	
IT	9				2		2			
Teaching	6								1	
SMR enhancement	3						1			
Palaeography	2									
Archive preparation	1						1			
Legal	1				1					
Site management	1									
Site safety	1				1					
Tourism	1				1					
Treasure trove advice	1						1			
Vegetation clearance	1									
Total	27		0	0%	5	19%	5	19%	1	4%

	<i>Universities</i>		<i>Nat agencies</i>		<i>Nat museums</i>		<i>Societies</i>		<i>Other commercial</i>		<i>Other organisations</i>	
IT	1		1				1				2	
Teaching	3										2	
SMR enhancement			1								1	
Palaeography											2	
Archive preparation												
Legal												
Site management											1	
Site safety												
Tourism												
Treasure trove advice												
Vegetation clearance			1									
Total	4	15%	3	11%	0	0%	1	4%	0	0%	8	30%

Specialist services, by geographical area

The survey also examined the use of specialist services by geographical area.

Fieldwork

Fieldwork services were called upon mainly in the south west (17%), Scotland (12%), the south east (11%) and the west midlands (10%).

Table 32: Fieldwork services provided by specialists, by geographical area

	<i>All organisations</i>	<i>North East</i>	<i>North West & Mersey</i>	<i>Yorks & Humber</i>	<i>East Midlands</i>
Geophysical survey	58	3	4	4	5
Excavation	29	2		2	1
Topographic survey	26	1	4	1	3
Buildings survey / recording	18	1	1		1
Aerial photography and analysis	17	1	1	1	2
Documentary research	17	1	1	2	1
Photography	9	1		2	
Architectural	6		2	1	
Watching brief monitoring	5			2	
Evaluations	4	1		2	
Field assessment	2				
Marine archaeology	2				
Landscape survey	1				
Remote sensing	1				
Total	195	11 6%	13 7%	17 9%	13 7%

	<i>West Midlands</i>	<i>South West</i>	<i>Eastern</i>	<i>London</i>	<i>South East</i>
Geophysical survey	5	11	4	3	8
Excavation	1	6	2	1	5
Topographic survey	2	6			2
Buildings survey / recording	3	4	1	3	2
Aerial photography and analysis	2	4	1		3
Documentary research	2	3	3	4	
Photography	4			1	
Architectural				2	
Watching brief monitoring					1
Evaluations	1				
Field assessment					
Marine archaeology					1
Landscape survey					
Remote sensing			1		
Total	20 10%	34 17%	12 6%	14 7%	22 11%

	<i>Wales</i>	<i>Scotland</i>	<i>Northern Ireland</i>	<i>Channel Islands</i>	<i>Isle of Man</i>
Geophysical survey	4	5	1	1	
Excavation	1	6	1		1
Topographic survey	1	6			
Buildings survey / recording	1			1	
Aerial photography and analysis	1	1			
Documentary research					
Photography		1			
Architectural	1				
Watching brief monitoring		2			
Evaluations					
Field assessment		1	1		
Marine archaeology				1	
Landscape survey		1			
Remote sensing					
Total	9 5%	23 12%	3 2%	3 2%	1 1%

(2) Artefact studies

Main users of artefact services were in the south east (20%), south west (14%), Yorkshire and Humberside (11%) and Scotland (10%).

Table 33: Artefact studies services provided by specialists, by geographical area

	<i>All organisations</i>	<i>North East</i>	<i>North West & Mersey</i>	<i>Yorks & Humber</i>	<i>East Midlands</i>
Non-ceramic artefact analysis	59	3	3	4	6
Pottery / ceramic analysis	42	2	1	7	4
Conservation	40	3	2	5	2
Identification reports	10			1	1
Post-excavation work	8				
Artefact valuations	1				
Total	160	8 5%	6 4%	17 11%	13 8%

	<i>West Midlands</i>	<i>South West</i>	<i>Eastern</i>	<i>London</i>	<i>South East</i>
Non-ceramic artefact analysis	7	7	4	6	10
Pottery / ceramic analysis	1	6	2	3	9
Conservation	3	7	1	3	8
Identification reports	2	2		1	1
Post-excavation work		1		2	3
Artefact valuations					1
Total	13 8%	23 14%	7 4%	15 9%	32 20%

	<i>Wales</i>	<i>Scotland</i>	<i>Northern Ireland</i>	<i>Channel Islands</i>	<i>Isle of Man</i>
Non-ceramic artefact analysis	2	6		1	
Pottery / ceramic analysis	2	4		1	
Conservation	2	3	1		
Identification reports		2			
Post-excavation work	1	1			
Artefact valuations					
Total	7 4%	16 10%	1 1%	2 1%	0 0%

(3) Environmental / scientific

Main users of environmental services were in the south east (20%), the south west (17%) and London (10%).

Table 34: Environmental / scientific services provided by specialists, by geographical area

	<i>All organisations</i>	<i>North East</i>		<i>North West & Mersey</i>		<i>Yorks & Humber</i>		<i>East Midlands</i>	
Palaeoenvironmental analysis	47	5		3		3		3	
Animal bone analysis	23	3				1		1	
C14 dating	18	1		2		2		2	
Palaeobotany	12	1							
Human bone analysis	9	1							
Pollen analysis	9								
Sedimentology / soil analysis	7					1		1	
Fishbone analysis	5	1							
Mollusc analysis	4								
Dendrochronology	3					1			
Geology	2			1					
Geomorphology	2	1				1			
X-ray fluorescence	2			1		1			
Insect analysis	1								
Total	144	13	9%	7	5%	10	7%	7	5%

	<i>West Midlands</i>		<i>South West</i>		<i>Eastern</i>		<i>London</i>		<i>South East</i>	
Palaeoenvironmental analysis	4		7		2		4		9	
Animal bone analysis	4		4		1		1		8	
C14 dating	2		1		1		1		2	
Palaeobotany	1		4		1		1		2	
Human bone analysis			3		1				2	
Pollen analysis	1		2		2		2		2	
Sedimentology / soil analysis					1		3		1	
Fishbone analysis			1		1				2	
Mollusc analysis			2		1				1	
Dendrochronology					1		1			
Geology										
Geomorphology										
X-ray fluorescence										
Insect analysis							1			
Total	12	8%	24	17%	12	8%	14	10%	29	20%

	<i>Wales</i>		<i>Scotland</i>		<i>Northern Ireland</i>		<i>Channel Islands</i>		<i>Isle of Man</i>	
Palaeoenvironmental analysis	1		6							
Animal bone analysis										
C14 dating	3		1							
Palaeobotany	1		1							
Human bone analysis	1		1							
Pollen analysis										
Sedimentology / soil analysis										
Fishbone analysis										
Mollusc analysis										
Dendrochronology										
Geology			1							
Geomorphology										
X-ray fluorescence										
Insect analysis										
Total	6	4%	10	7%	0	0%	0	0%	0	0%

(4) Report production

Main users of these services were in Scotland (19%), Yorkshire and Humberside (16%), the south west (14%), London (12%) and the south east (12%).

Table 35: Report production services provided by specialists, by geographical area

	<i>All organisations</i>	<i>North East</i>	<i>North West & Mersey</i>	<i>Yorks & Humber</i>	<i>East Midlands</i>
Illustration	24		1	4	1
Report production	16	2	2	2	1
Design	3			1	
Total	43	2 5%	3 7%	7 16%	2 5%

	<i>West Midlands</i>	<i>South West</i>	<i>Eastern</i>	<i>London</i>	<i>South East</i>
Illustration	1	3		4	3
Report production	1	3			2
Design	1			1	
Total	3 7%	6 14%	0 0%	5 12%	5 12%

	<i>Wales</i>	<i>Scotland</i>	<i>Northern Ireland</i>	<i>Channel Islands</i>	<i>Isle of Man</i>
Illustration	1	6			
Report production		2	1		
Design					
Total	1 2%	8 19%	1 2%	0 0%	0 0%

(5) Project management

Main users of project management services were in the south east (21%), eastern (17%) and the south west (17%).

Table 36: Project management services provided by specialists, by geographical area

	<i>All organisations</i>	<i>North East</i>	<i>North West & Mersey</i>	<i>Yorks & Humber</i>	<i>East Midlands</i>
Project management	12	1			
Planning control / advice	7		1	1	2
Project design	4		1		
Project monitoring	1				
Total	24	1 4%	2 8%	1 4%	2 8%

	<i>West Midlands</i>	<i>South West</i>	<i>Eastern</i>	<i>London</i>	<i>South East</i>
Project management		2	3	2	3
Planning control / advice	1	1	1		
Project design		1			2
Project monitoring					
Total	1 4%	4 17%	4 17%	2 8%	5 21%

	<i>Wales</i>	<i>Scotland</i>	<i>Northern Ireland</i>	<i>Channel Islands</i>	<i>Isle of Man</i>
Project management					1
Planning control / advice					
Project design					
Project monitoring		1			
Total	0 0%	1 2%	0 0%	0 0%	1 2%

(6) Other services

Other services were used most in the south west (22%), London (19%) and the north west (19%).

Table 37: Other services provided by specialists, by geographical area

	<i>All organisations</i>	<i>North East</i>	<i>North West & Mersey</i>	<i>Yorks & Humber</i>	<i>East Midlands</i>
IT	9		1	1	1
Teaching	6			1	1
SMR enhancement	3				
Palaeography	2		1		
Archive preparation	1			1	
Legal	1		1		
Site management	1		1		
Site safety	1				
Tourism	1		1		
Treasure Trove advice	1				
Vegetation clearance	1				
Total	27	0 0%	5 19%	3 11%	2 7%

	<i>West Midlands</i>	<i>South West</i>	<i>Eastern</i>	<i>London</i>	<i>South East</i>
IT			1	3	1
Teaching		3		1	
SMR enhancement		2		1	
Palaeography		1			
Archive preparation					
Legal					
Site management					
Site safety					1
Tourism					
Treasure Trove advice					1
Vegetation clearance					
Total	0 0%	6 22%	1 4%	5 19%	3 11%

	<i>Wales</i>	<i>Scotland</i>	<i>Northern Ireland</i>	<i>Channel Islands</i>	<i>Isle of Man</i>
IT		1			
Teaching					
SMR enhancement					
Palaeography					
Archive preparation					
Legal					
Site management					
Site safety					
Tourism					
Treasure Trove advice					
Vegetation clearance					1
Total	0 0%	1 4%	0 0%	0 0%	1 4%

Voluntary archaeologists

The questionnaire asked whether the involvement of unpaid or voluntary archaeologists (whether working for free or receiving expenses) was welcomed. It also asked how many volunteers had been accepted during the previous 12 months.

Volunteers by organisational category

236 organisations (68% of the sample) responded that they welcome the involvement of such archaeologists, and 113 (32%) responded that they do not or cannot. Organisations most willing to accept volunteers are national museums (100%), local government others (97%), curators (83%) and other organisations (82%), while those least willing are consultants (17%) and other commercial organisations (38%).

However, in overall numbers, the bulk of volunteers found work during the previous year at other organisations (29%), curators (20%), contractors (15%), local government others (13%) and universities (11%). The number of unpaid archaeologists taken on by organisations accepting volunteers ranged from 1 to 150. In total, 2,502 volunteers were accepted – an average of 11 individuals per organisation that welcomed volunteers. Seven of the organisations accepting volunteers ran fieldwork projects that were specifically aimed at unpaid archaeologists.

Table 38: Unpaid archaeologists by organisational category

	<i>Number of organisations</i>	<i>Orgs accepting volunteers and % of category</i>		<i>Orgs not accepting volunteers and % of category</i>		<i>Total number accepted and % of all volunteers</i>		<i>Average accepted per organisation</i>
Consultants	48	8	17%	40	83%	34	1%	4
Contractors	51	34	67%	17	33%	385	15%	11
LG curators	72	60	83%	12	17%	492	20%	8
LG others	38	37	97%	1	3%	336	13%	9
Universities	47	31	66%	16	34%	283	11%	9
Nat htg agencies	9	6	67%	3	33%	69	3%	12
Nat museums	4	4	100%	0	0%	55	2%	14
Societies	13	8	62%	5	38%	100	4%	13
Other commercial	16	6	38%	10	62%	30	1%	3
Other orgs	51	42	82%	9	18%	718	29%	17
Total	349	236	68%	113	32%	2502	100%	11

Volunteers by geographical area

Areas where organisations are most likely to accept volunteers are the Channel Islands (100% – small sample), Northern Ireland (80% – small sample), the south east (77%), Wales (75%), Scotland (72%) and Yorkshire and Humberside (71%).

In overall numbers, however, more volunteers found work the previous year in Yorkshire and Humberside (20%), the south east (17%) and the south west (13%) than elsewhere. Organisations taking the largest average number of volunteers were in Yorkshire and Humberside (21), the north east (20), the Channel Islands (20), the north west (17) and London (14).

Table 39: Unpaid archaeologists by geographical area

	<i>Number of organisations</i>	<i>Orgs accepting volunteers and % of area</i>		<i>Orgs not accepting volunteers and % of area</i>		<i>Total number accepted and % of all volunteers</i>		<i>Average accepted per organisation</i>
North East	17	10	59%	7	41%	202	8%	20
North West & Mersey	21	13	62%	8	38%	221	9%	17
Yorks & Humber	34	24	71%	10	29%	500	20%	21
East Midlands	22	14	64%	8	26%	94	4%	7
West Midlands	26	17	65%	9	35%	87	3%	5
South West	62	42	68%	20	32%	328	13%	8
Eastern	29	15	52%	14	48%	100	4%	7
London	23	15	65%	8	35%	211	8%	14
South East	56	43	77%	13	23%	420	17%	10
Wales	20	15	75%	5	25%	147	6%	10
Scotland	32	23	72%	9	28%	161	6%	7
Northern Ireland	5	4	80%	1	20%	11	1%	3
Channel Islands	1	1	100%	0	0%	20	1%	20
Isle of Man	1	0	0%	1	100%	0	0%	0
Total	349	236	68%	113	32%	2502	100%	11

Support staff

The questionnaire asked how many non-archaeological support staff worked for the organisation. Organisations responded as employing a total of 3315 support staff – but this reflects a flaw in the questionnaire. It was not made explicit that the number requested here was of support staff working exclusively to assist the archaeologists. This meant that several respondents gave the total number of non-archaeologists working for that organisation as being support staff – in the most extreme example, one local government organisation responded that they employed 1 archaeologist and 502 support staff.

To create a clearer picture, the returns from archaeological contractors have been examined. In this sector, for 766 archaeological staff there were 64 dedicated support staff – one member of support staff for every 12 archaeologists. On the assumption that this broadly represents the needs of archaeological organisations for support staff, the same ratio can be extended to the whole profession, suggesting a total of approximately 367 non-archaeologists employed in dedicated supporting roles throughout the UK.

This suggests that there are approximately 4792 people in the UK (archaeologists and support staff) who rely upon archaeology for their livelihood.

CHAPTER 3

Jobs

Profiling the Profession has gathered information on current working practices in archaeology. We have studied the extent of full-time work, part-time work, and self-employment; we have gathered information on the number of hours worked, the length of contracts and the length of employment to date. We also publish below extensive information on archaeologists' salaries, working conditions and benefits.

Full-time and part-time work

The survey asked about the numbers of hours worked. Those working 30 hours a week or more were regarded as working full-time; those working less than 30 hours a week were regarded as working part-time.

We received information on the number of hours worked for 1836 individuals (66% of all archaeologists in the survey).

Overall we found that 95% of archaeologists work full-time, 5% work part-time. A greater proportion of archaeologists work full-time than in the population as a whole. According to figures published by the Central Statistical Office, 77% of all national workers work full-time, 23% work part-time.

Table 40: Number of archaeologists' working f/t and p/t

Numbers full-time archaeologists		Numbers part-time archaeologists		Total archaeologists
1746	95%	90	5%	1836

Full-time and part-time work by gender

Of the 1836 respondents providing information about full-time and part-time work, we know the gender of 1820 – a smaller number than provided general information about age and gender (see page 16). This sample was skewed slightly towards women: 36% of this group were women, compared to 35% of the overall survey sample.

Although 35% of all archaeologists are women (see page 16), women constitute 34% of the full-time archaeological workforce. This is a slightly smaller proportion than for the population as a whole. The *New Earnings Survey 1997* (Office for National Statistics 1997) shows that women make up 37% of the national full-time workforce.

Women constitute two thirds, however, of the part-time archaeological workforce.

For further details about numbers of hours worked, see *Working hours* (page 34).

Table 41: Full-time / part-time employment in archaeology by gender

	<i>Female</i>	<i>% of full-time or part-time workforce</i>	<i>Male</i>	<i>% of full-time or part-time workforce</i>	<i>Total</i>
Full-time	596	34%	1137	66%	1733
Part-time	56	64%	31	36%	87
Total	652	36%	1168	64%	1820

A greater proportion of female archaeologists than male archaeologists work part-time. 10% of women work part-time compared to only 3% of men.

Table 42: Gender distribution of full-time / part-time employment

	<i>Female</i>	<i>% of females</i>	<i>Male</i>	<i>% of males</i>	<i>Total</i>
Full-time	596	91%	1137	97%	1719
Part-time	56	9%	31	3%	101
Total	652	100%	1168	100%	1820

Full-time and part-time work by employment category

(1) All archaeologists

Archaeological work is predominantly full-time across all organisational categories, except societies where work is 56% full-time. Slightly more consultants and academics work part-time than archaeologists in other categories.

Table 43: Full-time and part-time work by organisational category

	<i>Full-time numbers and % of category</i>		<i>Part-time numbers and % of category</i>		<i>Total</i>
Consultants	13	87%	2	13%	15
Contractors	540	99%	8	1%	548
LG curators	379	95%	21	5%	400
LG others	131	98%	3	2%	134
Universities	142	84%	28	16%	170
Nat htg agencies	322	98%	8	2%	340
Nat museums	12	100%	0	0%	12
Societies	9	56%	7	44%	16
Other commercial	37	100%	0	0%	37
Other orgs	161	93%	13	7%	174
All archaeologists	1746	95%	90	5%	1836

Half of part-time archaeologists work for universities and curators, however, with most of the rest working for other organisations, contractors, national heritage agencies and societies.

Table 44: Full-time and part-time distribution by organisational category

	<i>Full-time numbers and % of full-time workforce</i>		<i>Part-time numbers and % of part-time workforce</i>		<i>Total</i>
Consultants	13	1%	2	2%	15
Contractors	540	31%	8	9%	548
LG curators	379	22%	21	23%	400
LG others	131	8%	3	3%	134
Universities	142	8%	28	31%	170
Nat htg agencies	322	18%	8	9%	340
Nat museums	12	1%	0	0%	12
Societies	9	1%	7	8%	16
Other commercial	37	2%	0	0%	37
Other orgs	161	9%	13	14%	174
All archaeologists	1746	100%	90	100%	1836

(2) Women

Work with contractors, other commercial organisations, curators, other local government employers, national heritage agencies and national museums is overwhelmingly full-time for women. Larger numbers of women working in universities (25%) or as consultants (25% – but a small sample) work part-time. Work at societies is largely part-time.

Table 45: Full-time and part-time female work by organisational category

	<i>Full-time numbers and % of category</i>		<i>Part-time numbers and % of category</i>		<i>Total</i>
Consultants	6	75%	2	25%	8
Contractors	184	97%	5	3%	189
LG curators	138	91%	14	9%	152
LG others	41	98%	1	2%	42
Universities	45	75%	15	25%	60
Nat htg agencies	110	94%	7	6%	117
Nat museums	3	100%	0	0%	3
Societies	3	37%	5	63%	8
Other commercial	8	100%	0	0%	8
Other orgs	58	89%	7	11%	65
All females	596	93%	56	7%	652

Half the female archaeologists (52%) who work part-time, however, work for curators and universities, with the bulk of the rest working for national heritage agencies, other organisations, contractors and societies.

Table 46: Full-time and part-time female distribution by organisational category

	<i>Full-time numbers and % of full-time workforce</i>		<i>Part-time numbers and % of part-time workforce</i>		<i>Total</i>
Consultants	6	1%	2	4%	8
Contractors	184	31%	5	9%	189
LG curators	138	23%	14	25%	152
LG others	41	7%	1	2%	42
Universities	45	8%	15	27%	60
Nat htg agencies	110	18%	7	13%	117
Nat museums	3	1%	0	0%	3
Societies	3	1%	5	9%	8
Other commercial	8	1%	0	0%	8
Other orgs	58	10%	7	13%	65
All females	596	100%	56	100%	652

(3) Men

Work for male archaeologists is almost universally full-time in all categories, except for universities (88%) and societies (75%) where it is still largely full-time.

Table 47: Full-time and part-time male work by organisational category

	<i>Full-time numbers and % of category</i>		<i>Part-time numbers and % of category</i>		<i>Total</i>
Consultants	7	100%	0	0%	7
Contractors	356	99%	3	1%	359
LG curators	239	98%	6	2%	245
LG others	87	98%	2	2%	89
Universities	94	88%	13	12%	107
Nat htg agencies	210	<100%	1	1%	211
Nat museums	6	100%	0	0%	6
Societies	6	75%	2	25%	8
Other commercial	29	100%	0	0%	29
Other orgs	103	96%	4	4%	107
All males	1137	97%	31	3%	1168

42% of male part-timers work at universities. The bulk of other part-timers work as curators, contractors or at other organisations.

Table 48: Full-time and part-time male distribution by organisational category

	<i>Full-time numbers and % of full-time workforce</i>		<i>Part-time numbers and % of part-time workforce</i>		<i>Total</i>
Consultants	7	1%	0	0%	7
Contractors	356	31%	3	10%	359
LG curators	239	21%	6	19%	245
LG others	87	8%	2	6%	89
Universities	94	8%	13	42%	107
Nat htg agencies	210	18%	1	3%	211
Nat museums	6	1%	0	0%	6
Societies	6	1%	2	6%	8
Other commercial	29	3%	0	0%	29
Other orgs	103	9%	4	13%	107
All males	1137	100%	31	100%	1168

Working hours

The questionnaire asked about employees' contracted hours per week – minimum, maximum and average.

For full-time archaeologists, the average number of hours worked in a week is 38. This compares with a national average of 42 hours a week in 1997 (Central Statistical Office 1998). The average number of hours worked is fairly even across organisational categories, ranging from 37 (curators, LG others and other organisations) to 41 (national heritage agencies).

Those working the longest hours, however, were found among contractors and other organisations. In this survey, 23 individuals were found to be working 48 hours a week or more, with some working as many as 70 hours a week.

The Local Authorities 'Single Status' arrangement has established a standard working week of 37 hours (36 in London) from 1999 (IDS 1997, 27). Moreover, the *European Directive on Working Time* introduced on 1 October 1998 a limit of 48 working hours per week, although employers and employees can contractually agree to waive this limit.

As could be expected, part-time hours vary enormously, ranging from 1 hour a week to 27.

All of the figures published below are based on the average number of hours worked per week. If a minimum or maximum number of hours was given, but no average, the number given was considered to be the average. If both minimum and maximum figures were given, but no average, the average was considered to be the average of the minimum and maximum figures.

Full-time hours

Table 49: Average hours per week by organisational category, full-time

	<i>Min f-t hours/wk</i>	<i>Avg f-t hours/wk</i>	<i>Max f-t hours/wk</i>
Consultants	32	40	48
Contractors	30	39	70
LG curators	30	37	47
LG others	35	37	40
Universities	30	38	40
Nat htg agencies	37	41	43
Nat museums	37	38	39
Societies	35	38	42
Other commercial	35	39	52
Other orgs	30	37	70
Total	30	38	70

Part-time hours

Table 50: Average hours per week by organisational category, part-time

	<i>Min p-t hours/wk</i>	<i>Avg p-t hours/wk</i>	<i>Max p-t hours/wk</i>
Consultants	1	2	2
Contractors	3	14	25
LG curators	4	20	29
LG others	18	19	22
Universities	2	7	27
Nat htg agencies	15	16	18
Nat museums	n/a	n/a	n/a
Societies	8	17	24
Other commercial	n/a	n/a	n/a
Other orgs	3	18	22
Total	1	14	29

Job security

Length of contract

The questionnaire asked about the length of the contracts of the archaeologists working for each organisation. We received details for 2101 individuals (74% of all archaeologists in the survey).

Two-thirds of archaeologists were on permanent contracts. Those working for national heritage agencies (86%) and other commercial organisations (84%) were most likely to have permanent contracts, those working for societies (48%) and other local government organisations (49%) least likely to have them. Salaries broadly increased with contract length.

The proportion of temporary workers contrasts with the national picture – in the summer of 1995, around 7% of the national workforce were in temporary jobs (IDS 1995, 1).

The average length of contract for temporary archaeological workers is 10 months.

Table 51: Contract lengths and average salaries by categories

	<i><3 months % of category</i>		<i>Average salary</i>	<i>3–6 months % of category</i>		<i>Average salary</i>	<i>6–12 months % of category</i>		<i>Average salary</i>
Consultants	5	20%	14625	2	8%	20000	1	4%	15000
Contractors	84	15%	11701	78	13%	11542	62	11%	14741
LG curators	49	11%	11387	23	5%	10783	27	6%	13056
LG others	48	35%	10123	13	9%	8769	3	2%	10667
Universities	27	9%	10814	16	6%	11170	35	12%	18045
Nat htg agencies	0	0%	–	3	1%	–	38	10%	22834
Nat museums	0	0%	–	2	17%	9500	3	25%	13722
Societies	8	35%	15938	0	0%	–	3	13%	11027
Other commercial	6	16%	10703	0	0%	–	0	0%	–
Other orgs	7	4%	12167	2	1%	9800	23	13%	15868
All archaeologists	234	11%	11319	139	7%	11183	195	9%	16811

	<i>12–24 months % of category</i>		<i>Average salary</i>	<i>>24 months % of category</i>		<i>Average salary</i>	<i>Permanent / open ended % of category</i>		<i>Average salary</i>
Consultants	0	0%	–	1	4%	n/a	16	64%	14475
Contractors	16	3%	17261	20	3%	15643	321	55%	16587
LG curators	5	1%	15926	12	3%	15533	316	73%	17002
LG others	4	3%	15407	3	2%	11500	68	49%	17161
Universities	14	5%	18615	34	12%	20080	166	57%	25310
Nat htg agencies	2	1%	21962	9	2%	20434	317	86%	23081
Nat museums	0	0%	–	0	0%	–	7	58%	22571
Societies	1	1%	12500	0	0%	–	11	48%	16228
Other commercial	0	0%	–	0	0%	–	32	84%	19781
Other orgs	7	4%	18167	11	6%	15373	128	72%	18262
All archaeologists	49	2%	17563	90	4%	17806	1394	66%	19567

Length of employment to date

The questionnaire asked for the length of employment to date of employees broken down into time brackets. We received information for 2022 individuals (71% of all archaeologists in the survey).

Archaeologists most likely to have been employed in the same organisation for over two years work for national heritage agencies (88%), other organisations (80%), universities (79%) and curators (75%), suggesting the lowest job turnover in these sectors. Conversely, those working for societies (54%) and other local government organisations were least likely to have been employed for over two years. In these two sectors, a third of employees had been employed for less than three months.

For statutory rights dependent on length of employment, see Appendix V: The law.

Table 52: Archaeologists' length of employment to date

	<3m		3–6m		6–12m		12–24m		>24m	
Consultants	5	24%	0	0%	2	10%	0	0%	14	67%
Contractors	67	12%	56	10%	45	8%	79	14%	337	58%
LG curators	41	10%	19	5%	22	5%	21	5%	314	75%
LG others	43	31%	16	12%	10	7%	12	9%	56	41%
Universities	13	5%	7	3%	13	5%	27	10%	225	79%
Nat htg agencies	5	2%	1	1%	1	1%	27	9%	256	88%
Nat museums	1	8%	0	0%	2	17%	1	8%	8	67%
Societies	9	38%	0	0%	1	4%	1	4%	13	54%
Other commercial	9	15%	3	5%	2	3%	7	12%	40	66%
Other orgs	13	7%	3	2%	13	7%	8	4%	144	80%
All archaeologists	206	10%	105	5%	111	6%	183	9%	1407	70%

Self-employment

The questionnaire did not directly ask whether individual archaeologists were self-employed or whether they were under contract to an employer. Rather, for each post title the questionnaire asked whether income tax was deducted at source as PAYE.

Of all archaeologists for whom we have information on this subject, 5% do not pay income tax as they earn, and so are presumably self-employed.

Three-quarters of consultants are self-employed, however, as well as 44% of those working for societies, and one quarter of those working for other commercial organisations.

The survey received information on this subject for 2132 individuals.

Table 53: Self-employed archaeologists by organisational category

	<i>Self-employed</i>		<i>All archaeologists</i>
Consultants	27	77%	35
Contractors	16	3%	603
LG curators	18	4%	436
LG others	1	1%	145
Universities	14	5%	314
Nat htg agencies	0	0%	330
Nat museums	0	0%	12
Societies	11	44%	25
Other commercial	11	23%	47
Other orgs	9	5%	185
All organisations	107	5%	2132

Self employment by full-time and part-time

Only 51 self-employed archaeologists (48% of all self-employed archaeologists in the survey) informed us of their number of hours worked. Of this small sample, we found that one third work part-time – a higher proportion than of all archaeologists. However, there are distinct variations across the employment categories. The great majority of self-employed consultants, contractors, curators, archaeologists working for other commercial organisations and other organisations work full-time. All self-employed archaeologists in universities responding to this question work part-time, and the majority of self-employed archaeologists in societies work part-time.

Table 54: Self-employed archaeologists by organisational category

	<i>Known full-time self-employed</i>		<i>Known part-time self-employed</i>		<i>Total self-employed where work-hours known</i>
Consultants	7	78%	2	22%	9
Contractors	12	86%	2	14%	14
LG curators	6	100%	0	0%	6
LG others	0		0		0
Universities	0	0%	10	100%	10
Nat htg agencies	0		0		0
Nat museums	0		0		0
Societies	1	33%	2	67%	3
Other commercial	1	100%	0	0%	1
Other orgs	7	88%	1	12%	8
Total	34	67%	17	33%	51

Sources of funding

The questionnaire asked whether posts were funded by establishment income or by project grants/contracts.

Information was received about 1974 individual archaeologists. Of these, 955 (48%) were in establishment-funded posts and 1019 (52%) in project-funded posts.

Table 55: Establishment and project funding by category

	<i>Establishment-funded</i>		<i>Project-funded</i>		<i>Total</i>
Consultants	4	16%	21	84%	25
Contractors	114	19%	473	81%	587
LG curators	182	43%	240	57%	422
LG others	62	44%	80	56%	142
Universities	163	62%	100	38%	263
Nat htg agencies	322	<100%	1	1%	323
Nat museums	7	58%	5	42%	12
Societies	14	61%	9	39%	23
Other commercial	5	13%	35	87%	40
Other orgs	82	60%	55	40%	137
Total	955	48%	1019	52%	1974

The distinction between establishment-funding and project-funding was left entirely to the respondents. This may have led to some inconsistency between responses. The surprisingly high number of curators responding as being project-funded may reflect those whose posts have been temporarily funded by English Heritage.

Contract length and sources of funding

Over half of project-funded contracts are temporary, with 42% funded for a year or less. Only one in ten establishment-funded posts are temporary.

See also *Job security* (page 35).

Table 56: Contract lengths and post funding

<i>Contract length</i>	<i>Project-funded</i>	<i>Establishment-funded</i>
<3 months	18%	2%
3–6 months	11%	3%
6–12 months	13%	3%
12–24 months	4%	1%
>24 months	6%	3%
Permanent / open ended	47%	88%

Contract length by sources of funding and category

(1) Establishment-funded posts

Table 57: Establishment funding and contract length by organisational category

	<3 months		3–6 months		6–12 months		12–24 months		24 + months		Permanent		Total individuals
Consultants	0	0%	0	0%	0	0%	0	0%	0	0%	4	100%	4
Contractors	4	3%	24	20%	2	2%	0	0%	4	3%	87	72%	121
LG curators	1	1%	0	0%	3	2%	1	1%	3	2%	184	96%	192
LG others	4	6%	0	0%	0	0%	1	1%	3	4%	64	89%	72
Universities	4	2%	1	1%	17	10%	3	2%	14	8%	135	78%	174
Nat htg agencies	0	0%	0	0%	1	1%	2	1%	5	2%	300	97%	308
Nat museums	0	0%	0	0%	0	0%	0	0%	0	0%	7	100%	7
Societies	0	0%	0	0%	2	14%	0	0%	0	0%	12	86%	14
Other commercial	4	80%	0	0%	0	0%	0	0%	0	0%	1	20%	5
Other orgs	0	0%	0	0%	8	10%	1	1%	3	4%	71	86%	83
Total	17	2%	25	3%	33	3%	8	1%	32	3%	865	88%	980

(2) Project-funded posts

Table 58: Project funding and contract length by organisational category

	<3 months		3–6 months		6–12 months		12–24 months		24 + months		Permanent		Total individuals
Consultants	4	21%	2	11%	0	0%	0	0%	1	5%	12	63%	19
Contractors	80	17%	54	12%	60	13%	16	3%	16	3%	232	51%	458
LG curators	48	19%	23	9%	23	9%	4	2%	9	4%	140	57%	247
LG others	17	40%	13	30%	2	5%	1	2%	1	2%	9	21%	43
Universities	17	13%	16	12%	30	22%	11	8%	30	22%	32	24%	136
Nat htg agencies	0	0%	0	0%	0	0%	0	0%	0	0%	1	100%	1
Nat museums	0	0%	2	40%	3	60%	0	0%	0	0%	0	0%	5
Societies	8	89%	0	0%	1	11%	0	0%	0	0%	0	0%	9
Other commercial	6	17%	0	0%	0	0%	0	0%	0	0%	29	83%	35
Other orgs	3	5%	2	4%	14	25%	7	13%	7	13%	22	40%	55
Total	183	18%	112	11%	133	13%	39	4%	64	6%	477	47%	1008

Salaries

We received information on the salaries of 2132 archaeologists (75% of all archaeologists in the survey). Of these, we know that 1746 work full-time, 90 work part time. We have no information on the working hours of the remainder.

The average salary for archaeologists working full-time is £17,079. This compares to a national average full-time salary for all occupations of £19,167. The median full-time archaeological salary is £15,905. 50% of archaeologists working full-time earn more than this amount, and 50% earn less. The national median figure is £16,419.

The average salary of all archaeologists – full-time, part-time, and those whose hours are unknown – was found to be £17,562. The figure is higher than the average for all full-time archaeologists because some high earners provided no information on their working hours. The median salary for all archaeologists is £15,866.

The questionnaire asked for the gross salary scale of each post. Respondents were invited to provide minimum, maximum and average salaries. The figures published below are all average salaries. If no average salary was given but only a maximum or minimum, that was regarded as an average salary for this survey. When no average was given but both a maximum and a minimum, the average was taken to be the minimum plus one third of the difference between the minimum and maximum. Checked against those returns that gave minimum, maximum and average salaries, this was found to be a fairly accurate approach.

In cases where we were told of a weighting allowance incorporated in the salary scale, the allowance was subtracted to allow comparison of like with like.

There may be a sample bias against the poorest paid (temporary) staff. Not all of the organisations responding gave details for these employees.

In 1997/98, the Institute of Field Archaeologists (IFA) recommended minimum pay levels for archaeologists exercising levels of responsibility equivalent to the three grades of the Institute's membership. These were £10,449 for Practitioners (PIFA), £12,171 for Associates (AIFA), and £15,759 for Members (MIFA).

For information on other studies into archaeological salaries, see Appendix 3: Previous surveys.

Table 59: Full-time salary distribution in archaeology

	<i>Archaeologists full-time</i>	<i>All UK workers full-time</i>
Lowest 10% earn less than	10428	9140
Lower 25% earn less than	12587	11888
Median	15905	16419
Upper 25% earn more than	20103	22796
Highest 10% earn more than	25000	30768
Average	17079	19167

source: Office for National Statistics 1997, A1.1

Full-time salaries by organisational category

The highest average and median full-time salaries are found in national heritage agencies and universities, the lowest in other local government organisations and contractors.

The median figure is higher than the average for national heritage agencies, universities and national museums, indicating that these sectors are ‘top-heavy’ – most individuals earn more than the average, which is kept low by the salaries of the lowest paid.

Sectors with a median below the average are pyramidal – most employees earn less than the average, which is raised by the salaries of the highest paid.

Table 60: Full-time salary distribution in archaeology by organisational category

	<i>Lowest 10% earn less than</i>	<i>Lower 25% earn less than</i>	<i>Median</i>	<i>Upper 25% earn more than</i>	<i>Highest 10% earn more than</i>	<i>Average</i>	<i>Sample</i>
Consultants	n/a	n/a	15000	n/a	n/a	15769	13
Contractors	10400	11000	14089	18570	19752	14997	540
LG curators	11157	13563	15264	19700	21285	16112	379
LG others	8000	10449	12143	16000	19342	14656	131
Universities	12500	15550	22785	26833	28000	20742	142
Nat htg agencies	15000	19000	24925	26000	28000	22917	322
Nat museums	n/a	n/a	18333	n/a	n/a	18181	12
Societies	n/a	n/a	16475	n/a	n/a	19925	9
Other commercial	9789	12552	14792	21000	26500	17428	37
Other orgs	10896	13500	17000	20000	23050	18033	161
All archaeologists	10462	12587	15905	20103	26000	17079	1746

Full-time salaries by geographical area

Average salaries for full-time archaeologists in each geographical area have been calculated and compared with the average salaries for all full-time workers in that area. Official average pay information covers only Great Britain, so there are no data available for Northern Ireland, the Channel Islands or the Isle of Man.

The figures published here exclude any regional weighting allowances (see below, page 43), to enable meaningful comparisons to be made between areas.

Archaeologists typically earn less than the regional average. Only in one region, Yorkshire & Humberside, does the average archaeological salary exceed the average for all workers. This may be explained by full returns being received from the relatively well-paid university departments in that area.

Archaeologists in London are paid more on average than archaeologists elsewhere in England; other high averages in England are in Yorkshire and Humberside and in the West Midlands.

Lowest averages are in the south east, north west, east midlands and north east. Archaeologists in the south east are paid only 70% of the regional average – a lower proportion than in any other region. This may be partly explained, however, by the relatively high return of data for junior fieldwork posts in this area.

The figures suggest relatively high average earnings in Wales, Northern Ireland and Scotland. For Wales and Northern Ireland, this is a statistical error. The figures have been skewed upwards by the fact that the survey received little pay information about full-time archaeologists not working for either Cadw, RCAHMW or the Northern Ireland Environment and Heritage Service – three organisations in which average pay levels are relatively high. The Scottish data have been similarly (although less severely) skewed by the full receipt of information from Historic Scotland and RCAHMS, and proportionally less from other organisations.

Table 61: Full-time archaeological salaries by geographical area

	<i>All workers average</i>	<i>Archaeologists average</i>	<i>Archaeologists pay as % of all workers</i>	<i>Sample</i>
North East	17081	14786	87%	80
North West & Mersey	17437	14146	81%	72
Yorks & Humber	17232	17456	101%	177
East Midlands	17363	14546	84%	97
West Midlands	17602	17251	98%	71
South West	17868	15767	88%	261
Eastern	18896	15012	79%	149
London	25032	20808	83%	404
South East	19994	14015	70%	223
Wales	17206	21337	124%	44
Scotland	17561	17711	101%	144
Northern Ireland	–	22032	–	22
Channel Islands	–	–	–	–
Isle of Man	–	18000	–	2
UK	19167	17079	92%	1746

source: Office for National Statistics 1997

Full-time salary distribution by geographical area

Median salaries are higher than average salaries – indicating a preponderance of high earners – only in Wales, Northern Ireland and Scotland, reflecting the statistical error outlined above.

Table 62: Full-time salary distribution by geographical area

	<i>Lowest 10% earn less than</i>	<i>Lower 25% earn less than</i>	<i>Median</i>	<i>Upper 25% earn more than</i>	<i>Highest 10% earn more than</i>	<i>Average</i>	<i>Sample</i>
North East	8000	10000	13244	20000	22785	14786	80
North West & Mersey	10000	11000	13250	16815	20992	14146	72
Yorks & Humber	11658	14188	16815	19000	24333	17456	177
East Midlands	11157	11750	14250	16000	20000	14546	97
West Midlands	10462	12500	16338	26500	27000	17251	71
South West	10400	11606	14592	19752	24233	15767	261
Eastern	11157	12587	14316	16815	21285	15012	149
London	15000	19000	19523	26000	26000	20808	404
South East	10279	10449	12500	16333	21283	14015	223
Wales	14044	15741	23464	25000	38633	21337	44
Scotland	10575	11804	17684	22000	28836	17711	144
Northern Ireland	13000	13827	23131	25000	30937	22032	22
Channel Islands	–	–	–	–	–	–	–
Isle of Man	–	–	18000	–	–	18000	2
UK	10462	12587	15905	20103	26000	17079	1746

Full-time salaries in other occupations

Average full-time salaries of a number of occupations are published below. These are either professions to which some archaeologists may feel they belong, or occupations with which archaeologists have frequent professional contact.

The average full-time archaeological salary is £17,079. That of all professional occupations is £25,987. The average salary for 'professional occupations not elsewhere categorised' is £18,656. This is the group into which archaeologists are classified by the Office of Population, Censuses and Surveys, and which also includes psychologists, probation officers and clergy (see Appendix VII: OPCS classification).

Table 63: Full-time salary comparison with other occupations

	<i>Average gross earnings</i>
University and polytechnic teaching professionals	30179
Civil, structural, municipal, mining and quarrying engineers	28286
Architects	25882
Town planners	25887
Managers in building and contracting	25689
Building, land, mining and 'general practice' surveyors	24495
Draughtspersons	19745
Scientific technicians	19641
Librarians and related professionals	19010
Archaeologists	17079
Road construction and maintenance workers	16904
Construction trades	15512
Builders, building contractors	15345
Other building and civil engineering labourers not elsewhere categorised	13843
All professional occupations	25987
Professional occupations not elsewhere categorised (*)	18656
National average	19167

source: Office for National Statistics 1997, D1.1 – D2.7

Salaries by gender

The survey received information about the gender of 1698 (97%) of the 1746 archaeologists who we know work full-time. Of these 1698, 583 (34%) are women, 1115 (66%) are men.

The full-time male average salary is £17,768, the full-time female average salary is £16,753 – 94% of the male figure.

The lowest-earning 10% and 25% of men and women earn roughly similar salaries on average. The highest earning 10% of men and women also earn similar salaries. The upper 50% and 25% of women, however, earn less than the upper 50% and 25% of men (earning 90% and 93% of the male salaries respectively).

Table 64: Full-time salaries by gender

	<i>Lowest 10% earn less than</i>	<i>Lower 25% earn less than</i>	<i>Median</i>	<i>Upper 25% earn more than</i>	<i>Highest 10% earn more than</i>	<i>Average</i>	<i>Sample</i>
Women	10500	12500	15300	19523	26000	16753	583
Men	10449	12634	16964	21062	26000	17768	1115
All archaeologists	10462	12587	15905	20103	26000	17079	1746

Salaries by age

The survey received information about the age of 1698 (97%) of the 1746 archaeologists who we know work full-time.

The highest average full-time salaries are earned by archaeologists in their 40s. The highest full-time salaries overall are earned by those in their 50s. The salary range amongst those in their 50s, however, is wider than for any other age-group.

Table 65: Full-time salary distribution by age

	<i>Lowest 10% earn less than</i>	<i>Lower 25% earn less than</i>	<i>Median</i>	<i>Upper 25% earn more than</i>	<i>Highest 10% earn more than</i>	<i>Average</i>	<i>Sample</i>
<20	n/a	n/a	11157	n/a	n/a	11729	5
20–29	10279	10449	11512	14000	16815	12455	384
30–39	11417	13563	16196	19523	26000	16936	715
40–49	13000	16111	19751	25000	28000	20227	452
50–59	11856	14534	20000	25291	32400	20172	126
60 +	n/a	n/a	18512	n/a	n/a	20906	16

Weighting allowances

The salaries of 83 posts, held by 312 archaeologists, include weighting allowances. 75 of these posts (304 individuals) are based in London. Three posts (three individuals) are based in the Northern Isles. The remaining five posts (five individuals) are based in England but outside London.

The weighting amount included in the salaries ranges from £250 to £3405 a year, with an average of £2375 and a median of £1822.

The London allowance ranges from £393 to £3405 a year, with an average of £2402 and a median of £1822. The Northern Isles allowance ranges from £1146 to £1200, with an average of £1182. The other allowances range from £250 to £1822, with an average of £1508.

The 'single status' salary agreement negotiated by the trade union Unison for local authority employees across the UK recommends an inner London weighting of £2340, and an outer London weighting of £1245.

Salary scales

Salary scales are used by 225 organisations responding to the survey (64% of the sample). These organisations, however, employ 82% of all archaeologists in the survey.

Of these organisations, 12 used the Civil Service scale, 133 used Local Authority scales (not all being Local Authority organisations), 54 used university scales and 25 used other scales. One organisation did not specify the kind of scale used.

Of the 25 organisations using other scales, 21 used their own scale, while one used an engineers scale, one a further education scale, one used NUJ fees and one other linked salaries directly to the *Retail Price Index*.

Benefits

The questionnaire asked specific questions regarding employee benefits.

Of the 349 responses from organisations with archaeological workers, the section on such benefits is completed by 274 organisations for whom 96% of archaeologists work.

75 organisations (employing 4% of the archaeological workforce) gave no response about employee benefits. Some may have disregarded the questions because they were unable to answer them or because workers at those organisations were not formally employees. These non-responses were therefore not considered as completely negative answers, and were discounted from the subsequent calculations.

Notice period

The questionnaire asked whether organisations offer more than the statutory minimum notice period, and if so, how much notice entitlement is offered.

Under the *Employment Rights Act 1996* all employees, whether part-time or full-time, have the right to be given notice. The rules provide that after one month's service (unless not more than three months were contemplated), employees must be given at least one week's notice. After two years continuous employment they are entitled to one further week for every year's work, up to 12 weeks for 12 years or more service.

In this study, we learned about the notice period offered to 2132 archaeologists. 917 archaeologists (43% of the sample) are entitled to notice of more than the statutory requirement. However, wide discrepancies were found between different employment categories, with 92% of employees of national heritage agencies offered more than the statutory minimum, but only 8% working for national museums.

Of the 917 archaeologists entitled to more than the statutory minimum notice period, 252 are on temporary contracts, accounting for 40% of all temporary workers. Their average notice entitlement is 6 weeks. 665 are on permanent contracts, accounting for 49% of all permanent workers, with an average entitlement of 10 weeks.

Table 66: Notice entitlement by organisational category

	<i>Entitled to notice beyond statutory minimum</i>	<i>Not entitled to notice beyond statutory minimum</i>	<i>% entitled to notice beyond statutory minimum</i>	<i>Average number of weeks notice beyond statutory minimum</i>
Consultants	3	32	9%	12 wks
Contractors	94	509	16%	9 wks
LG curators	172	264	39%	6 wks
LG others	69	76	48%	6 wks
Universities	169	145	53%	9 wks
Nat htg agencies	304	26	92%	12 wks
Nat museums	1	11	8%	4 wks
Societies	4	21	16%	10 wks
Other commercial	12	35	26%	4 wks
Other orgs	89	96	48%	6 wks
Total	917	1215	43%	9 wks

Sickness leave and pay

The questionnaire asked whether employees receive paid sickness leave.

In UK law, there are no specific provisions for paid sickness leave other than for Statutory Sick Pay (SSP). Under the *Social Security Contributions and Benefits Act 1992* employers have to pay employees SSP for up to 28 weeks. SSP is paid at a uniform subsistence rate (in 1997/98, this rate was £55.70 per week for individuals earning £62 or more per week). The self-employed, those over retirement age, low earners who do not pay national insurance contributions and employees taken on for less than three months are excluded from this benefit.

The Unison 'single status' agreement (see above, page 43) has established that employees of local authorities are entitled to one month's full pay and two months' half pay in the first year of service, rising to six months' full pay and six months' half pay after five years of service (IDS 1997, 27).

This study found that 221 organisations, employing 82% of archaeologists in the survey, do provide paid sickness leave. 15 organisations for whom a further 11% of archaeologists work replied that they only provide SSP, the statutory minimum. We have no information on the remaining organisations.

37 of the 221 organisations offering sickness pay gave details of the number of weeks they offer above the statutory minimum. Many of these employers have a sliding scale based on the employee's length of service. The number of weeks offered ranges from one week to a full year. The average number of weeks offered is 17.

Holiday entitlement

The questionnaire asked whether employees of the organisation received paid holiday leave.

The *Employment Rights Act 1996* states that all contracts must give holiday and holiday pay entitlements. On 1 October 1998 (since the survey was undertaken), the *European Directive on Working Time* introduced a minimum of three weeks paid holiday, rising to four weeks in 1999. In local government, the Unison 'single status' agreement (see above, page 43) has established a basic annual leave entitlement of 20 days with a further five days after five years service. Employees also receive an extra two statutory days.

Of the 274 organisations that answered the employee benefits questions in some way, 263 stated that employees were entitled to holiday leave.

138 organisations gave further details of the number of holiday days given; these ranged from 4 to 35, with 23 days being both the average and median number of days given. Amongst different organisational sectors, universities offered the highest average number of days (27), societies the lowest (18).

Table 67: Days holiday leave by organisational category

	<5	6–10	11–15	16–20	21–25	26–30	31–35	Average	Number of orgs
Consultants	0	0	0	0	0	0	0	n/a	0
Contractors	1	0	3	15	5	2	1	21	27
LG curators	0	0	1	10	13	5	1	23	30
LG others	0	0	0	3	8	4	1	25	16
Universities	0	0	0	2	6	7	4	27	19
Nat htg agencies	0	0	0	1	3	0	0	23	4
Nat museums	0	0	0	0	1	0	0	25	1
Societies	0	0	2	3	0	0	0	18	5
Other commercial	0	0	0	1	6	0	0	24	7
Other orgs	0	0	0	9	15	3	2	24	29
Total	1	0	6	44	57	21	9	23	138

Maternity leave

The questionnaire asked whether employees of the organisation receive paid maternity leave.

Under the *Employment Rights Act 1996* all pregnant employees, regardless of length of service, are entitled to reasonable paid time off work to attend antenatal care appointments. Every employee is likewise entitled to take a minimum of 14 weeks maternity leave; she is still regarded as employed during this basic leave period and all her contractual rights continue, such as accruing pension entitlement or holiday leave.

Employees are entitled to statutory maternity pay (SMP) only if they have been employed for 26 weeks before a date 15 weeks before the expected week of confinement. For those entitled to it, SMP is paid for 18 weeks at the same rate as Statutory Sick Pay (*Social Security and Contributions Act 1992*). In 1997/98, this rate was £55.70 per week for individuals earning £62 or more per week. Individual contracts may, of course, specify higher rates of paid maternity leave.

Employees of local authorities with less than a year's service are entitled to up to 18 weeks SMP, regardless of the 26-week statutory condition, with further unpaid leave at the discretion of the authority. After a year's service or more, employees are entitled to six weeks at 90% pay (including SMP) and a further 12 weeks at half pay plus SMP (IDS 1998, 27).

The *European Directive on Parental Leave* comes in to force in the UK on 15 December 1999. This allows male and female workers to have individual entitlement to parental leave on the grounds of the birth or adoption of a child, enabling them to take care of the child for at least three months' – in unpaid leave – in addition to any paid maternity leave.

238 of the 274 organisations responding to the employee benefits question stated that they did pay maternity leave above the statutory minimum. These organisations employ 91% of the archaeologists in this sample. Of those that do not pay maternity leave, several explained that they have no female employees.

81 organisations provided data on the number of paid maternity weeks given. These ranged widely, from 6 to 63. 20 was the average and 18 the median number of weeks granted.

Table 68: Weeks maternity leave by organisational category

	6–10	11–15	16–20	21–25	26–30	31–35	36–40	>40	Average number of days	Number of orgs
Consultants	2	0	0	0	0	0	0	0	6	2
Contractors	2	4	1	0	1	0	0	0	14	8
LG curators	1	1	13	0	4	0	1	2	23	22
LG others	1	4	1	2	1	0	3	0	25	12
Universities	0	3	4	0	4	1	0	0	20	12
Nat htg agencies	0	3	3	0	0	0	0	0	15	6
Nat museums	0	2	0	0	0	0	0	0	16	2
Societies	0	0	0	1	1	0	0	0	25	2
Other commercial	2	0	0	0	0	0	0	0	6	2
Other orgs	1	2	5	0	5	0	0	0	19	13
Total	9	19	27	3	16	1	4	2	20	81

Paternity leave

The questionnaire asked whether employees of the organisation received paid paternity leave.

At present, there are no regulations in British law regarding paternity leave. The *European Directive on Parental Leave* (see *Maternity leave*, above) will give fathers and mothers equal rights to leave and the protection of their job.

We found that 133 organisations (48% of those providing information about benefits) give paternity leave. These organisations employ 64% of archaeologists in this sample. The number of days ranges from 1 to 25, with 6 the average number of days given.

Subsidised accommodation or subsistence allowance

The questionnaire asked whether the organisation provided employees with subsidised accommodation or subsistence allowance.

There is no legal obligation upon employers to provide employees with accommodation or subsistence payments while working away from the organisation's base. Any such agreements have to be made between the employee and employer.

93 organisations (33% of those responding to this question) stated that they do make provision or payments for accommodation or subsistence. These organisations employ 55% of the archaeological workforce in this sample. Details of the benefits provided varied considerably.

25 organisations reported that workers receive accommodation benefits. Typically this is described as overnight accommodation dependent on the project, such as free accommodation on excavations when appropriate. Two organisations specifically referred to accommodation in hostels and five to bed-and-breakfasts.

74 organisations offer subsistence or meals allowances to members of staff working away from home, although two of these offer subsistence payments only to volunteers, not to paid staff.

Other benefits

The questionnaire asked for details of any other employee benefits that the organisation provides.

129 organisations (46% of respondents, employing 62% of archaeologists in the sample), replied that they offer other benefits. The benefits listed were varied, ranging from various allowances, such as for clothes, boots or cars, to free use of local authority leisure facilities, or entry to properties run by the employing organisation.

30 mentioned training as an employee benefit. Two further organisations said that they would consider supporting formal education costs such as those incurred studying for postgraduate degrees. Four organisations allowed sabbatical leave after a certain length of service. 13 organisations were prepared to pay conference fees.

5 organisations offered a clothing or footwear allowance. Other organisations offered discounts in a shop, free counselling, payments for home telephone, local authority leisure facility concessions, a mobile phone, target awards, and a tied cottage.

102 organisations pay travel expenses or mileage allowances for employees working away from the organisation's base. A further eight referred to a lease car scheme, with three providing company cars and three providing a car allowance. Other travel benefits offered by single organisations were AA or RAC membership and a car parking annual ticket.

6 organisations offered flexi-time and job-sharing (representing less than 1% of the archaeological workforce). This figure corresponds with data for all workers nationally (IDS 1994). One organisation mentioned crèche facilities, and one other offered childcare vouchers.

One organisation stated that it gives discretionary paid leave. Various grounds were cited, including compassionate leave, time off for medical appointments, leave to care for a sick relative and the right to take holiday entitlement on religious festivals.

44 organisations said that they paid subscription costs to professional organisations. 21 referred specifically to the IFA and seven to the Museums Association. The others offered subscriptions to professional associations of the worker's choice. Two further organisations partly paid IFA subscriptions, offering 50% or non-specific 'help' towards the cost, and one organisation offered interest free loans for IFA subscriptions. One organisation pays IFA subscriptions for senior employees only, another for the manager only.

4 organisations offered private healthcare, and three offered life insurance cover or personal accident insurance for accidents while at work. 5 offer relocation expenses, three offer subsidised loans (specifically for travel season tickets in two of the three cases), three more offer reduced-price publications and two offer free entry to sites or properties.

Pensions

The questionnaire asked whether the organisations contributed to employees' pensions. We received information about 2017 individuals. Organisations made pension contributions in 1434 cases (71%), and did not in 583 cases (29%).

79 archaeologists receiving pension contributions work part-time. 56% of part-timers in this sample receive pension contributions, 44% do not.

Employees most likely to receive pension contributions are in national heritage agencies (99%) and universities (94%); those least likely work as consultants (17%), or in societies (40%), other commercial organisations (45%) and contractors (46%).

Table 69: Archaeologists receiving employers' pension contributions by organisational category

	<i>Receiving contributions</i>		<i>Not receiving contributions</i>		<i>Sample</i>
Consultants	4	17%	20	83%	24
Contractors	261	46%	313	54%	574
LG curators	314	78%	87	22%	401
LG others	108	75%	36	25%	144
Universities	267	94%	18	6%	285
Nat htg agencies	324	99%	5	1%	329
Nat museums	8	67%	4	33%	12
Societies	10	40%	15	60%	25
Other commercial	20	45%	24	55%	44
Other orgs	118	66%	61	44%	179
Total	1434	71%	583	29%	2017

Redundancy payments

The questionnaire asked whether employees are entitled to redundancy payments.

Statutorily, an employer must make a lump sum payment to any employee who is dismissed because of redundancy, provided he or she has at least two years service. Part-time workers have the same rights as full-time staff.

We received information for a total of 2004 archaeologists. 1496 (75%) are entitled to redundancy payments, while 508 (25%) are not. Those least likely to have redundancy entitlement worked as consultants (13%) and in societies (40%). Those most likely to have redundancy entitlement work at national heritage agencies (99%).

Table 70: Archaeologists entitled to redundancy payments by organisational category

	<i>Entitled</i>		<i>Not entitled</i>		<i>Sample</i>
Consultants	3	13%	21	87%	24
Contractors	326	58%	234	42%	560
LG curators	334	78%	95	22%	429
LG others	103	73%	38	27%	141
Universities	229	82%	50	18%	279
Nat htg agencies	322	99%	4	1%	326
Nat museums	7	58%	5	42%	12
Societies	8	40%	12	60%	20
Other commercial	26	70%	11	30%	37
Other orgs	138	78%	38	22%	176
Total	1496	75%	508	25%	2004

Trade unions

This survey did not ask about individual membership of unions. Rather, the questionnaire asked whether there is a recognised trade union in the organisation's workplace.

We found that unions are recognised at 201 organisations (58% of the sample), which together employ 2041 archaeologists (72% of the archaeologists for whom the survey has information). Employers most likely to recognise unions were national heritage agencies (100%) and national museums (100%), local government curators (96%), local government others (92%) and universities (85%).

Unions are less often recognised among contractors (25%), other commercial organisations (19%) and consultants (6%). Of the 13 contractors which recognised unions, six are attached to universities and recognise AUT.

Table 71: Union representation by organisational category

	<i>All organisations</i>	<i>Orgs with unions % of all orgs in category</i>		<i>All individuals</i>	<i>Individuals working for orgs with unions % of all individuals</i>	
Consultants	48	3	6%	60	5	8%
Contractors	51	13	25%	766	297	39%
LG curators	73	70	96%	440	427	97%
LG others	38	35	92%	111	107	96%
Universities	47	40	85%	373	354	95%
Nat htg agencies	9	9	100%	680	680	100%
Nat museums	4	4	100%	42	42	100%
Societies	12	3	25%	25	5	20%
Other commercial	16	3	19%	87	12	14%
Other orgs	51	21	41%	245	112	46%
Total	349	201	58%	2829	2041	72%

In total, 17 separate unions are recognised in archaeological workplaces. Of these, Unison has by far the strongest presence. Table 72 gives the full list of unions recognised, with the number of archaeological organisations recognising them and the number of archaeologists employed by those organisations. Some organisations recognise more than one union – leading to misleading ‘total’ figures in the table.

Table 72: Full list of unions recognised in archaeology

		<i>Number of archaeological organisations that recognise the union</i>	<i>Number of archaeologists employed by those organisations</i>
Unison	Unison	138	1604
AUT	Association of University Teachers	44	468
IPMS	Institution of Professionals, Managers and Specialists	23	1838
MSF	Manufacturing Science Finance	9	100
NATFHE	The University and College Lecturers' Union	6	47
TGWU	Trade and General Workers Union	3	12
PCS	Public and Commercial Services Union	2	378
FDA	Association of First Division Civil Servants	2	34
NIPSA	Northern Ireland Public Servants Association	2	20
COLSA	Corporation of London Staff Association	1	35
PTC	Public Service, Tax and Commerce Union [now part of PCS]	1	35
CPSA	Civil and Public Services Association [now part of PCS]	1	12
FSA		1	12
RMT	National Union of Rail, Maritime and Transport Workers	1	4
ACUA		1	3
GMB	GMB	1	2
MPO	Managerial and Professional Officers	1	2
(Total)		(237)	(3002)

The only previous assessment of the level of union membership amongst archaeologists was in the IFA's *Quality of Work/Life Survey* (Reeve 1995). That survey, with a small sample of 70, found that 51% of archaeologists belonged to a union. The unions represented were Unison, IPMS, AUT, MPO, MSF and NATFHE. None of the individuals employed by private firms belonged to a union.

Post profiles

Profiling the Profession received information about the jobs of 2132 archaeologists (75% of all archaeologists for whom organisational data was received, and 49% of the calculated total of all archaeologists in the UK). Of these, 1746 work full-time (see page 30).

We discovered that a huge number of post-titles are used in archaeology. The survey learned of 455 separate titles – one title for every five archaeologists. A full list of post-titles, with the numbers of individuals using those titles, is given in Appendix IV: Post-titles.

Post profiles

We have assumed that many archaeologists are doing similar work in posts with different titles. Therefore, in order to construct profiles of different job types, we have grouped together similar post-titles. This has produced 34 separate post profiles – including three that cover post-titles which did not fit into any other profile. These three extra profiles have been categorised as ‘junior posts’, ‘senior posts’ and ‘other posts’.

An overall profile compiled from data for all archaeologists, regardless of post title, is also provided.

The profiles, with the numbers of archaeologists included in each, are as follows:

■ All archaeologists	2132	■ Finds officer	44
■ Academic staff	211	■ Illustrator	53
■ Administrator	19	■ Inspector	102
■ Archaeological assistant	46	■ Museum archaeologist	122
■ Archaeological officer	35	■ Photographer	15
■ Archaeological scientist	87	■ Planning archaeologist	10
■ Archaeologist	137	■ Project manager	77
■ Assistant archaeologist	17	■ Project officer	105
■ Buildings archaeologist	35	■ Researcher	45
■ Computing officer	12	■ Senior archaeologist	83
■ Conservation archaeologist	14	■ SMR officer	40
■ Conservator	20	■ Supervisor	81
■ Consultant	24	■ Surveyor	23
■ County or regional archaeologist	41	■ Warden	32
■ Director or manager	92		
■ Editor	26	■ Junior posts	98
■ Excavator or site assistant	185	■ Senior posts	52
■ Field officer	49	■ Other posts	150

Reading the information

The profiles are presented with 'text searched for', indicating the way in which the database has been interrogated. For example, in the academic staff profile, the text **academic staff* OR *fellow* OR *lecturer* OR *postgraduate* OR *professor* OR *reader* OR *tutor** has been searched for. The symbol * is a wild card, with the result that post-titles such as *academic staff* and *lecturer* are included, together with *senior lecturer*, *lecturer in archaeology*, and so on.

The figures in these profiles are not all fully consistent, as respondents have not always completed all parts of the questionnaire. For example, information was received about 2132 archaeologists, but the gender was known of only 2106 individuals and their contract lengths were known in only 2101 cases.

Because of this inconsistency of responses, the average full-time salary figure given is often lower than the average figure for all salaries. This information must be treated with caution. We worked out the full-time figures from those respondents who told us the number of hours worked, regarding those who worked 30 hours or more a week as full-time. However, only 1836 respondents provided information about their hours worked, with some of the highest earners not providing the information.

All archaeologists

*Text searched for: **

Individuals:	2132					
Salaries:	Minimum	£1,645	Average	£17,562	Maximum	£58,068
FT Salaries:	Minimum	£4,000	Average	£17,079	Maximum	£58,068
Female:	747	35%	PAYE:	95%		
Male:	1359	65%	Age:	<20	7	
Full-time:	1746	95%		20-30	448	
Part-time:	90	5%		30-40	835	
				40-50	573	
Temporary contract:	707	34%		50-60	210	
Permanent contract:	1394	66%		>60	33	
Estab. funded post:	955	48%	Redundancy Entitlement:	75%		
Project funded post:	1019	52%	Employer pension cont'bn:	71%		

Average salaries by area and category

Table 73: All archaeologists, salaries by category and area

	<i>Consultants</i>	<i>Contractors</i>	<i>Curators</i>	<i>LG others</i>	<i>Universities</i>	<i>Nat htg agencies</i>	<i>Nat museums</i>	<i>Societies</i>
North East		15163	18953	10889	25164			
North West & Mersey	15000	12947	15092	21000	19420	28000	13771	
Yorks & Humber	10750	14080	15763	16845	20282	26000		
East Midlands	13500	13975	15680	20933	18995	28000		
West Midlands	18000		15627	17077	25011	26000		
South West	13967	14249	14985	19657	22549	24000		12500
Eastern	14500	13153	15053	18326	19971			
London		18853	19667		26333	21947		14565
South East	25000	12593	16057	12539	23004	25750		15830
Wales		18178	17442	13850	19823	25319		
Scotland		14608	14587	15699	20163	24822		12014
Northern Ireland		13417			22597	24015	27000	
Channel Islands				25464				
Isle of Man						18000		
Average	14606	14946	15617	14644	21407	22744	18181	14887
Individuals	17	568	420	141	298	330	12	17

	<i>Other commercial</i>	<i>Others</i>	<i>Average</i>	<i>Individuals</i>
North East		19566	17399	105
North West & Mersey	9000	11466	14365	74
Yorks & Humber		18346	17036	199
East Midlands		12480	15997	125
West Midlands	10703	14865	17588	71
South West		17125	15740	274
Eastern		25095	15089	168
London	25633	7401	20776	410
South East	18076	14864	15848	293
Wales		14044	21126	71
Scotland		17283	17279	180
Northern Ireland			22144	42
Channel Islands			25464	1
Isle of Man			18000	2
Average	17189	16998		
Individuals	39	173		

Academic staff

Text searched for: *academic staff* OR *fellow* OR *lecturer* OR *postgraduate* OR *professor* OR *reader* OR *tutor*

Individuals:	211					
Salaries:	Minimum	£3,384	Average	£24,443	Maximum	£50,809
FT Salaries:	Minimum	£16,333	Average	£25,179	Maximum	£32,000
Female:	71	34%	PAYE:	95%		
Male:	140	66%	Age:	<20	0	
Full-time:	77	78%		20–30	14	
Part-time:	22	22%		30–40	60	
				40–50	67	
Temporary contract:	53	27%		50–60	57	
Permanent contract:	143	73%		>60	13	
Estab. funded post:	131	79%	Redundancy entitlement:	86%		
Project funded post:	34	21%	Employer pension cont'bn:	94%		

Average salaries by area and category:

Table 74: Academic staff, salaries by category and area

	Contractors	Universities	Other orgs	Average	Individuals
North East		25419		25419	32
North West & Mersey		23894		23894	22
Yorks & Humber		25350		25350	20
East Midlands		27000		27000	16
West Midlands		27091		27091	22
South West		15000		15000	1
Eastern			3525	3525	1
London	12300	25862		25546	43
South East		18880		18880	20
Wales		22019		22019	3
Scotland		22597		22597	19
Northern Ireland					
Channel Islands					
Isle of Man					
Average	12300	24611	3525		
Individuals	1	197	1		

Administrator

Text searched for: *admin* OR *clerical* OR *secretary*

Individuals:	19					
Salaries:	Minimum	£3,535	Average	£12,834	Maximum	£35,000
FT Salaries:	Minimum	£9,073	Average	£15,352	Maximum	£35,000
Female:	14	74%	PAYE:	100%		
Male:	3	26%	Age:	<20	0	
Full-time:	12	63%		20–30	3	
Part-time:	7	37%		30–40	3	
				40–50	5	
Temporary contract:	7	39%		50–60	6	
Permanent contract:	11	61%		>60	0	
Estab. funded post:	11	61%	Redundancy entitlement:	78%		
Project funded post:	7	39%	Employer pension cont'bn:	79%		

Average salaries by area and category:

Table 75: Administrators, salaries by category and area

	Contractors	Curators	Universities	Societies	Other orgs	Average	Individuals
North East							
North West & Mersey							
Yorks & Humber	13563		11534			12549	2
East Midlands							
West Midlands		5640				5640	1
South West	11982	12189		12500		12210	5
Eastern		11340				11340	3
London				19262	10178	16234	3
South East					12750	12750	2
Wales							
Scotland	15500					15500	2
Northern Ireland							
Channel Islands							
Isle of Man							
Average	14136	10889	11534	17008	11893		
Individuals	4	7	1	3	3		

Note: the questionnaire specifically asked for information regarding the holders of archaeological posts. It is possible that the questionnaire was mis-read, and so this profile may purely relate to non-archaeological support staff. Equally, it is possible that this profile refers to archaeologists who hold positions with an 'administrative title'. For this reason, the profile has been included.

Archaeological assistant

Text searched for: *archaeological assistant*

Individuals:	46					
Salaries:	Minimum	£8,721	Average	£10,603	Maximum	£12,000
FT Salaries:	Minimum	£8,721	Average	£10,505	Maximum	£12,000
Female:	19	41%	PAYE:	96%		
Male:	27	59%	Age:	<20	0	
Full-time:	41	98%		20–30	31	
Part-time:	1	2%		30–40	11	
				40–50	3	
Temporary contract:	40	87%		50–60	1	
Permanent contract:	6	13%		>60	0	
Estab. funded post:	24	52%	Redundancy entitlement:	33%		
Project funded post:	22	48%	Employer pension cont'bn:	33%		

Average salaries by area and category:

Table 76: Archaeological assistants, salaries by category and area

	<i>Contractors</i>	<i>Curators</i>	<i>Universities</i>	<i>Nat museums</i>	<i>Other commercial</i>	<i>Other orgs</i>	Average	<i>Individuals</i>
North East								
North West & Mersey				9500		10000	9700	5
Yorks & Humber								
East Midlands		8721	11250				10744	5
West Midlands					10703		10703	6
South West	10400	10822				12000	10531	25
Eastern								
London								
South East		12000				10000	11500	4
Wales								
Scotland						12000	12000	1
Northern Ireland								
Channel Islands								
Isle of Man								
Average	10400	11001	11250	9500	10703	10800		
Individuals	20	8	4	3	6	5		

Archaeological officer

Text searched for: *archaeological officer* OR *archaeology officer*

Individuals:	35					
Salaries:	Minimum	£13,920	Average	£17,776	Maximum	£25,464
FT Salaries:	Minimum	£13,920	Average	£17,438	Maximum	£25,300
Female:	11	31%	PAYE:	97%		
Male:	24	69%	Age:	<20	0	
Full-time:	32	97%		20–30	3	
Part-time:	1	3%		30–40	9	
				40–50	17	
Temporary contract:	1	3%		50–60	6	
Permanent contract:	34	97%		>60	0	
Estab. funded post:	26	96%	Redundancy entitlement:	94%		
Project funded post:	1	4%	Employer pension cont'bn:	97%		

Average salaries by area and category:

Table 77: Archaeological officers, salaries by category and area

	Curators	LG other	Other orgs	Average	Individuals
North East	25300		14384	19842	2
North West & Mersey	18425			18425	1
Yorks & Humber					
East Midlands	17746			17746	4
West Midlands	18000		13920	15960	2
South West	21389	18500	17333	20000	5
Eastern	17737	19000		17917	7
London					
South East	14708			14708	9
Wales	20000			20000	1
Scotland	22333			22333	1
Northern Ireland					
Channel Islands		25464		25464	1
Isle of Man					
Average	17704	20988	15212		
Individuals	27	3	3		

Archaeological scientist

Text searched for: archaeobotanist OR archaeometallurgist OR archaeometrist OR archaeozoologist OR dendrochronologist OR *environ* (NOT historic environment) OR faunal analyst OR human bone specialist OR human skeletal biologist OR *lab* OR palaeopathologist OR palynologist OR *scien* OR *technician*

Individuals:	87					
Salaries:	Minimum	£7,402	Average	£17,438	Maximum	£36,000
FT Salaries:	Minimum	£10,279	Average	£19,236	Maximum	£36,000
Female:	41	51%	PAYE:	99%		
Male:	39	49%	Age:	<20	2	
Full-time:	62	95%		20–30	19	
Part-time:	3	5%		30–40	28	
				40–50	24	
Temporary contract:	31	36%		50–60	7	
Permanent contract:	56	64%		>60	0	
Estab. funded post:	56	64%	Redundancy entitlement:	76%		
Project funded post:	31	36%	Employer pension cont'bn:	67%		

Average salaries by area and category:

Table 78: Archaeological scientists, salaries by category and area

	<i>Contractors</i>	<i>Curators</i>	<i>Universities</i>	<i>Nat htg agencies</i>	<i>Other orgs</i>	Average	<i>Individuals</i>
North East	13488				16000	14744	2
North West & Mersey			16073	28000		22037	2
Yorks & Humber	16950		17035			17011	7
East Midlands			13167			13167	3
West Midlands				26000		26000	1
South West	15815					15815	2
Eastern		13086				13086	7
London		19700		24200		20771	42
South East	13347		11000	28000		14770	7
Wales			22785			22785	1
Scotland	17701	7402				9977	12
Northern Ireland							
Channel Islands							
Isle of Man							
Average	15459	16430	15461	24923	16000		
Individuals	12	48	12	13	1		

Archaeologist

Text searched for: archaeologist* OR *field archaeologist (NOT county*), excluding posts included in other profiles

Individuals:	137					
Salaries:	Minimum	£6,500	Average	£16,848	Maximum	£30,000
FT Salaries:	Minimum	£11,000	Average	£16,751	Maximum	£26,500
Female:	48	35%	PAYE:	96%		
Male:	89	65%	Age:	<20	0	
Full-time:	126	98%		20–30	32	
Part-time:	3	2%		30–40	64	
				40–50	32	
Temporary contract:	20	15%		50–60	6	
Permanent contract:	113	85%		>60	3	
Estab. funded post:	67	51%	Redundancy entitlement:	83%		
Project funded post:	65	49%	Employer pension cont'bn:	82%		

Average salaries by area and category:

Table 79: Archaeologists, salaries by category and area

	<i>Contractors</i>	<i>Curators</i>	<i>Universities</i>	<i>Nat htg agencies</i>	<i>Other commercial</i>	<i>Other orgs</i>	Average	<i>Individuals</i>
North East		21000					21000	1
North West & Mersey		21332					21332	1
Yorks & Humber	13086	15642				20000	15221	20
East Midlands	13700	22500					14580	10
West Midlands						20313	20313	1
South West	14687	14693				17500	14868	16
Eastern		23428					23428	2
London	15895			19000			18319	41
South East	11200	18655			16026	19950	15314	21
Wales		16566	30000				25522	3
Scotland	13750	18870	16045			21000	17292	17
Northern Ireland								
Channel Islands								
Isle of Man								
Average	13887	15979	21627	19000	16026	19753		
Individuals	34	44	5	32	13	5		

Assistant archaeologist*Text searched for:* assistant archaeologist

Individuals:	17					
Salaries:	Minimum	£10,858	Average	£13,204	Maximum	£15,500
FT Salaries:	Minimum	£11,658	Average	£13,565	Maximum	£15,500
Female:	10	59%	PAYE:	94%		
Male:	7	41%	Age:	<20	0	
Full-time:	14	88%		20–30	7	
Part-time:	2	12%		30–40	7	
				40–50	2	
Temporary contract:	6	38%		50–60	1	
Permanent contract:	10	62%		>60	0	
Estab. funded post:	11	69%	Redundancy entitlement:	63%		
Project funded post:	5	31%	Employer pension cont'bn:	76%		

Average salaries by area and category:

Table 80: Assistant archaeologists, salaries by category and area

	2	3	10	Average	<i>Individuals</i>
North East			14500	14500	2
North West & Mersey					
Yorks & Humber	11658			11658	3
East Midlands	14500			14500	1
West Midlands		12635		12635	1
South West		15409	12973	13948	5
Eastern					
London					
South East		10858		10858	2
Wales					
Scotland		15500		15500	1
Northern Ireland					
Channel Islands					
Isle of Man					
Average	12368	13445	13584		
Individuals	4	6	5		

Buildings archaeologist

Text searched for: *building*, not included elsewhere

Individuals:	35					
Salaries:	Minimum	£12,037	Average	£23,905	Maximum	£26,000
FT Salaries:	Minimum	£12,037	Average	£23,905	Maximum	£26,000
Female:	12	34%	PAYE:	100%		
Male:	23	66%	Age:	<20	0	
Full-time:	35	100%		20–30	0	
Part-time:	0	0%		30–40	20	
				40–50	13	
Temporary contract:	2	6%		50–60	2	
Permanent contract:	33	94%		>60	0	
Estab. funded post:	30	88%	Redundancy entitlement:		100%	
Project funded post:	4	12%	Employer pension cont'bn:		91%	

Average salaries by area and category:

Table 81: Buildings archaeologists, salaries by category and area

	Contractors	Nat htg agencies	Other commercial	Other orgs	Average	Individuals
North East						
North West & Mersey						
Yorks & Humber	16815			16000	16408	2
East Midlands						
West Midlands						
South West						
Eastern						
London	16070	25276	21667		24588	32
South East	17046				17046	1
Wales						
Scotland						
Northern Ireland						
Channel Islands						
Isle of Man						
Average	16500	25276	21667	16000		
Individuals	4	29	1	1		

Computing officer

Text searched for: *comput* OR *information sys*

Individuals:	12					
Salaries:	Minimum	£11,100	Average	£15,918	Maximum	£26,000
FT Salaries:	Minimum	£11,100	Average	£15,918	Maximum	£26,000
Female:	4	36%	PAYE:	100%		
Male:	7	64%				
Full-time:	12	100%	Age:	<20	0	
Part-time:	0	0%		20-30	3	
				30-40	6	
				40-50	2	
Temporary contract:	1	8%		50-60	0	
Permanent contract:	11	92%		>60	0	
Estab. funded post:	6	67%	Redundancy entitlement:		92%	
Project funded post:	3	33%	Employer pension cont'bn:		92%	

Average salaries by area and category:

Table 82: Computing officers, salaries by category and area

	Contractors	Curators	Universities	Nat htg agencies	Other orgs	Average	Individuals
North East							
North West & Mersey							
Yorks & Humber					18000	18000	2
East Midlands	11100					11100	2
West Midlands							
South West							
Eastern		16815				16815	1
London				16500		16500	6
South East							
Wales			17000			17000	1
Scotland							
Northern Ireland							
Channel Islands							
Isle of Man							
Average	11100	16815	17000	16500	18000		
Individuals	2	1	1	6	2		

Conservation archaeologist

Text searched for: *conservation*

Individuals:	14					
Salaries:	Minimum	£12,500	Average	£19,287	Maximum	£26,000
FT Salaries:	Minimum	£12,500	Average	£18,450	Maximum	£26,000
Female:	6	43%	PAYE:	100%		
Male:	8	57%	Age:	<20	0	
Full-time:	11	85%		20-30	1	
Part-time:	2	5%		30-40	6	
				40-50	5	
Temporary contract:	0	0%		50-60	2	
Permanent contract:	14	100%		>60	0	
Estab. funded post:	10	100%	Redundancy entitlement:	100%		
Project funded post:	0	0%	Employer pension cont'bn:	100%		

Average salaries by area and category:

Table 83: Conservation archaeologists, salaries by category and area

	Contractors	Curators	LG other	Nat htg agencies	Other commercial	Other orgs	Average	Individuals
North East		25761					25761	2
North West & Mersey		20919					20919	1
Yorks & Humber	18667	17892				23000	19069	5
East Midlands								
West Midlands								
South West								
Eastern								
London				26000			26000	1
South East			14368		20000	27500	15467	4
Wales						14368	14368	1
Scotland								
Northern Ireland								
Channel Islands								
Isle of Man								
Average	18667	21020	14368	26000	20000	23092		
Individuals	1	6	1	1	1	4		

Conservator

Text searched for: *conservator*

Individuals:	20					
Salaries:	Minimum	£10,000	Average	£16,004	Maximum	£19,310
FT Salaries:	Minimum	£12,000	Average	£16,379	Maximum	£19,310
Female:	13	68%	PAYE:	85%		
Male:	6	32%	Age:	<20	0	
Full-time:	17	94%		20-30	1	
Part-time:	1	6%		30-40	5	
				40-50	8	
Temporary contract:	3	17%		50-60	4	
Permanent contract:	15	83%		>60	1	
Estab. funded post:	11	73%	Redundancy entitlement:			78%
Project funded post:	4	27%	Employer pension cont'bn:			74%

Average salaries by area and category:

Table 84: Conservators, salaries by category and area

	Consults	Contractrs	Curators	LG other	Nat htg agencies	Societies	Other orgs	Average	Individuals
North East									
North West & Mersey									
Yorks & Humber		15500					18000	16750	6
East Midlands									
West Midlands									
South West	12000		12635					12212	3
Eastern									
London			19310		17667			18488	6
South East				16000		10000	14000	13333	3
Wales									
Scotland									
Northern Ireland									
Channel Islands									
Isle of Man									
Average	12000	15500	17641	16000	17667	10000	17000		
Individuals	2	3	4	1	3	1	4		

Consultant

Text searched for: *consultant*

Individuals:	24					
Salaries:	Minimum	£9,000	Average	£16,546	Maximum	£22,000
FT Salaries:	Minimum	£9,000	Average	£17,052	Maximum	£22,000
Female:	7	29%	PAYE:	50%		
Male:	17	81%	Age:	<20	0	
Full-time:	14	88%		20-30	2	
Part-time:	2	12%		30-40	7	
				40-50	6	
Temporary contract:	6	30%		50-60	7	
Permanent contract:	14	70%		>60	2	
Estab. funded post:	5	36%	Redundancy entitlement:		53%	
Project funded post:	9	64%	Employer pension cont'bn:		41%	

Average salaries by area and category:

Table 85: Consultants, salaries by category and area

	<i>Consultants</i>	<i>Contractors</i>	<i>Curators</i>	<i>Other commercial</i>	Average	<i>Individuals</i>
North East	15000			9000	12000	2
North West & Mersey						
Yorks & Humber						
East Midlands	15000				15000	1
West Midlands	18000				18000	1
South West	22000	10000	16000		16000	3
Eastern						
London		22000		19833	20555	3
South East		18266		12500	16344	6
Wales						
Scotland						
Northern Ireland						
Channel Islands						
Isle of Man						
Average	17500	17511	16000	14733		
Individuals	4	6	1	5		

County or regional archaeologist

Text searched for: *borough* OR *city archaeologist* OR *county* OR *district archaeologist* OR *regional*.

Individuals:	41					
Salaries:	Minimum	£15,759	Average	£20,570	Maximum	£30,795
FT Salaries:	Minimum	£15,759	Average	£20,928	Maximum	£30,795
Female:	11	27%	PAYE:	98%		
Male:	30	73%	Age:	<20	0	
				20–30	1	
Full-time:	37	97%		30–40	17	
Part-time:	1	3%		40–50	17	
				50–60	6	
Temporary contract:	2	5%		>60	0	
Permanent contract:	37	95%				
Estab. funded post:	39	95%	Redundancy entitlement:	98%		
Project funded post:	2	5%	Employer pension cont'bn:	98%		

Average salaries by area and category:

Table 86: County or regional archaeologists, salaries by category and area

	Curators	LG other	Other orgs	Average	Individuals
North East	18908		17866	18560	3
North West & Mersey	21952			21952	3
Yorks & Humber					
East Midlands					
West Midlands	19648		27306	21180	5
South West	24528			20590	15
Eastern	30795			30795	1
London					
South East	22137	19395		20570	7
Wales	15759			15759	1
Scotland	23918			23918	1
Northern Ireland					
Channel Islands					
Isle of Man					
Average	24547	19395	20331		
Individuals	17	4	15		

Director or manager

Text searched for: *director* OR *manager* (NOT *assist* OR *deput* OR *project*)

Individuals:	92					
Salaries:	Minimum	£4,000	Average	£22,245	Maximum	£42,000
FT Salaries:	Minimum	£4,000	Average	£22,629	Maximum	£42,000
Female:	23	25%	PAYE:	82%		
Male:	69	75%	Age:	<20	0	
Full-time:	78	99%		20–30	7	
Part-time:	1	1%		30–40	24	
				40–50	39	
Temporary contract:	26	29%		50–60	19	
Permanent contract:	64	71%		>60	3	
Estab. funded post:	31	36%	Redundancy entitlement:	71%		
Project funded post:	55	64%	Employer pension cont'bn:	63%		

Note: the low salaries of some managing directors of limited companies may be explained by the fact that the 'salary', in strict accounting terms, may form only one part of the reward package, which may also include dividends and other benefits.

Average salaries by area and category:

Table 87: Directors or managers, salaries by category and area

	Consultants	Contractors	Curators	Universities	Nat htg agencies	Nat museums	Societies	Other commercial
North East								
North West & Mersey						15000		
Yorks & Humber		16591	18425	27000				
East Midlands			21599					
West Midlands			20384					
South West		25093	22000	16666				
Eastern	4000	20254	27324					
London		27229			20500			30000
South East	25000	16023	22978				15375	34000
Wales		27183						
Scotland		20978	22323	29380			13000	
Northern Ireland		14250			36510			
Channel Islands								
Isle of Man						18000		
Average	11000	21670	22806	24349	25837	17000	14583	32000
Individuals	3	35	14	3	3	3	3	4

	<i>Other orgs</i>	<i>Average</i>	<i>Individuals</i>
North East	33600	33600	1
North West & Mersey		15000	1
Yorks & Humber	24013	21395	18
East Midlands	21000	21399	3
West Midlands	16000	18192	4
South West		23653	8
Eastern		18371	6
London		26509	11
South East	24667	22826	11
Wales		27183	1
Scotland		21275	15
Northern Ireland		21670	3
Channel Islands			
Isle of Man		18000	2
Average	23504		
Individuals	16		

Editor

*Text searched for: *editor* OR *publication**

Individuals:	26					
Salaries:	Minimum	£2,800	Average	£17,764	Maximum	£28,000
FT Salaries:	Minimum	£14,803	Average	£17,752	Maximum	£23,000
Female:	19	73%	PAYE:	92%		
Male:	5	27%	Age:	<20	0	
Full-time:	16	75%		20-30	1	
Part-time:	4	25%		30-40	10	
				40-50	10	
Temporary contract:	10	38%		50-60	3	
Permanent contract:	16	62%		>60	1	
Estab. funded post:	9	39%	Redundancy entitlement:	88%		
Project funded post:	14	61%	Employer pension cont'bn:	58%		

Average salaries by area and category:

Table 88: Editors, salaries by category and area

	<i>Consultants</i>	<i>Contractors</i>	<i>Curators</i>	<i>LG other</i>	<i>Universities</i>	<i>Nat htg agencies</i>	<i>Societies</i>	<i>Other orgs</i>
North East		15000						
North West & Mersey								
Yorks & Humber					18531			18200
East Midlands								
West Midlands								
South West	2800		6507					
Eastern			17625					28000
London						19000		8500
South East		16273		14803				9000
Wales								
Scotland							11027	
Northern Ireland								
Channel Islands								
Isle of Man								
Average	2800	15849	12066	14803	18531	19000	11027	20708
Individuals	1	3	2	1	2	4	1	12

	<i>Average</i>	<i>Individuals</i>
North East	15000	1
North West & Mersey		
Yorks & Humber	18294	7
East Midlands		
West Midlands		
South West	4654	2
Eastern	26271	6
London	16900	5
South East	14087	4
Wales		
Scotland	11027	1
Northern Ireland		
Channel Islands		
Isle of Man		
Average		
Individuals		

Excavator or site assistant

Text searched for: *excavator* OR *site assistant*

Individuals:	185					
Salaries:	Minimum	£8,000	Average	£10,094	Maximum	£11,417
FT Salaries:	Minimum	£8,000	Average	£10,094	Maximum	£11,417
Female:	58	31%	PAYE:	99%		
Male:	126	69%	Age:	<20	3	
Full-time:	124	100%		20–30	89	
Part-time:	0	0%		30–40	70	
				40–50	20	
Temporary contract:	125	73%		50–60	2	
Permanent contract:	46	27%		>60	0	
Estab. funded post:	15	8%	Redundancy entitlement:		50%	
Project funded post:	169	92%	Employer pension cont'bn:		42%	

Average salaries by area and category:

Table 89: Excavators or site assistants, salaries by category and area

	<i>Contractors</i>	<i>Curators</i>	<i>LG other</i>	<i>Other orgs</i>	Average	<i>Individuals</i>
North East			8690		8690	29
North West & Mersey		10953			10953	7
Yorks & Humber	10106				10106	9
East Midlands	9360				9360	3
West Midlands		10200		10953	10577	4
South West	10446	10428			10437	23
Eastern	10746	11222			11006	22
London						
South East	10353				10353	27
Wales						
Scotland						
Northern Ireland						
Channel Islands						
Isle of Man						
Average	10350	10826	8690	10953		
Individuals	61	32	29	2		

Field officer

Text searched for: *field officer*

Individuals:	49					
Salaries:	Minimum	£12,500	Average	£15,054	Maximum	£19,000
FT Salaries:	Minimum	£12,500	Average	£15,264	Maximum	£19,000
Female:	13	27%	PAYE:	100%		
Male:	36	73%	Age:	<20	0	
Full-time:	41	98%		20–30	21	
Part-time:	1	2%		30–40	21	
				40–50	7	
Temporary contract:	27	55%		50–60	0	
Permanent contract:	22	45%		>60	0	
Estab. funded post:	1	2%	Redundancy entitlement:		81%	
Project funded post:	42	98%	Employer pension cont'bn:		55%	

Average salaries by area and category:

Table 90: Field officers, salaries by category and area

	Contractors	Curators	Universities	Other orgs	Average	Individuals
North East			17000		17000	1
North West & Mersey	14500	14796			14559	5
Yorks & Humber	13000		16000	19000	16600	15
East Midlands	13000	15652	12500		14067	9
West Midlands		12500		16298	15349	4
South West	15000				15000	1
Eastern						
London	13600				13600	5
South East	17046	16422			16630	3
Wales						
Scotland	12994				12994	6
Northern Ireland						
Channel Islands						
Isle of Man						
Average	13653	15343	15333	18099		
Individuals	23	8	9	9		

Finds officer

Text searched for: *artefact* OR *brick* OR *ceramic* OR *coin* OR *finds* OR *pottery*

Individuals:	44					
Salaries:	Minimum	£3,500	Average	£14,292	Maximum	£26,000
FT Salaries:	Minimum	£10,667	Average	£14,966	Maximum	£26,000
Female:	27	73%	PAYE:	89%		
Male:	16	27%	Age:	<20	0	
Full-time:	37	95%		20–30	5	
Part-time:	2	5%		30–40	19	
				40–50	15	
Temporary contract:	9	25%		50–60	2	
Permanent contract:	27	75%		>60	2	
Estab. funded post:	12	34%	Redundancy entitlement:	86%		
Project funded post:	23	66%	Employer pension cont'bn:	68%		

Average salaries by area and category:

Table 91: Finds officers, salaries by category and area

	Consults	Contractrs	Curators	LG other	Universities	Nat htg agencies	Other orgs	Average	Individuals
North East			13563					13563	4
North West & Mersey									
Yorks & Humber	3500		11050				18500	15178	9
East Midlands	12000	11700	15572		12500			13631	7
West Midlands									
South West		13154	12192					12769	5
Eastern			16658					16658	4
London						17000		17000	2
South East		13459	13563	14803				13591	11
Wales									
Scotland									
Northern Ireland									
Channel Islands									
Isle of Man									
Average	7750	13253	14228	14803	12500	17000	18500		
Individuals	2	13	16	1	2	2	6		

Illustrator

Text searched for: *design* OR *drafts* OR *draughts* OR *graphic* (NOT stratigraphic) OR *illustrator*

Individuals:	53					
Salaries:	Minimum	£8,017	Average	£14,753	Maximum	£19,000
FT Salaries:	Minimum	£8,655	Average	£14,866	Maximum	£19,000
Female:	23	43%	PAYE:	98%		
Male :	30	57%	Age:	<20	0	
Full-time:	49	98%		20-30	6	
Part-time:	1	2%		30-40	26	
				40-50	15	
Temporary contract:	6	11%		50-60	6	
Permanent contract:	47	89%		>60	0	
Estab. funded post:	14	30%	Redundancy entitlement:	87%		
Project funded post:	32	70%	Employer pension cont'bn:	81%		

Average salaries by area and category:

Table 92: Illustrators, salaries by category and area

	Contractors	Curators	LG other	Universities	Nat hgtg agencies	Other orgs	Average	Individuals
North East		13800					13800	1
North West & Mersey	15000	13563					14282	2
Yorks & Humber	14213					18000	16107	10
East Midlands	11700						11700	1
West Midlands		13106		12500		12281	12666	7
South West	14471	12345					13560	7
Eastern		15684					15684	4
London	16202				16022		16127	12
South East	13062	13197	11649			13000	12861	6
Wales	17319						17319	1
Scotland	17701						17701	1
Northern Ireland								
Channel Islands								
Isle of Man								
Average	15009	13775	11649	12500	16022	15538		
Individuals	22	14	1	1	5	9		

Inspector

Text searched for: *insp*

Individuals:	102					
Salaries:	Minimum	£16,679	Average	£27,586	Maximum	£58,086
FT Salaries:	Minimum	£16,679	Average	£27,586	Maximum	£58,086
Female:	32	31%	PAYE:	100%		
Male:	70	69%	Age:	<20	0	
Full-time:	102	100%		20-30	2	
Part-time:	0	0%		30-40	41	
				40-50	48	
Temporary contract:	4	4%		50-60	11	
Permanent contract:	96	96%		>60	0	
Estab. funded post:	102	100%	Redundancy entitlement:		96%	
Project funded post:	0	0%	Employer pension cont'bn:		99%	

Average salaries by area and category:

Table 93: Inspectors, salaries by category and area

	<i>Nat htg agencies</i>	Average	<i>Individuals</i>
North East			
North West & Mersey			
Yorks & Humber			
East Midlands			
West Midlands			
South West			
Eastern			
London	26563	26563	71
South East			
Wales	41558	41558	6
Scotland	28139	28139	20
Northern Ireland	23131	23131	5
Channel Islands			
Isle of Man			
Average	27586		
Individuals	102		

Museum archaeologist

Text searched for: *collection* OR *curator* OR *keeper* OR *museum*

Individuals:	122					
Salaries:	Minimum	£4,000	Average	£17,717	Maximum	£34,000
FT Salaries:	Minimum	£10,000	Average	£18,170	Maximum	£34,000
Female:	46	39%	PAYE:	98%		
Male:	72	61%	Age:	<20	0	
Full-time:	103	94%		20–30	11	
Part-time:	7	6%		30–40	37	
				40–50	47	
Temporary contract:	17	14%		50–60	21	
Permanent contract:	102	86%		>60	2	
Estab. funded post:	95	86%	Redundancy entitlement:	96%		
Project funded post:	16	14%	Employer pension cont'bn:	93%		

Average salaries by area and category:

Table 94: Museum archaeologists, salaries by category and area

	Consultants	Contractors	Curators	LG other	Universities	Nat htg agencies	Nat museums	Societies
North East			16267	14200				
North West & Mersey				21000	32359		16667	
Yorks & Humber	18000			18553	16008			
East Midlands			14018	20933				
West Midlands				18027				
South West				20236				
Eastern	25000			19773	25000			
London					26333			
South East				13112				11600
Wales		21357		13850	19000			
Scotland				17049	17667	18631		
Northern Ireland						16806	27000	
Channel Islands								
Isle of Man						18000		
Average	22667	21357	14580	16466	21819	18128	22571	11600
Individuals	3	1	8	47	9	17	7	1

	<i>Other orgs</i>	Average	<i>Individuals</i>
North East	24667	15977	20
North West & Mersey	11766	17332	8
Yorks & Humber		15175	7
East Midlands		15747	8
West Midlands		18027	5
South West	21857	21209	5
Eastern	17834	17025	12
London		26333	1
South East	15143	14020	14
Wales	13719	13237	6
Scotland		18176	16
Northern Ireland		21903	8
Channel Islands			
Isle of Man		18000	2
Average	17382		
Individuals	19		

Photographer

Text searched for: *photo*

Individuals:	15					
Salaries:	Minimum	£6,714	Average	£15,079	Maximum	£21,896
FT Salaries:	Minimum	£12,800	Average	£16,560	Maximum	£21,896
Female:	4	29%	PAYE:	93%		
Male:	10	71%	Age:	<20	0	
Full-time:	11	85%		20–30	3	
Part-time:	2	15%		30–40	6	
				40–50	4	
Temporary contract:	1	8%		50–60	1	
Permanent contract:	11	92%		>60	0	
Estab. funded post:	9	75%	Redundancy entitlement:	86%		
Project funded post:	3	25%	Employer pension cont'bn:	79%		

Average salaries by area and category:

Table 95: Photographers, salaries by category and area

	Contractors	Curators	Nat htg agencies	Average	Individuals
North East					
North West & Mersey					
Yorks & Humber					
East Midlands	15264			15264	1
West Midlands					
South West	8997			8997	3
Eastern		18180		18180	1
London	21896		15800	17542	7
South East					
Wales			12800	12800	1
Scotland					
Northern Ireland					
Channel Islands					
Isle of Man					
Average	14341	18180	15300		
Individuals	6	1	6		

Note: this category includes photographic interpretation posts.

Planning archaeologist

Text searched for: *development control* OR *planning*

Individuals:	10					
Salaries:	Minimum	£12,310	Average	£17,096	Maximum	£24,510
FT Salaries:	Minimum	£14,855	Average	£18,134	Maximum	£24,510
Female:	2	22%	PAYE:	100%		
Male:	7	78%	Age:	<20	0	
Full-time:	8	89%		20–30	1	
Part-time:	1	11%		30–40	6	
				40–50	1	
Temporary contract:	4	40%		50–60	1	
Permanent contract:	6	60%		>60	0	
Estab. funded post:	6	60%	Redundancy entitlement:	89%		
Project funded post:	4	40%	Employer pension cont'bn:	100%		

Average salaries by area and category:

Table 96: Planning archaeologists, salaries by category and area

	Contractors	Curators	Universities	Other orgs	Average	Individuals
North East						
North West & Mersey		17581			17581	3
Yorks & Humber						
East Midlands						
West Midlands		21172			21172	2
South West		19380		12310	15845	2
Eastern		13581	14885		14233	2
London						
South East						
Wales	15723				15723	1
Scotland						
Northern Ireland						
Channel Islands						
Isle of Man						
Average	15723	18292	14885	12310		
Individuals	1	7	1	1		

Project manager

Text searched for: *project manager* OR *projects manager*

Individuals:	77					
Salaries:	Minimum	£14,000	Average	£19,069	Maximum	£23,996
FT Salaries:	Minimum	£14,000	Average	£19,434	Maximum	£23,996
Female:	16	21%	PAYE:	100%		
Male:	61	79%	Age:	<20	0	
Full-time:	65	100%		20-30	2	
Part-time:	0	0%		30-40	45	
				40-50	27	
Temporary contract:	23	30%		50-60	3	
Permanent contract:	54	70%		>60	0	
Estab. funded post:	11	14%	Redundancy entitlement:	81%		
Project funded post:	66	86%	Employer pension cont'bn:	72%		

Average salaries by area and category:

Table 97: Project managers, salaries by category and area

	Contractors	Curators	Universities	Nat htg agencies	Other commercial	Other orgs	Average	Individuals
North East								
North West & Mersey								
Yorks & Humber						18000	18000	3
East Midlands	14250						14250	3
West Midlands						14000	14000	1
South West	19478	17938	14000				18884	17
Eastern	17420	18413					18165	12
London	23525			19000			23242	16
South East	15783				15000		15609	9
Wales	20922						20922	2
Scotland	18693						18693	7
Northern Ireland								
Channel Islands								
Isle of Man								
Average	19686	18294	14000	19000	15000	17000		
Individuals	50	12	1	1	2	4		

Project officer

Text searched for: *project officer*

Individuals:	105					
Salaries:	Minimum	£10,617	Average	£15,018	Maximum	£21,250
FT Salaries:	Minimum	£10,617	Average	£15,060	Maximum	£21,250
Female:	33	32%	PAYE:	96%		
Male:	69	68%	Age:	<20	0	
Full-time:	100	100%		20-30	20	
Part-time:	0	0%		30-40	61	
				40-50	19	
Temporary contract:	43	43%		50-60	2	
Permanent contract:	58	57%		>60	0	
Estab. funded post:	21	20%	Redundancy entitlement:	75%		
Project funded post:	83	80%	Employer pension cont'bn:	77%		

Average salaries by area and category:

Table 98: Project officers, salaries by category and area

	Contractors	Curators	LG other	Universities	Other orgs	Average	Individuals
North East		17600				17600	1
North West & Mersey		16111			13500	14806	2
Yorks & Humber	13600			16927	19125	17232	7
East Midlands	18000	12630		15500	13500	15792	9
West Midlands							
South West	14630	15851				14905	31
Eastern	14316	14943				14780	27
London	15306					15306	2
South East	12000		13226			12613	4
Wales	14713					14713	3
Scotland	15866	10617				14655	13
Northern Ireland							
Channel Islands							
Isle of Man							
Average	14904	14788	13226	15785	17250		
Individuals	53	33	2	5	6		

Researcher

Text searched for: *research*, not included elsewhere

Individuals:	45					
Salaries:	Minimum	£1,645	Average	£15,652	Maximum	£28,375
FT Salaries:	Minimum	£13,563	Average	£14,533	Maximum	£26,000
Female:	18	40%	PAYE:	93%		
Male:	27	60%	Age:	<20	0	
Full-time:	30	91%		20–30	19	
Part-time:	3	9%		30–40	21	
				40–50	4	
Temporary contract:	25	61%		50–60	1	
Permanent contract:	16	39%		>60	0	
Estab. funded post:	11	24%	Redundancy entitlement:		56%	
Project funded post:	34	76%	Employer pension cont'bn:		82%	

Average salaries by area and category:

Table 99: Researchers, salaries by category and area

	Consultants	Contractors	Curators	Universities	Nat htg agencies	Average	Individuals
North East							
North West & Mersey							
Yorks & Humber		1645		18000		14729	5
East Midlands							
West Midlands							
South West	15000		7137	14000		13021	13
Eastern			13563			13563	16
London					21333	21333	3
South East				21841		21841	6
Wales							
Scotland			24675			24675	2
Northern Ireland							
Channel Islands							
Isle of Man							
Average	15000	1645	14032	17152	21333		
Individuals	1	1	20	20	3		

Senior archaeologist*Text searched for: senior archaeologist**

Individuals:	83					
Salaries:	Minimum	£10,000	Average	£19,098	Maximum	£25,000
FT Salaries:	Minimum	£10,000	Average	£19,098	Maximum	£25,000
Female:	20	24%	PAYE:	95%		
Male:	63	76%	Age:	<20	0	
Full-time:	82	100%		20–30	4	
Part-time:	0	0%		30–40	54	
				40–50	20	
Temporary contract:	1	1%		50–60	4	
Permanent contract:	82	99%		>60	1	
Estab. funded post:	18	22%	Redundancy entitlement:	99%		
Project funded post:	64	78%	Employer pension cont'bn:	65%		

Average salaries by category and area:

Table 100: Senior archaeologists, salaries by category and area

	<i>Contractors</i>	<i>Curators</i>	<i>LG other</i>	<i>Universities</i>	<i>Nat htg agencies</i>	Average	<i>Individuals</i>
North East							
North West & Mersey		16815				16815	3
Yorks & Humber		20263				20263	1
East Midlands	19500					19500	4
West Midlands				16700		16700	1
South West		17481				17481	7
Eastern		18425				18425	2
London	19343					19343	53
South East	11850	20668	18598		25000	19709	7
Wales							
Scotland	18000	23186				19729	3
Northern Ireland							
Channel Islands							
Isle of Man							
Average	19064	18252	18598	16700	25000		
Individuals	61	15	1	1	3		

SMR officer

Text searched for: *record* OR *SMR*

Individuals:	40					
Salaries:	Minimum	£9,140	Average	£14,837	Maximum	£20,000
FT Salaries:	Minimum	£9,140	Average	£14,834	Maximum	£20,000
Female:	18	45%	PAYE:	100%		
Male:	22	55%	Age:	<20	0	
Full-time:	36	92%		20–30	9	
Part-time:	3	8%		30–40	21	
				40–50	8	
Temporary contract:	8	21%		50–60	2	
Permanent contract:	31	79%		>60	0	
Estab. funded post:	30	75%	Redundancy entitlement:	82%		
Project funded post:	10	25%	Employer pension cont'bn:	83%		

Average salaries by area and category:

Table 101: SMR officers, salaries by category and area

	Contractors	Curators	LG other	Nat htg agencies	Nat museums	Other orgs	Average	Individuals
North East		14921					14921	3
North West & Mersey		20000			16667		18334	2
Yorks & Humber	16815	14373	14897				15681	6
East Midlands		15943					15943	2
West Midlands		15235					15235	2
South West		13719				11982	12200	8
Eastern								
London				15278			15278	10
South East		17985	13902				15263	3
Wales	14337			15142			14874	3
Scotland								
Northern Ireland								
Channel Islands								
Isle of Man								
Average	16196	15631	14233	15255	16667	11982		
Individuals	4	12	3	12	1	7		

Supervisor

Text searched for: *archaeological supervisor* OR assistant supervisor* OR *project supervisor* OR *site supervisor* OR supervisor

Individuals:	81					
Salaries:	Minimum	£10,313	Average	£12,905	Maximum	£16,250
FT Salaries:	Minimum	£10,313	Average	£12,830	Maximum	£16,111
Female:	19	43%	PAYE:	96%		
Male:	62	57%	Age:	<20	2	
Full-time:	71	100%		20-30	33	
Part-time:	0	0%		30-40	34	
				40-50	12	
Temporary contract:	39	53%		50-60	0	
Permanent contract:	35	47%		<60	0	
Estab. funded post:	12	15%	Redundancy entitlement:	53%		
Project funded post:	69	85%	Employer pension cont'bn:	38%		

Average salaries by area and category:

Table 102: Supervisors, salaries by category and area

	Contractors	Curators	LG other	Universities	Societies	Other orgs	Average	Individuals
North East		11937					11937	3
North West & Mersey								
Yorks & Humber		16111					16111	1
East Midlands	13600			11750			13095	22
West Midlands		12300				11761	11940	3
South West	11880						11880	15
Eastern	12587	13192					12943	17
London								
South East	13598				15000		13980	11
Wales								
Scotland			13233				13233	4
Northern Ireland								
Channel Islands								
Isle of Man								
Average	12885	13076	13233	11750	15000	11761		
Individuals	46	15	4	6	3	2		

Surveyor

Text searched for: *geophys* OR *survey*

Individuals:	23					
Salaries:	Minimum	£12,171	Average	£18,164	Maximum	£28,000
FT Salaries:	Minimum	£12,171	Average	£18,164	Maximum	£28,000
Female:	5	22%	PAYE:	100%		
Male:	18	78%	Age:	<20	0	
Full-time:	23	100%		20–30	3	
Part-time:	0	0%		30–40	13	
				40–50	5	
Temporary contract:	7	21%		50–60	1	
Permanent contract:	26	79%		<60	1	
Estab. funded post:	11	48%	Redundancy entitlement:	74%		
Project funded post:	12	52%	Employer pension cont'bn:	83%		

Average salaries by area and category:

Table 103: Surveyors, salaries by category and area

	Contractors	Curators	LG other	Universities	Nat htg agencies	Other orgs	Average	Individuals
North East								
North West & Mersey				21515			21515	1
Yorks & Humber	14226						14226	2
East Midlands					28000		28000	1
West Midlands		15196					15196	1
South West						14920	14920	2
Eastern								
London	18920				18222		18471	14
South East			18000				18000	1
Wales								
Scotland								
Northern Ireland								
Channel Islands								
Isle of Man								
Average	17579	15196	18000	21515	19200	14920		
Individuals	7	1	1	1	10	2		

Warden*Text searched for: *warden**

Individuals:	32					
Salaries:	Minimum	£13,500	Average	£14,977	Maximum	£15,142
FT Salaries:	Minimum	£13,500	Average	£14,937	Maximum	£15,000
Female:	24	75%	PAYE:	100%		
Male:	8	25%	Age:	<20	0	
Full-time:	26	81%		20–30	1	
Part-time:	6	19%		30–40	25	
				40–50	5	
Temporary contract:	1	4%		50–60	0	
Permanent contract:	26	96%		>60	1	
Estab. funded post:	31	97%	Redundancy entitlement:		97%	
Project funded post:	1	3%	Employer pension cont'bn:		100%	

Average salaries by area and category:

Table 104: Wardens, salaries by category and area

	<i>Nat htg agencies</i>	<i>Other orgs</i>	Average	<i>Individuals</i>
North East				
North West & Mersey				
Yorks & Humber				
East Midlands				
West Midlands				
South West		14210	14210	2
Eastern				
London	15000		15000	23
South East				
Wales				
Scotland	15142		15142	6
Northern Ireland				
Channel Islands				
Isle of Man				
Average	15029	14210		
Individuals	29	2		

Junior posts

Text searched for: these are posts that did not fit into any of the other categories, but which have titles implying junior rank, including components such as 'assistant', 'student', etc.

Individuals:	98					
Salaries:	Minimum	£8,517	Average	£11,252	Maximum	£20,103
FT Salaries:	Minimum	£8,550	Average	£11,395	Maximum	£20,103
Female:	33	34%	PAYE:	93%		
Male:	63	66%	Age:	<20	0	
Full-time:	86	96%		20-30	52	
Part-time:	4	4%		30-40	29	
				40-50	9	
Temporary contract:	58	59%		50-60	5	
Permanent contract:	40	41%		>60	1	
Estab. funded post:	12	12%	Redundancy entitlement:	24%		
Project funded post:	85	88%	Employer pension cont'bn:	36%		

Average salaries by area and category:

Table 105: Junior posts, salaries by category and area

	Contractrs	Curators	LG other	Univsties	Nat htg agencies	Societies	Other orgs	Average	Individuals
North East	12000							12000	1
North West & Mersey	11000	11018						11003	14
Yorks & Humber	9602		11959				12000	11594	6
East Midlands		12171						12171	2
West Midlands									
South West							16252	16252	3
Eastern		11860	12000					11872	12
London					14000	9867		12347	5
South East	10640	12500	10487	16000				10808	47
Wales	11641							11641	1
Scotland		10023						10023	7
Northern Ireland									
Channel Islands									
Isle of Man									
Average	10866	11423	10574	16000	14000	9867	13822		
Individuals	25	26	34	1	3	2	7		

Senior posts

Text searched for: these are posts that did not fit into any other category, but which have titles implying seniority, including components such as 'senior', 'principal', 'head' etc.

Individuals:	52					
Salaries:	Minimum	£10,810	Average	£23,289	Maximum	£42,000
FT Salaries:	Minimum	£10,810	Average	£23,448	Maximum	£42,000
Female:	13	25%	PAYE:	73%		
Male:	38	75%	Age:	<20	0	
Full-time:	36	100%		20-30	1	
Part-time:	0	0%		30-40	10	
				40-50	29	
Temporary contract:	3	6%		50-60	9	
Permanent contract:	44	94%		>60	2	
Estab. funded post:	24	53%	Redundancy entitlement:	79%		
Project funded post:	21	47%	Employer pension cont'bn:	74%		

Average salaries by area and category:

Table 106: Senior posts, salaries by category and area

	<i>Contractrs</i>	<i>Curators</i>	<i>LG other</i>	<i>Nat htg agencies</i>	<i>Societies</i>	<i>Other commercl</i>	<i>Other orgs</i>	Average	<i>Individuals</i>
North East	20000		25000				10810	18603	3
North West & Mersey	26000							26000	1
Yorks & Humber	19690			26000			25000	22014	5
East Midlands									
West Midlands							13997	13997	1
South West	20000	21860		24500			26779	23000	10
Eastern		21714						21714	2
London				33072		30000		32304	8
South East		25157	17666		20925	23167		21729	8
Wales	24594							24594	1
Scotland	12000		17985					13995	3
Northern Ireland									
Channel Islands									
Isle of Man									
Average	19366	22648	19579	30382	20925	26583	20676		
Individuals	10	8	4	9	2	4	5		

Other posts

Text searched for: these are posts that did not fit into any of the other categories, and did not have titles that could be fitted into either the 'senior posts' or 'junior posts' categories.

Individuals:	150					
Salaries:	Minimum	£3,384	Average	£16,501	Maximum	£33,392
FT Salaries:	Minimum	£9,300	Average	£17,198	Maximum	£33,392
Female:	48	32%	PAYE:	95%		
Male:	101	68%	Age:	<20	0	
Full-time:	130	93%		20–30	46	
Part-time:	10	7%		30–40	52	
				40–50	37	
Temporary contract:	77	53%		50–60	13	
Permanent contract:	69	47%		>60	1	
Estab. funded post:	68	52%	Redundancy entitlement:	61%		
Project funded post:	64	48%	Employer pension cont'bn:	54%		

Average salaries by area and category:

Table 107: Other posts, salaries by category and area

	<i>Consultants</i>	<i>Contractors</i>	<i>Curators</i>	<i>LG other</i>	<i>Universities</i>	<i>Nat htg agencies</i>	<i>Societies</i>	<i>Other commercial</i>
North East			21000					
North West & Mersey					13576			
Yorks & Humber		15517			16631			
East Midlands					21400			
West Midlands				12327	14000			
South West	20000	22361	17180			23000		
Eastern				15300				
London		11569				21615		25000
South East		14570	13264		9333		19100	
Wales						25000		
Scotland		10902		16786	20196	25016		
Northern Ireland		13000				30937		
Channel Islands								
Isle of Man								
Average	20000	12467	16607	15300	14390	24242	19100	25000
Individuals	1	55	7	4	16	37	1	3

	<i>Other orgs</i>	<i>Average</i>	<i>Individuals</i>
North East		21000	1
North West & Mersey		13576	2
Yorks & Humber	12769	14481	18
East Midlands	9300	14140	5
West Midlands		13164	2
South West		19867	9
Eastern		15300	1
London		17899	27
South East	11500	11600	12
Wales		25000	11
Scotland	18066	14805	44
Northern Ireland		20687	7
Channel Islands			
Isle of Man			
Average	12612		
Individuals	15		

Methodology

Summary

A questionnaire was circulated to 1290 organisations (the mailing list was determined from a variety of sources – see below) and follow-up phone calls were made to those organisations that did not respond. The questionnaire was sent to as wide a range of potential employers as possible, ranging from local societies to central government departments. In all, 790 questionnaires were returned, including 168 duplicates and 5 explicit refusals to provide information.

Of the 617 useable returns, 349 organisations (57%) do employ archaeologists, and 268 (43%) do not. We believe that the coverage of organisations that do employ archaeologists is effectively complete.

All of the questionnaire responses were being treated in the strictest confidence. The database is designed so that entries in the archive can only be identified by the region of the UK where the organisation is based and by the type of organisation. It will be impossible to use the archive to connect the data with the organisation that provided it.

The questionnaire

Questionnaires used in similar, previous surveys (see Appendix III: Previous surveys) were examined and their strengths and weaknesses were considered in the design of the questionnaire for this study.

The questionnaire was composed of a covering letter, questions relating to the organisation and questions about archaeological jobs in that organisation. This sheet could then be photocopied as many times as required. The questionnaire was accompanied by a pre-paid reply envelope.

The full questionnaire is included as Appendix II: The questionnaire.

The questionnaire asked for data as it applied to the organisations on 16th March 1998, and this study must therefore be seen as a snapshot of the archaeological profession in the UK on that date.

The mailing list

All organisations in the UK that could potentially employ archaeologists were compiled to form the initial mailing list.

Digital, online and printed sources were used to build the mailing list (see below). A number of individuals also contributed some names and addresses that were not picked up elsewhere. As the project progressed, the mailing list was updated. Questionnaires were sent to all organisations on the list, including those added through updating. The final mailing list held the addresses of 1290 organisations.

Where known, the questionnaire was addressed to the senior archaeologist or head of department within that organisation. Where the name of that individual was not known, it was simply addressed to 'The Senior Archaeologist'.

It is possible that the mailing list may not be complete; some new organisations may have formed, some addresses may have changed, and some organisations may not have been identified in any of the sources

used. However, we believe that the coverage of organisations employing archaeologists is effectively as complete as possible.

Data sources used to compile the mailing list

(a) Digital Sources

English Heritage database

EH mailing list

IFA databases

IFA members' work addresses

archaeological organisations listed in the *IFA Yearbook*

CBA databases

CBA mailing list

organisational members of CBA

subscribers to the *British and Irish Archaeological Bibliography*

Landward Archaeology database

Archaeological Employment in Scotland

British Telecom CD-ROM

(b) Online Sources

Directory of British Archaeology (Current Archaeology)

<http://www.archaeology.co.uk/direct/dhome.htm>

Archaeological Resource Guide Europe – UK

<http://www.bham.ac.uk/ARGE/Countries/UK.html>

British Archaeology on the Internet (University of Durham)

<http://www.dur.ac.uk/Archaeology/BritArch/>

UK Archaeology on the Internet (Trent and Peak Archaeological Trust)

<http://www.ccc.nottingham.ac.uk/~aczkdc/ukarch/ukindex.html>

Archaiologia

<http://www.archaiol.force9.co.uk/contract.htm>

assemblage-info

<http://www.shef.ac.uk/~assem/2/2info.html>

britarch mailing list, including responses to a posting calling for participants
other WWW searches

(c) Printed Sources

The Archaeologist

Council for Scottish Archaeology mailing lists

Handbook for British and Irish Archaeology

IFA Jobs Information Service

IFA Yearbook

IPMS survey results

Promotional material distributed at the ABC (Archaeology in Britain Conference) 1997

Scottish Archaeological News

Data collection

Three weeks after the initial posting, a series of face-to-face interviews were arranged. These meetings did not prove to be fruitful in gathering data, as they served little purpose other than to remind respondents to complete their questionnaires. Only rarely was a completed questionnaire taken away from the meeting.

From five weeks after the initial posting, follow-up telephone calls were made to organisations that had not responded. At that point, 475 returns had been received (representing 37% of the total posted). Phone calls continued to be made over the next eight weeks; and a number of respondents asked to be sent new copies of the questionnaire. On a date 15 weeks after the questionnaires had been originally mailed the survey was effectively closed and any further questionnaires returned were not incorporated into the statistics. At this point 790 questionnaires had been received (61% of those posted).

Haralambos & Holborn (1990, 729) note that postal questionnaires rarely receive responses above 50% and can frequently receive below 25%.

Level of response

The organisations were divided into 10 categories, to ease data processing. An explanation of how these categories were defined can be found in Chapter 1: Organisations (page 1).

The numbers of each of these types of organisations who were contacted, and the numbers who returned their questionnaires, were as follows:

Table 108: Questionnaire returns

	<i>Contacted</i>	<i>Returned questionnaires</i>	<i>%</i>
Independent consultants or specialists	162	71	44
Archaeological contractors	120	82	68
Local government – curators	159	125	79
Local government – others	92	57	62
University archaeology departments and research groups	161	98	61
National heritage agencies and royal commissions	48	48	100
National museums	20	9	45
Archaeological societies	187	98	52
Other commercial organisations	118	74	63
Other organisations	234	139	59
Total	1290	790	61

The proportion of National Museums responding was particularly low because the individual departments of the British Museum were mailed separately. The Museum responded centrally.

Refining the database

The responses were then categorised by whether the responding organisation paid archaeologists or not.

168 questionnaires were identified as being duplicates (when more than one copy of the questionnaire had been sent to the same organisation) and a very small number of explicit refusals were made (by phone or by post).

In all, 617 useable questionnaires were received, from 349 organisations that employ archaeologists and 268 that do not. The responses of these organisations can be analysed, by category, as follows:

Table 109: Questionnaire responses

	<i>Total number of responses</i>	<i>Numbers of duplicate questionnaires</i>	<i>Refusals to answer</i>	<i>Organisations that pay archaeologists</i>	<i>Organisations that do not pay archaeologists</i>
Independent consultants or specialists	71	13	0	48	10
Archaeological contractors	71	16	1	51	3
Local government – curators	125	35	1	72	17
Local government – others	57	7	0	38	12
University archaeology departments and research groups	98	27	0	47	24
National heritage agencies and royal commissions	48	20	0	9	19
National museums	9	4	0	4	1
Archaeological societies	98	15	0	13	70
Other commercial organisations	74	4	1	16	53
Other organisations	139	27	2	51	59
Total	790	168	5	349	268

Some of these responses require explanation.

The high proportion of archaeological societies that do not pay archaeologists can be explained by the fact that most are purely amateur organisations.

The numbers of curatorial departments that do not employ archaeologists may reflect the number of local authorities with no archaeological representation.

The numbers of ‘university archaeology departments and research groups’ that do not employ archaeologists reflect the research groups that do not employ archaeologists separately from the parent university.

The three archaeological contractors that do not pay archaeologists include two newly established businesses which may not have begun to pay salaries at the time of the questionnaire and one company that has ceased trading since receiving the questionnaire.

The numbers of national heritage agencies not employing archaeologists reflects the fact that questionnaires were sent to all regional branches of the former RCHME. Responses were collated centrally and returned on a single form.

Completeness of the response

Through the questionnaire, some respondents chose not to answer particular questions on occasion. It is not the case that all 349 positively-responding organisations answered every question. The number of respondents to each particular question is noted throughout this survey where those responses were discussed.

APPENDIX II

The questionnaire

The following pages are the complete text of the questionnaire and covering letter as they were posted to the organisations on the project mailing list.

Profiling the Profession



This questionnaire is designed to obtain information relating to jobs within archaeology at present.

Please complete the questionnaire with information that applied to your organisation on 16th March 1998.

1 organisational structure

please tick one box that best describes your organisation's structural basis.

central government	Y	
local government	Y	
university	Y	
private [charity / trust / company]	Y	
other [please specify] _____	Y	a

2 services provided

please tick all the services that your organisation provides.

research	Y	a
teaching	Y	b
archaeological fieldwork	Y	c
archaeological resource management	Y	d
underwater archaeology	Y	e
aerial archaeology	Y	f
historic building recording	Y	g
documentary research	Y	h
project management	Y	i
planning authority advice	Y	j
museum curatorial	Y	k
interpretation to the public	Y	l
post-excavation analysis	Y	m
post-excavation conservation	Y	n
illustration	Y	o
publishing	Y	p
preparation of archaeological archives	Y	q
other [please specify] _____	Y	r

3 archaeological staff

does your organisation employ paid archaeological staff ?

yes Y no Y a

"archaeological staff" can be a difficult term to define - please consider it to refer to anyone working directly with physical archaeological remains, data, or the management of the archaeological resource.

Here, and below, questions relate to staff employed by the organisation. Some organisations take on self-employed individuals for particular projects, rather than directly employing them. Please consider these people to be members of staff and include them in all responses.

If YES, please continue. If NO, please return the questionnaire to LANDWARD ARCHAEOLOGY using the pre-paid envelope and accept our thanks for your time.

4 number of staff

please indicate how many members of staff your organisation has.

archaeological staff	_____	a
non-archaeological support staff	_____	b
total staff	_____	c

5 employee benefits

do employees of the organisation receive paid holiday leave ?

yes Y no Y a

if yes, please give details _____
_____ b

do employees of the organisation receive paid sickness leave ?

yes Y no Y Statutory Sick Pay Y c

if yes, please give details _____
_____ d

do employees of the organisation receive paid maternity leave ?

yes Y no Y e

if yes, how many weeks ? _____ f

do employees of the organisation receive paid paternity leave ?

yes Y no Y g

if yes, how many working days ? _____ h

does the organisation provide employees with subsidised accommodation or subsistence allowance ?

yes Y no Y i

if yes, please give details _____
_____ j

please give details of any other employee benefits which the organisation provides

[e.g. reimbursement of IFA subscriptions] _____

_____ k

6 salary scales

are salaries within the organisation tied to any scale system ?

yes Y no Y a

If yes, then please indicate the type of scale system in use.

civil service	Y	
local authority	Y	
university	Y	
other [please specify]	Y	b

7 Trades Unions

is there a recognised Trades Union in the organisation's workplace ?

yes Y no Y a

if yes, which Union is this ?

AUT (Association of University Teachers) Y
 IPMS (Institute of Professionals, Managers and Specialists) Y
 MSF (Manufacturing, Science and Finance) Y
 Unison Y
 other [please specify] _____ Y b

for what is the Union recognised ? _____

 _____ c

8 past and future staff numbers

please indicate how the numbers of members of staff have changed over the last few years and how you anticipate staff numbers to change in the near future

how did the numbers employed by the organisation **one year ago (1997)** compare with the present ? [circle **more** if there were more employees one year ago *etc.*]
 more the same fewer unknown not trading a

how did the numbers employed by the organisation **three years ago (1995)** compare with the present ?
 more the same fewer unknown not trading b

how did the numbers employed by the organisation **five years ago (1993)** compare with the present ?
 more the same fewer unknown not trading c

how do you anticipate the numbers employed by the organisation **one year in the future (1999)** to compare with the present ? [circle **more** if you anticipate there being more employees in one year's time *etc.*]
 more the same fewer unknown d

how do you anticipate the numbers employed by the organisation **three years in the future (1999)** to compare with the present ?
 more the same fewer unknown e

9 unpaid or voluntary archaeologists

does the organisation welcome the involvement of unpaid or voluntary archaeologists (whether working for free or receiving expenses) ?

yes Y no Y a

If yes, please indicate approximately how many individuals contributed in this way in the last 12 months. _____ b

please give details of the organisation's policy and the roles of these individuals.

_____ c

10 consultants / specialists

has the organisation used the services of outside archaeological consultants or specialists in the last 12 months ?

yes Y no Y a

if yes, approximately how many consultants or specialists has the organisation used the services of ? _____ b

what services has the organisation sought from them ? _____

_____ c

11 further comments

if you have any further comments about any aspect of archaeological employment in the UK, please make them below.

_____ a

Please now complete question 12 on the separate A4 sheet

Profiling the Profession

12 archaeological jobs



please complete this sheet for each job title within the organisation.
note that while each entry relates to a particular type of post, this may well relate to a number of individuals.

please photocopy this sheet as many times as required

post title	_____	a
number of individuals employed in this post (total)	_____	b
number of individuals employed in this post by age and gender	female male	
	aged under 20	_____ c _____ d
	aged 20 - 29	_____ e _____ f
	aged 30 - 39	_____ g _____ h
	aged 40 - 49	_____ i _____ j
	aged 50 - 59	_____ k _____ l
	aged 60 and over	_____ m _____ n
gross salary scale	minimum	_____ o
	maximum	_____ p
	average	_____ q
does this include any weighting allowance? how much ?	yes Y no Y	r
	minimum	_____ s
	maximum	_____ t
is income tax deducted at source as PAYE ? [please complete in terms of numbers of individuals]	average	_____ u
	yes	_____ v
contracted hours per week	no	_____ w
	minimum	_____ x
length of contract [please complete in terms of numbers of individuals]	maximum	_____ y
	average	_____ z
	up to 3 months	_____ aa
	between 3 and 6 months	_____ bb
	between 6 and 12 months	_____ cc
	up to 24 months	_____ dd
length of employment to date [please complete in terms of numbers of individuals]	more than 24 months	_____ ee
	permanent / open ended	_____ ff
	up to 3 months	_____ gg
	between 3 and 6 months	_____ hh
	between 6 and 12 months	_____ ii
does the organisation offer more than the statutory minimum notice period of one week per year of employment ?	up to 24 months	_____ jj
	more than 24 months	_____ kk
if yes , how much notice entitlement is offered ?	yes Y no Y	ll
	_____	mm
how many of these posts are funded by establishment income or by project grants / contracts? [please complete in terms of numbers of individuals]	_____	nn
	establishment	_____ oo
how many of these people are entitled to redundancy payments ? [please complete in terms of numbers of individuals]	project	_____
	yes	_____ pp
	no	_____ qq
does the organisation contribute to their pension ? [please complete in terms of numbers of individuals]	yes	_____ rr
	no	_____ ss

APPENDIX III

Previous surveys

Since the 1970s, there have been a series of surveys relating to different aspects of archaeological employment carried out by different organisations. None was either as broad-ranging or as detailed as *Profiling the Profession*.

RESCUE surveys

RESCUE conducted surveys of archaeologists in the UK in 1978/79 (Dennis 1979), 1986/87 (Plouviez 1988), 1990/91 (Spoerry 1992), and 1995/96 (preliminary results published as Spoerry 1997).

These surveys covered a slightly more restricted range of professional archaeologists than *Profiling the Profession*, concentrating on ‘... those bodies that can be described as actively involved in rescue archaeology’ (Spoerry 1992, 1). This meant that academic departments without consultancy services, museums, and most other organisations that could not be described as curators or contractors were not canvassed. No responses from Northern Ireland were received. The surveys also examined the funding of rescue archaeology.

Spoerry (1992) was the most detailed survey of archaeological employment published to date. In it, 137 organisations were canvassed, with an 80% response rate. Details of numbers of staff and pay levels were received from most of these organisations.

Salaries have only been examined in the two most recent surveys. Pay levels were broken down by bands, rather than actual figures, in Spoerry (1992).

The numbers of professional archaeologists calculated by these surveys to have been working in Britain can be summarised as follows:

Table 110: RESCUE survey results

<i>Date of survey</i>	<i>Numbers of professional archaeologists calculated</i>	<i>Survey and published date</i>
1976–77	1221	Dennis, 1979
1977–78	1594	Dennis, 1979
1978–79	1614	Dennis, 1979
1986–87	2900	Spoerry 1992, calculated from Plouviez 1988
1990–91	2200	Spoerry 1992
1995–96	2100	Spoerry 1997

These figures suggest there was a rise in the numbers employed in rescue archaeology through the 1970s and 1980s. The numbers subsequently fell away, following the ending of Manpower Services Commission funding of archaeological posts in the late 1980s and the onset of recession in 1990.

IFA equal opportunities surveys

Three surveys have been carried out by the IFA on equal opportunities. The first of these was conducted by the IFA's Equal Opportunities Working Party with the report published as *Women in Archaeology* (Morris 1992). This study contacted 194 organisations, and received returns from 58%, providing details about 1682 archaeologists. Information on pay received in this study was, like the RESCUE surveys, broken down by bands.

The IFA published the results of a *Quality of Work/Life Survey* in 1995 (Reeve 1995). This survey received responses from 70 individuals (about 10% of those canvassed) at the TAG 1994 and ABC 1995 conferences. This was a very detailed survey, covering job titles, salaries, contracts, pensions and union membership, which raised many of the issues that *Profiling the Profession* hopes to address, although *Profiling the Profession* approached organisations rather than individuals and so was not able to ask the detailed questions about lifestyle that this survey had.

The Equal Opportunities Committee of the IFA was carrying out another survey at the time of this report's preparation, and it has not yet been published. We are grateful to Rachel Edwards and Peter Hinton of the IFA for access to the raw data received. 2180 copies of a personal questionnaire were sent to individuals, with a response rate of 20%, 210 copies of a separate student questionnaire were distributed with 31% returned, and 487 questionnaires were sent to employers with 34% returned.

This questionnaire covered a variety of issues. For comparison with *Profiling the Profession*, the relevant topics include gender, contracts, length of service and salaries.

IFA Jobs Information Service studies

An annual series of studies of the advertised jobs reported in the IFA's Jobs Information Service has been carried out for the last five years (Aitchison & Anderson 1995; Turner 1996, 1997, 1998). These surveys create an overview of advertised posts from 1993–97, including details of salaries and conditions. The samples have been relatively small, owing to the paucity of junior fieldwork jobs advertised in the press. However, as the figures relate to controlled samples over a number of years, they have proved useful for *Profiling the Profession* (page 102).

OutWage, a pay survey carried out by James Drummond-Murray and Kevin Wooldridge, was incorporated into the publication of the Report and Recommendations of the Archaeological Employment in Britain Working Party (Schaaf 1996). It largely relates to posts advertised in the Jobs Information Service in 1994/95, and incorporates comparisons of archaeological salaries with the national average wage.

IFA Practitioner survey

Moloney (1998) was a survey of IFA Practitioners which concentrated on the profile of the IFA and general career issues, but which also included a section on job profiles.

Archaeological employment in Scotland

A survey of archaeological employment in Scotland has been published by the CSA (Aitchison 1997). This was a straightforward head-count of archaeologists in Scotland, asking for few further details. It was conducted by telephone and email. 37 organisations were contacted, all of which co-operated. The survey produced an estimate of 250 archaeologists working in Scotland.

IPMS survey

The IPMS (the Institute of Professionals, Managers and Specialists) has recently conducted a *Survey of Archaeologists' Pay and Conditions* (results unpublished). The response rate was poor for this very detailed survey. This questionnaire proved primarily useful in influencing the questionnaire design for *Profiling the Profession*.

Advertised posts

The jobs advertised in the IFA's Jobs Information Service (JIS) have been studied for the past six years (Aitchison & Anderson 1995; Turner 1996, 1997, 1998, 1999). The JIS monitors archaeological jobs advertised in national and specialist media.

In the studies, these advertisements were used to examine starting salaries in archaeological posts. Where a salary range was given, the minimum point was used for analysis, in line with normal public sector policy (Aitchison & Anderson 1995, 7). The average starting salaries rose by 26% between 1993 and 1998, from £10,776 to £13,554, but remained almost static between 1994 and 1997. In that time national average earnings rose by 21% (no figures are available for national average starting salaries).

It must be emphasised that these starting salaries do not, generally, cover very junior or temporary posts, which are often not formally advertised.

The numbers of posts advertised annually remained between 130 and 180 over the period. In total, over six years 924 posts were advertised. In 1998, 148 posts were advertised – representing an annual turnover of 3%.

Table 111: Advertised salaries and national average earnings

	<i>Jobs advertised</i>	<i>Advertised starting salaries</i>	<i>National average salaries</i>
1993	134	10766	16523
1994	152	12666	16982
1995	150	12228	17560
1996	154	12620	18338
1997	176	12327	19167
1998	148	13554	20048

APPENDIX IV

Post titles

Below is the full list of 455 separate archaeological post titles extracted from the returned questionnaires, with a reference to the post profile in which each has been included (see Chapter 4).

<i>Post title</i>	<i>Individuals</i>	<i>Profile title</i>	<i>Post title</i>	<i>Individuals</i>	<i>Profile title</i>
Academic director	1	Director or manager	Archaeological development control assistant	1	Planning archaeologist
Academic editors	4	Editor	Archaeological director	2	Director or manager
Academic staff	38	Academic staff	Archaeological draughtperson	1	Illustrator
Administration assistant	2	Administrator	Archaeological excavator	1	Excavator or site assistant
Administration officer	2	Administrator	Archaeological field officer	4	Field officer
Administrative assistant	1	Administrator	Archaeological field worker	1	Other posts
Administrative officer	2	Administrator	Archaeological illustrator	10	Illustrator
Administrator	4	Administrator	Archaeological illustrator (assistant)	1	Illustrator
Aerial photographer	1	Photographer	Archaeological illustrator (senior)	1	Illustrator
Air photograph interpreters	2	Photographer	Archaeological interpretation officer	1	Other posts
Air photography officer	1	Photographer	Archaeological keeper	1	Museum archaeologist
Antiquities conservator / museum consultant	1	Conservator	Archaeological manager	3	Director or manager
Archaeology and planning officer	1	Planning archaeologist	Archaeological officer	18	Archaeological officer
Archaeobotanist	1	Archaeological scientist	Archaeological officer & curator SMR	1	SMR officer
Archaeogeophysicist	2	Surveyor	Archaeological officer (development control)	1	Planning archaeologist
Archaeological adviser	2	Other posts	Archaeological photographer	1	Photographer
Archaeological and social history registrar	1	Senior posts	Archaeological project director	1	Director or manager
Archaeological assistant	45	Archaeological assistant	Archaeological project manager	5	Project manager
Archaeological assistant (SMR officer)	1	SMR officer	Archaeological project officer	9	Project officer
Archaeological conservation assistant	1	Conservation archaeologist	Archaeological records officer	4	SMR officer
Archaeological conservation officer	2	Conservation archaeologist	Archaeological scientist	1	Archaeological scientist
Archaeological conservator	9	Conservator	Archaeological service manager	1	Director or manager
Archaeological consultant	9	Consultant			
Archaeological consultant / contractor	2	Consultant			
Archaeological course co-ordinator fte	1	Other posts			

<i>Post title</i>	<i>Individuals</i>	<i>Profile title</i>	<i>Post title</i>	<i>Individuals</i>	<i>Profile title</i>
Archaeological site supervisor	4	Supervisor	Assistant archaeological advisor	2	Junior posts
Archaeological staff	8	Junior posts	Assistant archaeological field officer	1	Field officer
Archaeological supervisor	13	Supervisor	Assistant archaeologist	17	Assistant archaeologist
Archaeological supervisors	6	Supervisor	Assistant archaeologist / illustrator	1	Illustrator
Archaeological support officer	4	Other posts	Assistant archaeology officer	1	Archaeological officer
Archaeological team leader	1	Senior posts	Assistant commissions manager	1	Other posts
Archaeological technician	8	Archaeological scientist	Assistant county archaeologist	5	County or regional archaeologist
Archaeological unit manager	1	Director or manager	Assistant curator	8	Museum archaeologist
Archaeological worker	43	Junior posts	Assistant curator (archaeology)	2	Museum archaeologist
Archaeologist	123	Archaeologist	Assistant director	9	Other posts
Archaeologist & historic buildings consultant	1	Consultant	Assistant director / county field archaeologist	1	County or regional archaeologist
Archaeologist (finds)	4	Finds officer	Assistant editor	1	Editor
Archaeologist (planning)	1	Planning archaeologist	Assistant field archaeologist	1	Archaeologist
Archaeologist (project officer)	1	Project officer	Assistant field officer	3	Field officer
Archaeologist – finds / environmental unit	32	Archaeological scientist	Assistant geophysicist	1	Surveyor
Archaeologist / buildings historian	1	Archaeologist	Assistant head of unit	1	Senior posts
Archaeologist / warden	1	Warden	Assistant historic buildings officer	1	Buildings archaeologist
Archaeologist / administrator	1	Archaeologist	Assistant inspector of ancient monuments	3	Inspector
Archaeologist / warden	1	Warden	Assistant keeper of archaeology	2	Museum archaeologist
Archaeology adviser	4	Other posts	Assistant keeper of local history and archaeology	2	Museum archaeologist
Archaeology advisor	4	Other posts	Assistant keeper: archaeology	2	Museum archaeologist
Archaeology and heritage adviser	1	Other posts	Assistant keepers / site managers	9	Museum archaeologist
Archaeology assistant	6	Junior posts	Assistant landscapes officer	1	Junior posts
Archaeology course manager	1	Director or manager	Assistant manager	3	Other posts
Archaeology keeper	1	Museum archaeologist	Assistant project officer	3	Project officer
Archaeology officer	11	Archaeological officer	Assistant supervisor	5	Supervisor
Archaeology placement student	1	Junior posts	Assistant surveyor	1	Surveyor
Archaeology programme planner	1	Other posts	Assistant to unit manager	1	Other posts
Archaeology projects assistant	1	Junior posts	Associate	1	Senior posts
Archaeology service manager	1	Director or manager	Associate archaeological consultant	4	Consultant
Archaeology unit manager	1	Director or manager	Associate director	1	Director or manager
Archaeometallurgist	1	Archaeological scientist	Boatman	1	Other posts
Archaeozoologist	1	Archaeological scientist	Borough archaeologist	2	County or regional archaeologist
Architect technician	1	Archaeological scientist	Brick and tile specialist	1	Finds officer
Archives assistant	1	Junior posts	Building analyst	3	Buildings archaeologist
Archives officer	2	Other posts	Building recording officer	1	Buildings archaeologist
Archivist	1	Other posts	Building surveyor	4	Surveyor
Artefact researcher	5	Finds officer	Cad operator / illustrator	1	Illustrator
Artefacts manager	2	Finds officer	Cad / reprographics supervisor	1	Illustrator
Artefacts supervisor	2	Finds officer	Cathedral archaeologist	1	Senior posts
Assistant	3	Junior posts			

<i>Post title</i>	<i>Individuals</i>	<i>Profile title</i>	<i>Post title</i>	<i>Individuals</i>	<i>Profile title</i>
Ceramics specialist	3	Finds officer	Curatorial archaeologist (collections)	2	Museum archaeologist
Chief archaeologist	1	Senior posts	Curatorial e	3	Museum archaeologist
Chief insp. Of ancient mon. & historic buildings	1	Inspector	Curatorial f	1	Museum archaeologist
Chief inspector of ancient monuments	1	Inspector	Curatorial officer	2	Museum archaeologist
Chief surveyor	1	Surveyor	Data co-ordinator	1	Other posts
City archaeologist	2	County or regional archaeologist	Data processor	1	Junior posts
Clerical assistant	1	Administrator	Defence heritage consultant	2	Consultant
Coin specialist	1	Finds officer	Demonstrator	4	Other posts
Collections care consultant	1	Museum archaeologist	Demonstrator / technician	2	Archaeological scientist
Collections manager	1	Museum archaeologist	Dendrochronologist	3	Archaeological scientist
Community officer	1	Other posts	Deputy archaeologist	1	Other posts
Company associate	1	Other posts	Deputy curator	2	Museum archaeologist
Company director	1	Director or manager	Deputy director	3	Other posts
Company secretary	1	Administrator	Development control archaeologist	2	Planning archaeologist
Computer operator	2	Computing officer	Development control officer	1	Planning archaeologist
Computer research officer	1	Computing officer	Director	26	Director or manager
Computer supervisor	1	Computing officer	Director of archaeology	1	Director or manager
Computing assistant	2	Computing officer	Director of excavations	2	Director or manager
Computing manager	1	Computing officer	Director / lecturer	1	Director or manager
Computing officer	2	Computing officer	Director / principal field investigator	1	Director or manager
Conservation assistant	1	Conservation archaeologist	Director / project officer	3	Project officer
Conservation manager	1	Conservation archaeologist	Directors	3	Director or manager
Conservation officer	2	Conservation archaeologist	District archaeologist	1	County or regional archaeologist
Conservation team manager	2	Conservation archaeologist	District museums officer	1	Museum archaeologist
Conservator	9	Conservator	Documentation assistant	1	Junior posts
Conservator and field assistant	1	Conservator	Draftsman / building recording	1	Illustrator
Consultant	1	Consultant	Draughtsperson	2	Illustrator
Consultant environmental archaeologist	1	Consultant	Editor	6	Editor
Consultants	2	Consultant	Editorial manager	1	Editor
Contracts manager	1	Director or manager	Editorial staff	5	Editor
Countryside officer	1	Other posts	Education officer	2	Other posts
County archaeological officer	2	County or regional archaeologist	Education officer / lab assistant	1	Archaeological scientist
County archaeologist	14	County or regional archaeologist	Environmental assistant	2	Archaeological scientist
County field archaeologist	2	County or regional archaeologist	Environmental manager	2	Archaeological scientist
Curator	17	Museum archaeologist	Environmental officer	1	Archaeological scientist
Curator – antiquities	1	Museum archaeologist	Environmental scientist	3	Archaeological scientist
Curator / manager	1	Museum archaeologist	Environmental technician	1	Archaeological scientist
Curator archaeology and social history	1	Museum archaeologist	Excavation / information officer	1	Other posts
Curator of archaeological collections	2	Museum archaeologist	Excavation assistant	1	Junior posts
Curator of archaeology	5	Museum archaeologist	Excavation foreman	1	Senior posts
Curator, domestic & personal (rsrch archaeologist)	1	Museum archaeologist	Excavation officer	1	Other posts
			Excavation staff	5	Junior posts
			Excavations director	1	Director or manager
			Excavator	40	Excavator or site assistant
			Experienced archaeologist	10	Other posts
			Experienced excavator	9	Excavator or site assistant

<i>Post title</i>	<i>Individuals</i>	<i>Profile title</i>	<i>Post title</i>	<i>Individuals</i>	<i>Profile title</i>
Faunal analyst	1	Archaeological scientist	Head of historical analysis and research	1	Researcher
Field archaeologist	7	Archaeologist	Head of laboratory	1	Archaeological scientist
Field archaeologist / manager	1	Archaeologist	Head of monuments protection	1	Senior posts
Field manager	2	Director or manager	Head of museum services	1	Museum archaeologist
Field monument warden	29	Warden	Head of public services	1	Senior posts
Field officer	23	Field officer	Head of publications	1	Editor
Field officer (stratigraphy)	1	Field officer	Head of research, curator of ordnance	1	Museum archaeologist
Field officer / research assistant	6	Field officer	Head of services	1	Senior posts
Field officer / senior field officer	6	Field officer	Head of survey	1	Surveyor
Field staff	27	Other posts	Head of technology	1	Senior posts
Field unit manager / unit director	1	Director or manager	Head of unit	1	Senior posts
Field worker	2	Other posts	Heritage programme officer	1	Other posts
Finds administrator	1	Finds officer	Heritage ranger	3	Other posts
Finds and metal working researcher	1	Finds officer	Heritage data manager	1	Director or manager
Finds assistant	7	Finds officer	Historian	3	Other posts
Finds liaison officer	1	Finds officer	Historic buildings adviser	1	Buildings archaeologist
Finds manager	2	Finds officer	Historic buildings architect	26	Buildings archaeologist
Finds officer	1	Finds officer	Historic buildings officer	2	Buildings archaeologist
Finds officers	2	Finds officer	Historic environment records officer	1	SMR officer
Finds researcher	1	Finds officer	Historical researcher	2	Researcher
Finds supervisor	1	Finds officer	Human bone specialist	1	Archaeological scientist
Finds supervisor / administrator	1	Finds officer	Human history officer	1	Other posts
Finds / archive supervisor	1	Finds officer	Human skeletal biologist	1	Archaeological scientist
General secretary	1	Administrator	Humanities / it technician	1	Archaeological scientist
Geophysicist	4	Surveyor	Illustration manager	1	Director or manager
Geophysicist / surveyor	1	Surveyor	Illustrator	14	Illustrator
Graphic artist	4	Illustrator	Illustrator / designer	4	Illustrator
Graphics manager	1	Illustrator	Illustrator / draughtsman	1	Illustrator
Graphics officer	6	Illustrator	Illustrator / finds assistant	1	Finds officer
Graphics / interpretation officer	1	Illustrator	Industrial archaeologist	1	Other posts
Head of archaeological conservation	1	Conservation archaeologist	Information compiler	1	Other posts
Head of archaeology	4	Senior posts	Information officer	1	Other posts
Head of archaeology section	1	Senior posts	Information systems support	2	Computing officer
Head of archaeometry	1	Archaeological scientist	Inspector historic properties	12	Inspector
Head of artefact research	1	Finds officer	Inspector of ancient monuments	34	Inspector
Head of collections and conservation	1	Museum archaeologist	Inspector of historic buildings	39	Inspector
Head of computing	1	Computing officer	Investigator	16	Other posts
Head of conservation	2	Conservation archaeologist	Investigator / curator	10	Museum archaeologist
Head of documentation, collections manager	1	Museum archaeologist	Junior site assistant	3	Excavator or site assistant
Head of education and interpretation	1	Senior posts	Keeper	1	Museum archaeologist
Head of environmental studies	1	Archaeological scientist	Keeper local history and archaeology	1	Museum archaeologist
Head of excavations	1	Senior posts	Keeper of antiquities	1	Museum archaeologist
			Keeper of archaeology	9	Museum archaeologist
			Keeper of archaeology and local history	1	Museum archaeologist
			Keeper of collections	1	Museum archaeologist

<i>Post title</i>	<i>Individuals</i>	<i>Profile title</i>	<i>Post title</i>	<i>Individuals</i>	<i>Profile title</i>
Keeper of field archaeology	6	Museum archaeologist	Principal curator (collections)	1	Museum archaeologist
Keeper of human history	1	Museum archaeologist	Principal curator (keeper archaeology)	1	Museum archaeologist
Landscape historian	1	Other posts	Principal curator – antiquities	1	Museum archaeologist
Lecturer	59	Academic staff	Principal field archaeologist	1	Archaeologist
Lecturer / senior lecturer	19	Academic staff	Principal inspector of ancient monuments	7	Inspector
Lecturer in archaeology	3	Academic staff	Principal keeper of archaeology	1	Museum archaeologist
Lecturer / senior lecturer / professor	20	Academic staff	Principal landscape archaeologist	1	Senior posts
Levels and moors archaeologist	1	Senior posts	Principal lecturer in archaeology	1	Academic staff
Librarian	1	Other posts	Principal officer	1	Senior posts
Manager	10	Director or manager	Principal officer – education	1	Senior posts
Managing director	1	Director or manager	Professional	3	Other posts
Managing editor	2	Editor	Professional assistant (archaeology)	1	Junior posts
Managing / projects director	3	Director or manager	Professor	5	Academic staff
Materials scientist	1	Archaeological scientist	Programme organiser in arch & early mediev. hist.	1	Other posts
Medieval pottery researcher	1	Finds officer	Project archaeologist	7	Other posts
Monuments officer	1	Other posts	Project assistant	14	Junior posts
Museum assistant	4	Museum archaeologist	Project director	10	Director or manager
Museum manager	1	Museum archaeologist	Project finds officer / assistant supervisor	1	Finds officer
Museums archaeologist	1	Museum archaeologist	Project manager	59	Project manager
Museums assistant / archaeologist	1	Museum archaeologist	Project manager / field officer	7	Project manager
Museums curator	2	Museum archaeologist	Project officer	85	Project officer
Museums officer (archaeology)	1	Museum archaeologist	Project researcher	2	Researcher
Office administrator	1	Administrator	Project supervisor	19	Supervisor
Operations manager	2	Director or manager	Projects manager	1	Project manager
Organising tutor / convenor cert. pract. archaeol.	1	Academic staff	Property manager	1	Director or manager
Palaeopathologist	1	Archaeological scientist	Proprietor	1	Senior posts
Palynologist	1	Archaeological scientist	Publication officer	2	Editor
Partner	15	Senior posts	Publications officer	2	Editor
Photogrammetrist	1	Photographer	Reader	4	Academic staff
Photogrammetry operator	3	Photographer	Recording officer	1	SMR officer
Photographer	5	Photographer	Records assistant	3	SMR officer
Planning archaeologist	2	Planning archaeologist	Records manager	1	Director or manager
Planning officer (archaeology)	1	Planning archaeologist	Records officer	1	SMR officer
Portable antiquities officer	2	Other posts	Regional archaeologist	13	County or regional archaeologist
Post excavation / publication manager	1	Editor	Reports editor	1	Editor
Post-excavation assistant	2	Junior posts	Reports manager	1	Director or manager
Postgraduate research assistant	2	Academic staff	Research & technical staff	10	Researcher
Pottery consultant	1	Finds officer	Research assistant	22	Researcher
Principal	1	Senior posts	Research fellow	4	Academic staff
Principal archaeological officer	2	Archaeological officer	Research fellow / assistant	2	Academic staff
Principal archaeologist	10	Senior posts	Research fellow / assistant	12	Academic staff
Principal conservation officer (archaeology)	1	Conservation archaeologist			

<i>Post title</i>	<i>Individuals</i>	<i>Profile title</i>	<i>Post title</i>	<i>Individuals</i>	<i>Profile title</i>
Research fellow / environmental archaeologist	1	Archaeological scientist	Senior project manager	5	Project manager
Research fellow / experimental officer / research asst	10	Academic staff	Senior project officer	4	Project officer
Research manager	1	Director or manager	Senior ship archaeologist	1	Senior posts
Research staff	6	Researcher	Senior ship archaeologist (ship curator)	1	Museum archaeologist
Researcher	2	Researcher	Senior site assistant	8	Excavator or site assistant
Roman pottery researcher	1	Finds officer	Senior surveyor	1	Surveyor
Roman pottery specialist	1	Finds officer	Senior / field officer	3	Field officer
Scientific dating co-ordinator	1	Archaeological scientist	Site assistant	74	Excavator or site assistant
Scientific officer	1	Archaeological scientist	Site director	2	Director or manager
Secretary	3	Administrator	Site supervisor	8	Supervisor
Secretary / research	1	Administrator	SMR administrator	1	SMR officer
Senior archaeological assistant	1	Archaeological assistant	SMR assistant	11	SMR officer
Senior archaeological consultant	2	Consultant	SMR manager	2	SMR officer
Senior archaeological officer	2	Archaeological officer	SMR officer	14	SMR officer
Senior archaeologist	82	Senior archaeologist	Soil scientist	1	Archaeological scientist
Senior archaeologist (principal officer)	1	Senior archaeologist	Staff archaeologist	4	Other posts
Senior conservation and heritage scientist	1	Conservation archaeologist	Staff tutor in archaeology	1	Academic staff
Senior draughtsman	1	Illustrator	Stratigraphic assistant	2	Junior posts
Senior field archaeologist	2	Archaeologist	Student placement	1	Junior posts
Senior field officer	2	Field officer	Supervisor	26	Supervisor
Senior historic buildings officer	1	Buildings archaeologist	Survey officer	2	Surveyor
Senior illustrator	1	Illustrator	Survey photographer	1	Photographer
Senior illustrator / designer	1	Illustrator	Surveyor	3	Surveyor
Senior inspector of historic monuments	5	Inspector	Systems development	1	Other posts
Senior keeper of field archaeology	2	Museum archaeologist	Technical	2	Other posts
Senior keeper of human history	1	Museum archaeologist	Technical director (archaeology)	1	Director or manager
Senior landscape archaeologist	1	Senior posts	Technical support staff	1	Other posts
Senior lecturer	6	Academic staff	Technician	13	Archaeological scientist
Senior lecturer and reader	7	Academic staff	Training director	1	Director or manager
Senior lecturer / head of laboratory	1	Academic staff	Training officer	1	Other posts
Senior project assistant	4	Junior posts	Trust manager	1	Director or manager
			Tutor	16	Academic staff
			Underwater archaeologist	4	Other posts
			Unit assistant director	1	Other posts
			Unit director	2	Director or manager
			Urban archaeology officer	1	Archaeological officer
			Vernacular building surveyor / archaeologist	2	Surveyor
			Warden / archaeologist	1	Warden
			Young archaeologists' club co-ordinator	1	Other posts

APPENDIX V

The law

Statutory instruments referred to in the text

Equal Pay Act 1970

Sex Discrimination Act 1975

Social Security Contributions and Benefits Act 1992

Employment Rights Act 1996

European Directives referred to in the text

European Directive on Working Time 93/104

European Directive on Parental Leave 97/75

Employees' statutory rights

Regardless of the length of an employee's contract, a series of contracts for the same employer constitutes continuous service, and it is on this basis that an employee's entitlement to various statutory protections (and often company benefits) is calculated.

The protections that depend upon length of service are as follows:

<i>Statutory Right / Complaint</i>	<i>Qualifying Period (if any)</i>
Basic maternity leave (14 weeks)	immediate
Equal pay claim	immediate
Itemised pay statement	immediate
Race discrimination	immediate
Sex discrimination	immediate
Time off for antenatal care	immediate
Time off for union duties, public duties or for safety representatives	immediate
Unfair dismissal by reason of pregnancy	immediate
Unfair dismissal (inadmissible reasons)	immediate
Unlawful deduction from wages	immediate
Written reasons for dismissal of a woman dismissed during pregnancy or maternity leave period	immediate
Guarantee pay	1 month
Notice	1 month
Written particulars of employment	1 month
Statutory maternity pay	6 months
Extended maternity leave (up to 40 weeks)	2 years
Redundancy payment	2 years
Time off to look for work	2 years
Unfair dismissal (general)	2 years
Written reasons for dismissal	2 years

(source: IDS 1995, 9)

APPENDIX VI

Government office regions

England

Eastern

Bedfordshire, Cambridgeshire, Essex, Hertfordshire, Luton, Norfolk, Suffolk

East Midlands

Derby, Derbyshire, Leicester, Leicestershire, Lincolnshire, Northamptonshire, Nottinghamshire, Rutland

London

Barking, Barnet, Bexley, Brent, Bromley, Camden, City of London, City of Westminster, Croydon, Ealing, Enfield, Greenwich, Hackney, Hammersmith, Haringey, Harrow, Havering, Hillingdon, Hounslow, Islington, Kensington & Chelsea, Kingston-upon-Thames, Lambeth, Lewisham, Merton, Newham, Redbridge, Richmond-upon-Thames, Southwark, Sutton, Tower Hamlets, Waltham Forest, Wandsworth

Merseyside

North East

Darlington, Durham, Hartlepool, Middlesbrough, Northumberland, Redcar & Cleveland, Stockton-on-Tees, Tyne and Wear MC

North West

Cheshire, Cumbria, Greater Manchester MC, Lancashire

South East

Berkshire, Brighton & Hove, Buckinghamshire, East Sussex, Hampshire, Isle of Wight, Kent, Milton Keynes, Oxfordshire, Portsmouth, Southampton, Surrey, West Sussex

South West

Bath and North East Somerset, Bournemouth, Bristol, Cornwall, Devon, Dorset, Gloucestershire, North Somerset, Poole, Somerset, South Gloucestershire, Swindon, Wiltshire

West Midlands

Hereford & Worcester, Shropshire, Staffordshire, Stoke-on-Trent, Warwickshire, West Midlands MC

Yorkshire and The Humber

East Riding of Yorkshire, Kingston-upon-Hull, North East Lincolnshire, North Lincolnshire, North Yorkshire, South Yorkshire MC, West Yorkshire MC, York

Wales

Conwy, Isle of Anglesey, Blaenau Gwent, Bridgend, Gwynedd, Caerphilly, Cardiff, Ceredigion, Carmarthen-shire, Denbighshire, Flintshire, Merthyr Tydfil, Monmouthshire, Neath Port Talbot, Newport, Pembroke-shire, Powys, Rhonda, Cynon, Taff, Swansea, Torfaen, Vale of Glamorgan, Wrexham

Scotland

Aberdeenshire, Angus, Argyll & Bute, City of Aberdeen, City of Dundee, City of Edinburgh, City of Glasgow, Clackmannanshire, Dumfries & Galloway, East Ayrshire, East Lothian, East Renfrewshire, Falkirk, Fife, Highland, Inverclyde, Midlothian, Moray, North Ayrshire, North Lanarkshire, Orkney Islands, Perthshire & Kinross, Renfrewshire, Shetland Islands, South Ayrshire, South Lanarkshire, Stirling, West Dunbartonshire, West Lothian, Western Isles

APPENDIX VII

OPCS classification

Below are details of the group of professional occupations in which archaeology is classified by the Office of Populations, Censuses and Surveys (OPCS).

MINOR GROUP 29

PROFESSIONAL OCCUPATIONS NEC [NOT ELSEWHERE CATEGORISED]

Workers in this minor group perform a variety of professional occupations not elsewhere classified in MAJOR GROUP 2: Professional occupations.

Occupations in this minor group were classified into the following unit groups:

290 PSYCHOLOGISTS

291 OTHER SOCIAL AND BEHAVIOURAL SCIENTISTS

292 CLERGY

293 SOCIAL WORKERS, PROBATION OFFICERS

291 OTHER SOCIAL AND BEHAVIOURAL SCIENTISTS

Other social and behavioural scientists study the origin, structure and characteristics of language, the earth's surface and the form, behaviour, social patterns and interrelationships of human beings.

TYPICAL ENTRY ROUTES AND ASSOCIATED QUALIFICATIONS

Entry is most common with a degree or equivalent qualification but is possible with other academic qualifications or relevant experience.

TASKS

- organises and controls field excavations to study artifacts, ancient ruins and fossilised remains;
- traces the evolution of word and language forms, compares grammatical structures and analyses the relationships between ancient parent and modern languages;
- compiles and analyses economic, demographic, legal, political, social and other data;
- studies the characteristics and uses of the earth's surface and natural resources;
- arranges findings in a form suitable for publication and advises national/local bodies on policy issues.

RELATED JOB TITLES

Archaeologist Anthropologist Geographer Historian Philologist Sociologist

Employment Department Group, Office of Population Censuses and Surveys. 1990. *Standard Occupational Classification* vol.1. HMSO.

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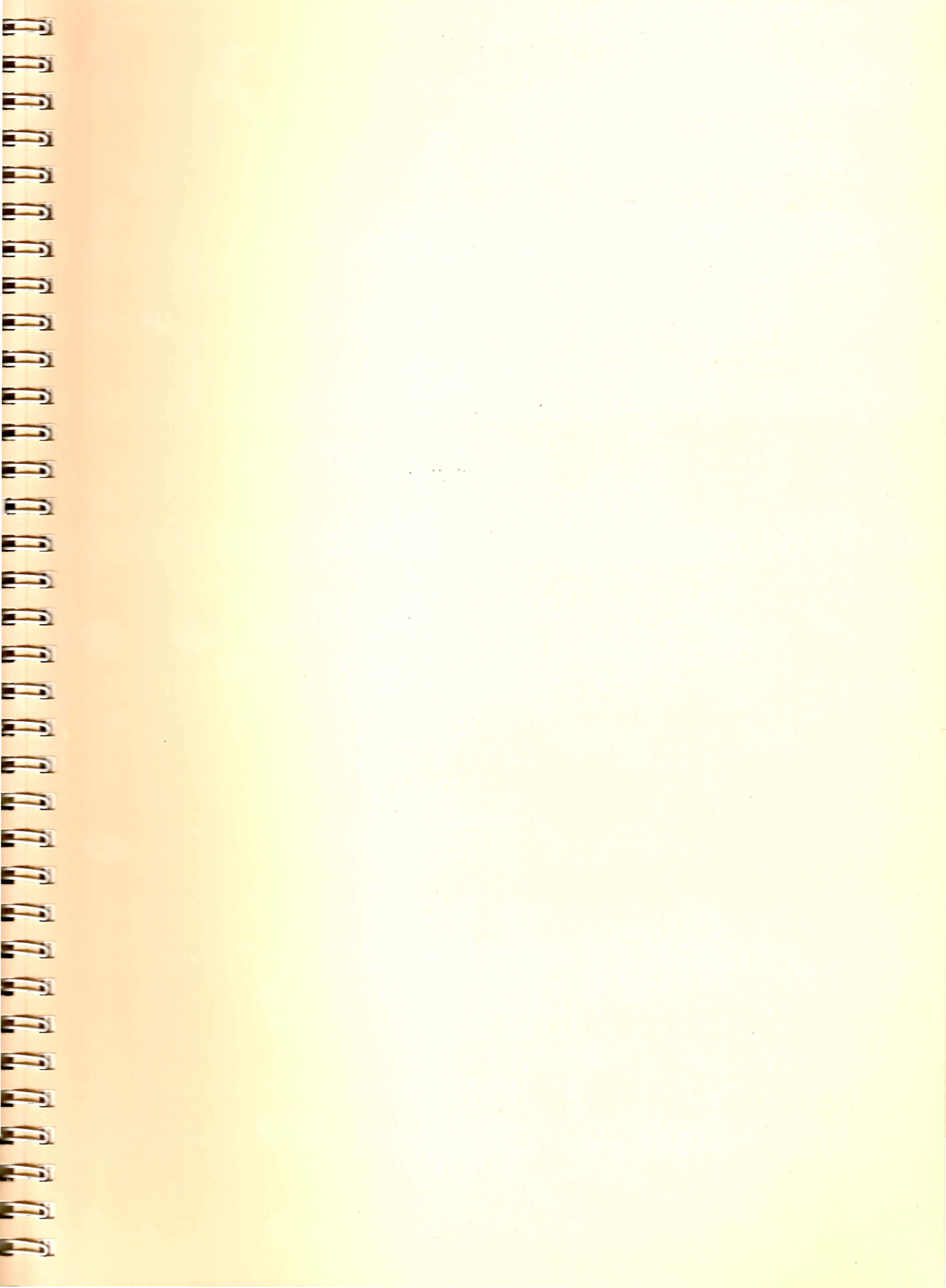
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Archaeology Labour Market Intelligence: Profiling the Profession 2002/03

Kenneth Aitchison & Rachel Edwards



Archaeology Labour
Market Intelligence:
Profiling the Profession 2002/03

Kenneth Aitchison and Rachel Edwards

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Aims and Summary of Findings

Aims of the Project

Archaeology Labour Market Intelligence: Profiling the Profession 2002/03 is a survey and assessment of employment within professional archaeology in the UK.

This project aimed to identify, collect, quantify and disseminate labour market information on the archaeology sector. For employers, it provides comprehensive, up-to-date information to aid business planning and improve organisational performance and competitiveness. For individual archaeologists it also provides information that identifies their own position within the profession, and can inform their own personal career decision-making.

This information includes:

- information on training needs, skills shortages and skills gaps
- details of the nature and extent of the archaeology sector, including accurate employment figures
- information on occupations, including potential recruitment and career progression difficulties
- labour market trends and issues, including training investment and supply and other financial, business and staffing issues.

This research has addressed the whole of the archaeology profession and has included unpaid volunteers who work within professional organisations along with those in paid employment.

The survey was conducted via a postal questionnaire. All of the organisations in the UK that were believed potentially to employ archaeologists were contacted, as were many individual consultants or specialists, giving a total of 992 potential respondents. 324 responses were received, representing 33% of the organisations that were approached.

This was a baseline survey, working to fundamentally the same methodology as was used in a previous (1997/98) project.

The data recovered and presented here should be seen as illustrating trends, rather than necessarily identifying specific points of detail.

Summary of Findings

The survey analyses the current state of the archaeology sector and presents information to guide the sector's skills requirements and training needs. Data relating to employment are compared with the results of an earlier survey, carried out in 1997/98 (Aitchison 1999). The Institute of Field Archaeologists (IFA), which is the professional association for all archaeologists in the UK, carried out the survey on behalf of the Cultural Heritage National Training Organisation (CHNTO).

The estimated numbers of archaeologists working in the UK

We estimate that there are in the order of 5700 paid archaeologists working in the UK. We also estimate that there are approximately 1100 dedicated support staff working with these archaeologists, meaning that an estimated total of 6800 people rely on professional archaeology for their livelihoods.

The estimated number of archaeologists has increased by more than 1275 (29%) over the five years since 1997/98. We consider that this substantial increase in the numbers of archaeologists working in the UK is partly due to greater success in retrieving representative data. In 1997/98, it was felt that junior fieldworkers on short-term contracts were under-represented in the returns; this is not the case in the present study. However, aside from this, the figures from other sectors have also risen, suggesting that there has been a genuine increase in the numbers of professional archaeologists working in the UK over the five years to 2002/03.

Furthermore, we consider that an estimated 425 people work as unpaid volunteer archaeologists alongside the professionals, and that an estimated 225 people contribute as unpaid volunteer support staff within professional archaeological organisations.

Age, gender, ethnic background and disability status

The average age of professional archaeologists in the UK is 38 years, with the average for female archaeologists being 36 and for male archaeologists 39. The average age of unpaid volunteer archaeologists is 50. 87% of archaeologists are between 20 and 50 years old, so archaeology has a relatively young age profile compared with UK statistics which show that 34% of employees are aged 45-64.

36% of professional archaeologists are female, 64% are male, compared to figures for the UK working population which show that 45% of workers are female and 55% are male.

99.3% of professional archaeologists are white. Less than 0.1% are of south Asian origin, less than 0.1% are of black African origin and less than 0.1% are of black Caribbean origin. Less than 0.15% are of east Asian origin. 0.25% of professional archaeologists have another ethnic origin from these categories. All the unpaid archaeologists for whom data was received are white. By contrast, the proportion of the UK population whose ethnic origins are not white is 7.9%.

0.3% of archaeologists are disabled as defined in the Disability Discrimination Act 1995. 3% of unpaid volunteer archaeologists are disabled as defined in the Act. This compares with the 19% of all UK workers who are disabled.

Growth of the sector

Over the five years since the last dataset was collected, the absolute figures received and estimated show that the profession has grown by up to 29%. Further growth is anticipated in the next few years.

45% of organisations reported that they had grown over the previous five years, as opposed to the 24% that reported that they employed fewer people in 2002/03 than in 1997/98.

42% of organisations expected to be employing more people three years in the future, compared with 13% who expected to be employing fewer.

However, the numbers of unpaid volunteer staff contributing to the work of these organisations are not anticipated to grow over the next three years.

Estimated numbers working in each job type

We estimate that, of 5712 professional archaeologists working in the UK, 2826 work for organisations that provide field investigation and research services (49%), 1758 work for organisations that provide historic environment advice and information services (31%), 469 work for organisations that provide museum and visitor/user services (8%) and 659 work for organisations providing educational and academic research services (12%).

In terms of the employing organisations' structural bases, an estimated 881 people work for organisations that are linked to central government (15%), an estimated 1248 people work within local government (22%), 891 work within universities (16%), 2358 work in the commercial sector (41%) and 334 work for other organisations that do not fall within these categories (6%).

Geographical differences

More archaeologists were found to work in London and the south of England than in other areas, but this simply reflects the overall national pattern. The proportion of archaeologists working in London has declined since 1997/98.

In almost all geographical areas, the largest single employment sector was of commercial organisations carrying out field investigation and research. National government organisations are more highly represented in areas that include a capital city.

Range of jobs

Details relating to 2348 archaeologists and support staff working in jobs with 428 different post titles were received. This represents one post title for every 5.5 individuals and indicates that there is little consistency in the use of post titles across the UK. This is a slight improvement on the situation reported for 1997/98, when there was one post title for every 4.7 individuals.

Comparison and aggregation of similarly titled jobs has allowed us to create 38 post profiles. This data is presented in **Appendix I: Post Profiles**.

Salaries

The average salary given by respondents for all archaeologists was found to be £19,161. The more statistically useful median figure (50% of archaeologists earn more than this, 50% earn less) was £17,127. The national average full-time salary for all occupations was £24,498, and the median was £20,010.

The average archaeological salary has increased by 12% and the median by 8% in comparison with the 1997/98 figures. National average salaries, for all workers in the UK, have risen by 28% in this time (the national median has risen by 22%). In 1997/98, archaeologists earned 89% of the national average. In 2002/03, archaeologists were earning 78% of the national average, and so have fallen even further behind the national average over this period.

Support staff were found to earn £15,264 on average (£15,000 median).

The highest paid post profile was that of Academic Staff, with an average salary of £31,131. The lowest paid profile was of Excavator or Site Assistant, with an average salary of £12,140. Details of all these post profile salaries can be found in **Appendix I: Post Profiles**.

On average, female archaeologists earn less than their male counterparts. Female archaeologists were found to earn £18,922 per annum on average, compared with the male average of £20,157. This represents a difference of 6%. In 1997/98, the difference was 9%.

Staff qualifications

90% of professional archaeologists are graduates. 10% of professional archaeologists for whom this survey has been given data had a doctorate as their highest level of academic qualification; over 21% had a Masters degree, and more than 58% had a first degree.

The finding that archaeology is a 90% graduate profession matches very closely the findings of Chitty (1999), where it was considered that 93% of the profession were graduates.

Identification of training needs

Despite an apparently strong commitment to training, organisations are failing to translate this into action.

45% of organisations spend time and money on training on an ad hoc basis, as they have no formal training plan. Over one-fifth of organisations have no training budget, and almost a third have no control over any training budget they may have.

71% of organisations recorded the amount of time that individuals spent on training, but only 57% formally evaluated the impact of training on individuals. Only 35% of organisations formally evaluated the impact that training had on the organisation as a whole.

Potential skills shortages

The most commonly identified non-archaeological skills shortage (where outside consultants had to be used) was in information technology. This was identified as a shortage by more than twice as many organisations as the second-most commonly identified non-archaeological shortage, for education/training.

Regarding technical, archaeological skills, the most commonly identified skills shortages were in artefact or ecofact research, conducting geophysical survey and artefact or ecofact conservation.

Potential skills gaps

As recognised priorities for training (skills gaps), information technology and project management were the most commonly identified areas for improving non-archaeological skills within the organisations.

Desk-based research and archaeological landscape characterisation were the most commonly reported priorities for training in specifically archaeological skills.

Employers' commitment to qualifications and training

Organisations demonstrate a strong commitment to providing some form of training or development opportunities for paid staff, as 93% of responding organisations indicated that they did this.

Of organisations that do have unpaid volunteer staff contributing to their work, almost two-thirds provide those individuals with training or development opportunities.

89% of organisations encourage individuals to engage in continuing professional development.

Of the 56% of organisations that employ new entrants to the profession, 74% of those organisations have to provide new entrants with considerable or very considerable amounts of training.

Preferred methods of training

We asked about four different methods of training: formal off-job training, eg outside training courses; formal in-job training, eg in-house training courses; informal off-job training eg supported individual research and learning; and informal in-job training, eg mentoring.

Organisations prefer to give paid staff formal training, and showed a slight preference for formal off-job training. Informal training, whether in-house or off-job, was less popular with organisations than formal in-house training.

By contrast, the most popular form of training for unpaid volunteer members of staff was in-house training, and this was most likely to be on an informal basis.

Recommendations

As a result of the research findings, the Project Steering Group would like to recommend that the following activities be undertaken for the benefit of individuals and employers working in archaeology.

1. This research should be repeated at least every five years to ensure that the data continues to be up to date and relevant to the needs of employers and other stakeholders.
2. Further research is needed to explore the wide variety of job titles currently in use to describe the roles of archaeologists and to assess what impact this has on business performance, career progression, CPD, salary scales, etc.
3. The under-representation of young people entering the workforce needs to be investigated. A feasibility study is needed to explore whether or not Modern Apprenticeships or other vocational qualifications would encourage young people to enter the profession. This should also investigate what support employers need to provide more training and employment opportunities.
4. A project which applies the National Occupational Standards in Archaeological Practice in the workplace to improve business and individual performance is recommended. The outcome of this study would provide employers with case studies and guidance materials to allow them to emulate and develop the good practice implemented by other employers in the sector.
5. Although the majority of employers provide paid staff with training, less than half do so on a formal, planned and strategic basis for all staff. A project is needed to develop guidance materials for employers, in particular, the small and micro businesses to help them provide systematically planned and relevant training opportunities for their paid and unpaid volunteer staff in line with the needs of their business goals and objectives. This will ensure that the little resources employers have to devote to training and development are invested appropriately, to improve the business.
6. Further research is needed to identify why there are so few minority ethnic people employed in the sector. More support is needed to help employers increase the diversity of their workforce.
7. The limited information on the involvement of unpaid volunteers needs to be placed within the context of a broader study on the contribution of the voluntary sector in archaeology. The training available to the voluntary sector is a key issue which needs to be included within this study.
8. Other issues which merit further investigation include the quality of training provision, regional differences in salary scales vs geographical spread of jobs and the mobility of the workforce.

Chapter One: Introduction and Background

Archaeology Labour Market Intelligence: Profiling the Profession 2002/03 is a survey and assessment of employment within professional archaeology in the UK.

The Institute of Field Archaeologists (IFA), as the professional association for all archaeologists in the UK, was engaged by the Cultural Heritage National Training Organisation (CHNTO) as specialist consultants to analyse the current state of the archaeology sector and to obtain information to guide the sector's skills requirements and training needs. The project was funded by the Sector Skills Development Agency, English Heritage and Cadw: Welsh Historic Monuments.

Background

This research was considered to be essential to improve the growth and business performance of employers in the archaeology sector. Existing data was five years out of date and the sector needed to establish the extent to which it has grown and if not, what is hampering this growth so that appropriate action can be implemented effectively by employers.

Archaeological practice changed massively during the 1990s, following the introduction of guidance from central government (DoE 1990 *et al*) which gave it a recognised role in the planning system. This led to a rapid expansion of the sector, not only in the parts of the profession that interact directly with the planning system, as there was a knock-on effect that led to expansion of all areas providing supporting information. This expansion occurred without due consideration of vocational training development.

In 1998, a study commissioned by the Archaeology Training Forum (Chitty 1998) suggested that there was a consensus view of training provision in archaeology being weak and poorly aligned with the needs of employers. There was a lack of structured vocational learning, particularly at entry level, and no clear career development path for individuals. Training was undervalued by organisations and by individuals and received low investment, even in key areas such as information technology where new learning was recognised as essential for growth and development.

The archaeology sector is dominated by small enterprises, with an average of 8.1 employees per organisation (in 1997/98). These small and financially stressed organisations are unable to invest in detailed analysis of their market opportunities or requirements. The benefits of receiving labour market intelligence will include allowing employers to make realistic assessments of their business position in the marketplace, and the training requirements of their staff and unpaid volunteer workers.

Previous Work

Since 1975 there has been a series of surveys relating to different aspects of archaeological employment carried out by different organisations. Only one of these was a full review of

labour market intelligence, but all of the others gathered useful information relating to the numbers working in the sector, salaries and other data.

Profiling the Profession

Profiling the Profession (Aitchison 1999) is the only previous comprehensive labour market intelligence review undertaken for the archaeological sector. This was conducted by postal questionnaire, and is the work on which the present survey is modelled. The data from that project relates to financial year 1997/98 and has been used for direct comparison with the present survey.

The 1997/98 survey identified that there were an estimated 4425 professional archaeologists working in the UK at that time, with respondents to the questionnaire considering that the profession had grown over the previous five years, particularly among archaeological ‘contractors’, with further growth anticipated over the five years to 2002/03. The survey also identified that there was little consistency in the use of job titles in archaeology, with 2132 archaeologists sharing 455 different job titles.

The survey identified the ranges of salaries being paid in different types of job in different parts of the UK, and found that average earnings for archaeologists in 1997/98 were £17,079 per annum, which compared with a national average for all occupations in 1997 of £19,167.

Throughout the present report, comparisons are made back to this study.

Carter and Robertson 2002

As part of a wider project to develop National Occupational Standards for archaeological practice, Carter and Robertson’s (2002, 14-16) report on the occupational and functional mapping of the archaeological profession reviewed and reassessed some of the data provided in *Profiling the Profession*. This led to the numbers of archaeologists that had been assigned to particular categories of working environment being usefully redistributed, to give perhaps a more realistic assessment of the numbers of archaeologists working in different areas of the profession. These figures suggest that archaeological contractors – those working for organisations that undertake field research and investigation on a commercial basis – represented a larger proportion of the whole sector than had been identified in *Profiling the Profession*. This reassessment was valuable, and these particular figures can be considered to be potentially more useful for comparison with the current study’s results than those presented in *Profiling the Profession*. The figures that were revised are presented in **Table 1**.

Table 1: Estimated numbers of archaeologists working by sector, after Carter and Robertson 2002

	<i>Profiling the Profession</i>		<i>Carter and Robertson</i>	
	<i>Individuals</i>	<i>% of whole profession</i>	<i>Individuals</i>	<i>% of whole profession</i>
<i>Independent consultants and specialists</i>	153	3%	150	3%
<i>Archaeological contractors</i>	1341	30%	1850	42%
<i>Local government curators</i>	605	14%	350	8%
<i>Other local government organisations (primarily museums)</i>	190	4%	125	3%
<i>National museums</i>	156	4%	150	3%
<i>University archaeology departments and research groups</i>	644	15%	575	13%
<i>National heritage agencies and Royal Commissions</i>	680	15%	675	15%
<i>Archaeological societies</i>	25	1%	25	1%
<i>Other commercial organisations</i>	170	4%	175	4%
<i>Other organisations (non-commercial)</i>	461	10%	350	8%
	4425		4425	

RESCUE surveys

RESCUE: The British Archaeological Trust conducted surveys of archaeologists in the UK in 1978/79 (Dennis 1979), 1986/87 (Plouviez 1988), 1990/91 (Spoerry 1992), and 1995/96 (preliminary results published as Spoerry 1997), seeking to identify the numbers and geographical distribution of archaeologists working in ‘rescue’ archaeology.

These surveys covered a slightly restricted range of professional archaeologists, concentrating on ‘... those bodies that can be described as actively involved in rescue archaeology’ (Spoerry 1992, 1). This meant that academic departments without consultancy services, museums, and most other organisations that could not be described (in the terms of the present survey) as conducting field investigation and research services or providing historic environment advice and information services were not canvassed. No responses from Northern Ireland were received.

In terms of the numbers of archaeologists identified as working in Britain (not the UK), the results of these surveys are summarised in **Table 2**.

Table 2: RESCUE survey results

<i>Date of survey</i>	<i>Number of professional archaeologists estimated</i>	<i>Source</i>
1976/77	1221	Dennis (1979)
1977/78	1594	Dennis (1979)
1978/79	1614	Dennis (1979)
1986/87	2900	Spoerry (1992) calculated from Plouviez (1988)
1990/91	2200	Spoerry (1992)
1995/96	2100	Spoerry (1997)

These figures suggest that there was a rapid rise in the numbers employed in rescue archaeology through the 1970s and 1980s. The numbers employed in archaeology subsequently fell away rapidly following the ending of Manpower Services Commission funding in the late 1980s, with an abrupt fall in 1990 in the first few months of the recession.

Salaries were examined in the 1990/91 and 1995-6 surveys (Spoerry 1992, 1997). Pay levels were broken down by bands rather than figures, which did not allow for precise estimates of average archaeological salaries.

Spoerry estimated that ‘... in 1990/91 three-quarters of archaeologists in Britain were paid less than £12,000 pa, when the national average earnings (both sexes) was about £13,000 pa, calculated from 1990 Government figures. In 1995/96, just over three-quarters of archaeologists were paid less than £16,000 pa, when the national average earnings (both sexes) was about £17,500 pa, from the 1995 Government figures (most recent available when calculated)’. (Spoerry 1997, 6).

IFA Jobs Information Service studies

An annual series of studies of the advertised jobs reported in the Institute of Field Archaeologists’ Jobs Information Service (JIS) has been carried out for the last ten years (Aitchison and Anderson 1995; Turner 1996, 1997, 1998, 1999; Malcolm 2000, 2001; Drummond-Murray 2002, 2003). These surveys form a review of advertised posts from 1993-2002, including details of salaries and conditions. The sample is relatively small, owing to the paucity of junior fieldwork jobs advertised in the press. However, as the figures relate to controlled samples over a number of years, they remain very useful in terms of labour market intelligence. The findings are presented in **Table 3**.

Note that the methodology used to collect the data changed in 1996; the figures presented for 1996-99 use the revised methodology, and are directly comparable with the figures for 2000-02, while the parenthesised figures for 1996-99 are directly comparable with the data for 1993-95. National average salary data is drawn from the Office of National Statistics’ annual New Earnings Survey publications (National Statistics 2002).

Table 3: Advertised Posts 1993-2002

	<i>Jobs advertised</i>	<i>Advertised starting salaries</i>	<i>National average salaries</i>
1993	134	£10,766	£16,523
1994	186	£12,666	£16,982
1995	150	£12,228	£17,560
1996	282 (154)	£11,653 (£12,620)	£18,338
1997	299 (176)	£12,100 (£12,327)	£19,167
1998	388 (148)	£12,364 (£13,554)	£20,048
1999	573	£13,220	£21,408
2000	549	£14,033	£21,842
2001	362	£14,576	£23,499
2002	79	£15,581	£24,498

These advertisements have been used to examine starting salaries in archaeological posts, as ‘where a salary range was given, the minimum point was used for analysis (in line with normal public sector policy)’ (Aitchison and Anderson 1995, 7). The average starting salaries have risen by 45% over that period; in that time national average earnings have risen by 48% (no figures are available for national average starting salaries, which will inevitably be lower than the average for all).

The numbers of posts advertised annually has also fluctuated since 1993. Over ten years there have been a total of 3002 posts advertised.

Fluctuations in the overall numbers of posts advertised and the average salaries offered have been considered to be directly (if crudely) related to archaeological practice's relationship with the construction industry. If this is the case, the increase in the numbers of jobs advertised and average starting salaries is likely to be related to the construction boom that began in the late 1990s – although it has to be noted that there has been a paucity of junior fieldworking posts advertisements in the JIS over the years. This is presumably because of the cost of advertising in national newspapers. The remarkable drop in the number of jobs advertised in 2002 does not appear to have followed any downturn in the amount of construction work being carried out, but the author of the report in which that data is contained (Drummond-Murray 2003) considers that this might relate to an 'uncertain economic climate' in 2002.

OutWage, a pay survey carried out by James Drummond-Murray and Kevin Wooldridge, was incorporated into the publication of the Report and Recommendations of the Archaeological Employment in Britain Working Party (Schaaf 1996). It largely related to posts advertised in the JIS in 1994/95, and incorporated comparisons of archaeological salaries with the national average wage.

IFA equal opportunities surveys

Three surveys have been carried out by the Institute of Field Archaeologists on equal opportunities; the first of these was conducted by the IFA's Equal Opportunities Working Party with the report published as *Women in Archaeology* (Morris 1992).

The IFA subsequently published the results of a Quality of Work/Life Survey in 1995 (Reeve 1995), and an analysis of the third IFA Equal Opportunities Survey in 1997 will form supporting material for a revised IFA Equal Opportunities policy (Brown forthcoming)

These questionnaires covered a variety of issues; for comparison with this study, the relevant topics include gender, contracts, length of service and salaries. Information on pay received in this study was, like the RESCUE surveys, broken down by bands.

The surveys all demonstrated that the gender balance in archaeology was approximately 1:2 female: male, the average female salary was lower than the average male salary, and that more women worked in part-time posts.

IFA Practitioner survey

Moloney (1998) conducted a survey of Practitioner grade members of IFA which concentrated on the profile of the IFA and general career issues, but which also included a section on job profiles.

Archaeological employment in Scotland

A survey of archaeological employment in Scotland was published by the Council for Scottish Archaeology (Aitchison 1997). This was a very straightforward head-count of archaeologists in Scotland, asking for very few details beyond simple numbers, conducted by telephone and email. 37 organisations were contacted, all of which co-operated. The survey produced an estimate of 250 archaeologists working in Scotland in 1997.

IPMS survey

The trade union IPMS conducted a Survey of Archaeologists' Pay and Conditions in 1996/97 (results unpublished). The response rate was poor for this very detailed survey, and the questionnaire proved primarily useful in influencing the questionnaire design for the *Profiling the Profession* survey.

Museums Professionals Group

On behalf of the Museums Professionals Group, SMSR Ltd and Priestman (2001) explored the experiences of recent entrants to the museums profession, including archaeological curators and conservators. This was a study of perceptions, rather than 'hard' data, but it was able to demonstrate that junior museum professionals experienced financial hardship and that job insecurity created through short-term contracts was a major issue.

Chapter Two: Methodology

Introduction

Profiling the Profession, the first comprehensive archaeology labour market intelligence survey, was carried out in financial year 1997/98, five years before this project (Aitchison 1999). The present survey was designed to build on that work and produce up-to-date and expanded information.

The principal aim of the project was to:

Identify, collect, quantify and disseminate labour market information on the archaeology sub sector to provide employers with comprehensive, up-to-date information to aid business planning and improve organisational performance and competitiveness.

The project proposal identified the following as the intended results:

- information on training needs, skills shortages and skills gaps
- details of the nature and extent of the archaeology sector, including accurate employment figures
- information on occupations, including potential recruitment and career progression difficulties
- labour market trends and issues, including training investment and supply and other financial, business and staffing issues.

The project was advised by a Steering Group, which comprised representatives of the funding bodies and of the Council for British Archaeology, the Institute of Field Archaeologists and the Standing Conference of Archaeological Unit Managers, together with the project staff. The Steering Group met four times during the course of the project to assist with significant stages of the work.

The role of the members of the Steering Group was purely advisory. Any opinions presented within this report are those of the consultants preparing the report and do not necessarily represent those of the Steering Group members or the organisations that they represented.

The Questionnaire

The questionnaire structure and contents were based on that used in 1997/98, with additional questions to elicit information on qualifications, training, skills and diversity. Questions which provided less useful information in 1997/98 were revised or omitted. The Steering Group provided valuable advice and guidance with the contents and design. The questionnaires were addressed to organisations employing archaeologists, not to individual archaeologists.

The questionnaire was designed in two parts. The first part consisted of a range of questions about the organisation, and the second enquired about individual posts within the organisation. The second part was designed to be copied as many times as necessary so profiles of all archaeological and support posts could be drawn up. It was sent to all organisations on the mailing list (see below), together with a covering letter. The questionnaire

asked for information applying to the organisation on 25 November 2002. Respondents were specifically asked to include temporary staff.

A copy of the questionnaire and covering letter form *Appendix III: The Questionnaire*.

The Mailing List

The mailing list of organisations employing archaeologists was based on that used in 1997/98. Archaeological societies were excluded this time, as it was found that they very rarely employed archaeologists. The mailing list database remained separate from the survey results database to ensure confidentiality. The final mailing list consisted of 992 organisational addresses.

A variety of data sources was used to update the 1997/98 list. Updating the list consisted of checking for any changes of addresses or names of organisations; removing the duplicate organisations identified from the earlier survey returns; removing organisations which had ceased trading, and adding those established since 1998. The following sources were used:

Digital sources:

Local authority lists of contractors, received from ALGAO

IFA database

Survey of Archaeological Specialists database

Welsh Archaeological Trusts contractors list

Online sources:

ALGAO: http://www.algao.org.uk/members/fs_memb.htm

CBA: <http://www.britarch.ac.uk/info/uklinks.html>

Net Information Services site: <http://www.archaeologydirectory.co.uk/>

Printed sources:

IFA Jobs Information Service (advertisements placed in previous year)

IFA Directory and Yearbook

Data Collection

Questionnaires, each with covering letter and postage-paid reply envelope, were posted at the end of November 2002. The deadline for completed paper questionnaires was 24 December 2002. An electronic version of the questionnaire was made available online, and the deadline for completed versions was 6 January 2003. Late returns, either on paper or electronic, were accepted until 31 January 2003.

Follow-up telephone calls were made to targeted non-respondents between 10 December and 24 December 2002. These included IFA Registered Archaeological Organisations, other organisations known to employ large numbers of archaeologists, and types of organisation which were poorly represented in the responses that had been received to date, specifically university archaeology departments.

A total of 324 responses was received by the final deadline of 31 January 2003.

Data entry

The 324 responses comprised 291 paper responses, 12 electronic responses using Microsoft Access, and 21 electronic responses using Microsoft Word.

The results were entered onto a Microsoft Access 2002 database. This included data on 236 organisations (Part 1 of the questionnaire) and 906 post profiles (Part 2 of the questionnaire). The data were entered onto two tables which were subsequently linked to allow analysis of the full range of variables.

Level and completeness of response

The 324 responses represented 33% of the 992 questionnaires distributed. 88 were returned uncompleted, comprising seven organisations which were not known at the mailing address; 47 which were duplicates of other organisations which did respond, and 34 which no longer employed archaeologists.

Few returns used the Microsoft Access electronic version. This was due in part to minor teething problems with the data entry form, subsequently corrected, which made data entry difficult, and in part to the use of Microsoft Access 2000, which was more up-to-date than software in use in many organisations. The use of Microsoft Word electronic forms was for the convenience of a few organisations. This may have eased entry of data onto the form, but it was not helpful for subsequent data entry onto the database.

In order to create global estimates of numbers of archaeologists who worked for non-responding organisations, these organisations were ascribed to different structural basis/principal role categories.

Responses from different types of organisation are shown in *Table 4*.

Table 4: Questionnaire returns

	<i>Field investigation and research services</i>	<i>Historic environment advice and information services</i>	<i>Museum and visitor/user services</i>	<i>Educational and academic research services</i>
<i>National government</i>	2 responses 2 estimated total orgs 100% response	15 responses 29 estimated total orgs 52% response	2 responses 17 estimated total orgs 12% response	No organisations
<i>Local government</i>	6 responses 22 estimated total orgs 27% response	51 responses 130 estimated total orgs 39% response	32 responses 86 estimated total orgs 37% response	No organisations
<i>University</i>	7 responses 20 estimated total orgs 35% response	1 response 3 estimated total orgs 33% response	5 responses 11 estimated total orgs 45% response	14 responses 67 estimated total orgs 21% response
<i>Commercial organisation</i>	56 responses 105 estimated total orgs 53% response	14 responses 170 estimated total orgs 8% response	2 responses 13 estimated total orgs 15% response	1 response 8 estimated total orgs 12% response
<i>Other</i>	5 responses 7 estimated total orgs 71% response	14 responses 41 estimated total orgs 34% response	4 responses 38 estimated total orgs 11% response	1 response 6 estimated total orgs 17% response

While these response rates may appear low, they should be considered in context. Postal surveys rarely receive responses above 50% and can frequently receive less than 25% (Haralambos and Holborn 1990, 729), so the overall response can be considered good. In comparison with the 1997/98 *Profiling the Profession* survey, the response rate is lower, but this survey gave respondents a shorter timetable to turn their responses around, and can be considered to have asked more complicated questions. Compared with a recent survey of local government conservation officers (Grover 2002), where a 67% return was received, this is low, but again may reflect the detail of response required for the present study.

Refining the database

In contrast to the 1997/98 survey, relatively few completed duplicate responses were received (eg from different branches of the same organisation, but each covering the entire organisation). Editing the mailing list to remove archaeological societies meant that relatively few organisations responded which employed no archaeologists.

Questionnaire completion

As was the case in 1997/98, some respondents chose not to answer some of the questions. Where responses are discussed, the number of respondents to each question is noted or included in tabulations.

Calculating Workforce Size

In extrapolating the data received to calculate total numbers of individuals working for different types of organisations, arithmetical techniques were applied.

Separate from the actual questionnaires received, organisations were ascribed to categories of structural basis and organisational role. This was done on the basis of examining the sources from which addresses were obtained and from the personal knowledge or opinions of the researchers.

When this categorisation was compared with the categories given on the actual returns, it was found to have been 75% accurate.

Similarly, a review was made of all the organisations which had been sent questionnaires, and an assessment was made whether the organisations were actually likely to employ archaeological staff. When compared with returns, this concordance exercise was found to have been 84% accurate.

As we were happy with these levels of concordance, we went ahead with calculating how many archaeologists had not been identified in returned questionnaires.

This principally involved calculating the average numbers employed within each structural/role category, and multiplying that number by the number of non-responding organisations that were still considered to employ archaeologists.

These figures were further refined by careful examination of each category and each geographical area, as there were specific cases where particular organisations were considered to employ significantly less or more than the average, and not adjusting the figures would have skewed the results.

Creation of Post Profiles

Information was received about 428 different posts, including both archaeologists and support staff. Rather than presenting 428 sets of summary data, the post titles were compared and aggregated to produce 38 post profiles, as was done in *Profiling the Profession*.

An additional four post profiles were added to the 34 used in 1997/98: Archives Officer, Investigator, Financial posts and Other support posts. The addition of the two archaeological posts was in recognition of the numbers of staff carrying out these roles. It was decided that it was more appropriate to create new profiles than to include these staff in one of the catch-all categories. The creation of the two support staff profiles is a reflection of the specific inclusion of support staff by the questionnaires.

Some profiles used in 1997/98 only represented a very few people in 2003, eg Assistant Archaeologist. It was decided to retain these, rather than remove the profiles, as this may indicate a trend in the use of post titles, or in archaeological roles.

As in *Profiling the Profession* post profiles were created by searching the database for specific words. For example, the Academic Staff profile consisted of all posts whose titles included the words 'academic staff', 'fellow', 'lecturer', 'postgraduate', 'professor', 'reader' or 'tutor'. The post profile title 'Academic Staff' was then added to the database records for the posts selected. It was necessary to follow a careful sequence when carrying this out for all 38 profiles, to ensure that staff ended up in the most appropriate profile. For example, the profile for Photographer was created before that for Senior posts, so the post title 'Head of Photography' was grouped with other Photographers, rather than in the less specific Senior posts profile, in which other 'Head of' posts were included. The selection criteria and sequence of selection are listed in **Table 5** below. Asterisks * are used as wildcards, so *photo* will select 'Photographer' or 'Head of Photography' or 'Photographic Assistant'. After completing 35 of the post profiles using the Access database programme Update Query with the selection criteria described below, the three remaining profiles 'Other support posts', 'Junior posts' and 'Other posts' were assigned manually.

Table 5: Criteria and sequence of selection for post profiles

<i>Post profile</i>	<i>Words included within post title</i>
Administrator	*admin* or *clerical* or *secretary*
Archaeological Assistant	*archaeological assistant* or archaeology assistant
Academic Staff	*academic staff* or *fellow* or *lecturer* or *postgraduate* or *professor* or *reader* or *tutor*
Project Manager	*project manager*
Planning Archaeologist	*development control* or *planning*
Editor	*editor* or *publication*
Inspector	*insp*
Buildings Archaeologist	*building* or *blg*
Consultant	*consultant*
Finds Officer	*artefact* or *brick* or *ceramic* or *coin* or *finds* or *pottery* or *wood* or *timber*
Illustrator	*graphic* or *design* or *drafts* or *draughts* or *illustrator*. There is one Surveyor/Illustrator, counted as Surveyor.
Sites and Monuments Record Officer	*sites and monuments* or *record* or *information* and not *archive*. Thus archive record staff were excluded. Including *record* covered Historic Environment Record posts, and Information and Record posts.
Conservator	*conservator*
Warden	*warden*
Excavator or Site Assistant	*excavator* or *site assistant*
Photographer	*photo* and not *investigator*. The exclusion was because there is a post with 10 staff described as Investigator/Curatorial Officer/Photographer, which it seemed inappropriate to

<i>Post profile</i>	<i>Words included within post title</i>
	include in photographer.
County or Regional Archaeologist	*borough* or *city archaeologist* or *county* or *district archaeologist* or *regional* or *territory* or *national park*
Conservation Archaeologist	*conservation*
Investigator	*investigator*
Museum Archaeologist	*curator* or *collection* or *museum* or *keeper* and not *book keeper*. 2 posts called Head of Curatorial Services included within Senior posts; one Museums Graphic Designer already covered as an Illustrator, the Investigator/Curatorial Officer/Photographer already an Investigator.
Surveyor	*geophys* or *survey*
Archaeological Scientist	*animal bone* or *archaeobot* or *archaeozoo* or *geoarchaeologist* or *osteoarchoeo* or *human bone* or *laborat* or *environment* and not *historic environment*. Excluded Technician this time, as word has changed, and more often used for field posts. Several other terms used in 1998 not required this time.
Financial posts	*financ* or *book keeper* or resource*
Field Officer	*field officer*
Project Officer	*project officer*
Archaeological Officer	*archaeological officer* or *archaeology officer*
Archaeologist	archaeologist* or *project archaeologist* or field archaeologist excluding those included in other profiles
Senior Archaeologist	senior archaeologist*
Supervisor	*archaeological supervisor* or *assistant supervisor* or *project supervisor* or *site supervisor* or supervisor or *field supervisor*
Assistant Archaeologist	assistant archaeologist
Computing Officer	*multimedia* or *data* or *geomatics* or IT* or *network* or *computer* or *systems*
Archives Officer	*archiv* and not *conserv*
Director or Manager	*director* or *manager* and not *assist* and not *deputy* and not *project*
Researcher	*research*
Senior posts	*director* or *head* or *proprietor* or *principal* or *senior* or *chief* or *team leader* or *partner*
Other support posts	Selected manually, to include all remaining posts with titles implying a support role
Junior posts	Selected manually, to include all remaining archaeological posts in junior role, including unpaid volunteers
Other posts	All posts not already assigned to a post profile.

Electronic Access to the Report and Data

This report will be made available for free access on the CHNTO website, with links from the IFA website. A copy of the project database will also be made freely available electronically for subsequent analysis, but any commercially sensitive data will be removed, so data cannot be connected with the organisation which provided it.

Chapter Three: Organisations

This project approached every organisation in the UK that was believed to employ archaeologists. We received completed questionnaires from 236 organisations. This total includes separate departments of larger organisations which are based at separate sites.

The full details of the way in which it was decided which organisations to contact, how responses were sought and the levels of response are given in *Chapter Two: Methodology*.

See also *Chapter Five: Jobs – Range of Jobs*.

Types of Organisations

The respondents were asked to select one of a series of options which best described the organisation's structural basis and principal role.

The choices given for structural bases were to describe the organisational setup of the organisation, or its parent body, and the specific choices were:

- national government
- local government
- university
- commercial organisation
- other

In addition to selecting from this list, the respondents were also asked to identify what was the organisation's principal role. This proved difficult for some multi-function organisations, but a principal role was ultimately identified from all of the responses received. The choices of roles and the terms to describe them used language drawn from a previous study involving the occupational and functional mapping of the archaeological profession (Carter and Robertson 2002, ATF 2002). This loosely categorised archaeological work into the macro-categories used here:

- field investigation and research services
- historic environment advice and information services
- museum and visitor/user services
- educational and academic research services

This represented a significant and deliberate break from the categorisation used in *Profiling the Profession*. In that project, the organisation's structural basis was asked for, but then each organisational return was subsequently ascribed by the researcher to one of ten categories, which were fundamentally descriptions of structural bases with an element of roles subdividing some of them. **Table 6** compares the structural basis/principal role model used here with the categories utilised in *Profiling the Profession*.

Table 6: Structural basis and principal roles correlation

	<i>Field investigation and research services</i>	<i>Historic environment advice and information services</i>	<i>Museum and visitor/user services</i>	<i>Educational and academic research services</i>
<i>National government</i>	National heritage agencies and Royal Commissions	National heritage agencies and Royal Commissions	National museums	
<i>Local government</i>	Contractors	Local government curators	Local government – other	
<i>University</i>	Contractors			University archaeology departments and research groups
<i>Commercial organisation</i>	Contractors	Independent consultants or specialists/other commercial organisations		
<i>Other</i>	Other organisations	Other organisations		Archaeological societies

As can be seen, there were clearly some combinations of structure and role that did not clearly equate to any of the ten categories used in the earlier report, and some of the earlier categories that spanned more than one structure/role combination.

The other crucial difference between the data recovered on the organisational bases in the two studies was that in *Profiling the Profession* this was ascribed by the researcher, whereas in this study, the respondents described their own organisation's setup.

Numbers of Organisations

Table 7 sets out the numbers of organisations responding as being within each structure and role combination. We have added the estimated total number of organisations fitting those same structures and roles and the percentage of the archaeological workforce that is considered to work within each of these sectors.

Table 7: Estimated number of organisations

	<i>Field investigation and research services</i>	<i>Historic environment advice and information services</i>	<i>Museum and visitor/user services</i>	<i>Educational and academic research services</i>
<i>National government</i>	2 responses 2 estimated total orgs 1% of workforce	15 responses 29 estimated total orgs 10% of workforce	2 responses 17 estimated total orgs 4% of workforce	No organisations
<i>Local government</i>	6 responses 22 estimated total orgs 9% of workforce	51 responses 130 estimated total orgs 11% of workforce	32 responses 86 estimated total orgs 2% of workforce	No organisations
<i>University</i>	7 responses 20 estimated total orgs 5% of workforce	1 response 3 estimated total orgs <1% of workforce	5 responses 11 estimated total orgs <1% of workforce	14 responses 67 estimated total orgs 10% of workforce
<i>Commercial organisation</i>	56 responses 105 estimated total orgs 34% of workforce	14 responses 170 estimated total orgs 7% of workforce	2 responses 13 estimated total orgs <1% of workforce	1 response 8 estimated total orgs <1% of workforce
<i>Other</i>	5 responses 7 estimated total orgs 1% of workforce	14 responses 41 estimated total orgs 3% of workforce	4 responses 38 estimated total orgs 1% of workforce	1 response 6 estimated total orgs 1% of workforce

Note: in order to estimate the total number of organisations fitting into each structure/role niche, we ascribed a structure/role to each of the non-responding organisations. The high figures for the total numbers of organisations for both national government – historic environment advice ... and national government – museum and visitor/user services represent questionnaires that were sent to separate offices of English Heritage and to the separate Departments of the British Museum.

Size of Organisations

Archaeology is completely dominated by micro-organisations, as is discussed in **Chapter Four: Archaeologists – Size of the Workforce**. 72% of organisations have 10 or fewer employees, and a further 24% have between 11 and 49 employees, as is shown in **Table 14**.

Geographical Location

The survey sought to identify where archaeologists were working within the UK. Each respondent was asked to indicate where the organisation providing the data was based. Within England, the choice given was between the regions of that country defined by the Government Area Offices.

Table 8 shows the numbers of organisations responding as being based in each geographical area, the estimated total number of organisations based there, and the percentage of the archaeological workforce that is considered to work in those geographical areas.

Table 8: Geographical distribution of organisations

<i>Area</i>	<i>Responses</i>	<i>Estimated total orgs</i>	<i>% of workforce</i>
Eastern England	18	55	6%
East Midlands	11	46	6%
London	14	61	14%
North-East England	6	46	6%
North-West England	16	44	5%
South-East England	36	136	17%
South-West England	30	114	16%
West Midlands	25	57	4%
Yorkshire and the Humber	27	72	9%
Scotland	24	71	8%
Wales	21	61	7%
Northern Ireland	2	7	1%
Channel Islands	1	3	>1%
Isle of Man	1	3	>1%

Quality Standards

The questionnaire asked about organisations' engagement with Investors in People and other quality standards.

The majority of organisations employ at least one quality system of some kind. 61% responded that they did employ a quality system, while 34% did not. 4% of respondents did not know if their organisation used a quality system.

Ten different quality assurance systems were used by organisations, in addition to some own or local systems. The most widely used was Investors in People, with the sector-specific systems of Museum Registration and IFA Registered Archaeological Organisations also being used by significant numbers of organisations. The full list of quality systems used is presented in **Table 9**.

Table 9: Quality systems used in archaeology

<i>Quality system used</i>	<i>Number of responding organisations</i>
Investors in People	69
Museum Registration	47
IFA Registered Archaeological Organisation	42
ISO 9000	22
Charter Mark	7
EFQM [European Foundation for Quality Management]	5
Local or own system	4
Quality Assurance Agency for Higher Education (QAA)	3
BEM [Business Excellence Model]	2
British Quality Foundation	1
European Eco Management and Audit Scheme (EMAS)	1
ISO 14001 Environmental Management Systems	1
SQMS [Scottish Quality Management System]	0

The questionnaire asked specifically about Investors in People (IiP), the national Standard which sets a level of good practice for training and development of people to achieve business goals. The responses to the question on organisations' position on IiP are presented in **Table 10**.

Table 10: Position on Investors in People

<i>Position on IiP</i>	<i>Number of responding organisations</i>	<i>%</i>
recognised IiP	58	29%
committed to IiP	25	12%
considered not yet working towards it	44	22%
considered and rejected	36	18%
not considered	12	6%
don't know	26	13%

Overall, this can be considered to represent a generally positive response to the Investors in People accreditation.

Those organisations that were neither formally recognised as Investors in People nor formally committed to IiP were asked their main reason for their non-commitment. The results of this question are presented in *Table 11*.

Table 11: Reason for non-commitment to IiP

<i>Reason for non-commitment to IiP</i>	<i>Number of responding organisations</i>	<i>%</i>
too much paper work	1	1%
time not available	12	14%
benefits not clear	21	24%
seemed irrelevant	10	11%
no LSC/LEC funding	2	2%
Other	41	47%

The range of answers within the 'other' category included a number that indicated a combination of the options given, failure of a parent body to commit, and a small number of respondents who did not either understand IiP or appreciate what it is for. This suggests that, within the archaeological community, opinion tends to be polarised between those that appreciate the benefits of IiP status, and those that have not had the opportunity to explore the rewards of the system.

The second quality system that respondents were asked specifically about was the Institute of Field Archaeologists' Registered Archaeological Organisations programme. IFA Registered Archaeological Organisations have formally resolved to carry out all their work in line with the IFA's Code of conduct and other by-laws, and their status on the Register is subject to annual peer-review. The results of this question are in *Table 12*, and show that a large minority of organisations are either Registered or have at least considered working towards Registration.

Table 12: Position on IFA Registration

<i>Position on IFA Registration</i>	<i>Number of responding organisations</i>	<i>%</i>
registered archaeological organisation	45	21%
working towards registration	13	6%
considered not yet working towards it	30	14%
considered and rejected	25	12%
not considered	88	41%
don't know	14	7%

Organisations that have not committed to IFA Registration were asked for their main reason why they had not done so. The results of this question are presented in **Table 13**.

Table 13: Reason for non-commitment to IFA Registration

<i>Reason for non-commitment to IFA Registration</i>	<i>Number of responding organisations</i>	<i>%</i>
too much paper work	3	2%
part of a larger organisation that will not commit	15	10%
time not available	16	11%
benefits not clear	37	25%
seemed irrelevant	30	20%
other	49	33%

A high proportion of respondents considered that they either did not see the benefits of Registration for their organisation, or that they considered it to be irrelevant to them. Of the ‘other’ reasons given for organisations not committing to the IFA scheme, a high number indicated that the respondent thought that this purely applied to archaeological contractors, which is not the case. A number also thought the small size of their organisation prevented them from Registering, which is also not the case.

Overall, it is clear that quality assurance systems were used and valued by the majority of archaeological organisations, with both sector-specific and more generic systems being applied.

Chapter Four: Archaeologists

Size of the Workforce

The questionnaire asked for the numbers of staff, both paid and unpaid, working in specifically archaeological and dedicated support roles for the organisation on the response date of Monday 25 November 2002. Respondents were specifically asked to ensure that all staff, including those on short-term or temporary contracts, were included.

236 organisations (24% of all organisations approached) responded that they employed archaeologists, which gave information about 2771 individual archaeologists working in the UK. From this information, we have estimated that the archaeological workforce in 2002/03 totalled 5712. This represents a 29% increase on the figure of 4425 estimated in 1997/98, but is considered to include junior fieldworkers on short-term contracts. There was some doubt whether the 1997/98 figures included this group.

We also estimate that a further 1096 people work as dedicated support staff within archaeological organisations, giving an approximate total of 6800 people in the UK who make their living from archaeology.

These figures relate to an estimated 776 organisations employing archaeologists. This represents an average of 7.4 archaeologists working for each organisation with an average of 1.4 members of support staff. The average number of archaeologists per organisation had risen only slightly since 1997/98, when the comparable figure was 7.2 archaeologists per organisation. This shows that archaeological employers are typically very small organisations.

Table 14 shows the distribution of organisation sizes by the total number of staff (archaeological and support), demonstrating that archaeology is completely dominated by micro-organisations.

Table 14: Total employees per organisation

<i>Total employees</i>	<i>Responses</i>	
1-10	175	72%
11-49	57	24%
50-99	4	2%
100-249	6	2%
>250	0	0%

In addition to the paid staff, we consider that approximately a further 425 people work as unpaid volunteer archaeologists alongside the professionals, and that another 225 people contribute to the profession in an unpaid, supporting capacity.

Detailed job profiles for 2427 of these archaeologists and support staff were received (see **Appendix I: Post Profiles**).

Table 15: Estimated archaeological workforce by organisational type

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Estimated total
National government	42 known number 42 estimated total 1% of workforce	572 known number 584 estimated total 10% of workforce	29 known number 255 estimated total 4% of workforce	No organisations	881 15%
Local government	195 known number 498 estimated total 9% of workforce	254 known number 614 estimated total 11% of workforce	50 known number 136 estimated total 2% of workforce	No organisations	1248 22%
University	119 known number 278 estimated total 5% of workforce	9 known number 27 estimated total <1% of workforce	13 known number 21 estimated total <1% of workforce	154 known number 565 estimated total 10% of workforce	891 16%
Commercial organisation	1052 known number 1932 estimated total 34% of workforce	48 known number 390 estimated total 7% of workforce	4 known number 24 estimated total <1% of workforce	2 known number 12 estimated total <1% of workforce	2358 41%
Other	42 known number 76 estimated total 1% of workforce	113 known number 143 estimated total 3% of workforce	3 known number 33 estimated total 1% of workforce	70 known number 82 estimated total 1% of workforce	334 6%
Estimated total	2826 49%	1758 31%	469 8%	659 12%	5712 100%

The method of calculating total numbers was largely arithmetical. The details of the methods used are presented in *Chapter Two: Methodology*.

Variation in staff numbers

Respondents were also asked whether the numbers of staff had varied in the course of the previous year.

97 organisations (35%) indicated that their numbers of paid archaeological staff had varied in the course of the previous year. These organisations employed 1537 archaeologists at the time of survey, but the sum of their absolute minima suggests they had employed a total of 266 fewer people. At their absolute maxima, these organisations had employed a total of 388 more people.

Assuming the same level of variation for the organisations that did not respond to the questionnaire, it is estimated that there is a population of up to roughly 1350 archaeologists who moved between different employers in the course of the previous year (an aggregate minimum of 548 below the levels of employment reported at the time of the questionnaire, and an aggregate maximum of 800 above the reported totals).

However, this cannot be used to argue that there were an estimated 800 unemployed archaeologists in the UK at the time of the survey. Not all organisations will have had their highest levels of employment at exactly the same time, and so the same people will have been counted more than once in these total figures as they worked for different organisations at different times in the year.

A realistic estimate for the number of archaeologists who have worked in the past year and were not doing so at the time of the survey was obtained by subtracting the calculated absolute minimum (548 fewer) from the absolute calculated maximum (800 more) giving a

total of 252, or approximately 250. We believe that this figure represents a reasonable estimate of the number of professional archaeologists who were not working or not working in archaeology at the time of the survey (4% of a total made up of this number plus the number believed to be in paid employment at the time of the survey).

While this population of up to 1350 individuals will include a number of individuals who have taken career breaks, it is also likely to include a mobile population of junior fieldworkers, who move between short contracts with different employers. The latter are likely to be moving into and out of archaeological employment frequently, and will also take up non-archaeological jobs from time to time. Lack of job security and limited financial reward will inevitably make it difficult for all of these individuals to remain within the profession.

The numbers of unpaid volunteer archaeologists working within professional organisations also varied noticeably over the course of the year. Of 20 organisations reporting some variation in this number, the total of maxima was 50% higher than the number of unpaid volunteer archaeologists reported at the time of the survey, with the total minima 28% lower.

Given the limited dataset, it is unreasonable to calculate absolute totals, but clearly there had been more unpaid volunteer archaeologists working within professional organisations in the course of the previous year. This is considered to be a reflection of the fact that the survey's 'snapshot' date was at the end of November, and that many unpaid archaeological opportunities are likely to involve contributions to fieldwork projects in the summer months.

The numbers of support staff, both paid and unpaid, had not varied significantly in the previous year.

Diversity

The questionnaire asked for information on the gender, age, ethnic origins and disability status of employees. Respondents gave the age and gender for 1985 employees, 82% of those surveyed, and the ethnic origins for 2265, or 93% of the employees surveyed. Not all respondents answered the question on disability, but the proportion not responding was not recorded.

Age range

On the basis of the 10-year age ranges recorded, the average age of professional archaeologists in the UK is 38, with the average for female archaeologists being 36 and for male archaeologists 39. The average age of unpaid volunteer archaeologists is 50.

87% of archaeologists are aged 20-50 and 61% are aged 30-50. 60% of archaeologists are under 40. Compared with UK statistics which show that 34% of employees are aged 45-64, archaeology has a relatively young age profile (based on figures given in EOC 2003, 8).

Gender balance

The UK population is 51% female and 49% male. Of the archaeologists whose gender was recorded in the survey, 36% were female and 64% were male. The UK working population aged 16-64 is 45% female and 55% male (based on figures given in EOC 2003, 7). Women are therefore under-represented in the archaeological profession overall. In the 20-29 age band

women are over-represented, compared with the working population, but in all other age bands they are under-represented.

Table 16: Archaeologists' gender balance by age-range

	<i>Female</i>	<i>% of all age range</i>	<i>Male</i>	<i>% of all age range</i>	<i>Male and female</i>
<20	3	75%	1	25%	4
20-29	258	51%	251	49%	509
30-39	224	34%	444	66%	668
40-49	155	29%	378	71%	533
50-59	70	29%	175	71%	245
>60	7	27%	19	73%	26
Totals	717	36%	1268	64%	1985

The proportions of female and male archaeologists by age ranges are interesting (*Table 17*). The proportion of women declines steadily through the age groups from 36% in the 20-29 age range to 1% in the over 60s. The proportion of men is a more normal statistical curve, increasing from 20% in the 20-29 age group to 35% in the 30-39 age group, and then declining. The pattern for female archaeologists does not reflect the UK pattern of age distribution (*Table 18*). This may indicate that women are leaving the profession in their late 20s and early 30s, or that the numbers of women in archaeology have started to increase, but that this increase has yet to work its way up the age ranges. In 1997/98 the largest group of female archaeologists were in their 30s (42%), with 25% in their 20s and 23% in their 40s. Therefore, whatever the reason for the current age distribution, it is a recent phenomenon.

Table 17: Archaeologists' age-range by gender

	<i>Female</i>	<i>% of all females</i>	<i>Male</i>	<i>% of all males</i>	<i>Male and female</i>	<i>% of all archaeologists</i>
<20	3	0%	1	0%	4	0%
20-29	258	36%	251	20%	509	26%
30-39	224	31%	444	35%	668	34%
40-49	155	22%	378	30%	533	27%
50-59	70	10%	175	14%	245	12%
>60	7	1%	19	1%	26	1%
Totals	717	100%	1268	100%	1985	100%

Table 18: Age and gender of all UK employees

	<i>Female (thousands)</i>	<i>% of all females</i>	<i>Male (thousands)</i>	<i>% of all males</i>	<i>Male and female (thousands)</i>	<i>% of all</i>
16-24	1854	15%	2063	14%	3917	14%
25-44	6196	50%	7750	52%	13946	51%
45-64	4257	35%	5112	34%	9369	34%

Source: EOC 2003, 8

Age and gender related to organisational structure and role

Organisations providing field investigation and research services have a lower than average age profile for archaeologists; those providing historic environment advice and information tend to have a slightly older profile.

The age profile for education and academic research services organisations is slightly older yet, with the majority of staff in their 40s. However, universities have a lower age profile, indicating a slight difference between these two areas. Over 50% of archaeological academic staff are under 40, and only 20% are aged 51 or over (British Academy 2001, 42). This represents the youngest age profile of any area of full-time academic staff in the arts, humanities and social sciences in 1998/99 presented by the British Academy in that report.

National government organisations and other organisations have older age profiles than local government and commercial organisations.

Table 19: Age by organisational principal role

Principal role	<20		20-29		30-39		40-49		50-59		>60		Total
		% of role		% of role		% of role		% of role		% of role		% of role	
Field investigation	2	0%	359	30%	435	36%	297	25%	109	9%	8	1%	1210
Historic environ advice	2	0%	98	20%	154	32%	156	32%	70	14%	3	1%	483
Museum/visitor services	0	0%	20	19%	33	32%	24	23%	24	23%	2	2%	103
Educ/acad research	0	0%	32	17%	46	24%	56	30%	42	22%	13	7%	189
Total	4	0%	509	26%	668	34%	533	27%	245	12%	26	1%	1985

Table 20: Age by organisational structural basis

Structural basis	<20		20-29		30-39		40-49		50-59		>60		Total
		% of basis		% of basis		% of basis		% of basis		% of basis		% of basis	
National govt	0	0%	26	20%	32	25%	35	28%	34	27%	0	0%	127
Local govt	3	1%	116	23%	171	34%	135	27%	76	15%	3	1%	504
University	0	0%	62	21%	103	36%	71	24%	41	14%	13	4%	290
Commercial org	1	0%	276	31%	317	35%	229	25%	69	8%	7	1%	899
Other	0	0%	29	18%	45	27%	63	38%	25	15%	3	2%	165
Total	4	0%	509	26%	668	34%	533	27%	245	12%	26	1%	1985

The gender balance in field investigation and historic environment advice organisations reflects the balance in archaeology as a whole, at around 36% female and 64% male. Museum and visitor services, however, are dominated by female archaeologists, who account for 63% of staff in those organisations.

The pattern by the structural basis of organisations in general reflects the overall gender balance, except for national government, where 44% of archaeologists are female.

Table 21: Employment in archaeology by gender and organisational principal role

<i>Principal role</i>	<i>Female</i>		<i>Male</i>		<i>Total</i>
Field investigation	408	34%	802	66%	1210
Historic env advice	171	35%	312	65%	483
Museum/visitor servs	65	63%	38	37%	103
Educ/acad research	73	39%	116	61%	189
Total	717	36%	1268	64%	1985

Table 22: Employment in archaeology by gender and organisational structural basis

<i>Structural basis</i>	<i>Female</i>		<i>Male</i>		<i>Total</i>
National govt	56	44%	71	56%	127
Local govt	177	35%	327	65%	504
University	108	37%	182	63%	290
Commercial org	318	35%	581	65%	899
Other	58	35%	107	65%	165
Total	717	36%	1268	64%	1985

The proportions of female and male archaeologists by age vary more in some organisational roles than others. The numbers of female and male archaeologists in their 20s is almost equal in organisations specialising in field investigation and historic environment advice. In the same types of organisations, the balance between male and female archaeologists in their 30s follows the overall trend, but in the 40-49 year band, the numbers of women have dropped significantly. Museum and visitor services organisations are dominated by female archaeologists until the 50-59 age band is reached, when the balance reverts to the norm for archaeologists overall.

Table 23: Age and gender by organisational principal role

<i>Principal role</i>	<20		20-29		30-39		40-49		50-59		>60		<i>Total</i>
	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	
Field investigation	2	0	177	182	120	315	73	224	32	77	4	4	1210
Historic env advice	1	1	48	50	62	92	43	113	17	53	0	3	483
Museum/visitor servs	0	0	16	4	24	9	15	9	9	15	1	1	103
Educ/acad research	0	0	17	15	18	28	24	32	12	30	2	11	189
Total	3	1	258	251	224	444	155	378	70	175	7	19	1985

When the figures are subdivided by organisational structural basis the balance between male and female archaeologists generally follows the age and gender trends already observed.

Table 24: Age and gender by organisational structural basis

Structural basis	<20		20-29		30-39		40-49		50-59		>60		Total
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	
National govt	0	0	15	11	13	19	17	18	11	23	0	0	127
Local govt	2	1	57	59	61	110	38	97	18	58	1	2	504
University	0	0	33	29	35	68	27	44	11	30	2	11	290
Commercial org	1	0	143	133	95	222	54	175	22	47	3	4	899
Other	0	0	10	19	20	25	19	44	8	17	1	2	165
Total	3	1	258	251	224	444	155	378	70	175	7	19	1985

Ethnic diversity

The survey recorded the ethnic origins of archaeologists in the UK for the first time. The proportion of people whose ethnic origin is not white was very small indeed, at 0.56%. This compares with a UK figure of 7.9% from the 2001 census (National Statistics 2003). All the unpaid volunteer archaeologists for whom data was received are white.

Table 25: Ethnic diversity

	Black African		Black Caribbean		East Asian		South Asian		White		Other		Total
All staff	3	0.13%	3	0.13%	3	0.13%	2	0.09%	2248	99.25%	6	0.26%	2265
Archaeologists	2	0.09%	2	0.09%	3	0.14%	1	0.05%	2105	99.34%	6	0.28%	2119

Disability

The survey asked how many people working in each post were disabled, as defined in the Disability Discrimination Act 1995 as being anyone 'with a physical or mental impairment which has a substantial and long-term adverse effect upon their ability to carry out normal day-to-day activities'. A total of 8 paid disabled staff were recorded, all of whom were archaeologists, and 2 unpaid volunteer staff, of a total of 2427 individuals. The proportion of disabled archaeologists recorded was 0.34%, compared with 19% of all people of working age in employment (Disability Rights Commission 2002). This figure may not include all disabled people covered by the survey, as some respondents chose not to answer this question. However, the proportion is extremely low when compared to national figures.

Although certain physical disabilities would prevent people from working in some archaeological posts, a wide range of archaeological jobs can be undertaken by people with disabilities.

Unpaid Volunteer Archaeologists

The questionnaire asked how many members of unpaid volunteer staff were working alongside the paid archaeologists and support staff. 39 organisations responded that they were benefiting from the contributions of unpaid volunteer staff at the time of the survey (17% of all organisations responding), representing a total of 145 individuals (an average of 3.7 individuals per organisation). We estimate that in total 425 people were working as unpaid volunteer archaeologists or support staff at the time of the survey.

Table 26: Unpaid volunteer workforce by organisational type

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services
National government	No unpaid volunteers	1 organisation 6% of organisations average 2 unpaid volunteers	1 organisation 50% of organisations average 5 unpaid volunteers	No organisations
Local government	3 organisations 50% of organisations average 5 unpaid volunteers	8 organisations 16% of organisations average 3 unpaid volunteers	9 organisations 28% of organisations average 5 unpaid volunteers	No organisations
University	No unpaid volunteers	No unpaid volunteers	2 organisations 33% of organisations average 2 unpaid volunteers	3 organisations 21% of organisations average 2 unpaid volunteers
Commercial organisation	4 organisations 7% of organisations average 2 unpaid volunteers	No unpaid volunteers	No unpaid volunteers	No unpaid volunteers
Other	1 organisation 20% of organisations average 4 unpaid volunteers	3 organisations 21% of organisations average 6 unpaid volunteers	3 organisations 100% of organisations average 2 unpaid volunteers	1 organisation 100% of organisations average 3 unpaid volunteers

As discussed in *Size of the Workforce* above, the numbers of unpaid volunteers contributing had varied in the course of the previous year, potentially reflecting the opportunities for summer fieldwork projects.

Overall, the numbers of organisations that welcome unpaid volunteers has reduced greatly in the five years from 1997/98, when it was reported that 68% of organisations used the contributions of unpaid volunteer archaeologists. The numbers of commercial organisations accepting unpaid volunteers has dropped to almost zero, compared with 67% of contractors who would accept them in 1997/98. Opportunities within local government organisations have also dropped. The proportion of local government curators (historic environment advice and information services) accepting unpaid volunteers has fallen from 83% to 16% and that of local government museums from 97% to 28%.

These changes are likely to represent the results of changing work-practices both within the commercial and public sectors. Commercial organisations probably recognise that unpaid volunteers cannot be exploited in a competitive environment. Equally, opportunities have become more restricted in local government organisations meeting the requirements of best value on tight budgets.

Training opportunities for unpaid volunteer staff are discussed in *Chapter Six: Training*.

Information about the age and gender of 42 unpaid volunteer workers was received. Overall, 52% of unpaid volunteers are female, 48% male and the average age of the unpaid volunteers is 52 years. All of the unpaid volunteers for whom information was received on their ethnicity were white.

46% of all unpaid volunteers were educated to degree level or above.

Support Staff

In addition to asking about archaeological staff, the questionnaire also requested information about non-archaeological support staff working with the archaeologists.

We estimate that a total of 1096 people work as dedicated support staff within archaeological organisations. This is an average of 1.4 individual members of support staff per organisation, and of one member of support staff for every 5.2 members of archaeological staff.

The 1997/98 data suggested that there was a total of 367 individuals working as support staff at that time – and so this would suggest a remarkable rise of 300% in the number of people working as support staff. However, this is almost certainly due to the present survey being more specific in asking about support staff rather than any great growth in support roles in the five years between the surveys.

In terms of workplaces, relatively high numbers of support staff work for national government organisations.

Table 27: Supporting workforce by organisational type

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government	19 estimated total 2% of workforce	115 estimated total 10% of workforce	306 estimated total 28% of workforce	No organisations	440 40%
Local government	18 estimated total 2% of workforce	64 estimated total 6% of workforce	33 estimated total 3% of workforce	No organisations	115 10%
University	23 estimated total 2% of workforce	3 estimated total <1% of workforce	12 estimated total 1% of workforce	114 estimated total 10% of workforce	152 14%
Commercial organisation	153 estimated total 14% of workforce	90 estimated total 8% of workforce	42 estimated total 4% of workforce	0 estimated total 0% of workforce	285 26%
Other	9 estimated total 1% of workforce	25 estimated total 2% of workforce	44 estimated total 4% of workforce	26 estimated total 2% of workforce	104 10%
Total	222 20%	297 27%	437 40%	140 13%	1096 100%

Archaeological support staff were found to earn an average of £15,264 per annum, with median earnings of £15,000 (50% earn more than this, 50% earn less). The archaeological staff they work alongside earn an average of £19,161 (median of £17,127).

Table 28: Support staff earnings

Lowest 10% earn less than	£11,650
Lower 25% earn less than	£13,270
Median	£15,000
Upper 25% earn more than	£16,575
Highest 10% earn more than	£20,000
Average	£15,264

Table 29: Gender balance of support staff by age range

	<i>Female</i>	<i>% of all age range</i>	<i>Male</i>	<i>% of all age range</i>	<i>Male and female</i>
<20	1	100%	0	0%	1
20-29	22	58%	16	42%	38
30-39	43	70%	18	30%	61
40-49	38	72%	15	28%	53
50-59	25	89%	3	11%	28
>60	2	40%	3	60%	5
Totals	131	36%	55	64%	186

70% of archaeological support staff in 2002/03 were female, 30% were male. The average age of individuals working as archaeological support staff was 39 years (average female age 40, male 37). By comparison, the average age for all archaeological staff was found to be 38 years.

50% of support staff were found to have been educated to degree level or above.

Table 30: Summary of highest qualifications achieved – support staff

<i>Qualifications</i>	<i>Support staff</i>	
Doctorate	5	3%
Masters	14	9%
First degree	58	38%
Secondary	76	50%

The questionnaire also asked whether staff worked full- or part-time. 63% (113 individuals) of support staff worked full-time, 37% (67 individuals) worked part-time.

As with archaeological staff, there was a very limited range of ethnic diversity across support staff, 98% of whom were white.

Table 31: Ethnic diversity - support staff

	<i>Black African</i>		<i>Black Caribbean</i>		<i>East Asian</i>		<i>South Asian</i>		<i>White</i>		<i>Other</i>		<i>Total</i>
All staff	3	0.13%	3	0.13%	3	0.13%	2	0.09%	2248	99.25%	6	0.26%	2265
Support staff	1	0.68%	1	0.68%	0	0.00%	1	0.68%	143	97.95%	0	0.00%	146

None of the support staff for whom details were given in this survey was considered to be disabled.

Growth of the Profession

In absolute terms, the numbers working in professional archaeology have grown from 4425 in 1997/98 to 5712 in 2002/03, an increase of 29% over five years. No directly comparable data exists from before 1997/98.

The survey indicates that the profession is growing. More respondents reported their organisations to have grown in the past five, three and one years than reported that the organisation had contracted.

The questionnaire asked whether the numbers of archaeologists employed by responding organisations was greater, less or unchanged in comparison with five years before (1997/98), three years before (1999/2000) and one year before (2001/02) the current survey. The questionnaire also asked what was anticipated for one year and three years in the future. The results are shown in *Table 32*.

Table 32: Past and future paid staff numbers

	<i>Employed fewer than present</i>		<i>Employed same as present</i>		<i>Employed more than present</i>		<i>Not trading</i>	<i>Don't know</i>	<i>Total responses</i>
2001/02	57	26%	127	59%	33	15%	1		218
1999/00	88	42%	86	41%	36	17%	5	2	217
1997/98	88	45%	60	31%	46	24%	17	5	216
	<i>Expect more in future</i>		<i>Expect same in future</i>		<i>Expect fewer in future</i>			<i>Don't know</i>	<i>Total responses</i>
2003/04	64	29%	127	59%	26	12%		10	227
2005/06	81	42%	87	45%	26	13%		32	226

Future growth

In terms of future growth, organisations were also bullish about prospects for growth over the forthcoming year and three years, with more organisations anticipating growth than contraction over these periods.

Comparison of the growth anticipated in 1997/98 with the reported growth 2002/03 in *Table 33* shows that net growth (in terms of organisations' sizes, rather than the numbers of individuals employed) over the last five years has closely matched (even slightly exceeding) expectations in 1997/98.

Table 33: Anticipated and reported growth

	<i>Growth</i>	<i>Stable</i>	<i>Contract</i>	<i>Overall</i>		<i>Response</i>
2000/01	33%	37%	8%	+25%	Anticipated in 97/98	306
1999/00	42%	41%	17%	+25%	Reported in 02/03	217
1998/99	25%	63%	6%	+19%	Anticipated in 97/98	310
1997/98	45%	31%	24%	+21%	Reported in 02/03	216

Two key areas were picked out in 1997/98, of archaeological contractors and local government curators. Generally, contractors were confident about future growth, while curators were much less so.

Table 34 compares the anticipated growth of archaeological contractors in 1997/98 with the experienced growth of commercial organisations providing field investigation and research services in 2002/03. Typically these organisations have grown, although not as many have grown as was anticipated in 1997/98.

Table 34: 'Contractors' growth 1997/98: 2002/03

	<i>Growth</i>	<i>Stable</i>	<i>Contract</i>	<i>Overall</i>		<i>Response</i>
2002/03	35%	44%	21%	+25%	Reported in 02/03	57
2000/01	43%	16%	4%	+39%	Anticipated in 97/98	49
1999/00	42%	36%	22%	+20%	Reported in 02/03	53
1998/99	45%	39%	2%	+43%	Anticipated in 97/98	49
1997/98	45%	28%	17%	+28%	Reported in 02/03	47

By way of comparison, the data for organisations providing historic environment information and advice from within local government in 2002/03 is compared with that obtained from 'curators' in 1997/98 in **Table 35**.

Table 35: 'Curators' growth 1997/98: 2002/03

	<i>Growth</i>	<i>Stable</i>	<i>Contract</i>	<i>Overall</i>		<i>Response</i>
2002/03	26%	68%	6%	+20%	Reported in 02/03	50
2000/01	25%	38%	15%	+10%	Anticipated in 97/98	73
1999/00	48%	46%	6%	+20%	Reported in 02/03	50
1998/99	15%	71%	10%	+5%	Anticipated in 97/98	73
1997/98	43%	36%	21%	+22%	Reported in 02/03	47

Although more organisations contracted than was anticipated in 1997/98, far more 'curators' expanded in size over the five years to 2002/03 than was expected beforehand.

New entrants to the profession

Collis (forthcoming) considers that over 1100 students graduate annually with a degree in archaeology, but only a minority of them seek to make their career in the profession (Collis and Hinton 1998, 15).

Over the past twenty years, there have been very rapid, wide-ranging and ongoing changes to the higher education system in the UK, with significant consequences in terms of the training that students of archaeology receive from the universities. In 2001, 4675 students applied to follow archaeology degrees in the UK (UCAS 2001); not all of these applicants will have been successful, but in 1999/00, there were a total of 6690 students following (rather than commencing in that year) a UK university course in archaeology, either at undergraduate or postgraduate level (Ramsden and Brown 2002). This number represented a rise of 91% over the previous five years, and so suggests that there were approximately 1000 more students following university courses in 1999/00 than there were archaeologists working in the UK in 2002/03.

Not all of these students may wish to continue a career in professional archaeology, but in terms of human resources, there is clearly great potential for the archaeological workforce to continue to expand. However, it is extremely unlikely that, given the current economics of

professional archaeology, all of these potential workers could be accommodated within the archaeological workforce if they wanted to seek a career within the profession.

See also *Chapter Six: Training – Training Supply and Demand*.

Unpaid volunteer staff

The questionnaire also asked about the numbers of unpaid volunteer staff working with organisations. **Table 36** shows that, over the previous five years, the proportion of organisations where unpaid volunteer staff contributed had fallen slowly but steadily. The anticipated figures for the future suggest that the relative numbers of organisations using unpaid volunteer staff will remain roughly the same, as will the numbers of individuals working in this way.

Table 36: Past and future unpaid volunteer staff numbers

	<i>Fewer than present</i>		<i>Same as present</i>		<i>More than present</i>		<i>None</i>		<i>Don't know</i>	<i>Not trading</i>	<i>Total responses</i>
2001/02	9	7%	58	47%	5	4%	52	42%	2	1	127
1999/00	13	12%	45	40%	7	6%	47	42%	5	4	121
1997/98	16	16%	40	40%	6	6%	39	39%	6	11	118
	<i>Expect more in future</i>		<i>Expect same in future</i>		<i>Expect fewer in future</i>		<i>Expect none in future</i>		<i>Don't know</i>	<i>Total responses</i>	
2003/04	12	10%	49	42%	14	12%	42	36%	10	127	
2005/06	14	13%	38	37%	13	12%	39	38%	22	126	

Geographical Distribution

This survey has established the broad distribution of archaeologists working in different parts of the UK. We based the distribution on the postal address of archaeologists' employing organisations.

The areas used within England are those of the Government Office Regions.

All of the following are based upon the extrapolated figures for the total size of the paid archaeological workforce. See also *Chapter Four: Archaeologists – Size of the Workforce*.

Table 37: Geographical distribution of archaeologists

	<i>Paid archaeologists (estimated)</i>	<i>Change on 1997/98</i>	<i>% of UK total</i>
<i>East Midlands</i>	339	+54%	6%
<i>Eastern England</i>	364	+31%	6%
<i>London</i>	798	-7%	14%
<i>North-East England</i>	350	+51%	6%
<i>North-West England</i>	295	+38%	5%
<i>South-East England</i>	952	+46%	17%
<i>South-West England</i>	934	+34%	16%
<i>West Midlands</i>	249	-6%	4%
<i>Yorkshire and the Humber</i>	486	+32%	9%
<i>Scotland</i>	456	+30%	8%
<i>Wales</i>	387	+70%	7%
<i>Northern Ireland</i>	73	+38%	1%
<i>Channel Islands</i>	9	+200%	0.2%
<i>Isle of Man</i>	20	+300%	0.4%
Total	5712	+29%	

Across the UK, increases in the numbers of archaeologists working in each area exceed the overall increase of 29% since 1997/98, with the exception of the West Midlands and London where falls are reported. The decrease in the numbers working in London can be explained through the regionalisation of English Heritage; in 1997/98, all of English Heritage's staff were reported as working in London. The relative fall in the West Midlands figures cannot be so simply explained.

The extremely high relative rises for the Channel Islands and the Isle of Man have to be considered along with the small sample sizes, which makes these figures statistically unreliable.

Archaeologists by employer's structural basis

Figures are presented here for the numbers of archaeologists working for employers with each of the structural bases defined in this survey, broken down by areas of the UK.

Table 38: Archaeologists working for national government organisations

	<i>Estimated number of archaeologists in area</i>	<i>Estimated number working for national government organisations</i>	<i>% of area total</i>	<i>% of all archaeologists working for national government</i>
<i>East Midlands</i>	339	14	4%	2%
<i>Eastern England</i>	364	31	9%	4%
<i>London</i>	798	301	38%	34%
<i>North-East England</i>	350	12	3%	1%
<i>North-West England</i>	295	33	11%	4%
<i>South-East England</i>	952	75	8%	9%
<i>South-West England</i>	934	172	18%	20%
<i>West Midlands</i>	249	14	6%	2%
<i>Yorkshire and the Humber</i>	486	37	8%	4%
<i>Scotland</i>	456	110	24%	12%
<i>Wales</i>	387	47	12%	5%
<i>Northern Ireland</i>	73	20	27%	2%
<i>Channel Islands</i>	9	0	0%	0%
<i>Isle of Man</i>	20	16	80%	2%
Total	5712	882	15%	100%

Table 39: Archaeologists working for local government organisations

	<i>Estimated number of archaeologists in area</i>	<i>Estimated number working for local government organisations</i>	<i>% of area total</i>	<i>% of all archaeologists working for local government</i>
<i>East Midlands</i>	339	83	24%	7%
<i>Eastern England</i>	364	221	61%	18%
<i>London</i>	798	41	5%	3%
<i>North-East England</i>	350	79	23%	6%
<i>North-West England</i>	295	91	31%	7%
<i>South-East England</i>	952	215	23%	17%
<i>South-West England</i>	934	263	28%	21%
<i>West Midlands</i>	249	100	40%	8%
<i>Yorkshire and the Humber</i>	486	58	12%	5%
<i>Scotland</i>	456	69	15%	6%
<i>Wales</i>	387	24	6%	2%
<i>Northern Ireland</i>	73	0	0%	0%
<i>Channel Islands</i>	9	5	56%	0%
<i>Isle of Man</i>	20	0	0%	0%
<i>Total</i>	5712	1249	22%	100%

Table 40: Archaeologists working for universities

	<i>Estimated number of archaeologists in area</i>	<i>Estimated number working for universities</i>	<i>% of area total</i>	<i>% of all archaeologists working for universities</i>
<i>East Midlands</i>	339	112	33%	13%
<i>Eastern England</i>	364	57	16%	6%
<i>London</i>	798	65	8%	7%
<i>North-East England</i>	350	48	14%	5%
<i>North-West England</i>	295	39	13%	4%
<i>South-East England</i>	952	137	14%	15%
<i>South-West England</i>	934	60	6%	7%
<i>West Midlands</i>	249	30	12%	3%
<i>Yorkshire and the Humber</i>	486	144	30%	16%
<i>Scotland</i>	456	89	20%	10%
<i>Wales</i>	387	79	20%	9%
<i>Northern Ireland</i>	73	26	36%	3%
<i>Channel Islands</i>	9	0	0%	0%
<i>Isle of Man</i>	20	4	20%	0%
<i>Total</i>	5712	890	16%	100%

Table 41: Archaeologists working for commercial organisations

	<i>Estimated number of archaeologists in area</i>	<i>Estimated number working for commercial organisations</i>	<i>% of area total</i>	<i>% of all archaeologists working for commercial organisations</i>
<i>East Midlands</i>	339	129	38%	5%
<i>Eastern England</i>	364	50	14%	2%
<i>London</i>	798	361	45%	15%
<i>North-East England</i>	350	168	48%	7%
<i>North-West England</i>	295	120	41%	5%
<i>South-East England</i>	952	499	52%	21%
<i>South-West England</i>	934	361	39%	15%
<i>West Midlands</i>	249	102	41%	4%
<i>Yorkshire and the Humber</i>	486	196	40%	8%
<i>Scotland</i>	456	167	37%	7%
<i>Wales</i>	387	178	46%	8%
<i>Northern Ireland</i>	73	27	37%	1%
<i>Channel Islands</i>	9	0	0%	0%
<i>Isle of Man</i>	20	0	0%	0%
<i>Total</i>	5712	2358	41%	100%

Table 42: Archaeologists working for other organisations

	<i>Estimated number of archaeologists in area</i>	<i>Estimated number working for other organisations</i>	<i>% of area total</i>	<i>% of all archaeologists working for other organisations</i>
<i>East Midlands</i>	339	2	1%	1%
<i>Eastern England</i>	364	4	1%	1%
<i>London</i>	798	30	4%	9%
<i>North-East England</i>	350	43	12%	13%
<i>North-West England</i>	295	12	4%	4%
<i>South-East England</i>	952	26	3%	8%
<i>South-West England</i>	934	78	8%	23%
<i>West Midlands</i>	249	2	1%	1%
<i>Yorkshire and the Humber</i>	486	52	11%	16%
<i>Scotland</i>	456	21	5%	6%
<i>Wales</i>	387	59	15%	18%
<i>Northern Ireland</i>	73	0	0%	0%
<i>Channel Islands</i>	9	4	44%	1%
<i>Isle of Man</i>	20	0	0%	0%
<i>Total</i>	5712	333	6%	100%

Archaeologists by employer's principal role

Here the numbers of archaeologists that work in organisations with each of the principal roles used in the survey are presented, again broken down by the areas of the UK in which the employing organisations are based.

Table 43: Archaeologists working for field investigation and research service organisations

	<i>Estimated number of archaeologists in area</i>	<i>Estimated number working for field investigation organisations</i>	<i>% of area total</i>	<i>% of all archaeologists working for field investigation organisations</i>
<i>East Midlands</i>	339	201	59%	7%
<i>Eastern England</i>	364	168	46%	6%
<i>London</i>	798	354	44%	13%
<i>North-East England</i>	350	207	59%	7%
<i>North-West England</i>	295	171	58%	6%
<i>South-East England</i>	952	514	54%	18%
<i>South-West England</i>	934	475	51%	17%
<i>West Midlands</i>	249	96	39%	3%
<i>Yorkshire and the Humber</i>	486	237	49%	8%
<i>Scotland</i>	456	209	46%	7%
<i>Wales</i>	387	170	44%	6%
<i>Northern Ireland</i>	73	24	33%	1%
<i>Channel Islands</i>	9	0	0%	0%
<i>Isle of Man</i>	20	0	0%	0%
<i>Total</i>	5712	2826	49%	100%

Table 44: Archaeologists working for historic environment information and advice service organisations

	<i>Estimated number of archaeologists in area</i>	<i>Estimated number working for historic environment information organisations</i>	<i>% of area total</i>	<i>% of all archaeologists working for historic environment information organisations</i>
<i>East Midlands</i>	339	99	29%	6%
<i>Eastern England</i>	364	138	38%	8%
<i>London</i>	798	199	25%	11%
<i>North-East England</i>	350	75	21%	4%
<i>North-West England</i>	295	72	24%	4%
<i>South-East England</i>	952	259	27%	15%
<i>South-West England</i>	934	375	40%	21%
<i>West Midlands</i>	249	136	55%	8%
<i>Yorkshire and the Humber</i>	486	120	25%	7%
<i>Scotland</i>	456	128	28%	7%
<i>Wales</i>	387	114	29%	6%
<i>Northern Ireland</i>	73	32	44%	2%
<i>Channel Islands</i>	9	3	33%	0%
<i>Isle of Man</i>	20	8	40%	0%
<i>Total</i>	5712	1758	31%	100%

Table 45: Archaeologists working for museum and visitor/user service organisations

	<i>Estimated number of archaeologists in area</i>	<i>Estimated number working for museum organisations</i>	<i>% of area total</i>	<i>% of all archaeologists working for museum organisations</i>
<i>East Midlands</i>	339	21	6%	4%
<i>Eastern England</i>	364	11	3%	2%
<i>London</i>	798	197	25%	42%
<i>North-East England</i>	350	15	4%	3%
<i>North-West England</i>	295	27	9%	6%
<i>South-East England</i>	952	42	4%	9%
<i>South-West England</i>	934	22	2%	5%
<i>West Midlands</i>	249	15	6%	3%
<i>Yorkshire and the Humber</i>	486	15	3%	3%
<i>Scotland</i>	456	65	14%	14%
<i>Wales</i>	387	24	6%	5%
<i>Northern Ireland</i>	73	0	0%	0%
<i>Channel Islands</i>	9	6	67%	1%
<i>Isle of Man</i>	20	8	40%	2%
<i>Total</i>	5712	468	8%	100%

Table 46: Archaeologists working for educational and academic research service organisations

	<i>Estimated number of archaeologists in area</i>	<i>Estimated number working for educational and academic organisations</i>	<i>% of area total</i>	<i>% of all archaeologists working for educational and academic organisations</i>
<i>East Midlands</i>	339	18	5%	3%
<i>Eastern England</i>	364	47	13%	7%
<i>London</i>	798	49	6%	7%
<i>North-East England</i>	350	52	15%	8%
<i>North-West England</i>	295	26	9%	4%
<i>South-East England</i>	952	137	14%	21%
<i>South-West England</i>	934	62	7%	9%
<i>West Midlands</i>	249	1	0%	0%
<i>Yorkshire and the Humber</i>	486	115	24%	17%
<i>Scotland</i>	456	53	12%	8%
<i>Wales</i>	387	78	20%	12%
<i>Northern Ireland</i>	73	17	23%	3%
<i>Channel Islands</i>	9	0	0%	0%
<i>Isle of Man</i>	20	4	20%	1%
<i>Total</i>	5712	659	12%	100%

Staff Qualifications

10% of professional archaeologists were found to have a doctorate as their highest level of academic qualifications and 21% had a Masters degree. A further 58% had a first degree, with 10% having qualifications from secondary education.

The finding that archaeology is a 90% graduate profession matches very closely the findings of Chitty (1999), where it was considered that 93% of the profession were graduates. Comparison with *Profiling the Profession* is not possible because the 1997/98 survey did not ask about qualifications.

Table 47: Summary of highest qualifications obtained

Qualifications	All		Paid		Unpaid volunteers		Archaeologists	
Doctorate	209	10%	204	10%	5	10%	202	10%
Masters	416	20%	414	21%	2	4%	412	21%
First degree	1170	57%	1155	57%	15	31%	1131	58%
Secondary	2067	13%	246	12%	26	54%	199	10%

Analysing qualifications by age, it is clear that a greater proportion of younger archaeologists have Masters degrees, and that the proportion diminishes with age. 37% of those in their 20s have a Masters degree, compared with 27% of those in their 50s.

Table 48: Highest qualifications obtained by age

Age	Doctorate		Masters		Degree		Secondary		Sample
20s	3	4%	31	37%	45	54%	2	2%	83
30s	17	10%	58	35%	72	43%	14	8%	167
40s	21	12%	39	23%	96	55%	11	6%	173
50s	15	15%	26	27%	37	38%	10	10%	97
>60	2	15%	2	15%	6	46%	2	15%	13

There is a progression of average salaries by highest qualifications achieved. The data presented in **Table 49** is for paid archaeologists by qualification. By comparison, the average salary for all archaeologists is £19,161 (see **Chapter Five: Jobs – Salaries**).

Table 49: Average salaries by highest qualification

Qualifications	Average salary
Doctorate	£27,222
Masters	£21,186
First degree	£18,835
Secondary	£15,132

Chapter Five: Jobs

Range of Jobs

Details relating to 2348 archaeologists and support staff working in jobs with 428 different post titles were received. This represents one post title for every 5.5 individuals and indicates that there is little consistency in the use of post titles across the UK. This is a slight improvement on the situation reported for 1997/98, when there was one post title for every 4.7 individuals.

Post Profiles were used in *Profiling the Profession* as a means of summarising information about 455 posts. This approach allowed a wide range of data about similar posts to be compared and contrasted. Comparison and aggregation of similarly titled jobs has allowed us to create 38 post profiles for the present survey. These include the 34 profiles used in 1997/98, with an additional two support roles and an additional two archaeological roles which needed new categories. The post profiles are introduced and presented in **Appendix I: Post Profiles**.

Respondents were asked what roles were carried out by staff working within each post, and these are summarised below for each post profile.

Table 50: Post profiles indicating the role carried out by individuals in the posts included within profiles

<i>Post group</i>	<i>Total</i>	<i>Field investigation and research</i>	<i>Historic environment advice</i>	<i>Museum and visitor/user</i>	<i>Educational and academic</i>	<i>Support staff</i>	<i>No role given</i>
Academic Staff	128	12			113		3
Archaeological Assistant	37	32	4	1			
Archaeological Officer	35	9	24	2			
Archaeological Scientist	35	25	4		5		1
Archaeologist	264	239	19	2			4
Archives Officer	20	10	2		7	1	
Assistant Archaeologist	4	1	3				
Buildings Archaeologist	18	9	7			2	
Computing Officer	18	6				11	1
Conservation Archaeologist	7	1	3		1	2	
Conservator	36	3		30	3		
Consultant	26	16	9				1
County or Regional Archaeologist	45		44	1			
Director or Manager	119	77	19	6	7	6	4
Editor	9	5			1	3	
Excavator or Site Assistant	99	98				1	
Field Officer	42	41	1				
Finds Officer	57	50	6	1			
Illustrator	49	40	2			7	
Inspector	45	6	35				4
Investigator	48	48					
Museum Archaeologist	66	14	9	36	3	4	
Photographer	8	3	4			1	
Planning Archaeologist	26		26				

<i>Post group</i>	<i>Total</i>	<i>Field investigation and research</i>	<i>Historic environment advice</i>	<i>Museum and visitor/user</i>	<i>Educational and academic</i>	<i>Support staff</i>	<i>No role given</i>
Project Manager	105	100	1		3		1
Project Officer	166	160	5				1
Researcher	29	21			8		
Senior Archaeologist	92	85	6				1
Sites and Monuments Record Officer	41		38		1	1	1
Supervisor	188	180					8
Surveyor	5	4				1	
Warden	19		19				
Administrator	78	2	1	2		73	
Financial posts	16	2				14	
Other support posts	51					51	
Senior posts	75	45	28	2			
Junior posts	143	129	8			6	
Other posts	99	50	34	3	11		1
Totals	2348	1523	361	86	163	184	31

Some organisations carried out more than one role, and examination of the roles of posts within organisations reveals this. Of the 336 roles within organisations which have the principal role of historic environment advice and information, 66 are field investigation roles. This number is accounted for, at least in part, by local authority archaeological services which carry out fieldwork as well as their principal role of providing historic environment advice.

Table 51: Comparison between organisation roles and roles of posts

<i>Organisation role</i>	<i>Post: field investigation and research</i>	<i>Post: historic environment advice</i>	<i>Post: museum and visitor/user</i>	<i>Post: educational and academic</i>	<i>Post: support staff</i>	<i>Total</i>
Field investigation and research	353	5	5	5	54	422
Historic environment advice	66	221	7	2	40	336
Museum and visitor/user services	2	4	45	10	5	66
Education and academic	15	1	3	35	17	71
Total	436	231	60	52	116	895

Salaries

We received information on the salaries of 2060 archaeologists (76% of all archaeologists in the survey). Of these, we know that 1771 work full-time and 220 work part-time. We have no information on the working hours of the remainder.

The average salary for all archaeologists is £19,161. This compares to a national average full-time salary for all occupations of £24,498 (National Statistics 2002). The median archaeological salary is £17,127. 50% of archaeologists earn more than this amount, and 50%

earn less. The national median figure is £20,010. The figures for archaeologists represent increases of 12% and 8% respectively on the 1997/98 figures.

We received information on the salaries of 127 support staff (31% of the support staff for whom data was received). The average salary for support staff is £15,264 and the median salary is £15,000. The average support staff salary is 62% of the national average, and the median salary is 75% of the national median salary for all occupations.

In most cases we were given the full-time equivalent salary data for part-time staff, rather than the amount they received pro rata. No separate calculations have been made for part-time staff.

The questionnaire asked for the gross salary scale of each post. Respondents were invited to provide minimum, maximum and average salaries. The figures published below are all average salaries. If no average salary was given but only a minimum or a maximum, that was regarded as an average salary for this survey. When no average was given but both a maximum and a minimum, the average was taken to be the minimum plus one third of the difference between the minimum and maximum, as this was found to be an accurate approach in *Profiling the Profession*.

Respondents were specifically asked to include temporary staff in the survey, and the figures for contract lengths indicate that these staff were included. The present survey is therefore not considered to have a sample bias against the poorest paid archaeologists. A possible sample bias was recorded in *Profiling the Profession*.

The Institute of Field Archaeologists recommends minimum pay levels for archaeologists exercising levels of responsibility equivalent to the three grades of corporate membership. In 2002/03 these were £12,291 for Practitioners (PIFA), £14,316 for Associates (AIFA) and £18,537 for Members (MIFA).

Comparing the results with the figures for 1997/98, the figures for all UK workers show the median increasing by 22% and the average by 28%. The figures for archaeologists are much lower, with a median increasing by only 8% and the average by 12%. Archaeologists are worse off in 2002/03, compared to other workers, than they were in 1997/98.

Table 52: Salary distribution in archaeology

	Archaeologists	Archaeologists % change from 1997/98	Support staff	All UK workers	All UK workers % change from 1997/98
Lowest 10% earn less than	£12,619	21%	£11,650	£11,214	23%
Lower 25% earn less than	£13,557	8%	£13,270	£14,574	23%
Median	£17,127	8%	£15,000	£20,010	22%
Upper 25% earn more than	£22,451	12%	£16,575	£28,042	23%
Highest 10% earn more than	£28,643	15%	£20,000	£38,633	26%
Average	£19,161	12%	£15,264	£24,498	28%

Source: National Statistics 2002

Salaries by organisational structure

The highest median and average salaries are found in national heritage agencies and universities, with the lowest in commercial organisations and local government.

The balance between the median and average figures, with the average being higher than the median, indicates that most organisations are pyramidal in structure, with most employees

earning less than the average. The one exception to this is national government, but the difference here (£29) is negligible. This indicates a change since 1997/98, when the median figure for the national heritage agencies, universities and national museums was higher than the average, indicating that they were top-heavy in salary structure.

Commercial organisations pay the lowest salaries. The size of the difference between median and average indicates that they are pyramidal in structure, with a large number of junior staff. However, even the figure for the highest 10% is lower than those for the other types of organisation, suggesting that salaries are low across the board.

Table 53: Salary distribution in archaeology by organisational structural basis

<i>Structural basis of organisation</i>	<i>Lowest 10% earn less than</i>	<i>Lower 25% earn less than</i>	<i>Median</i>	<i>Upper 25% earn more than</i>	<i>Highest 10% earn more than</i>	<i>Archaeologists average</i>	<i>Sample</i>
<i>National government</i>	£15,600	£19,500	£24,000	£25,500	£38,000	£23,971	164
<i>Local government</i>	£12,885	£14,733	£17,440	£21,921	£26,082	£18,756	471
<i>University</i>	£13,478	£15,039	£21,125	£29,468	£33,000	£22,883	239
<i>Commercial organisation</i>	£12,480	£13,043	£15,917	£20,543	£25,000	£17,421	1027
<i>Other</i>	£14,316	£15,552	£20,000	£25,000	£28,836	£21,036	159

Salaries by organisational role

The lowest salaries are paid in organisations which carry out field investigation and research services. As with the salaries for commercial organisations discussed above, salaries are low at the upper 25% and 10% as well as the median and lower ranges.

The figure for the lowest 10% of museum and visitor/user services reflects the low salaries for certain museum roles. Staff in these organisations in the middle pay bands are second-highest paid of these four organisational roles.

Table 54: Salary distribution in archaeology by organisational role

	<i>Lowest 10% earn less than</i>	<i>Lower 25% earn less than</i>	<i>Median</i>	<i>Upper 25% earn more than</i>	<i>Highest 10% earn more than</i>	<i>Archaeologists average</i>	<i>Sample</i>
<i>Field investigation and research services</i>	£12,480	£13,043	£15,957	£19,776	£24,000	£17,264	1323
<i>Historic environment advice and information services</i>	£13,716	£16,371	£20,000	£25,000	£32,000	£21,678	505
<i>Museum and visitor/user services</i>	£11,440	£17,000	£22,000	£25,000	£25,000	£20,772	95
<i>Educational and academic research services</i>	£15,959	£21,350	£28,000	£31,000	£37,000	£27,081	137

Salaries by geographical area

Average salaries for archaeologists in each geographical area have been calculated and compared with the average salaries for all full-time workers in that area. Official average pay information includes Northern Ireland but not the Channel Islands or the Isle of Man.

Archaeologists typically earn less than the regional average in England. Only in Yorkshire and the Humber does the average archaeological salary exceed the average for all workers. This was also the case in 1997/98. The Yorkshire and the Humber regional average salary is considerably higher than London average salaries, which is an indication that 'top-heavy' organisations are represented.

Although average archaeological salaries in London are the second-highest in England, as a percentage of all workers they are the lowest of all the regions. The change over the last five years is especially noteworthy. In 1997/98 London archaeological salaries were 83% of those of all London workers, but now they are down to 57%.

The third-highest average salaries in England are in Eastern England. Average salaries in South-East England are relatively low, and are also low in relation to the average salaries of all workers. In this case the proportions have changed little since 1997/98.

The figures show relatively high average earnings in Wales, and average archaeological salaries are 103% of average salaries of all workers. In 1997/98 the high comparison figure was a statistical error due to an imbalance in organisations returning questionnaires, but the current figures are representative, since questionnaire returns from all sectors in Wales were good.

Archaeological salaries in Scotland and Northern Ireland are also high in relation to the average salaries of all workers. The level of response to the questionnaire was high in both countries, so the figures are representative of archaeological salaries as a proportion of other salaries.

Table 55: Salary distribution in archaeology by geographical area

Area	All workers average	Archaeologists average	Archaeologists' pay as % of all workers		Sample
			2002/03	1997/98	
East Midlands	£21,772	£17,264	79%	84%	151
Eastern England	£24,099	£19,207	80%	79%	133
London	£34,762	£19,714	57%	83%	372
North-East England	£20,716	£16,962	82%	87%	52
North-West England	£22,487	£16,851	75%	81%	83
South-East England	£26,449	£17,985	68%	70%	419
South-West England	£22,359	£18,386	82%	88%	251
West Midlands	£22,387	£18,231	81%	98%	128
Yorkshire and the Humber	£21,503	£22,049	103%	101%	168
Scotland	£22,016	£22,201	101%	101%	122
Wales	£20,758	£21,369	103%	124%	135
Northern Ireland	£20,896	£19,762	95%	-	37
Channel Islands	-	£15,352	-	-	5
Isle of Man	-	£26,500	-	-	4
UK	£24,498	£19,161	78%	92%	2060

Source: National Statistics 2002

Salary scales and post profiles

The highest-paid post profile was that of Academic Staff, with an average salary of £31,131. The lowest-paid profile was of Excavator or Site Assistant, with an average salary of £12,140. Details of all these post profile salaries can be found in ***Appendix I: Post Profiles***.

Salaries in other occupations

Average salaries of a number of occupations are published below. These are either professions to which some archaeologists may feel they belong, or occupations with which archaeologists have frequent professional contact. They are listed in descending order of salary.

The average full-time archaeological salary is £19,161. That of all professional occupations is £32,577. The average salary for 'professional occupations not elsewhere categorised' is

£22,622. This is the group into which archaeologists are classified by National Statistics, and which also includes professions such as psychologists, probation officers and clergy (see *Appendix IV: National Statistics Classification*).

The percentage change since 1997/98 shows that archaeologists' salaries have increased by the second-lowest percentage of the occupations listed.

Table 56: Salary comparison with other occupations

<i>Occupations ordered by earnings</i>	<i>Average gross earnings</i>	<i>% increase since 1997/98</i>
University and polytechnic teaching professionals	£34,791	15%
Architects	£34,426	33%
Managers in building and contracting	£33,924	32%
Civil, structural, municipal, mining and quarrying engineers	£31,527	12%
Building, land, mining and 'general practice' surveyors	£30,275	24%
Town planners	£27,064	5%
Draughtspersons	£23,227	18%
Scientific technicians	£23,157	18%
Librarians and related professionals	£22,728	18%
Road construction and maintenance workers	£20,183	19%
Builders, building contractors	£19,277	26%
Archaeologists	£19,161	12%
Construction trades	£18,809	21%
Other building and civil engineering labourers not elsewhere categorised	£17,455	26%
All professional occupations	£32,577	25%
Professional occupations not elsewhere categorised	£22,622	21%
National average	£24,498	28%

Source: National Statistics 2002

Salaries by gender

The survey received information about the gender of 1842 (89%) of the 2060 archaeologists for whom salary information was given (representing 68% of the 2697 paid archaeologists included on the organisation questionnaire returns). The difference in sample size between all archaeologists and those for whom gender was known explains why some of the totals are inconsistent.

The average archaeological male salary is £20,157, the female average salary is £18,922, 94% of the male figure. For all workers female salaries represent 72% of male salaries.

The lowest-earning 10% of men and women earn the same salary. The lower 25% of female archaeologists earn 97% of male salaries, the median earn 94%, the upper 25% 92% and the top 10 of female archaeologists earn 91% of male salaries. In 1997/98, the top 10% of male and female salaries were the same.

Female archaeologists earn 95% of the average salary of all full-time female workers (£19,757). Male archaeologists earn 74% of the average salary of all male workers (£27,307). For all archaeologists the average is 78% of all workers' salaries.

Table 57: Salary distribution in archaeology by gender

	<i>Lowest 10% earn less than</i>	<i>Lower 25% earn less than</i>	<i>Median</i>	<i>Upper 25% earn more than</i>	<i>Highest 10% earn more than</i>	<i>Archaeologists' average</i>	<i>% change since 1997/98</i>	<i>Archaeologists' salaries as % of all workers</i>	<i>Sample</i>
Female	£12,619	£14,376	£17,324	£22,000	£27,363	£18,922	13%	95%	658
Male	£12,619	£14,798	£18,537	£24,000	£30,000	£20,157	13%	74%	1184
All archaeologists	£12,619	£13,557	£17,127	£22,451	£28,643	£19,161	12%	78%	2060

Source: National Statistics 2002

Salaries by age

The survey received information about the age of 1842 (89%) of the 2060 archaeologists for whom salary information was given (which represents 68% of the 2697 paid archaeologists included on the organisation questionnaire returns).

The highest average salaries are earned by archaeologists in their 50s; this group also earns the highest salaries overall, and earns the widest range of salaries from £13,122 for the lowest 10% to £35,452 for the highest 10%.

Table 58: Salary distribution in archaeology by age

	<i>Lowest 10% earn less than</i>	<i>Lower 25% earn less than</i>	<i>Median</i>	<i>Upper 25% earn more than</i>	<i>Highest 10% earn more than</i>	<i>Archaeologists' average</i>	<i>% change since 1997/98</i>	<i>Sample</i>
<20						£12,832	9%	3
20-29	£12,480	£12,900	£14,679	£17,000	£20,748	£15,822	27%	480
30-39	£13,121	£15,700	£18,055	£22,365	£26,082	£19,297	14%	628
40-49	£13,122	£16,667	£20,748	£25,399	£31,660	£21,860	8%	492
50-59	£13,122	£18,085	£23,373	£29,468	£35,452	£24,370	21%	219
>60	£10,000	£14,917	£21,000	£31,000	£33,000	£23,692	13%	20

Weighting allowances

The salaries of 41 posts, held by 110 archaeologists, included weighting allowances. 28 of these posts (80 individuals) were based in London. One post (one individual) was based in Scotland, and one post (3 individuals) was based in Wales. The remaining eleven posts (26 individuals) were based in England outside London.

The weighting amount included in the salaries was given for 29 of the 41 posts and ranges from £680 to £3858 a year. The London allowance ranges from £1,800 to £3,858 a year. The allowance for areas other than London ranges from £680 to £2,500 a year.

Salary scales

Salary scales were used by 171 organisations responding to the survey (73% of the sample). These organisations, however, employed 86% of individuals in the survey.

Of these organisations, 12 used the Civil Service scale, 89 used Local Authority scales, 26 used University scales, 43 used locally defined or own scales, and 3 used other scales. Of the 3

organisations using other scales, two used the HAY scheme, and the other was in the process of moving from a University scale to a locally defined scale.

Employee Rights/Benefits

The questionnaire asked a series of questions directly relating to employee rights and benefits. **Table 59** presents the answers in terms of the number of organisations answering in each category, and the number of workers that they employ.

The first of these questions was ‘do employees receive 20 or more days paid holiday leave per annum?’ Under the Working Time Regulations 1998 (regulation 13), all workers are entitled to four weeks paid leave, although it is clear that public and other state holidays are included in this total. Organisations employing 97% of archaeologists responded that they were complying with the law on this matter. It is likely that the 12 organisations, employing 18 individuals, that answered no to this question are sole-traders, sole company directors or partnerships, and are therefore not ‘employees’.

The second question related to a benefit, rather than a right. The Social Security Contributions and Benefits Act 1992 and the Statutory Sick Pay Act 1994 make employers responsible for paying Statutory Sick Pay (SSP) for up to 28 weeks of absence due to sickness or injury. In 2002/03, SSP was £62.20 per week. The employers of 92% of archaeologists gave paid sick leave over and above this.

Paid maternity leave over and above Statutory Maternity Pay is also a benefit, rather than a right. The standard rate of Statutory Maternity Pay in 2002/03 was £75.00 per week for a maximum of 18 weeks. The employers of 67% of archaeologists stated that they do give or would give paid maternity leave above this.

The employers of 90% of archaeologists stated that they would offer employees the opportunity to take unpaid maternity leave. However, this is not a benefit, but a right under the Maternity and Parental Leave Regulations 1999 which state that an employee who has been employed for at least a year and who has or expects to have responsibility for a child is entitled to be absent from work on parental leave for up to 13 weeks. This applies to both mothers and fathers. The returns from this questionnaire suggest that the employers of 1% of all archaeologists are not meeting their legal requirements in terms of allowing mothers to take unpaid parental leave, and the employers of 3% are not meeting their legal requirements in terms of allowing fathers to take this leave.

The employers of 72% of archaeologists give their employees the benefit of paid paternity leave, and the employers of 56% stated that they would give unpaid paternity leave – and the employers of 3% stated that they would not, in contravention of the Maternity and Parental Leave Regulations as noted above.

The opportunity to jobshare or to use other flexible working arrangements was offered as a benefit to the employers of 89% of archaeologists.

The employers of 59% of archaeologists offer subsidised accommodation or a subsistence allowance where appropriate. This figure correlates reasonably closely with the percentage of archaeologists (49%) who work for organisations providing field research and investigation services, and are more likely to be based away from the organisation’s headquarters for substantial periods of time.

Table 59: Employee rights/benefits

	Numbers of providing organisations and total number of employees working for those organisations					
	Yes		No		Don't know	
<i>Do employees receive 20 or more days paid holiday leave per annum?</i>	201 85%	3021 97%	12 5%	18 1%	23 10%	59 2%
<i>Do employees receive paid sickness leave over and above Statutory Sick Pay?</i>	171 72%	2838 92%	26 11%	134 4%	39 17%	126 4%
<i>Do employees receive paid maternity leave over and above Statutory Maternity Pay?</i>	136 58%	2067 67%	49 21%	850 27%	51 22%	181 6%
<i>Do employees receive the opportunity to take unpaid maternity leave?</i>	167 71%	2802 90%	17 7%	42 1%	52 22%	264 8%
<i>Do employees receive paid paternity leave?</i>	129 55%	2217 72%	42 18%	471 15%	65 28%	410 13%
<i>Do employees receive the opportunity to take unpaid paternity leave?</i>	133 56%	2594 84%	24 10%	95 3%	79 33%	409 13%
<i>Are employees provided with the opportunity to jobshare or use other flexible working arrangements?</i>	162 69%	2750 89%	30 13%	160 5%	44 18%	188 6%
<i>Are employees provided with subsidised accommodation or subsistence allowance?</i>	73 31%	1833 59%	131 56%	1142 37%	32 13%	123 4%

93 responding organisations stated that they offered other benefits. 40 of these included at least a contribution to IFA membership subscriptions, two each to the Museums Association and ALGAO and one to Association of Archaeological Illustrators and Surveyors' subscription. A small number of organisations offered non-specific 'professional subscriptions' as a benefit. 23 organisations mentioned pension contributions or access to a pension fund as benefits, although this is clearly not the limit of the number of organisations contributing to pensions (see below). Seven organisations made reference to car allowances, parking or travel ticket loans. Medical insurance or life assurance was given by seven organisations.

Fourteen organisations considered training opportunities to represent a benefit to their employees. Two organisations offered personal protective equipment as a bonus, rather than the right that it is. One organisation mentioned the subsidised canteen.

In comparison with the *Profiling the Profession* questionnaire of 1997/98, changes in the law meant that different questions were asked. In 1997/98, more fundamental questions were asked about the existence of benefits which had only recently or have subsequently become rights, such as paid annual leave and paid maternity leave. One of the only directly comparable questions was the one relating to paid paternity leave, which has increased from the employers of 64% of archaeologists to 72%. The other directly comparable question was that relating to subsidised accommodation or a subsistence allowance; in 1997/98, this was offered to the employers of 55% of archaeologists, a figure which has risen to 59% in 2002/03. This may be explained by the relative rise in the number of archaeologists working in field investigation and research (see above).

The questionnaire also asked about employers' pension contributions. This question was asked in terms of post profiles, rather than as part of the organisation-wide questions. In 2002/03 the figure was 77%, an increase from 71% in 1997/98.

Table 60: Employers' pension contributions

	Yes		No	
<i>Does the organisation contribute to the pension of individuals working in this post?</i>	1632	74%	571	26%

Examining the post profile data presented in *Appendix I: Post Profiles*, it is clear that the posts where employers are least likely to contribute to pensions are junior fieldworking posts. *Table 61* below lists all of the post profiles where less than the average of 74% of employees received pension contributions from their employers.

Table 61: Employers' pension contributions by post profile

<i>Post profile title</i>	<i>% receiving employers' contributions</i>
Supervisor	74%
Consultant	73%
Field officer	67%
Surveyor	60%
Other posts	60%
Archaeological assistant	44%
Archaeologist	38%
Excavator or site assistant	26%

The 1997/98 data is not directly comparable on this point, but then only 46% of archaeologists working for 'contractors' received contributions.

Separately from these questions, respondents were asked whether the organisation operated a performance-related pay scheme. In terms of this question, 18% of archaeologists were working for an organisation that operated such a scheme, 82% were not.

Job Security

Length of contract

The questionnaire asked about the length of contracts of the staff working within each post. We received details for 2029 paid members of staff (archaeological and support), 86% of the total number of staff for whom we received some post profile data.

Table 62: Length of contract

<i>Length of contract</i>	<i>Number of individuals</i>	<i>%</i>
<i>Up to 3 months</i>	182	9%
<i>3-6 months</i>	68	3%
<i>6-12 months</i>	176	9%
<i>12-24 months</i>	79	4%
<i>>24 months</i>	74	4%
<i>Permanent</i>	1450	71%

In 1997/98 34% of archaeologists were on temporary contracts. This number has now reduced to 29%, but, as was the case in 1997/98, it is at odds with the national picture. In 2000, only 7% of the national workforce were temporary workers (IDS 2000).

The roles of most (99%) of these workers were also given, and **Table 63** compares the length of contracts in different organisational roles.

Table 63: Contract length by working role

<i>Role</i>	<i><3m</i>		<i>3-6m</i>		<i>6-12m</i>		<i>12-24m</i>		<i>>24m</i>		<i>Permanent</i>	
<i>Archaeologist: field investigation and research services</i>	176	14%	51	4%	139	11%	33	3%	38	3%	862	66%
<i>Archaeologist: historic environment advice and information services</i>	0	-	3	1%	15	5%	14	4%	23	7%	266	83%
<i>Archaeologist: museum and visitor/user services</i>	1	1%	1	1%	3	4%	2	2%	0	-	77	92%
<i>Archaeologist: educational and academic research services</i>	1	1%	6	4%	6	4%	24	17%	7	5%	95	68%
<i>Support staff</i>	3	2%	6	4%	8	5%	4	2%	3	2%	140	85%

Posts undertaking field investigation and research services are the least secure, with 34% of individual archaeologists on temporary contracts. Posts providing museum and visitor/user services are the most secure, with 92% of individual archaeologists on permanent contracts.

The average length of a temporary contract was 11 months, an increase on the 10 months reported in 1997/98.

There is a correlation between contract length and whether posts are project or establishment funded. This is discussed below (*Sources of funding*).

Length of employment to date

The questionnaire also asked for information on the length of employment to date of employees. We received information for 2221 archaeologists, 94% of the total number of staff for whom we received some post profile data.

Table 64: Length of employment to date

<i>Length of employment to date</i>	<i>Number of individuals</i>	<i>%</i>
<i>Up to 3 months</i>	231	10%
<i>3-6 months</i>	145	7%
<i>6-12 months</i>	232	10%
<i>12-24 months</i>	212	10%
<i>>24 months</i>	1401	63%

This suggests that there has been an annual turnover within archaeology of individuals taking up new posts in excess of 25%.

Comparisons of length of time in post by roles are presented in **Table 65**.

Table 65: Employment to date by working role

<i>Role</i>	<i><3m</i>		<i>3-6m</i>		<i>6-12m</i>		<i>12-24m</i>		<i>>24m</i>	
<i>Archaeologist: field investigation and research services</i>	189	13%	99	7%	160	11%	151	10%	864	59%
<i>Archaeologist: historic environment advice and information services</i>	7	2%	15	5%	32	10%	33	10%	237	73%
<i>Archaeologist: museum and visitor/user services</i>	0	-	4	5%	5	6%	5	6%	68	83%
<i>Archaeologist: educational and academic research services</i>	22	15%	13	9%	17	11%	6	4%	92	61%
<i>Support staff</i>	10	6%	13	7%	16	9%	15	8%	125	70%

Mirroring the data on length of contract, archaeologists working in museum and visitor/user services were most likely to have been in post for more than two years, and those archaeologists that worked in field investigation and research were least likely. Two years is a crucial date, as at that point a substantial number of statutory employment rights come in to effect.

Full-Time and Part-Time Work

The survey asked whether individuals worked full-time (30 hours or more per week) or part-time (less than 30 hours per week). These are the definitions of full- and part-time work used in the New Earnings Survey (National Statistics 2002, Appendix 1). We received information about the working hours of 2273 individuals.

Overall, we found that 86% of people working as archaeologists or as archaeological support staff worked full-time.

Table 66: Full-time and part-time work, all staff

	<i>Individuals</i>	
<i>Full-time</i>	1947	86%
<i>Part-time</i>	326	14%
<i>Total</i>	2273	100%

This is a higher proportion than the nation-wide average. While only 14% of people working in archaeology are part-time, one in four workers in the whole UK workforce is so (IDS 2001).

Full-time and part-time work by role

It is clear that there are some areas where part-time working is much more widespread. 35% of archaeologists working in educational and academic research do so part-time, as do 37% of support staff. By contrast, 92% of archaeologists working in museum and visitor/user services and 90% of those undertaking field investigation and research work full-time. Please note that data on individuals' role and working hours was available for 2254 individuals.

Table 67: Full-time and part-time work by role

<i>Role</i>	<i>Full-time</i>		<i>Part-time</i>	
<i>Archaeologist: field investigation and research services</i>	1343	90%	147	10%
<i>Archaeologist: historic environment advice and information services</i>	285	86%	46	14%
<i>Archaeologist: museum and visitor/user services</i>	79	92%	7	8%
<i>Archaeologist: educational and academic research services</i>	108	65%	59	35%
<i>Support staff</i>	113	63%	67	37%

Full-time and part-time work by gender

Data was available for the hours worked and gender of 1366 individuals working in archaeological posts.

Table 68: Full-time and part-time work by gender

	<i>Female</i>		<i>Male</i>	
<i>Full-time</i>	414	33%	824	67%
<i>Part-time</i>	67	52%	61	48%

Sources of Funding

The questionnaire asked whether posts were funded by establishment income or by project grants/contracts.

Data was received about 2214 individual archaeologists. Of these, 761 (36%) were in establishment-funded posts and 1453 (66%) were in project-funded posts.

This represents a considerable swing towards project-funding for posts over the previous five years. In 1997/98, 48% of archaeologists were in establishment-funded posts, and 52% had posts funded by project income.

By the roles of the archaeologists in these posts, the posts most commonly funded by establishment funding were in museum and visitor/user services (91% establishment-funded). By contrast, only 17% of the posts in field investigation and research services were establishment-funded. This can be compared with the 19% of establishment-funded posts for 'contractors' in 1997/98.

Table 69: Roles and sources of funding

<i>Role</i>	<i>Establishment</i>		<i>Project</i>	
<i>Archaeologist: field investigation and research services</i>	252	17%	1204	83%
<i>Archaeologist: historic environment advice and information services</i>	210	68%	100	32%
<i>Archaeologist: museum and visitor/user services</i>	71	91%	7	9%
<i>Archaeologist: educational and academic research services</i>	111	70%	48	30%
<i>Support staff</i>	88	52%	81	48%
<i>Not given</i>	9	41%	13	59%

A correlation can also be made between job security and post funding, as establishment funding supports relatively more permanent posts.

In total, 579 individuals were on temporary contracts (29%), while 1450 (71%) were on permanent or open-ended contracts. In establishment-funded posts, 21% of posts were

temporary contracts, while 79% were permanent. In project-funded posts, 38% were temporary and 62% permanent.

Vacancies

We asked whether organisations had encountered difficulties filling posts. A vacancy that was difficult to fill was defined as having been advertised for over six months in the previous year.

Excluding responses of ‘don’t know’, we received 834 answers to this question. Of these, 38 were positive, suggesting that there had been a problem – representing 5% of posts for which we have data on this question.

Typically vacancies in archaeology are easy to fill, suggesting that supply exceeds demand for jobs within the profession.

Table 70 compares the average salaries offered in each of the posts that were difficult to fill with the average salaries for the post profiles into which those posts fit.

Table 70: Difficult to fill vacancies

<i>Post profile</i>	<i>Vacancies</i>	<i>Average vacancy salary</i>	<i>Average profile salary</i>	<i>% of role average</i>
<i>Archaeological assistant</i>	1	£13,390	£14,040	95%
<i>Archaeologist</i>	5	£17,000	£14,303	119%
<i>Computing officer</i>	1	£17,403	£19,997	87%
<i>Consultant</i>	2	£29,768	£28,889	103%
<i>Editor</i>	2	£21,184	£20,809	102%
<i>Field officer</i>	1	£15,000	£17,448	86%
<i>Finds officer</i>	2	£18,065	£18,422	98%
<i>Illustrator</i>	2	£16,118	£16,450	98%
<i>Museum archaeologist</i>	1	£22,000	£19,588	112%
<i>Planning archaeologist</i>	1	Not known	£19,210	-
<i>Project manager</i>	6	£23,882	£22,466	106%
<i>Project officer</i>	6	£18,093	£18,049	100%
<i>Senior archaeologist</i>	3	£21,628	£21,135	102%
<i>Senior posts</i>	1	£24,667	£26,468	93%
<i>Sites and monuments record officer</i>	1	£17,403	£18,841	92%
<i>Supervisor</i>	3	£14,235	£14,290	100%

If salaries can be used as an indicator of the relative seniority of posts, comparing the average salaries offered with the average for that post profile gives some indication of whether these posts were difficult to fill because they were relatively senior posts attracting a limited number of suitable applicants (vacancy salaries higher than the role average), or whether the pay was so low that suitable applicants were dissuaded from applying (role average higher than the vacancy salary).

Trade Unions

The questionnaire did not ask about individual union membership, but asked if there were any recognised trade unions in the organisation’s workplace.

Trade unions were recognised at 145 organisations (64% of the sample), where 2146 archaeologists and support staff work. This represented 71% of the individual archaeologists and support staff for whom we had data relating to trade union recognition by their employers.

Table 71: Trade union recognition by employing organisation's structural basis

<i>Are there any recognised trade unions in the organisation's workplace?</i>	<i>Yes</i>		<i>No</i>	
	<i>Employees</i>		<i>Employees</i>	
<i>National government organisations</i>	812	100%	4	<1%
<i>Local government organisations</i>	523	99%	7	1%
<i>Universities</i>	308	100%	0	0%
<i>Commercial organisations</i>	379	35%	705	65%
<i>Other organisations</i>	124	66%	63	34%
<i>Total</i>	2146	71%	779	29%

Union recognition was nearly universal within universities, national and local government. By contrast, roughly one-third of archaeologists and support staff working for commercial organisations are in a workplace where a trade union had been recognised, while this was the case for roughly two-thirds of staff working for 'other' organisations.

By comparison, in 1997/98 unions were recognised in all the national heritage agency and national museum workplaces. Over 96% of individuals working for local government had a union recognised in their workplace, as did 39% of archaeologists working for contractor organisations.

In total, 15 different unions were recognised in archaeologists' workplaces. **Table 72** gives the full list of unions recognised, with the number of archaeological organisations recognising them and the number of archaeologists and support staff employed by those organisations. Some organisations recognise more than one union, so some employees are counted several times in this table.

Table 72: Full list of unions recognised by archaeological employers

	<i>Organisations where union is recognised</i>	<i>Employees at those organisations</i>
<i>Unison</i>	110	1365
<i>Prospect</i>	35	1252
<i>Association of University Teachers</i>	23	331
<i>Public and Commercial Services Union</i>	10	555
<i>Amicus</i>	10	180
<i>FDA</i>	9	552
<i>GMB</i>	7	50
<i>T&G</i>	4	34
<i>NATFHE</i>	3	32
<i>Northern Ireland Public Servants Association</i>	1	41
<i>National Union of Journalists</i>	1	3
<i>Undeb Cenedlaethol Athrawon Cymru</i>	1	3
<i>MPO</i>	1	1

As was the case in 1997/98, Unison is recognised at more organisations than any other union.

Chapter Six: Training

Identification of Training Needs

Archaeological organisations have a strong commitment to training as a principle. 93% of organisations responded that they identified training needs for individuals and for the organisation as a whole.

That commitment, however, does not necessarily translate into action. While 78% of organisations responded that they had a training budget, and 73% identified that the training budget was under their own control, only 55% of organisations responded that they had a formal training plan. This suggests that 45% of organisations were spending money on training on an ad hoc basis, as no formal plan existed to guide this training.

71% of organisations recorded the amount of time that individuals spent on training, but only 57% formally evaluated the impact of training on individuals. Post-training evaluation gives a reflective element to the learning cycle, which is lost if formal evaluation is not carried out. This helps the individual, and informs the organisation.

Only 35% of organisations formally evaluated the impact that training had on the organisation as a whole. This evaluation of training should be as important a part of forward planning for archaeological organisations as the identification of training requirements.

Table 73: Identification of training needs

	Yes	No	Don't know	Responses
<i>Do you identify training needs for individuals and the organisation as a whole?</i>	93%	6%	1%	224
<i>Do you provide training or other development opportunities for paid employees?</i>	93%	6%	1%	221
<i>Does your organisation have a formal training plan?</i>	55%	42%	3%	219
<i>Does your organisation have a training budget?</i>	78%	21%	1%	223
<i>Is your training budget under your organisation's direct control?</i>	73%	24%	4%	206
<i>Do you record how much time employees spend training?</i>	71%	25%	4%	220
<i>Do you formally evaluate the impact of training on individuals?</i>	57%	38%	5%	217
<i>Do you formally evaluate the impact of training on the organisation?</i>	35%	55%	10%	218

Potential Skills Shortages

Non-archaeological skills shortages

The questionnaire asked whether outside consultants had been brought in for any non-archaeologically specific area of work in the previous year. 153 organisations indicated that they had – 65% of all responding organisations. The most commonly identified skills shortage was in information technology (67% of organisations). This was identified more than twice as often as the second-most commonly identified shortage, in education/training (33%).

Table 74: Non-archaeological skills shortages

<i>Skills shortage identified</i>		<i>Responses</i>
<i>Information technology</i>	67%	105
<i>Education/training</i>	33%	51
<i>Marketing/sales</i>	24%	36
<i>People management</i>	23%	35
<i>Project management</i>	23%	35
<i>Customer care</i>	16%	24
<i>Business skills</i>	14%	22
<i>Leadership</i>	13%	20
<i>Advocacy/influencing others</i>	9%	14
<i>Non-English language</i>	8%	13
<i>Other</i>	22%	34

Health and safety was the most commonly identified ‘other’ skills shortage, with eight organisations reporting that they had brought in consultants. Three organisations used the services of architectural or engineering consultants, and one or more organisations identified a further 18 other skills shortages, including administrative issues, design or publishing and diversity issue awareness.

Archaeological skills shortages

The questionnaire also asked whether consultants had been used for technical, archaeological skills. 159 organisations responded that they had (67% of all responses). The most commonly identified skills were artefact or ecofact research (53%), conducting geophysical survey (52%) and artefact or ecofact conservation (48%).

Table 75: Archaeological skills shortages

	<i>Skills shortage identified</i>	<i>Responses</i>
<i>Artefact or ecofact research</i>	53%	84
<i>Conducting [direct] non-intrusive field investigations [geophysical survey]</i>	52%	82
<i>Conservation of artefacts or ecofacts</i>	48%	77
<i>Desk-based research</i>	39%	62
<i>Conducting [direct] intrusive investigations [evaluation, excavation]</i>	33%	52
<i>Contributing to intrusive investigations [evaluation, excavation]</i>	30%	47
<i>Conducting [direct] other non-intrusive field investigations</i>	28%	44
<i>Contributing to non-intrusive field investigations [geophysical survey]</i>	18%	29
<i>Contributing to other non-intrusive field investigations</i>	18%	28
<i>Archaeological landscape characterisation</i>	11%	18
<i>Other</i>	15%	24

The high incidence of skills shortages relating to artefact or ecofact research and conservation is significant, especially when compared with the equivalent figures for ***Potential Skills Gaps***, where training was identified as being a priority (see below). External specialists may be used either in addition to or instead of in-house artefact or ecofact specialists. The principal role of 46 organisations identifying this as a skills shortage was field investigation and research services.

Regarding the primary recovery of archaeological evidence through fieldwork, skills shortages were generally greater for conducting (directing) fieldwork than for contributing to it, meaning that these shortages existed more frequently at the more senior levels of the fieldwork hierarchy.

Of the organisations responding that they had brought in consultants to work in ‘other’ archaeological areas, there was clearly some confusion over what could be considered to have fallen under the various categories identified in the question, as many of the ‘other’ responses could have been reported under the pre-defined categories. However, skills shortages were also reported in the use of absolute dating techniques, palaeoenvironmental archaeology and report writing.

Potential Skills Gaps

Organisations were asked to identify which skills were priorities for staff training over the next two years (potential skills gaps).

Non-archaeological skills gaps

194 responses were received regarding potential non-archaeological skills shortages (82% of responding organisations). Information technology (74%) and project management (54%) were the most commonly identified non-archaeological priorities for training within organisations.

Table 76: Non-archaeological skills gaps

	<i>Skills gap identified</i>	<i>Responses</i>
<i>Information technology</i>	74%	143
<i>Project management</i>	54%	104
<i>People management</i>	25%	49
<i>Education/training</i>	24%	47
<i>Business skills</i>	21%	40
<i>Marketing/sales</i>	19%	36
<i>Leadership</i>	16%	32
<i>Advocacy/influencing others</i>	14%	27
<i>Customer care</i>	13%	25
<i>Non-English language</i>	4%	7
<i>Other</i>	5%	10

The ‘other’ areas identified as potential skills gaps included health and safety, management techniques for dealing with specific issues and legal matters.

Of the organisations reporting training in a non-English language to be a priority, nearly 50% were based in Wales.

In comparison with the figures received for *Potential Skills*, information technology is recognised both as a skills gap and an area with a recognised skills shortage, suggesting that organisations are seeking to address this shortage through training staff. By contrast, project management is recognised as being a priority for training rather than an actual skills shortage, suggesting that, overall, staff are using project management skills, but organisations are seeking to enhance them.

In all the other areas the reported levels of skills gaps and shortages are relatively low and consistent, suggesting that these are all areas that will be addressed through training in the future.

Archaeological skills gaps

Of the 164 responses to the question regarding potential archaeologically specific skills gaps (59% of all responding organisations), desk-based research and archaeological landscape characterisation (both 40%) were the most commonly reported priorities for training.

Table 77: Archaeological skills gaps

	<i>Skills gap identified</i>	<i>Responses</i>
<i>Desk-based research</i>	40%	66
<i>Archaeological landscape characterisation</i>	40%	65
<i>Artefact or ecofact research</i>	30%	49
<i>Conducting [direct] intrusive investigations [evaluation, excavation]</i>	25%	41
<i>Conducting [direct] other non-intrusive field investigations</i>	22%	36
<i>Contributing to other non-intrusive field investigations</i>	19%	31
<i>Contributing to intrusive investigations [evaluation, excavation]</i>	18%	29
<i>Contributing to non-intrusive field investigations [geophysical survey]</i>	16%	27
<i>Conservation of artefacts or ecofacts</i>	15%	24
<i>Conducting [direct] non-intrusive field investigations [geophysical survey]</i>	9%	15
<i>Other</i>	24%	39

The 39 responses identifying ‘other’ archaeological skills gaps were mixed. Several prioritised training in non-intrusive investigations, such as aerial photograph interpretation or building recording, which could have been included in the main questions. Frequently reported were plans to update knowledge about best practice and particular periods or areas of interest – Continuing Professional Development. More than one organisation identified report writing, and cultural resource/heritage management as areas where training was a priority.

Comparing this data with **Potential Skills** demonstrates that archaeological landscape characterisation is not considered to be a skill that is in shortage, but is a skills gap, suggesting that this work is generally being undertaken in-house, but that enhancing and updating skills is a priority.

Artefact or ecofact research was the third-highest training priority, but was the most common skills shortage (53%). 27 organisations identifying this as a skills shortage also identified artefact or ecofact research as a training priority.

Artefact conservation is a priority for only 15% of organisations, but had been bought in by 48% of organisations in the previous year. In-house conservation is clearly no longer the norm, meaning that when it is required it is sought from external sources.

Training for conducting investigations is a higher priority than for contributing to those investigations, with the exception of conducting geophysical survey. This had the lowest priority of all the identified areas of archaeological training (9% of organisations identified it as such), but it was one of the most frequently identified skills shortages (52% of organisations had brought in outside consultants in the previous year). This is clearly a skill that is widely considered to be available from external suppliers, and as such is not being trained for within organisations.

Less than one in five organisations considered training for contribution to any of the three categories of field investigation to be a priority, although 30% had brought in outside staff to contribute to invasive investigations in the previous year. This suggests that, overall rather than in specific organisations, enhancing junior staff’s fieldwork skills is relatively unimportant to archaeological organisations. This contrasts with the figures given in terms of **Training Supply and** (below), where organisations reported that new entrants to the profession needed

considerable amounts of training. Alternatively, it may be that respondents failed to include informal training such as mentoring in their responses to these questions.

Training Supply and Demand

The majority (56%) of organisations employ new entrants to the profession. On the basis of the data received on archaeologists' qualifications and ages, it is reasonable to assume that this generally means following graduation.

However, it is clear that further training is generally required at the entry level, with 74% of organisations responding that new entrants have to receive 'considerable' or 'very considerable' amounts of training, as 53% of new entrants to the profession are considered to be 'poorly' or 'very poorly' equipped with skills.

Table 78: Training supply and demand

	Yes	No	Don't know	Responses
<i>Do you employ new entrants to the profession?</i>	56%	43%	1%	207
<i>If so, how much training do you have to give new entrants? [on average]</i>	<i>Very little</i>	<i>Little</i>	<i>Considerable</i>	<i>Very considerable</i>
	3%	23%	67%	7%
<i>How well equipped with skills are new entrants to the profession?</i>	<i>Very poorly</i>	<i>Poorly</i>	<i>Well</i>	<i>Very well</i>
	12%	41%	43%	3%
<i>How well do currently available courses match the requirements of the profession?</i>	<i>Very poorly</i>	<i>Poorly</i>	<i>Well</i>	<i>Very well</i>
	11%	56%	32%	1%

Two-thirds (67%) of respondents felt that currently available courses match the requirements of the profession 'poorly' or 'very poorly', and only 1% felt that available courses met professional requirements 'very well'. Whether these responses were based upon a comparison of vocational needs within the workplace and the academic orientation of available courses cannot be identified from these returns.

There is clearly a considerable demand for entry-level training, and it is perceived that currently available courses do not meet the requirements for this training.

Employers' Commitment to Qualifications and Training

As discussed under *Identification of Training* above, 93% of organisations provide training or development opportunities for paid staff. 42% of organisations provide training or development opportunities for unpaid volunteer staff, although this figure is deflated because many organisations do not use unpaid volunteer staff in their work. Of organisations that do have unpaid volunteer staff contributing to their work, 64% provide those individuals with training or development opportunities.

Table 79: Training or development opportunities

	Yes	No	Don't know	Responses
<i>Do you provide training or other development opportunities for paid employees?</i>	93%	6%	1%	224
<i>Do you provide training or other development opportunities for unpaid staff? (all responses)</i>	42%	48%	10%	136
<i>Do you provide training or other development opportunities for unpaid staff? (only those organisations with no unpaid staff)</i>	64%	28%	8%	39

Continuing Professional Development is recognised as the technique whereby professionals can maintain and update their skills. As a key means to promote staff in their own development, 89% of organisations reported that they encourage individuals to engage in Continuing Professional Development.

Table 80: Continuing Professional Development

	Yes	No	Don't know	Responses
<i>Does your organisation encourage individuals to engage in Continuing Professional Development?</i>	89%	8%	3%	221

These positive results contrast with the findings of an IFA survey of members' attitudes to CPD undertaken in 2002 (Aitchison forthcoming). This survey of individual archaeologists found that only 44% of responding archaeologists considered that there were sufficient opportunities for formal CPD provided by their workplace, 39% believed that CPD was linked to their employer's appraisal scheme and that only 36% had received feedback from their employer on their CPD activities.

The results of these two surveys combine to strengthen the opinion that while employers are supportive of staff training and development in principle, this is not being done in a sufficiently rigorous and formal way.

Preferred methods of training

207 organisations provided information on the preferred methods of training their staff (**Table 81**).

Overall, all categories of training methods were popular with organisations for developing paid staff. Formal training was the most frequently reported approach, with formal off-job training such as outside training courses being employed by 92% of organisations. This was found to be slightly more frequently reported than formal in-house training, which took place at 85% of organisations. This in turn was found to be more popular with the organisations than informal training, whether in-house (72%) or off-job (71%), but these were still techniques that were used by the majority of responding organisations.

Table 81: Preferred methods of training for paid staff

	<i>Responses</i>	
<i>Formal off-job training [eg outside training courses]</i>	92%	190
<i>Formal in-job training [eg in-house training course]</i>	85%	175
<i>Informal off-job training [eg supported individual research and learning]</i>	71%	146
<i>Informal in-job training [eg mentoring]</i>	72%	150

Of the 52 organisations that trained unpaid volunteer members of staff, in-house training was found to be substantially more popular than the off-job equivalents. Of the in-house alternatives, informal training (such as mentoring) was found to be more commonly used than formal in-house training courses. Less than 50% of organisations offered off-job training, whether formal or informal, to unpaid volunteer members of staff. The most frequently reported technique, of informal in-job training, such as through mentoring, may have been particularly popular with organisations as it effectively does not require any capital outlay (although this can involve a substantial investment of staff time).

Table 82: Preferred methods of training for unpaid volunteer staff

	<i>Responses</i>	
<i>Formal off-job training [eg outside training courses]</i>	27%	14
<i>Formal in-job training [eg in-house training course]</i>	64%	33
<i>Informal off-job training [eg supported individual research and learning]</i>	48%	25
<i>Informal in-job training [eg mentoring]</i>	75%	39

Vocational Qualifications

The questionnaire asked about respondents' awareness of vocational qualifications, and how much support they would be prepared to give staff in working towards these qualifications. Approximately two-thirds of respondents were aware of such qualifications, and a similar proportion were prepared to give 'considerable' or 'very considerable' support to staff in working towards vocational qualifications.

Table 83: Vocational Qualifications

	<i>Yes</i>	<i>No</i>	<i>Don't know</i>	<i>Responses</i>
<i>Are you aware of any vocational qualifications in archaeological practice?</i>	68%	25%	7%	216
<i>How much support would you give staff to work towards such qualifications?</i>	<i>Very little</i>	<i>Little</i>	<i>Considerable</i>	<i>Very considerable</i>
	12%	22%	60%	6%

Appendix I: Post Profiles

We received completed Post Profile questionnaires relating to the jobs of 2427 individuals. Excluding support staff, 2280 of these were archaeologists. They represented 85% of all archaeologists for whom organisational data was received and 40% of the calculated total of all archaeologists in the UK (5712).

Profiling the Profession revealed that a huge number of post titles were used in archaeology in 1998. This was still true in 2003. The questionnaires returned information on 429 post titles, or one for every 5.7 individuals (in 1997/98 the figure was one post title for every 4.7 individual archaeologists). The full list of these is given after the post profile summaries.

Post Profiles

The 429 post titles have been grouped into 38 post profiles, as was done in *Profiling the Profession*. We have assumed that many archaeologists are doing similar work in posts which may not have the same titles. Therefore, in order to construct profiles of different job types, we have grouped together similar post titles. We have added a further four to the 34 post profiles used in *Profiling the Profession*, and these are indicated with asterisks * below. We did not omit any of the profiles used in 1998, even where numbers are now very low (eg Assistant Archaeologist). The rules we used to group the post titles are explained in **Chapter One: Methodology**.

The survey specifically included support staff this time, and two of the extra profiles cover these roles. Information on unpaid volunteer archaeologists was also requested, and the numbers of unpaid volunteer staff are included in each profile.

We have included an overall profile for all individuals; this includes archaeologists as well as support staff. There is also a profile for all archaeologists, excluding support staff.

Academic Staff	134	Investigator*	48
Archaeological Assistant	38	Museum Archaeologist	68
Archaeological Officer	35	Photographer	8
Archaeological Scientist	35	Planning Archaeologist	26
Archaeologist	264	Project Manager	105
Archives Officer*	20	Project Officer	166
Assistant Archaeologist	4	Researcher	29
Buildings Archaeologist	19	Senior Archaeologist	92
Computing Officer	19	Sites and Monuments Record Officer	51
Conservation Archaeologist	7	Supervisor	188
Conservator	38	Surveyor	5
Consultant	26	Warden	19
County or Regional Archaeologist	45		
Director or Manager	119	Administrator	79
Editor	9	Financial posts*	16
Excavator or Site Assistant	114	Other support posts*	52
Field Officer	42		
Finds Officer	69	Junior posts	170
Illustrator	49	Senior posts	75
Inspector	45	Other posts	99

Reading the Information

The figures in the profiles are not all fully consistent, as respondents have not always completed all parts of the questionnaire. For example, information was received about 2427 individuals, but the gender was given for 2173, and their contract lengths were given in only 2029 cases. The percentages given therefore refer to the proportions of those for which data was given in each case, not the percentage of all individuals in the profile.

The data for age and qualifications refer to paid staff only.

Differences from Profiling the Profession

Four new profiles have been added: Archives Officer, Investigator, Financial posts and Other support posts.

Respondents were asked to identify the role of each post, and this is summarised for each profile. In many cases this is different from the primary role of the organisation, which is also summarised for each profile.

We collected information on individuals' qualifications, and the highest level of qualification obtained is included for each profile.

Salary information is restricted to minimum, maximum and average, and is not subdivided by category and area, in order to protect individuals' privacy. Numbers of individuals in each geographical area are summarised, however.

The survey did not request information on PAYE and redundancy entitlement. The numbers of individuals whose length of service exceeds 24 months is given. This relates to the qualifying period for a number of statutory employment rights. It also provides an indication of the level of continuity for each profile.

All Individuals

Individuals	2427		Full-time	1947	86%	Paid	2348	97%
			Part-time	326	14%	Unpaid	79	3%
Salaries	Minimum		£10,000	Average		£18,934	Maximum	£70,000
All female	858	39%	Female paid	836	39%	Female unpaid	22	52%
All male	1315	61%	Male paid	1295	61%	Male unpaid	20	48%
Temporary contract	579	29%						
Permanent contract	1450	71%						
Length of service >24m	1401	63%						
Estab. funded post	761	34%						
Project funded post	1453	66%						
Employer contributes to pension	1632	74%						

<i>Age</i>	<i>All</i>		<i>Paid</i>		<i>Unpaid</i>	
<20	7	0%	5	0%	2	5%
20-29	542	25%	537	25%	5	12%
30-39	719	33%	716	34%	3	7%
40-49	578	27%	573	27%	5	12%
50-59	279	13%	270	13%	9	52%
>60	48	2%	30	1%	18	43%

<i>Qualifications</i>	<i>All</i>		<i>Paid</i>		<i>Unpaid</i>	
Doctorate	209	10%	204	10%	5	10%
Masters	416	20%	414	21%	2	4%
First degree	1170	57%	1155	57%	15	31%
School	2067	13%	246	12%	26	54%

All Archaeologists

Individuals	2280	Full-time	1867	88%	Paid	2203	97%
		Part-time	264	12%	Unpaid	77	3%
Salaries	Minimum	£10,000	Average		£19,161	Maximum	£70,000
Female	717	36%	Age	<20		4	0%
Male	1268	64%	(paid only)	20-29		509	26%
				30-39		668	34%
Temporary contract	563	30%		40-49		533	27%
Permanent contract	1334	70%		50-59		245	12%
				>60		26	1%
Length of service >24m	1307	63%	Qualifications	Doctorate		201	11%
Estab. funded post	667	32%	(paid only)	Masters		407	21%
Project funded post	1404	68%		First degree		1112	58%
				School		182	10%
Employer contributes to pension	1519	74%					

Table 84: All archaeologists by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	1519
Archaeologist: historic environment advice and information services	360
Archaeologist: museum and visitor/user services	84
Archaeologist: educational and academic research services	163
Support staff	46

Table 85: All archaeologists by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	158
Eastern England	152
London	388
North-East England	52
North-West England	84
South-East England	447
South-West England	257
West Midlands	129
Yorkshire and the Humber	176
Scotland	155
Wales	154
Northern Ireland	42
Channel Islands	5
Isle of Man	4

Table 86: All archaeologists by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government	49	91	29		169
Local government	193	255	56		504
University	123	9	10	143	285
Commercial organisation	1024	52	2	2	1080
Other	5	118	4	38	165
Total	1394	525	101	183	2203

Academic Staff

Individuals	134		Full-time	85	64%	Paid	128	96%
			Part-time	47	36%	Unpaid	6	4%
Salaries	Minimum		£20,000	Average		£31,131	Maximum	£58,000
Female	46	34%		Age	<20		0	0%
Male	88	66%			20-29		19	14%
					30-39		33	25%
Temporary contract	38	36%			40-49		40	30%
Permanent contract	68	64%			50-59		30	22%
					>60		12	9%
Length of service >24m	70	61%		Qualifications	Doctorate		81	62%
Estab. funded post	86	65%			Masters		28	22%
Project funded post	46	35%			First degree		19	15%
					School		2	2%
Employer contributes to pension		89	86%					

Table 87: Academic staff by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	12
Archaeologist: historic environment advice and information services	
Archaeologist: museum and visitor/user services	
Archaeologist: educational and academic research services	113
Support staff	

Table 88: Academic staff by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	1
Eastern England	12
London	
North-East England	
North-West England	
South-East England	33
South-West England	1
West Midlands	8
Yorkshire and the Humber	31
Scotland	15
Wales	27
Northern Ireland	
Channel Islands	
Isle of Man	

Table 89: Academic staff by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government					0
Local government					0
University	10			118	128
Commercial organisation					0
Other					0
Total	10	0	0	118	128

Archaeological Assistant

Individuals	38		Full-time	32	86%	Paid	37	97%
			Part-time	5	14%	Unpaid	1	3%
	Minimum		£11,440	Average		£13,390	Maximum	£17,784
Female	13	35%		Age	<20		0	0%
Male	24	65%			20-29		19	51%
					30-39		13	35%
Temporary contract	27	73%			40-49		4	11%
Permanent contract	10	27%			50-59		1	3%
					>60		0	0%
Length of service >24m	7	19%		Qualifications	Doctorate		0	0%
Estab. funded post	9	26%			Masters		8	22%
Project funded post	26	74%			First degree		22	59%
					School		7	19%
Employer contributes to pension	16	44%						

Table 90: Archaeological assistant by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	32
Archaeologist: historic environment advice and information services	4
Archaeologist: museum and visitor/user services	1
Archaeologist: educational and academic research services	
Support staff	

Table 91: Archaeological assistant by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	20
Eastern England	
London	2
North-East England	
North-West England	
South-East England	2
South-West England	6
West Midlands	3
Yorkshire and the Humber	
Scotland	
Wales	
Northern Ireland	
Channel Islands	4
Isle of Man	

Table 92: Archaeological assistant by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government					0
Local government	6	4	5		15
University	17				17
Commercial organisation	5				5
Other					0
Total	28	4	5	0	37

Archaeological Officer

Individuals	35		Full-time	33	97%	Paid	35	100%
			Part-time	1	3%	Unpaid	0	0%
Salaries	Minimum		£11,500	Average		£21,918	Maximum	£37,608
Female	19	54%		Age	<20		0	0%
Male	16	46%			20-29		8	23%
					30-39		15	43%
Temporary contract	4	12%			40-49		6	17%
Permanent contract	29	88%			50-59		6	17%
					>60		0	0%
Length of service >24m	28	82%		Qualifications	Doctorate		0	0%
Estab. funded post	28	88%			Masters		12	35%
Project funded post	4	13%			First degree		22	65%
					School		0	0%
Employer contributes to pension	25	76%						

Table 93: Archaeological officer by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	9
Archaeologist: historic environment advice and information services	24
Archaeologist: museum and visitor/user services	2
Archaeologist: educational and academic research services	
Support staff	

Table 94: Archaeological officer by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	
Eastern England	4
London	1
North-East England	1
North-West England	1
South-East England	15
South-West England	6
West Midlands	2
Yorkshire and the Humber	
Scotland	2
Wales	2
Northern Ireland	
Channel Islands	1
Isle of Man	

Table 95: Archaeological officer by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government		1			1
Local government	1	21	2		24
University					0
Commercial organisation	7				7
Other		2	1		3
Total	8	24	3	0	35

Archaeological Scientist

Individuals	35	Full-time	28	80%	Paid	35	100%
		Part-time	7	20%	Unpaid	0	0%
Salaries	Minimum	£12,480	Average	£20,230	Maximum	£37,137	
Female	21	60%	Age	<20	0	0%	
Male	14	40%		20-29	6	17%	
				30-39	9	26%	
Temporary contract	5	16%		40-49	14	40%	
Permanent contract	27	84%		50-59	5	14%	
				>60	1	3%	
Length of service >24m	30	88%	Qualifications	Doctorate	5	14%	
Estab. funded post	6	19%		Masters	12	34%	
Project funded post	26	81%		First degree	15	43%	
				School	3	9%	
Employer contributes to pension	29	83%					

Table 96: Archaeological scientist by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	25
Archaeologist: historic environment advice and information services	4
Archaeologist: museum and visitor/user services	
Archaeologist: educational and academic research services	5
Support staff	

Table 97: Archaeological scientist by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	2
Eastern England	6
London	10
North-East England	
North-West England	1
South-East England	6
South-West England	5
West Midlands	2
Yorkshire and the Humber	
Scotland	1
Wales	1
Northern Ireland	
Channel Islands	
Isle of Man	1

Table 98: Archaeological scientist by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government		3			3
Local government	1	2			3
University	3			6	9
Commercial organisation	20				20
Other					0
Total	24	5	0	6	35

Archaeologist

Individuals	264	Full-time	254	98%	Paid	264	100%
		Part-time	5	2%	Unpaid	0	0%
Salaries	Minimum	£12,168	Average		£14,303	Maximum	£26,493
Female	40	29%	Age	<20	0	0%	
Male	99	71%		20-29	55	40%	
				30-39	48	35%	
Temporary contract	58	42%		40-49	32	23%	
Permanent contract	80	58%		50-59	4	3%	
				>60	0	0%	
Length of service >24m	87	33%	Qualifications	Doctorate	3	2%	
Estab. funded post	23	9%		Masters	20	15%	
Project funded post	233	91%		First degree	96	72%	
				School	14	11%	
Employer contributes to pension	99	38%					

Table 99: Archaeologist by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	239
Archaeologist: historic environment advice and information services	19
Archaeologist: museum and visitor/user services	2
Archaeologist: educational and academic research services	
Support staff	

Table 100: Archaeologist by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	11
Eastern England	
London	114
North-East England	
North-West England	28
South-East England	57
South-West England	22
West Midlands	5
Yorkshire and the Humber	11
Scotland	5
Wales	11
Northern Ireland	
Channel Islands	
Isle of Man	

Table 101: Archaeologist by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government					0
Local government	8	32			40
University					0
Commercial organisation	201	11	2		214
Other		8		2	10
Total	209	51	2	2	264

Archives Officer

Individuals	20	Full-time	16	80%	Paid	20	100%
		Part-time	4	20%	Unpaid	0	0%
Salaries	Minimum	£14,040	Average	£18,569	Maximum	£32,500	
Female	11	55%	Age	<20	0	0%	
Male	9	45%		20-29	6	30%	
				30-39	6	30%	
Temporary contract	6	32%		40-49	3	15%	
Permanent contract	13	68%		50-59	4	20%	
				>60	1	5%	
Length of service >24m	18	90%	Qualifications	Doctorate	1	5%	
Estab. funded post	8	42%		Masters	3	15%	
Project funded post	11	58%		First degree	15	79%	
				School	0	0%	
Employer contributes to pension	16	80%					

Table 102: Archives officer by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	10
Archaeologist: historic environment advice and information services	2
Archaeologist: museum and visitor/user services	
Archaeologist: educational and academic research services	7
Support staff	1

Table 103: Archives officer by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	1
Eastern England	
London	8
North-East England	
North-West England	1
South-East England	4
South-West England	1
West Midlands	1
Yorkshire and the Humber	1
Scotland	
Wales	
Northern Ireland	3
Channel Islands	
Isle of Man	

Table 104: Archives officer by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government		3			3
Local government	1	1	6		8
University	1				1
Commercial organisation	7				7
Other				1	1
Total	9	4	6	1	20

Assistant Archaeologist

Individuals	4	Full-time	4	100%	Paid	4	100%
		Part-time	0	0%	Unpaid	0	0%
Salaries	Minimum	£15,500	Average	£16,334	Maximum	£24,780	
Female	0	0%	Age	<20	0	0%	
Male	4	100%		20-29	3	75%	
				30-39	0	0%	
Temporary contract	2	50%		40-49	1	25%	
Permanent contract	2	50%		50-59	0	0%	
				>60	0	0%	
Length of service >24m	2	50%	Qualifications	Doctorate	0	0%	
Estab. funded post	3	75%		Masters	3	75%	
Project funded post	1	25%		First degree	1	25%	
				School	0	0%	
Employer contributes to pension	3	75%					

Table 105: Assistant archaeologist by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	1
Archaeologist: historic environment advice and information services	3
Archaeologist: museum and visitor/user services	
Archaeologist: educational and academic research services	
Support staff	

Table 106: Assistant archaeologist by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	
Eastern England	
London	1
North-East England	
North-West England	1
South-East England	
South-West England	
West Midlands	
Yorkshire and the Humber	
Scotland	2
Wales	
Northern Ireland	
Channel Islands	
Isle of Man	

Table 107: Assistant archaeologist by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government					0
Local government		2			2
University					0
Commercial organisation					0
Other	1	1			2
Total	1	3	0	0	4

Buildings Archaeologist

Individuals	19	Full-time	14	82%	Paid	18	95%
		Part-time	3	18%	Unpaid	1	5%
Salaries	Minimum	£15,000	Average		£24,925	Maximum	£26,310
Female	3	17%	Age	<20		0	0%
Male	15	83%		20-29		1	6%
				30-39		3	17%
Temporary contract	2	12%		40-49		6	33%
Permanent contract	15	88%		50-59		7	39%
				>60		1	6%
Length of service >24m	15	83%	Qualifications	Doctorate		4	22%
Estab. funded post	5	28%		Masters		6	33%
Project funded post	13	72%		First degree		6	33%
				School		2	11%
Employer contributes to pension	17	94%					

Table 108: Buildings archaeologist by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	9
Archaeologist: historic environment advice and information services	7
Archaeologist: museum and visitor/user services	
Archaeologist: educational and academic research services	
Support staff	2

Table 109: Buildings archaeologist by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	2
Eastern England	
London	9
North-East England	
North-West England	1
South-East England	1
South-West England	3
West Midlands	1
Yorkshire and the Humber	1
Scotland	
Wales	
Northern Ireland	
Channel Islands	
Isle of Man	

Table 110: Buildings archaeologist by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government					0
Local government		4			4
University	2				2
Commercial organisation	7	5			12
Other					0
Total	9	9	0	0	18

Computing Officer

Individuals	19	Full-time	14	88%	Paid	18	95%
		Part-time	2	13%	Unpaid	1	5%
Salaries	Minimum	£16,000	Average	£19,997	Maximum	£40,000	
Female	1	6%	Age	<20	0	0%	
Male	17	94%		20-29	4	22%	
				30-39	9	50%	
Temporary contract	1	7%		40-49	4	22%	
Permanent contract	13	93%		50-59	1	6%	
				>60	0	0%	
Length of service >24m	12	67%	Qualifications	Doctorate	1	6%	
Estab. funded post	2	13%		Masters	6	38%	
Project funded post	14	88%		First degree	8	50%	
				School	1	6%	
Employer contributes to pension	18	100%					

Table 111: Computing officer by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	6
Archaeologist: historic environment advice and information services	
Archaeologist: museum and visitor/user services	
Archaeologist: educational and academic research services	
Support staff	11

Table 112: Computing officer by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	0
Eastern England	
London	8
North-East England	
North-West England	
South-East England	4
South-West England	3
West Midlands	1
Yorkshire and the Humber	2
Scotland	
Wales	
Northern Ireland	
Channel Islands	
Isle of Man	

Table 113: Computing officer by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government					0
Local government					0
University	2				2
Commercial organisation	14				14
Other				2	2
Total	16	0	0	2	18

Conservation Archaeologist

Individuals	7	Full-time	7	100%	Paid	7	100%
		Part-time	0	0%	Unpaid	0	0%
Salaries	Minimum	£22,000	Average	£23,858	Maximum	£45,366	
Female	2	29%	Age	<20	0	0%	
Male	5	71%		20-29	0	0%	
				30-39	3	43%	
Temporary contract	0	0%		40-49	1	14%	
Permanent contract	7	100%		50-59	3	43%	
				>60	0	0%	
Length of service >24m	7	100%	Qualifications	Doctorate	1	17%	
Estab. funded post	6	100%		Masters	2	33%	
Project funded post	0	0%		First degree	3	50%	
				School	0	0%	
Employer contributes to pension	6	86%					

Table 114: Conservation archaeologist by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	1
Archaeologist: historic environment advice and information services	3
Archaeologist: museum and visitor/user services	
Archaeologist: educational and academic research services	1
Support staff	2

Table 115: Conservation archaeologist by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	
Eastern England	
London	
North-East England	
North-West England	1
South-East England	1
South-West England	
West Midlands	1
Yorkshire and the Humber	4
Scotland	
Wales	
Northern Ireland	
Channel Islands	
Isle of Man	

Table 116: Conservation archaeologist by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government					0
Local government		4	1		5
University					0
Commercial organisation	1				1
Other				1	1
Total	1	4	1	1	7

Conservator

Individuals	38		Full-time	32	89%	Paid	36	95%
			Part-time	4	11%	Unpaid	2	5%
Salaries	Minimum		£16,000	Average		£24,284	Maximum	£40,000
Female	28	78%		Age	<20		0	0%
Male	8	22%			20-29		4	11%
					30-39		13	36%
Temporary contract	4	11%			40-49		9	25%
Permanent contract	31	89%			50-59		10	28%
					>60		0	0%
Length of service >24m	34	94%		Qualifications	Doctorate		2	6%
Estab. funded post	29	85%			Masters		6	18%
Project funded post	5	15%			First degree		25	76%
					School		0	0%
Employer contributes to pension	34	94%						

Table 117: Conservator by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	3
Archaeologist: historic environment advice and information services	
Archaeologist: museum and visitor/user services	30
Archaeologist: educational and academic research services	3
Support staff	

Table 118: Conservator by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	
Eastern England	
London	32
North-East England	
North-West England	
South-East England	
South-West England	
West Midlands	
Yorkshire and the Humber	3
Scotland	
Wales	1
Northern Ireland	
Channel Islands	
Isle of Man	

Table 119: Conservator by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government			29		29
Local government			1		1
University	1				1
Commercial organisation	2				2
Other				3	3
Total	3	0	30	3	36

Consultant

Individuals	26	Full-time	21	81%	Paid	26	100%
		Part-time	5	19%	Unpaid	0	0%
Salaries	Minimum	£14,115	Average	£28,889	Maximum	£31,510	
Female	14	54%	Age	<20	0	0%	
Male	12	46%		20-29	3	12%	
				30-39	9	35%	
Temporary contract	1	4%		40-49	7	27%	
Permanent contract	22	96%		50-59	5	19%	
				>60	2	8%	
Length of service >24m	14	58%	Qualifications	Doctorate	2	7%	
Estab. funded post	3	18%		Masters	11	41%	
Project funded post	14	82%		First degree	14	52%	
				School	0	0%	
Employer contributes to pension	16	73%					

Table 120: Consultant by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	16
Archaeologist: historic environment advice and information services	9
Archaeologist: museum and visitor/user services	
Archaeologist: educational and academic research services	
Support staff	

Table 121: Consultant by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	
Eastern England	1
London	7
North-East England	
North-West England	1
South-East England	3
South-West England	5
West Midlands	3
Yorkshire and the Humber	6
Scotland	
Wales	
Northern Ireland	
Channel Islands	
Isle of Man	

Table 122: Consultant by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government					0
Local government			2		2
University					0
Commercial organisation	6	14			20
Other	2	2			4
Total	8	16	2	0	26

County or Regional Archaeologist

Individuals	45		Full-time	40	89%	Paid	45	100%
			Part-time	5	11%	Unpaid	0	0%
Salaries	Minimum		£12,000	Average		£25,617	Maximum	£45,200
Female	12	27%		Age	<20		0	0%
Male	33	73%			20-29		2	4%
					30-39		15	33%
Temporary contract	0	0%			40-49		22	49%
Permanent contract	44	100%			50-59		6	13%
					>60		0	0%
Length of service >24m	43	96%		Qualifications	Doctorate		4	9%
Estab. funded post	44	100%			Masters		13	29%
Project funded post	0	0%			First degree		28	62%
					School		0	0%
Employer contributes to pension	45	100%						

Table 123: County or regional archaeologist by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	
Archaeologist: historic environment advice and information services	44
Archaeologist: museum and visitor/user services	1
Archaeologist: educational and academic research services	
Support staff	

Table 124: County or regional archaeologist by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	2
Eastern England	1
London	14
North-East England	3
North-West England	1
South-East England	1
South-West England	13
West Midlands	3
Yorkshire and the Humber	1
Scotland	4
Wales	2
Northern Ireland	
Channel Islands	
Isle of Man	

Table 125: County or regional archaeologist by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government		1			1
Local government		14	1		15
University			1		1
Commercial organisation					0
Other		28			28
Total	0	43	2	0	45

Director or Manager

Individuals	119		Full-time	110	92%	Paid	119	100%
			Part-time	9	8%	Unpaid	0	0%
Salaries	Minimum		£12,000	Average		£27,148	Maximum	£50,000
Female	33	28%		Age	<20	0	0%	
Male	85	72%			20-29	6	5%	
					30-39	32	27%	
Temporary contract	16	14%			40-49	55	47%	
Permanent contract	100	86%			50-59	23	19%	
					>60	2	2%	
Length of service >24m	106	92%		Qualifications	Doctorate	24	20%	
Estab. funded post	39	35%			Masters	28	24%	
Project funded post	71	65%			First degree	59	50%	
					School	7	6%	
Employer contributes to pension	91	78%						

Table 126: Director or manager by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	77
Archaeologist: historic environment advice and information services	19
Archaeologist: museum and visitor/user services	6
Archaeologist: educational and academic research services	7
Support staff	6

Table 127: Director or manager by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	8
Eastern England	5
London	19
North-East England	3
North-West England	2
South-East England	31
South-West England	8
West Midlands	7
Yorkshire and the Humber	12
Scotland	9
Wales	9
Northern Ireland	4
Channel Islands	
Isle of Man	2

Table 128: Director or manager by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government					0
Local government	5	7	1		13
University	6	3	1	4	14
Commercial organisation	72	7		2	81
Other		11			11
Total	83	28	2	6	119

Editor

Individuals	9		Full-time	5	63%	Paid	9	100%
			Part-time	3	38%	Unpaid	0	0%
Salaries	Minimum		£16,371	Average		£20,809	Maximum	£30,000
Female	7	78%		Age	<20		0	0%
Male	2	22%			20-29		0	0%
					30-39		3	33%
Temporary contract	4	50%			40-49		2	22%
Permanent contract	4	50%			50-59		4	44%
					>60		0	0%
Length of service >24m	8	89%		Qualifications	Doctorate		3	38%
Estab. funded post	4	50%			Masters		2	25%
Project funded post	4	50%			First degree		3	38%
					School		0	0%
Employer contributes to pension	7	88%						

Table 129: Editor by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	5
Archaeologist: historic environment advice and information services	
Archaeologist: museum and visitor/user services	
Archaeologist: educational and academic research services	1
Support staff	3

Table 130: Editor by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	
Eastern England	
London	2
North-East England	
North-West England	1
South-East England	3
South-West England	1
West Midlands	
Yorkshire and the Humber	2
Scotland	
Wales	
Northern Ireland	
Channel Islands	
Isle of Man	

Table 131: Editor by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government					0
Local government	1	1			2
University				1	1
Commercial organisation	5				5
Other				1	1
Total	6	1	0	2	9

Excavator or Site Assistant

Individuals	114	Full-time	94	95%	Paid	99	87%
		Part-time	5	5%	Unpaid	15	13%
Salaries	Minimum	£10,400	Average		£12,140	Maximum	£14,355
Female	33	33%	Age	<20		1	1%
Male	66	67%		20-29		50	51%
				30-39		17	17%
Temporary contract	74	82%		40-49		22	22%
Permanent contract	16	18%		50-59		7	7%
				>60		2	2%
Length of service >24m	7	7%	Qualifications	Doctorate		0	0%
Estab. funded post	0	0%		Masters		4	4%
Project funded post	99	100%		First degree		47	53%
				School		38	43%
Employer contributes to pension	26	26%					

Table 132: Excavator or site assistant by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	98
Archaeologist: historic environment advice and information services	
Archaeologist: museum and visitor/user services	
Archaeologist: educational and academic research services	
Support staff	1

Table 133: Excavator or site assistant by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	8
Eastern England	16
London	0
North-East England	17
North-West England	
South-East England	34
South-West England	
West Midlands	4
Yorkshire and the Humber	10
Scotland	
Wales	1
Northern Ireland	9
Channel Islands	
Isle of Man	

Table 134: Excavator or site assistant by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government					0
Local government	1	1			2
University					0
Commercial organisation	68				68
Other					0
Total	69	1	0	0	70

Field Officer

Individuals	42		Full-time	38	95%	Paid	42	100%
			Part-time	2	5%	Unpaid	0	0%
Salaries	Minimum		£12,800	Average		£17,448	Maximum	£23,889
Female	10	24%		Age	<20		0	0%
Male	32	76%			20-29		5	12%
					30-39		17	40%
Temporary contract	22	52%			40-49		15	36%
Permanent contract	20	48%			50-59		4	10%
					>60		1	2%
Length of service >24m	35	83%		Qualifications	Doctorate		2	6%
Estab. funded post	1	3%			Masters		2	6%
Project funded post	32	97%			First degree		24	75%
					School		4	13%
Employer contributes to pension	28	67%						

Table 135: Field officer by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	41
Archaeologist: historic environment advice and information services	1
Archaeologist: museum and visitor/user services	
Archaeologist: educational and academic research services	
Support staff	

Table 136: Field officer by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	2
Eastern England	
London	11
North-East England	
North-West England	1
South-East England	4
South-West England	
West Midlands	14
Yorkshire and the Humber	9
Scotland	1
Wales	
Northern Ireland	
Channel Islands	
Isle of Man	

Table 137: Field officer by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government					0
Local government		9			9
University	15				15
Commercial organisation	8				8
Other	1			9	10
Total	24	9	0	9	42

Finds Officer

Individuals	69	Full-time	44	77%	Paid	57	83%
		Part-time	13	23%	Unpaid	12	17%
Salaries	Minimum	£10,192	Average	£18,422	Maximum	£29,466	
Female	37	64%	Age	<20	0	0%	
Male	21	36%		20-29	11	19%	
				30-39	19	33%	
Temporary contract	19	35%		40-49	20	34%	
Permanent contract	35	65%		50-59	8	14%	
				>60	0	0%	
Length of service >24m	47	84%	Qualifications	Doctorate	6	12%	
Estab. funded post	7	14%		Masters	13	25%	
Project funded post	44	86%		First degree	29	57%	
				School	3	6%	
Employer contributes to pension	48	84%					

Table 138: Finds officer by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	50
Archaeologist: historic environment advice and information services	6
Archaeologist: museum and visitor/user services	1
Archaeologist: educational and academic research services	
Support staff	

Table 139: Finds officer by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	7
Eastern England	10
London	16
North-East England	
North-West England	1
South-East England	9
South-West England	2
West Midlands	3
Yorkshire and the Humber	8
Scotland	1
Wales	
Northern Ireland	
Channel Islands	
Isle of Man	

Table 140: Finds officer by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government					0
Local government	8	12	1		21
University	6				6
Commercial organisation	24				24
Other				6	6
Total	38	12	1	6	57

Illustrator

Individuals	49		Full-time	30	63%	Paid	49	100%
			Part-time	18	38%	Unpaid	0	0%
Salaries	Minimum		£12,480	Average		£16,450	Maximum	£24,000
Female	21	51%		Age	<20		0	0%
Male	20	49%			20-29		10	24%
					30-39		15	37%
Temporary contract	8	21%			40-49		12	29%
Permanent contract	31	79%			50-59		4	10%
					>60		0	0%
Length of service >24m	31	63%		Qualifications	Doctorate		0	0%
Estab. funded post	12	25%			Masters		3	8%
Project funded post	36	75%			First degree		27	69%
					School		9	23%
Employer contributes to pension	45	92%						

Table 141: Illustrator by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	40
Archaeologist: historic environment advice and information services	2
Archaeologist: museum and visitor/user services	
Archaeologist: educational and academic research services	
Support staff	7

Table 142: Illustrator by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	1
Eastern England	3
London	9
North-East England	
North-West England	3
South-East England	14
South-West England	6
West Midlands	8
Yorkshire and the Humber	2
Scotland	1
Wales	2
Northern Ireland	
Channel Islands	
Isle of Man	

Table 143: Illustrator by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government					0
Local government	5	8			13
University	5				5
Commercial organisation	28				28
Other		2		1	3
Total	38	10	0	1	49

Inspector

Individuals	45		Full-time	13	100%	Paid	45	100%
			Part-time	0	0%	Unpaid	0	0%
Salaries	Minimum		£12,500	Average		£26,736	Maximum	£54,819
Female	4	31%		Age	<20	0	0%	
Male	9	69%			20-29	1	8%	
					30-39	1	8%	
Temporary contract	0	0%			40-49	3	23%	
Permanent contract	13	100%			50-59	8	62%	
					>60	0	0%	
Length of service >24m	12	92%		Qualifications	Doctorate	6	46%	
Estab. funded post	23	100%			Masters	4	31%	
Project funded post	0	0%			First degree	3	23%	
					School	0	0%	
Employer contributes to pension	13	100%						

Table 144: Inspector by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	6
Archaeologist: historic environment advice and information services	35
Archaeologist: museum and visitor/user services	
Archaeologist: educational and academic research services	
Support staff	

Table 145: Inspector by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	
Eastern England	
London	
North-East England	
North-West England	
South-East England	
South-West England	
West Midlands	
Yorkshire and the Humber	
Scotland	32
Wales	7
Northern Ireland	6
Channel Islands	
Isle of Man	

Table 146: Inspector by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government		45			45
Local government					0
University					0
Commercial organisation					0
Other					0
Total	0	45	0	0	45

Investigator

Individuals	48		Full-time	47	98%	Paid	48	100%
			Part-time	1	2%	Unpaid	0	0%
Salaries	Minimum		£14,000	Average		£24,141	Maximum	£45,000
Female	14	29%		Age	<20		0	0%
Male	34	71%			20-29		6	13%
					30-39		15	31%
Temporary contract	10	21%			40-49		13	27%
Permanent contract	37	79%			50-59		14	29%
					>60		0	0%
Length of service >24m	40	87%		Qualifications	Doctorate		3	6%
Estab. funded post	37	97%			Masters		3	6%
Project funded post	1	3%			First degree		41	85%
					School		1	2%
Employer contributes to pension	48	100%						

Table 147: Investigator by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	48
Archaeologist: historic environment advice and information services	
Archaeologist: museum and visitor/user services	
Archaeologist: educational and academic research services	
Support staff	

Table 148: Investigator by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	
Eastern England	
London	
North-East England	
North-West England	
South-East England	
South-West England	
West Midlands	
Yorkshire and the Humber	
Scotland	26
Wales	22
Northern Ireland	
Channel Islands	
Isle of Man	

Table 149: Investigator by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government	48				48
Local government					0
University					0
Commercial organisation					0
Other					0
Total	48	0	0	0	48

Museum Archaeologist

Individuals	68		Full-time	59	89%	Paid	68	97%
			Part-time	7	11%	Unpaid	2	3%
Salaries	Minimum		£10,000	Average		£19,588	Maximum	£35,000
Female	32	48%		Age	<20		0	0%
Male	34	52%			20-29		9	14%
					30-39		24	36%
Temporary contract	5	8%			40-49		19	29%
Permanent contract	59	92%			50-59		13	20%
					>60		1	2%
Length of service >24m	55	86%		Qualifications	Doctorate		11	17%
Estab. funded post	48	77%			Masters		27	42%
Project funded post	14	23%			First degree		23	36%
					School		3	5%
Employer contributes to pension	60	92%						

Table 150: Museum archaeologist by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	14
Archaeologist: historic environment advice and information services	9
Archaeologist: museum and visitor/user services	36
Archaeologist: educational and academic research services	3
Support staff	4

Table 151: Museum archaeologist by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	10
Eastern England	2
London	4
North-East England	16
North-West England	3
South-East England	2
South-West England	6
West Midlands	6
Yorkshire and the Humber	6
Scotland	7
Wales	4
Northern Ireland	
Channel Islands	
Isle of Man	

Table 152: Museum archaeologist by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government					0
Local government	15	4	30		49
University		4	7		11
Commercial organisation					0
Other		4	2		6
Total	15	12	39	0	66

Photographer

Individuals	8	Full-time	6	75%	Paid	8	100%
		Part-time	2	25%	Unpaid	0	0%
Salaries	Minimum	£14,316	Average	£16,122	Maximum	£30,000	
Female	4	50%	Age	<20	0	0%	
Male	4	50%		20-29	3	38%	
				30-39	1	13%	
Temporary contract	3	38%		40-49	3	38%	
Permanent contract	5	63%		50-59	0	0%	
				>60	1	13%	
Length of service >24m	5	63%	Qualifications	Doctorate	0	0%	
Estab. funded post	2	25%		Masters	1	13%	
Project funded post	6	75%		First degree	5	63%	
				School	2	25%	
Employer contributes to pension	7	88%					

Table 153: Photographer by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	3
Archaeologist: historic environment advice and information services	4
Archaeologist: museum and visitor/user services	
Archaeologist: educational and academic research services	
Support staff	1

Table 154: Photographer by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	
Eastern England	4
London	2
North-East England	
North-West England	
South-East England	
South-West England	1
West Midlands	
Yorkshire and the Humber	
Scotland	
Wales	1
Northern Ireland	
Channel Islands	
Isle of Man	

Table 155: Photographer by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government					0
Local government		4			4
University					0
Commercial organisation	3				3
Other		1			1
Total	3	5	0	0	8

Planning Archaeologist

Individuals	26		Full-time	26	100%	Paid	26	100%
			Part-time	0	0%	Unpaid	0	0%
Salaries	Minimum		£13,122	Average		£19,210	Maximum	£23,889
Female	10	38%		Age	<20	0	0%	
Male	16	62%			20-29	11	42%	
					30-39	8	31%	
Temporary contract	5	19%			40-49	5	19%	
Permanent contract	21	81%			50-59	2	8%	
					>60	0	0%	
Length of service >24m	18	72%		Qualifications	Doctorate	1	4%	
Estab. funded post	15	60%			Masters	4	15%	
Project funded post	10	40%			First degree	20	77%	
					School	1	4%	
Employer contributes to pension	22	85%						

Table 156: Planning archaeologist by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	
Archaeologist: historic environment advice and information services	26
Archaeologist: museum and visitor/user services	
Archaeologist: educational and academic research services	
Support staff	

Table 157: Planning archaeologist by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	3
Eastern England	2
London	
North-East England	
North-West England	3
South-East England	1
South-West England	2
West Midlands	3
Yorkshire and the Humber	1
Scotland	
Wales	5
Northern Ireland	6
Channel Islands	
Isle of Man	

Table 158: Planning archaeologist by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government		6			6
Local government		15			15
University					0
Commercial organisation		1			1
Other		4			4
Total	0	26	0	0	26

Project Manager

Individuals	105		Full-time	101	96%	Paid	105	100%
			Part-time	4	4%	Unpaid	0	0%
Salaries	Minimum		£16,500	Average		£22,433	Maximum	£29,559
Female	24	23%		Age	<20	0	0%	
Male	81	77%			20-29	1	1%	
					30-39	49	47%	
Temporary contract	13	12%			40-49	47	45%	
Permanent contract	92	88%			50-59	7	7%	
					>60	1	1%	
Length of service >24m	87	84%		Qualifications	Doctorate	7	7%	
Estab. funded post	16	16%			Masters	19	19%	
Project funded post	87	84%			First degree	69	70%	
					School	4	4%	
Employer contributes to pension	92	88%						

Table 159: Project manager by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	100
Archaeologist: historic environment advice and information services	1
Archaeologist: museum and visitor/user services	
Archaeologist: educational and academic research services	3
Support staff	

Table 160: Project manager by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	10
Eastern England	5
London	15
North-East England	1
North-West England	6
South-East England	31
South-West England	11
West Midlands	9
Yorkshire and the Humber	5
Scotland	6
Wales	6
Northern Ireland	
Channel Islands	
Isle of Man	

Table 161: Project manager by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government					0
Local government	12	4			16
University	8	1		2	11
Commercial organisation	70				70
Other		6		2	8
Total	90	11	0	4	105

Project Officer

Individuals	166		Full-time	138	83%	Paid	166	100%
			Part-time	29	17%	Unpaid	0	0%
Salaries	Minimum		£13,630	Average		£18,049	Maximum	£29,466
Female	52	31%		Age	<20		0	0%
Male	115	69%			20-29		40	24%
					30-39		91	54%
Temporary contract	29	17%			40-49		27	16%
Permanent contract	137	83%			50-59		9	5%
					>60		0	0%
Length of service >24m	110	74%		Qualifications	Doctorate		12	7%
Estab. funded post	32	19%			Masters		33	20%
Project funded post	134	81%			First degree		110	66%
					School		12	7%
Employer contributes to pension	151	91%						

Table 162: Project officer by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	160
Archaeologist: historic environment advice and information services	5
Archaeologist: museum and visitor/user services	
Archaeologist: educational and academic research services	
Support staff	0

Table 163: Project officer by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	23
Eastern England	23
London	0
North-East England	2
North-West England	7
South-East England	52
South-West England	25
West Midlands	3
Yorkshire and the Humber	6
Scotland	19
Wales	6
Northern Ireland	
Channel Islands	
Isle of Man	

Table 164: Project officer by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government					0
Local government	25	15			40
University	8	1			9
Commercial organisation	111				111
Other		6			6
Total	144	22	0	0	166

Researcher

Individuals	29	Full-time	16	55%	Paid	29	100%
		Part-time	13	45%	Unpaid	0	0%
Salaries	Minimum	£11,962	Average	£15,810	Maximum	£22,731	
Female	10	50%	Age	<20	0	0%	
Male	10	50%		20-29	10	50%	
				30-39	8	40%	
Temporary contract	14	70%		40-49	2	10%	
Permanent contract	6	30%		50-59	0	0%	
				>60	0	0%	
Length of service >24m	8	28%	Qualifications	Doctorate	2	7%	
Estab. funded post	6	30%		Masters	12	41%	
Project funded post	14	70%		First degree	15	52%	
				School	0	0%	
Employer contributes to pension	17	85%					

Table 165: Researcher by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	21
Archaeologist: historic environment advice and information services	
Archaeologist: museum and visitor/user services	
Archaeologist: educational and academic research services	8
Support staff	

Table 166: Researcher by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	1
Eastern England	
London	
North-East England	
North-West England	1
South-East England	17
South-West England	4
West Midlands	3
Yorkshire and the Humber	2
Scotland	1
Wales	
Northern Ireland	
Channel Islands	
Isle of Man	

Table 167: Researcher by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government					0
Local government	2	2	2		6
University	6		1	5	12
Commercial organisation	11				11
Other					0
Total	19	2	3	5	29

Senior Archaeologist

Individuals	92		Full-time	86	93%	Paid	92	100%
			Part-time	6	7%	Unpaid	0	0%
Salaries	Minimum		£17,387	Average		£21,135	Maximum	£39,231
Female	20	22%		Age	<20		0	0%
Male	72	78%			20-29		15	16%
					30-39		33	36%
Temporary contract	1	1%			40-49		36	39%
Permanent contract	98	99%			50-59		8	9%
					>60		0	0%
Length of service >24m	72	89%		Qualifications	Doctorate		2	2%
Estab. funded post	8	8%			Masters		22	22%
Project funded post	91	92%			First degree		61	62%
					School		13	13%
Employer contributes to pension		67	68%					

Table 168: Senior archaeologist by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	85
Archaeologist: historic environment advice and information services	6
Archaeologist: museum and visitor/user services	
Archaeologist: educational and academic research services	
Support staff	

Table 169: Senior archaeologist by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	1
Eastern England	1
London	65
North-East England	
North-West England	2
South-East England	3
South-West England	9
West Midlands	1
Yorkshire and the Humber	3
Scotland	1
Wales	5
Northern Ireland	1
Channel Islands	
Isle of Man	

Table 170: Senior archaeologist by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government					0
Local government	3	12			15
University					0
Commercial organisation	75	2			77
Other					0
Total	78	14	0	0	92

Sites and Monuments Record Officer

Individuals	51	Full-time	38	93%	Paid	41	80%
		Part-time	3	7%	Unpaid	10	20%
Salaries	Minimum	£11,544	Average	£18,841	Maximum	£29,200	
Female	24	59%	Age	<20	0	0%	
Male	17	41%		20-29	14	34%	
				30-39	12	29%	
Temporary contract	10	24%		40-49	10	24%	
Permanent contract	31	76%		50-59	5	12%	
				>60	0	0%	
Length of service >24m	24	59%	Qualifications	Doctorate	3	7%	
Estab. funded post	32	82%		Masters	12	29%	
Project funded post	7	18%		First degree	22	54%	
				School	4	10%	
Employer contributes to pension	39	95%					

Table 171: Sites and monuments record officer by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	
Archaeologist: historic environment advice and information services	38
Archaeologist: museum and visitor/user services	
Archaeologist: educational and academic research services	1
Support staff	1

Table 172: Sites and monuments record officer by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	3
Eastern England	4
London	3
North-East England	1
North-West England	1
South-East England	9
South-West England	2
West Midlands	6
Yorkshire and the Humber	3
Scotland	2
Wales	7
Northern Ireland	
Channel Islands	
Isle of Man	

Table 173: Sites and monuments record officer by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government		4			4
Local government		30	1		31
University					0
Commercial organisation		1			1
Other		5			5
Total	0	40	1	0	41

Supervisor

Individuals	188	Full-time Part-time	150 17	90% 10%	Paid Unpaid	188 0	100% 0%
Salaries	Minimum	£10,967	Average		£14,290	Maximum	£22,971
Female	50	34%	Age	<20		0	0%
Male	96	66%		20-29		63	43%
				30-39		58	40%
Temporary contract	57	41%		40-49		18	12%
Permanent contract	83	59%		50-59		7	5%
				>60		0	0%
Length of service >24m	116	63%	Qualifications	Doctorate		2	1%
Estab. funded post	47	26%		Masters		33	23%
Project funded post	137	74%		First degree		77	54%
				School		31	22%
Employer contributes to pension	108	74%					

Table 174: Supervisor by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	180
Archaeologist: historic environment advice and information services	
Archaeologist: museum and visitor/user services	
Archaeologist: educational and academic research services	
Support staff	

Table 175: Supervisor by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	39
Eastern England	19
London	12
North-East England	6
North-West England	10
South-East England	53
South-West England	29
West Midlands	10
Yorkshire and the Humber	8
Scotland	
Wales	1
Northern Ireland	1
Channel Islands	
Isle of Man	

Table 176: Supervisor by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government					0
Local government	30	8			38
University	30				30
Commercial organisation	120				120
Other					0
Total	180	8	0	0	188

Surveyor

Individuals	5		Full-time	5	100%	Paid	5	100%
			Part-time	0	0%	Unpaid	0	0%
Salaries	Minimum		£15,393	Average		£16,149	Maximum	£18,143
Female	2	40%		Age	<20		0	0%
Male	3	60%			20-29		4	80%
					30-39		1	20%
Temporary contract	2	50%			40-49		0	0%
Permanent contract	2	50%			50-59		0	0%
					>60		0	0%
Length of service >24m	2	40%		Qualifications	Doctorate		0	0%
Estab. funded post	0	0%			Masters		2	40%
Project funded post	5	100%			First degree		3	60%
					School		0	0%
Employer contributes to pension	3	60%						

Table 177: Surveyor by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	4
Archaeologist: historic environment advice and information services	
Archaeologist: museum and visitor/user services	
Archaeologist: educational and academic research services	
Support staff	1

Table 178: Surveyor by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	
Eastern England	1
London	
North-East England	
North-West England	
South-East England	2
South-West England	
West Midlands	1
Yorkshire and the Humber	
Scotland	
Wales	1
Northern Ireland	
Channel Islands	
Isle of Man	

Table 179: Surveyor by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government					0
Local government		1			1
University					0
Commercial organisation	4				4
Other					0
Total	4	1	0	0	5

Warden

Individuals	19	Full-time	2	11%	Paid	19	100%
		Part-time	17	89%	Unpaid	0	0%
Salaries	Minimum	£14,180	Average	£14,518	Maximum	£21,010	
Female	6	67%	Age	<20	0	0%	
Male	3	33%		20-29	0	0%	
				30-39	5	56%	
Temporary contract	0	0%		40-49	4	44%	
Permanent contract	9	100%		50-59	0	0%	
				>60	0	0%	
Length of service >24m	7	78%	Qualifications	Doctorate	0	0%	
Estab. funded post	9	100%		Masters	0	0%	
Project funded post	0	0%		First degree	7	78%	
				School	2	22%	
Employer contributes to pension	9	100%					

Table 180: Warden by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	
Archaeologist: historic environment advice and information services	19
Archaeologist: museum and visitor/user services	
Archaeologist: educational and academic research services	
Support staff	

Table 181: Warden by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	
Eastern England	
London	2
North-East England	
North-West England	
South-East England	
South-West England	
West Midlands	
Yorkshire and the Humber	
Scotland	10
Wales	7
Northern Ireland	
Channel Islands	
Isle of Man	

Table 182: Warden by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government		17			17
Local government					0
University					0
Commercial organisation					0
Other		2			2
Total	0	19	0	0	19

Administrator

Individuals	79		Full-time	44	56%	Paid	78	99%
			Part-time	35	44%	Unpaid	1	1%
Salaries	Minimum		£10,367	Average		£15,018	Maximum	£33,000
Female	74	94%		Age	<20		0	0%
Male	5	6%			20-29		13	16%
					30-39		26	33%
Temporary contract	9	12%			40-49		23	29%
Permanent contract	69	88%			50-59		16	20%
					>60		1	1%
Length of service >24m	48	65%		Qualifications	Doctorate		2	3%
Estab. funded post	55	71%			Masters		2	3%
Project funded post	23	29%			First degree		24	32%
					School		47	63%
Employer contributes to pension	63	80%						

Table 183: Administrator by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	2
Archaeologist: historic environment advice and information services	1
Archaeologist: museum and visitor/user services	2
Archaeologist: educational and academic research services	
Support staff	73

Table 184: Administrator by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	6
Eastern England	4
London	9
North-East England	
North-West England	4
South-East England	12
South-West England	3
West Midlands	8
Yorkshire and the Humber	12
Scotland	7
Wales	13
Northern Ireland	
Channel Islands	
Isle of Man	

Table 185: Administrator by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government		4			4
Local government	1	12			13
University	4	1		10	15
Commercial organisation	22	4			26
Other		20			20
Total	27	41	0	10	78

Financial Posts

Individuals	16		Full-time	10	63%	Paid	16	100%
			Part-time	6	38%	Unpaid	0	0%
Salaries	Minimum		£12,549	Average		£19,722	Maximum	£40,000
Female	10	63%		Age	<20		0	0%
Male	6	38%			20-29		1	6%
					30-39		6	38%
Temporary contract	1	7%			40-49		4	25%
Permanent contract	14	93%			50-59		3	19%
					>60		2	13%
Length of service >24m	11	73%		Qualifications	Doctorate		1	9%
Estab. funded post	8	50%			Masters		1	9%
Project funded post	8	50%			First degree		5	45%
					School		4	36%
Employer contributes to pension	13	81%						

Table 186: Financial posts by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	2
Archaeologist: historic environment advice and information services	
Archaeologist: museum and visitor/user services	
Archaeologist: educational and academic research services	
Support staff	14

Table 187: Financial posts by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	2
Eastern England	1
London	3
North-East England	
North-West England	
South-East England	2
South-West England	2
West Midlands	1
Yorkshire and the Humber	3
Scotland	1
Wales	1
Northern Ireland	
Channel Islands	
Isle of Man	

Table 188: Financial posts by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government					0
Local government		1			1
University	2				2
Commercial organisation	8	2			10
Other				3	3
Total	10	3	0	3	16

Other Support Posts

Individuals	52		Full-time	26	55%	Paid	51	98%
			Part-time	21	45%	Unpaid	1	2%
Salaries	Minimum		£10,000	Average		£14,035	Maximum	£24,121
Female	35	69%		Age	<20		1	2%
Male	16	31%			20-29		14	27%
					30-39		16	31%
Temporary contract	6	15%			40-49		13	25%
Permanent contract	33	85%			50-59		6	12%
					>60		1	2%
Length of service >24m	35	71%		Qualifications	Doctorate		0	0%
Estab. funded post	31	63%			Masters		4	13%
Project funded post	18	37%			First degree		14	45%
					School		13	42%
Employer contributes to pension		37	84%					

Table 189: Other support posts by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	
Archaeologist: historic environment advice and information services	
Archaeologist: museum and visitor/user services	
Archaeologist: educational and academic research services	
Support staff	51

Table 190: Other support posts by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	
Eastern England	
London	3
North-East England	3
North-West England	11
South-East England	17
South-West England	
West Midlands	
Yorkshire and the Humber	9
Scotland	8
Wales	
Northern Ireland	
Channel Islands	
Isle of Man	

Table 191: Other support posts by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government		1	3		4
Local government		1			1
University				16	16
Commercial organisation	12	5	9		26
Other		1		3	4
Total	12	8	12	19	51

Junior Posts

Individuals	170		Full-time	136	95%	Paid	143	84%
			Part-time	7	5%	Unpaid	27	16%
Salaries	Minimum		£11,316	Average		£12,928	Maximum	£20,000
Female	55	38%		Age	<20		3	2%
Male	90	62%			20-29		82	57%
					30-39		28	19%
Temporary contract	101	71%			40-49		20	14%
Permanent contract	42	29%			50-59		12	8%
					>60		0	0%
Length of service >24m	37	26%		Qualifications	Doctorate		1	1%
Estab. funded post	10	7%			Masters		11	9%
Project funded post	132	93%			First degree		103	81%
					School		12	9%
Employer contributes to pension	110	77%						

Table 192: Junior posts by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	129
Archaeologist: historic environment advice and information services	8
Archaeologist: museum and visitor/user services	0
Archaeologist: educational and academic research services	
Support staff	6

Table 193: Junior posts by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	
Eastern England	25
London	1
North-East England	
North-West England	0
South-East England	26
South-West England	66
West Midlands	
Yorkshire and the Humber	10
Scotland	1
Wales	12
Northern Ireland	2
Channel Islands	
Isle of Man	

Table 194: Junior posts by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government					0
Local government	35	10			45
University					0
Commercial organisation	84	1			85
Other		11		2	13
Total	119	22	0	2	143

Senior Posts

Individuals	75		Full-time	70	93%	Paid	75	100%
			Part-time	5	7%	Unpaid	0	0%
Salaries	Minimum		£14,040	Average		£26,468	Maximum	£70,000
Female	16	79%		Age	<20		0	0%
Male	59	21%			20-29		6	8%
					30-39		20	27%
Temporary contract	2	3%			40-49		32	43%
Permanent contract	68	97%			50-59		17	23%
					>60		0	0%
Length of service >24m	62	86%		Qualifications	Doctorate		10	15%
Estab. funded post	23	32%			Masters		16	24%
Project funded post	48	68%			First degree		40	59%
					School		2	3%
Employer contributes to pension	62	85%						

Table 195: Senior posts by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	45
Archaeologist: historic environment advice and information services	28
Archaeologist: museum and visitor/user services	2
Archaeologist: educational and academic research services	
Support staff	

Table 196: Senior posts by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	1
Eastern England	8
London	3
North-East England	
North-West England	2
South-East England	21
South-West England	15
West Midlands	5
Yorkshire and the Humber	9
Scotland	4
Wales	7
Northern Ireland	
Channel Islands	
Isle of Man	

Table 197: Senior posts by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government	1				1
Local government	3	17			20
University	1				1
Commercial organisation	30	10			40
Other	1	7	1	4	13
Total	36	34	1	4	75

Other Posts

Individuals	99		Full-time	73	83%	Paid	99	100%
			Part-time	15	17%	Unpaid	0	0%
Salaries	Minimum		£12,997	Average		£19,396	Maximum	£34,000
Female	43	44%		Age	<20		0	0%
Male	55	56%			20-29		32	33%
					30-39		35	36%
Temporary contract	20	24%			40-49		19	19%
Permanent contract	64	76%			50-59		11	11%
					>60		1	1%
Length of service >24m	51	59%		Qualifications	Doctorate		2	2%
Estab. funded post	44	53%			Masters		26	31%
Project funded post	39	47%			First degree		50	60%
					School		5	6%
Employer contributes to pension		53	60%					

Table 198: Other posts by role

<i>Role</i>	<i>Number of individuals</i>
Archaeologist: field investigation and research services	50
Archaeologist: historic environment advice and information services	34
Archaeologist: museum and visitor/user services	3
Archaeologist: educational and academic research services	11
Support staff	

Table 199: Other posts by area

<i>Location</i>	<i>Number of individuals</i>
East Midlands	2
Eastern England	
London	18
North-East England	2
North-West England	5
South-East England	8
South-West England	5
West Midlands	16
Yorkshire and the Humber	20
Scotland	5
Wales	7
Northern Ireland	10
Channel Islands	
Isle of Man	1

Table 200: Other posts by organisational structure and role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor/user services	Educational and academic research services	Total
National government		11			11
Local government	3	12	3		18
University				7	7
Commercial organisation	41				41
Other		18		4	22
Total	44	41	3	11	99

List of Post Titles and Post Profile Groups

<i>Post title</i>	<i>Individuals</i>	<i>Profile title</i>
[no title given]	11	Other posts
Administration	6	Administrator
Administration Assistant	4	Administrator
Administration Manager	1	Administrator
Administration Officer	5	Administrator
Administrative Assistant	9	Administrator
Administrative Officer	8	Administrator
Administrator	12	Administrator
Air Photo Interpretation Officer	3	Photographer
Ancient Monuments Conservation Expert	1	Conservation Archaeologist
Ancient Timber Specialist	1	Finds Officer
Animal Bone Specialist	3	Archaeological Scientist
Archaeobotanist	2	Archaeological Scientist
Archaeological and Historic Bldg Researcher	1	Buildings Archaeologist
Archaeological and Historic Buildings Consultant	1	Consultant
Archaeological Administrator	2	Administrator
Archaeological and Architectural Records Manager	1	Sites and Monuments Record Officer
Archaeological Assistant	31	Archaeological Assistant
Archaeological Collections Manager	1	Museum Archaeologist
Archaeological Consultant	16	Consultant
Archaeological Contracts Manager	2	Director or Manager
Archaeological Director	1	Director or Manager
Archaeological Draughtsperson	1	Illustrator
Archaeological Excavator	25	Excavator or Site Assistant
Archaeological Field Officer	3	Field Officer
Archaeological Illustrator	7	Illustrator
Archaeological Management Officer	1	Other posts
Archaeological Multimedia Developer	1	Computing Officer
Archaeological Officer	18	Archaeological Officer
Archaeological Planning and Conservation Officer	1	Planning Archaeologist
Archaeological Planning and Records Assistant	1	Planning Archaeologist
Archaeological Planning Casework Officer	1	Planning Archaeologist
Archaeological Project Assistant	1	Junior posts
Archaeological Project Supervisor	1	Supervisor
Archaeological Projects Officer	1	Other posts
Archaeological Records Assistant	1	Sites and Monuments Record Officer
Archaeological Records Officer	1	Sites and Monuments Record Officer
Archaeological Researcher	3	Researcher
Archaeological Services Contractor	1	Other posts
Archaeological Site Technician	1	Other posts
Archaeological Supervisor	8	Supervisor
Archaeological Technician	2	Other posts
Archaeological Unit Manager	1	Director or Manager
Archaeological Volunteer	25	Junior posts
Archaeologist	239	Archaeologist
Archaeologist Warden	2	Warden
Archaeology Advisor	4	Other posts
Archaeology and Environment Officer	1	Archaeological Scientist
Archaeology Assistant	7	Archaeological Assistant
Archaeology Manager	1	Director or Manager
Archaeology Officer	9	Archaeological Officer
Archaeozoologist	1	Archaeological Scientist
Archive Assistant	3	Archives Officer
Archive Officer	1	Archives Officer
Archive Records Officer	2	Archives Officer
Archive Supervisor	1	Archives Officer
Archives and Records Officer	1	Archives Officer

<i>Post title</i>	<i>Individuals</i>	<i>Profile title</i>
Archives Manager	1	Archives Officer
Archives Officer	2	Archives Officer
Archivist	4	Archives Officer
Artefact Identification and Recording Assistant	1	Finds Officer
Artefact Researcher	2	Finds Officer
Arts and Heritage Development Manager	1	Director or Manager
Assistant	8	Junior posts
Assistant	1	Other support posts
Assistant Archaeological Officer	1	Archaeological Officer
Assistant Archaeologist	4	Assistant Archaeologist
Assistant Archivist	1	Archives Officer
Assistant Collections Access Officer	1	Museum Archaeologist
Assistant Conservation Officer	1	Conservation Archaeologist
Assistant Conservator	1	Conservator
Assistant Consultant Archaeologist	1	Consultant
Assistant County Archaeologist	1	County or Regional Archaeologist
Assistant Curator	1	Museum Archaeologist
Assistant Development Officer	1	Junior posts
Assistant Director	1	Senior posts
Assistant Field Officer	6	Field Officer
Assistant Georchaeologist	0	Archaeological Scientist
Assistant Historic Environment Record Officer	1	Sites and Monuments Record Officer
Assistant Inspector of Ancient Monuments	2	Inspector
Assistant Keeper	8	Museum Archaeologist
Assistant Keeper Training Officer	1	Museum Archaeologist
Assistant Museums Manager	1	Museum Archaeologist
Assistant Officers and Clerical Support Staff	8	Administrator
Assistant Project Officer	1	Project Officer
Assistant Supervisor	38	Supervisor
Associate	2	Other posts
Associate/Principal	2	Senior posts
Book Keeper	2	Financial posts
Borough Archaeologist	1	County or Regional Archaeologist
Building Material Specialist	3	Buildings Archaeologist
Building Recording Officer	1	Buildings Archaeologist
Buildings Archaeologist	1	Buildings Archaeologist
Buildings Historian	1	Buildings Archaeologist
Business Manager	1	Director or Manager
CAD and Digital Survey Manager	1	Surveyor
Caseworker	1	Other support posts
Casual	1	Other posts
Casual Inspector of Ancient Monuments	4	Inspector
Cathedral Archaeologist	1	Other posts
Central Services Manager	1	Director or Manager
Chief Executive	1	Senior posts
Chief Inspector of Ancient Monts and Hist Buildings	1	Inspector
Chief Inspector of Ancient Monuments	1	Inspector
Chief Officer	1	Senior posts
City Archaeologist	3	County or Regional Archaeologist
Cleaner	2	Other support posts
Clerical Assistant	1	Administrator
Collections and Access Officer	1	Museum Archaeologist
Collections Development Manager	1	Museum Archaeologist
Collections Officer	1	Museum Archaeologist
Community History Officer	1	Other posts
Community Liaison Officer	1	Other posts
Community Officer	1	Other posts
Company Administrator	1	Administrator
Company Manager	8	Director or Manager
Computer Research Officer	1	Computing Officer
Conservation Assistant	1	Conservation Archaeologist

<i>Post title</i>	<i>Individuals</i>	<i>Profile title</i>
Conservation Officer	1	Conservation Archaeologist
Conservation Planning and Research Consultant	1	Consultant
Conservator	36	Conservator
Conservator - Archive	1	Conservator
Consultant	1	Consultant
Consultant Archaeologist	1	Consultant
Contracts Officer	1	Other posts
Convenor for Archaeology	1	Other posts
Countryside Archaeologist	1	Other posts
Countryside Management Caseworker	1	Other posts
County Archaeological Officer	1	County or Regional Archaeologist
County Archaeologist	7	County or Regional Archaeologist
Curator	16	Museum Archaeologist
Curatorial Assistant	2	Museum Archaeologist
Curatorial Officer	2	Museum Archaeologist
Curatorial Project Officer	2	Museum Archaeologist
Curator's Assistant	1	Museum Archaeologist
Custodian	3	Other support posts
Data Manager	1	Computing Officer
Database Assistant	1	Computing Officer
Demonstrator	1	Other posts
Department Manager	2	Director or Manager
Departmental Secretary	2	Administrator
Dept Administrator	1	Administrator
Deputy Archaeologist	1	Other posts
Deputy Chief Executive	1	Senior posts
Deputy Curator	1	Museum Archaeologist
Deputy Director	7	Senior posts
Deputy Finds Manager	1	Finds Officer
Deputy Project Manager	2	Project Manager
Design and Special Projects Officer	1	Illustrator
Design Officer	1	Illustrator
Development Control Archaeologist	2	Planning Archaeologist
Development Control Assistant	1	Planning Archaeologist
Development Control Liaison Officer	1	Planning Archaeologist
Development Control Officer	2	Planning Archaeologist
Director	57	Director or Manager
District Archaeologist	1	County or Regional Archaeologist
Driver/Equipment Officer	1	Other support posts
Editor	2	Editor
Editorial Assistant	2	Editor
Education/Site Assistant	1	Excavator or Site Assistant
E-Government Heritage Researcher	2	Researcher
Environmental Adviser	2	Archaeological Scientist
Environmental Archaeological Consultant	1	Archaeological Scientist
Environmental Archaeologist	4	Archaeological Scientist
Environmental Assistant	2	Archaeological Scientist
Environmental Manager	2	Archaeological Scientist
Environmental Officer	2	Archaeological Scientist
Environmental Processor	2	Archaeological Scientist
Environmental Supervisor	1	Archaeological Scientist
Environmentalist	1	Archaeological Scientist
Excavation Assistant	2	Junior posts
Excavator	33	Excavator or Site Assistant
Experimental Officer	1	Other posts
Field/Finds Officer	4	Finds Officer
Field Archaeologist	6	Archaeologist
Field Director	1	Director or Manager
Field Monument Warden	7	Warden
Field Officer	29	Field Officer
Field Supervisor	3	Supervisor

<i>Post title</i>	<i>Individuals</i>	<i>Profile title</i>
Fieldwork Programme Manager	1	Director or Manager
Finance Clerk	1	Financial posts
Finance Director	1	Financial posts
Finance Manager	2	Financial posts
Finance Officer	5	Financial posts
Financial Administration Officer	1	Financial posts
Financial Manager	1	Financial posts
Finds Assistant	8	Finds Officer
Finds Coordinator	1	Finds Officer
Finds Identification and Recording Assistant	1	Finds Officer
Finds Liaison Officer	4	Finds Officer
Finds Manager	4	Finds Officer
Finds Officer	7	Finds Officer
Finds Processing Assistant	4	Finds Officer
Finds Processor	5	Finds Officer
Finds Recording Officer	2	Finds Officer
Finds Specialist	6	Finds Officer
Finds Supervisor	5	Finds Officer
Freelance Associate	2	Other posts
General Manager	1	Director or Manager
General Operative	4	Other posts
Geoarchaeologist	2	Archaeological Scientist
Geomatics Officer	0	Computing Officer
Graduate Archaeologist	1	Junior posts
Grants Administrator	2	Administrator
Graphic Assistant	1	Illustrator
Head of Archaeological Unit	1	Senior posts
Head of Archaeology	1	Senior posts
Head of Archaeology and Historic Buildings	1	Buildings Archaeologist
Head of Buildings Archaeology	1	Buildings Archaeologist
Head of Conservation	1	Conservation Archaeologist
Head of Curatorial Services	2	Senior posts
Head of Excavations	1	Senior posts
Head of Fieldwork	1	Senior posts
Head of Finance	1	Financial posts
Head of Heritage Conservation	1	Conservation Archaeologist
Head of Heritage Management Services	2	Senior posts
Head of Outreach	1	Senior posts
Head of Photography	1	Photographer
Head of Publication	1	Editor
Head of Publications	1	Editor
Head of Section	8	Senior posts
Head of Training and Standards	1	Senior posts
Heritage Advice Team Manager	1	Director or Manager
Heritage Development Officer	1	Other posts
Heritage Information Officer	1	Sites and Monuments Record Officer
Heritage Management Archaeologist	3	Other posts
Heritage Management Assistant	5	Junior posts
Heritage Management Caseworker	1	Other posts
Heritage Management Project Manager	1	Project Manager
Heritage Officer	5	Other posts
Heritage Technician	1	Other posts
Historic Buildings Consultant	6	Buildings Archaeologist
Historic Buildings Officer	2	Buildings Archaeologist
Historic Environment Adviser	4	Other posts
Historic Environment Information Officer	1	Sites and Monuments Record Officer
Historic Environment Officer	2	Other posts
Historic Environment Records Officer	1	Sites and Monuments Record Officer
Historic Landscape Officer	1	Other posts
Historical Researcher	2	Researcher
Human Bone Specialist	2	Archaeological Scientist

<i>Post title</i>	<i>Individuals</i>	<i>Profile title</i>
Illustrator	27	Illustrator
Industrial Archaeology Consultant	1	Consultant
Industrial Heritage Archivist	2	Archives Officer
Information and Records Archaeologist	1	Sites and Monuments Record Officer
Information and Records Assistant	5	Sites and Monuments Record Officer
Information and Records Officer	1	Sites and Monuments Record Officer
Inspector	1	Inspector
Inspector of Ancient Monuments	24	Inspector
Investigator	26	Investigator
Investigator/Curatorial Officer/Photographer	10	Investigator
IT Manager	3	Computing Officer
IT Officer	4	Computing Officer
IT Support	1	Computing Officer
JIS Coordinator	1	Other support posts
Junior Project Manager	1	Project Manager
Keeper	11	Museum Archaeologist
Laboratory Manager	1	Archaeological Scientist
Laboratory Technician	4	Archaeological Scientist
Lecturer	63	Academic Staff
Logistics Manager	1	Director or Manager
Manager	1	Director or Manager
Manager Archaeological Archive	1	Archives Officer
Manager Digital Graphics and Media	1	Illustrator
Manager History and Archaeology Team	1	Director or Manager
Managing Archaeologist	1	Other posts
Managing Director	3	Director or Manager
Managing Editor	2	Editor
Museum Archaeology Officer	1	Museum Archaeologist
Museum Assistant	4	Museum Archaeologist
Museum Officer	2	Museum Archaeologist
Museums Archaeologist	1	Museum Archaeologist
Museums Graphic Designer	1	Illustrator
Museums Registrar	1	Museum Archaeologist
National Park Archaeologist	1	County or Regional Archaeologist
Network Administrator	1	Computing Officer
New Business Officer	2	Other posts
Office Administrator	1	Administrator
Office Assistant	2	Other support posts
Office Cleaner	1	Other support posts
Office Manager	4	Director or Manager
Officer	9	Other posts
Operations Director	1	Director or Manager
Operations Manager	2	Director or Manager
Osteoarchaeologist	1	Archaeological Scientist
Outreach Officer	1	Other posts
Partner	4	Senior posts
Personal Assistant	8	Other support posts
Personnel Manager	1	Director or Manager
Personnel Officer	1	Other support posts
Photographer	3	Photographer
Planning Archaeologist	5	Planning Archaeologist
Planning Casework Officer	4	Planning Archaeologist
Planning Officer	1	Planning Archaeologist
Planning Technician	1	Planning Archaeologist
Post-excavation and Archive Officer	1	Archives Officer
Post-excavation Manager	2	Director or Manager
Post-excavation Officer	1	Other posts
Pottery Specialist	10	Finds Officer
Principal Archaeological Officer	4	Archaeological Officer
Principal Archaeologist	14	Senior posts
Principal Consultant	1	Consultant

<i>Post title</i>	<i>Individuals</i>	<i>Profile title</i>
Principal Curator	3	Museum Archaeologist
Principal Designer/Illustrator	1	Illustrator
Principal Field Archaeologist	1	Archaeologist
Principal Geomatics Officer	2	Computing Officer
Principal Historic Environment Officer	1	Senior posts
Principal Inspector	1	Inspector
Principal Inspector of Ancient Monuments	7	Inspector
Principal Investigator	4	Investigator
Principal Keeper	2	Museum Archaeologist
Principal Landscape Archaeologist	1	Senior posts
Principal Officer	1	Senior posts
Professional Assistant	1	Junior posts
Professor	23	Academic Staff
Project Archaeologist	18	Archaeologist
Project Assistant	115	Junior posts
Project Development Officer	1	Other posts
Project Director	2	Senior posts
Project Management Officer	2	Other posts
Project Manager	74	Project Manager
Project Officer	147	Project Officer
Project Officer CAD/Survey	1	Surveyor
Project Researcher	2	Researcher
Project Secretary	1	Administrator
Project Supervisor	58	Supervisor
Property Archaeologist	2	Other posts
Property Manager	3	Director or Manager
Proprietor	2	Senior posts
Reader	4	Academic Staff
Receptionist	1	Other support posts
Records Assistant	1	Sites and Monuments Record Officer
Records Officer	1	Sites and Monuments Record Officer
Regional Archaeologist	27	County or Regional Archaeologist
Research Assistant	2	Researcher
Research Associate	3	Researcher
Research Director	1	Director or Manager
Research Fellow	13	Academic Staff
Researcher	15	Researcher
Resource Assistant	1	Financial posts
Resources Director	1	Financial posts
Rural Archaeologist	1	Other posts
Rural HERS Officer	1	Sites and Monuments Record Officer
Scheduling Caseworker	1	Other posts
Secretary	12	Administrator
Sector Manager	2	Director or Manager
Senior	5	Senior posts
Senior Administration Officer	1	Administrator
Senior Administrative Assistant	1	Administrator
Senior Administrator	1	Administrator
Senior Archaeological Consultant	2	Consultant
Senior Archaeological Field Technician	3	Senior posts
Senior Archaeological Officer	2	Archaeological Officer
Senior Archaeologist	92	Senior Archaeologist
Senior Archaeologist (Historic Environment Record)	1	Sites and Monuments Record Officer
Senior Archaeologist (Planning Advice)	2	Planning Archaeologist
Senior Archaeologist (Planning)	1	Planning Archaeologist
Senior Archaeologist (Publication)	1	Editor
Senior Archaeology Officer	1	Archaeological Officer
Senior Assistant Keeper	1	Museum Archaeologist
Senior Conservation Archaeologist	1	Conservation Archaeologist
Senior Consultant Archaeologist	1	Consultant
Senior Curator/Head of Archaeology	1	Museum Archaeologist

<i>Post title</i>	<i>Individuals</i>	<i>Profile title</i>
Senior Designer/Illustrator	5	Illustrator
Senior Development Control Officer	1	Planning Archaeologist
Senior Environmental Adviser (Archaeology)	1	Archaeological Scientist
Senior Field Officer	4	Field Officer
Senior Finds Specialist	1	Finds Officer
Senior Geomatics Officer	3	Computing Officer
Senior Historic Buildings Officer	2	Buildings Archaeologist
Senior Illustrator	3	Illustrator
Senior Inspector	4	Inspector
Senior Investigator/Project Manager	8	Investigator
Senior Keeper	1	Museum Archaeologist
Senior Landscape Archaeologist	1	Senior posts
Senior Lecturer	7	Academic Staff
Senior Manager	3	Director or Manager
Senior Photographer	1	Photographer
Senior Planning Archaeologist	2	Planning Archaeologist
Senior Project Assistant	4	Senior posts
Senior Project Manager	27	Project Manager
Senior Project Officer	18	Project Officer
Senior Supervisor	4	Supervisor
Senior Technical Manager	2	Director or Manager
Site Assistant	55	Excavator or Site Assistant
Site Director	3	Director or Manager
Site Supervisor	1	Supervisor
Site Supervisor Consolidation	1	Supervisor
Site Supervisor Field Archaeology	4	Supervisor
Sites and Monuments and Project Officer	1	Sites and Monuments Record Officer
Sites and Monuments Archaeologist	1	Sites and Monuments Record Officer
Sites and Monuments Assistant	2	Sites and Monuments Record Officer
Sites and Monuments Development Officer	1	Sites and Monuments Record Officer
Sites and Monuments Internet Project Officer	1	Sites and Monuments Record Officer
Sites and Monuments Manager	1	Sites and Monuments Record Officer
Sites and Monuments Officer	7	Sites and Monuments Record Officer
Sites and Monuments Record Archaeologist	1	Sites and Monuments Record Officer
Sites and Monuments Record Assistant	3	Sites and Monuments Record Officer
Sites and Monuments Record Manager	1	Sites and Monuments Record Officer
Sites and Monuments Record Officer	9	Sites and Monuments Record Officer
Sites and Monuments Record Volunteer	5	Sites and Monuments Record Officer
Specialist	13	Other posts
Staff Archaeologist	3	Other posts
Stores Manager	1	Director or Manager
Student Placement	1	Junior posts
Supervisor	58	Supervisor
Supervisor/Senior Supervisor	12	Supervisor
Support Staff	5	Other support posts
Survey Officer	1	Surveyor
Surveyor/Field Technician	1	Surveyor
Surveyor/Illustrator	1	Surveyor
Systems Development Officer	1	Computing Officer
Team Leader	4	Senior posts
Team Leader (Archae/Heritage, Ecology and Landscape)	1	Senior posts
Team Leader, Heritage and Resources	1	Senior posts
Team Manager	1	Director or Manager
Technical Director	2	Director or Manager
Technical Manager	3	Director or Manager
Technician	3	Other posts
Technician	16	Other support posts
Territory Archaeologist	3	County or Regional Archaeologist
Trainee Graduate	8	Junior posts
Tutor	24	Academic Staff
Unit Director	1	Director or Manager

<i>Post title</i>	<i>Individuals</i>	<i>Profile title</i>
User Service Manager	1	Director or Manager
Visitor Assistants	9	Other support posts
Visitor Services Manager	1	Director or Manager
Volunteer	2	Junior posts
Volunteer Finds Assistant	1	Finds Officer
Warden	10	Warden
Wood Technologist	1	Finds Officer

Appendix II: Further Comments

The final question on the questionnaire asked ‘if you have any further comments about any aspect of archaeological employment in the UK, please make them here’. This was taken up with relish by many of the respondents. All of the comments received are presented below, unsorted but with any reference to particular organisations that could identify the responding organisation removed.

Most of this form does not apply since I am self-employed and working on my own. However, I am aware of the need to keep appropriate skills up to date and am an associate member of the IFA.

Note: I am a self-employed consultant, not registered as a company. Many questions therefore not relevant.

In general Archaeology courses at university do not equip students for a job in practical archaeology. We are so poorly paid – why don't we all whack 25% on to our prices?

It is burdened by the presumptions manifest in this survey. Apart from that it is healthy and well remunerated, but under-skilled. [NB this organisation does not employ staff, it has ‘self-employed associates’].

It is still difficult to establish a proper career structure given the exigencies of developer funded commercial archaeology. Until the profession becomes mature enough not to ‘undercut the opposition’ at all costs we will make little progress and good, talented archaeologists will have to choose between low paid insecure posts and leaving the profession.

1. New entrant’s unrealistic expectations of archaeological career. 2. Archaeology is undermined by lack of Chartered status. 3. Most archaeologists are very ignorant of non-academic relevant areas eg Contract Law. 4. We undersell and underpay so not taken seriously by others.

Please note that I am a conservator running a service within a university. I have answered this for the service I run and not for the university with regard to training/IiP etc.

There should be no ‘unpaid staff’ in a commercial organisation. Even a student (of whatever age or experience) wanting to do a little fieldwalking, or whatever, should be paid, because they will be helping to complete a task while they learn.

I am a self-employed contractor with MIFA status. Therefore most of the boxes are not applicable.

Our staff are daily/weekly paid and are NOT in continuous employment. We have a ‘pool’ we draw on.

Re Q 10. I don't employ new entrants to the profession because they are so poorly trained by the universities. It was difficult to convey this in your multiple choice system.

We are part of a larger organisation that requires us to employ our casual staff through an agency rather than directly. This can raise issues of parity of treatment for employment conditions, training etc.

Form difficult to fill out. Work as archaeologist in very large non-archaeological organisation. Have tried to answer for the archaeologists as a group rather than the organisation as a whole.

Is the IFA ever going to turn its attention from the Home Counties to the plight of archaeology in the rest of the UK?

It is extremely difficult to relate this questionnaire to those teaching archaeology.

As a consultancy firm of which archaeology only forms a very small part, we are well paid as archaeologists (car allowance, health care, pension and death in service benefits) but we are still poorly paid in comparison to other consultants in the firm.

Lack of field skills in fresh graduates. It amazes me people can get degrees in archaeology and have never drawn a section and have no idea where to start on a desk based study. Consistently disappointed by graduates.

[This organisation] does not initiate or undertake field archaeology. Four of our staff in the [museum department] undertake field archaeology in their own time and are experienced in this field.

'Best value' not always priority of commissioning bodies. PPG16 revision should emphasise that tenders must be carefully evaluated and inadequate bids should be rejected even if cheap. PPG15 should give power to insist on 'soft strip' of buildings and on research before plans are finalised.

I am an archaeologist working in the museum sector conducting rescue excavations with some contract labour. This without the backup of PPG16 funding usually supplied by sponsorship. I also have volunteer group who excavate regularly – c10 for three hours per week average per year.

Currently our senior archaeological member of staff is on a career break, so no specialists on staff employed in this role (although several other members of staff are archaeological in background).

Career progression? What's career progression?!

The sector needs to work together to agree a system of qualifications linked to IFA membership and use this as a springboard for improving training, pay and conditions.

Train undergrads in skills which will equip them for the jobs that are actually out there in the real world. Formal training for planning archaeologists is essential and currently non-existent.

I am a sole trader working as a consultant with part-time help from my wife.

Difficult to gauge without understanding contract and part-time employment staff.

As a sole trader very little of this questionnaire is relevant to a 'one person' organisation! Employment legislation makes it very difficult for me to employ staff when required for a few days at a time. As a result I have to use 'volunteers' and pay cash 'expenses'.

Some questions are not relevant to 'one-man bands'!

Many of the above issues are outwith the control of [this organisation]. Low staffing and budget levels mean service development and training MUST be provided though external project funding – unpredictable, unreliable. Cover for absences does not exist.

Museum archaeologists have different needs to field archaeologists.

Not sure this is appropriate for museums archaeology in a local authority. It reads as though drafted from a field archaeologist's point of view and seems to ignore the contribution made by museum archaeologists – or is this another case of 'dirt archaeology' snobbery?

The role and problems of the sole trader in archaeological work are given little coverage in IFA literature. I may be unusual in being a self-employed contractor in the evaluation/watching brief sector, but there are many like me in buildings, desk-based and finds.

As I am a 'sole operator' [within a local authority] some spots of the form have been difficult. The support and training given by the Council is good in general terms. But specific professional support is lacking.

The current trading system (ie competitive tendering) is prohibitive of long term employment in archaeology for all those not at the upper levels of the profession.

Much is not applicable to two-person partnership earning less than one decent 'salary' between them.

Questionnaire seems dedicated to field units with little reference to curatorial framework. Eg skills gap make no legal/planning law reference. Local authority here has genuine policy of financed CPD that supports development. Hard to reconcile with on-job bodging experienced in units.

Increasingly there is a move towards integrated historic environment conservation. Should the survey not reflect this rather than maintain a strict division in the job sector.

We pay students in vacation periods on a pro rata basis £11,000-£14,000 per annum. Usually one student per vacation, undertaking data entry and filing.

What about self-employed archaeologists?

Private sector contractors have driven wages down and restricted the thoroughness of fieldwork due to very fine margins.

Many of the questions do not apply to sole traders with no staff, such as myself.

I am a freelance archaeologist; a lot of this just did not apply to me.

Many of these questions were not applicable to a single archaeological post in a local authority.

Five people working in non-archaeological posts within our museum service have a BA or more in archaeology but are not working with the archaeological collection though they would like to work in some aspect of the profession.

Pay of specialist (and all other) staff is too low. This is mainly because proportional cost of archaeology to developer (proportion of cost of development project) is too low. Specialist MIFA MSc and above staff should be able to charge equivalent of engineers £250-350 per day.

This questionnaire does not map onto the kind of organisation represented here at all well – as you can see this is a one-person consultancy which is supplemental to another job. Principal role equally split between field investigation, historic environment and educational services.

This body is only able to offer decent working conditions because it is part of a larger publicly funded organisation. General employment conditions in trusts and commercial organisations are dreadful!

Many of these questions not directly applicable to archaeological work within Lifelong Learning departments.

This questionnaire hardly applies to a self-employed sole trader.

Budget and archaeological staff cut to unacceptable levels. No possibility of curating archives and finds to acceptable standards. Metal and nonstable finds deteriorating, also site photo archives. Due to government underfunding of local government which then cuts non-statutory services, planning work also under resourced – 0.25 persons.

Archaeological salaries remain consistently low and should be increased to allow the employment and retention of quality staff.

This profile does not recognise the many small (1-3 person) professional operations engaged on PPG16 work. The answers are likely to be misleading if not totally irrelevant. The impression given is that this profiling approach is designed to favour the larger operators and squeeze out the smallest. This would not help the archaeological/historical environment element in the planning process. We would like to be assured by the profession at large that a small operation can be both professional to a high standard and offer an essential service.

I would like to see a greater practical component within archaeology first degree courses. This might provide a better preparation for new entrants into the profession.

There seems to be something wrong with the database set up for archaeological training skills. I can't enter 0 in the fields – have put 10 instead.

Most of the above questions have little relevance to a University department.

As we are a training organisation in our own right it has not been easy to answer questions about archaeology per se.

As a small unit I believe that we overcome many problems through informality and friendliness. The fact that we are small means that of necessity we offer a diverse range of work experiences for our staff. However we have problems affording training.

I do not consider that the NVQ format is appropriate for a knowledge-based subject like archaeology as we practice it. It may have some value for skill-based aspects of the job.

Little available training in CRM [here], as [national heritage agency] gives no priority to training the profession. Staff have to go to [another national heritage agency] supported courses. New graduates know little about CRM, particularly planning.

There are too many new graduates moving directly into positions of responsibility within consultancies whose prime motivation is to expedite the removal of archaeological strata in order to allow developers access to sites. This is leading to situations in which timescales are too short for proper excavation to take place and areas excavated are too small to allow reliable inferences to be drawn concerning the archaeological significance of the sites. No facilities or time are being allowed for these people to acquaint themselves with the details of the archaeology of the areas in which they find themselves working.

Solution: Better training for graduates *after* they leave university and the breaking of the direct link between developers and consultants (possibly through a development tax).

Managers and supervisors are being called upon to work in areas of the country of which they have no direct knowledge with the result that poor quality decisions are being taken affecting the size of excavated areas and the amount of time needed to undertake proper excavation. The result is 'grey publications' which are inadequate or simply wrong in terms of factual detail and inference.

Solution: Revival of the county unit structure with dedicated units working in specific areas under the close control of adequately resourced local authority and EH inspectors and an end to the contract-tender system.

Field archaeologists with no knowledge of, or interest in, research questions are dictating the scope and scale of finds work with the result that finds reports are no more than catalogues of data devoid of interpretation.

Solution: Enforcement of the MAP II guidelines by local authority curators with regard to the proper planning of fieldwork projects to ensure that specialists form part of the management team from the outset of a project.

Perception that archaeological colleagues who are 'contractors' are having trouble attracting and retaining site staff in particular, leading to a personnel and skills shortage at the 'sharp end' and increasing pressure on experienced site supervisors/managers/other personnel. Perhaps limited size of profession results in low turnover at more 'senior' level and therefore frustratingly slow career progression for those lower down the 'ladder'?

My great concerns are that: 1) Field archaeologists are under-rated, under-paid and rapidly leaving the profession. We must develop a better career structure, link to much better pay, raise the profile of field archaeologists to professionals and not just ‘technicians’; 2) Developers will pay more for archaeological services if all units sign up to better pay and conditions. Archaeology is ‘cheap’ for them; 3) If we don’t our ‘profession’ will wither on the vine; 4) Too much conflict is talked up between consultants, curators and contractors. It is immature and we should move on from these entrenched positions. I could go on, but there’s not enough room/time. Our profession is not in a healthy state at all.

Archaeologists coming out of university have no/few skills in 1) excavation techniques, 2) planning system, 3) how to judge the importance of archaeology, 4) how to relate theory to practice, 5) understanding of the full range of archaeological materials/periods, 6) dealing with volumes of paperwork/assessing content of documents etc, etc, 7) writing clear file notes.

As well as the in-house personnel referred to, we fund three Research Assistant posts in [university department], and a further three such posts in [university department], which runs a post-graduate course as well as research programmes. As [this organisation] also has a contract with us to carry out and assist us with excavations, we assist in training entrants to the profession, though we do not employ them directly.

Since the advent of developer funding, the number of archaeologists employed in the field has subsequently expanded. The numbers of planning applications assessed and excavation licence applications received by this office have also grown exponentially, with a considerable increase in the number of staff required, these professionals being employed on three-year contracts.

Due to the pressures on a relatively small pool of experienced field personnel, the opportunities for advancement in private firms have increased dramatically, though there have been attempts to promote individuals who would benefit from further experience and training. Also due to financial incentives, there is a temptation to return people to the field and leave post-excavation work undone and reports incomplete.

Universities do not produce archaeologists, but people with archaeological qualifications. It is up to themselves to attain the relevant experience, expertise and specialisms to achieve the status of archaeologists, and up to those bodies which depend on their abilities to ensure that the opportunities exist for such achievement to be viable.

Question 10 – training for new entrants – the answer would really be between little and considerable. Little has been circled as this training tends to be informal and on-the-job rather than structured. On the other hand as an organisation we invest considerable amounts of time in making sure that all staff are taught basic practical skills.

Question 12 – we have supported several staff through part-time MA courses (support is in terms of time off, flexible working etc). No staff have specifically undertaken vocational training although support would be given.

Few new entrants to archaeology have the basic skills to undertake excavation work and write reports. University courses should retain their academic basis and as such one would not expect more than basic excavation skills; however the standard of general analytical thought, report writing and basic English must indicate huge gaps in even the academic content of a standard archaeology degree course. Where more vocational options are being considered by universities etc there should be more contact with the practising profession. Although certain modules and courses have much to recommend them, it is clear that many students leave the more vocational orientated course (both BA and MA) expecting entry into the profession at a higher level. Experience suggests that few leave a degree course equipped to undertake excavation/project work beyond site assistant level.

Q12 Extent of support 'depends if they fit wider organisational aims and objectives'.

As a small local authority we have one person giving some aspects of archaeological advice, but mainly use County Archaeology Service. Would not be useful to employ someone who needed much technical training.

I manage the [organisation] and am always shocked by lack of knowledge and appreciation of archiving procedures and preservation by record among archaeologists and graduates. I find that museum studies students, archivists and even general office staff have much more acute grasp of the purpose of the archive.

It is interesting to note that you have not asked how many members of staff are members of or are affiliated to IFA. In our case only 1 out of 11 staff is a member.

Appendix III: The Questionnaire

The following pages are the complete text of the questionnaire and covering letter as they were posted to the organisations on the project's mailing list.



Archaeology Labour Market Intelligence: Profiling the Profession 2002/03

Dear Sir or Madam,

Archaeology Labour Market Intelligence: Profiling the Profession 2002/03 is a project that is intended to provide information about archaeological employment in the United Kingdom and to provide the basis for informed strategies to develop the profession. This will update the only previous such survey, *Profiling the Profession*, which obtained data in 1997/98 (results online at <http://www.archaeologists.net/profession.html>).

The **Institute of Field Archaeologists** has been commissioned to undertake this project by the **Cultural Heritage National Training Organisation** with funding from the **Sector Skills Development Agency**, and financial support from **English Heritage** and **Cadw: Welsh Historic Monuments**.

Every organisation that employs or commissions archaeologists in the UK is invited to contribute to this project, and the principal aim of the project is to identify, collect, quantify and disseminate labour market information on the archaeology sub sector to provide employers with comprehensive, up-to-date information to aid business planning and improve organisational performance and competitiveness. This will include:

- a profile of the workforce, highlighting any diversity issues
- information on training needs, skills shortages and skills gaps
- details of the nature, extent of the archaeology sector, including accurate employment figures
- information on occupations including potential recruitment and career progression difficulties
- labour market trends and issues including training investment and supply and other financial, business and staffing issues.

Enclosed is the questionnaire which will be used to retrieve this data. Please ensure that this letter is not separated from the questionnaire, as it contains advice that will be needed by the person completing the questionnaire.

This research will address the whole of the archaeology profession and will include volunteers (unpaid staff) and those in paid employment. **Please note that when completing the questionnaire, members of staff can be either paid or unpaid, but an employee is a member of staff who is on the payroll.**

Enclosed is also a postage-paid reply envelope. As an alternative to completing the paper version, respondents are invited to complete the electronic version of the questionnaire, which is accessible online through <http://www.archaeologists.net>. Completing the electronic version, rather than that on paper, would be greatly appreciated, as this will reduce the time that will have to be spent on data re-entry.

The deadline for the return of the completed paper questionnaire is December 24 2002, but we will still be able to receive electronic versions until 6 January 2003.

It is accepted that completing the questionnaire may present some difficulties. We must apologise for requesting such complex information, but it is needed to build as full a picture as possible. Potentially the most difficult question is the first, which asks organisations to characterise their organisation by the principal service they provide, using definitions created in the *Standards and Functions in Archaeology* project. Many organisations will consider that they provide services that cross over the definitions presented – such as those that undertake field investigation & research and also provide historic environment advice. Please consider this question in depth, and choose only one category. In part 2 of the questionnaire, which asks about archaeological posts, there is the opportunity to specify which occupational category the people working in particular posts would be part of; this does not need to match that identified in the first question, and so offers the opportunity to demonstrate the width of service provided by the organisation.

If you require further assistance or advice in completing the questionnaire, please do not hesitate to contact Kenneth Aitchison (Imi@archaeologists.net) at the **Institute of Field Archaeologists**.

A full archive of all the information received, plus a full copy of the database used, will be held by the **Cultural Heritage National Training Organisation**. As some of this information might be considered to be commercially sensitive, the entries in the archive will only be identified by the region of the UK where the organisation providing the data is based and what type of organisation that is. **It will be impossible to connect the data to the organisation that provided it.**

The results of the survey will be launched at the **IFA Annual Conference for Archaeologists**, in Bangor from 15 – 17 April 2003. The results will be published, conventionally and electronically, by **CHNTO** and summaries will also be presented in other relevant publications. Paper copies of the final report will be sent to all organisations that have returned questionnaires.

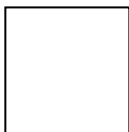
With many thanks in advance,

yours faithfully,

Anne Mackintosh
Head of Research and Learning
Cultural Heritage National Training Organisation

Kenneth Aitchison
Head of Training and Standards
Institute of Field Archaeologists

Archaeology Labour Market Intelligence: Profiling the Profession 2002/03



this questionnaire is designed to obtain information relating to people working in archaeology at present. please complete the questionnaire using information that applied to your organisation on Monday 25 November 2002

part one: the organisation

1 organisational structure and role

please tick one box that best describes your organisation's structural basis and principal role	structural basis	principal role			
		field investigation and research services	historic environment advice and information services	museum and visitor / user services	educational and academic research services
	national government				
	local government				
	university				
	commercial organisation				
	other				

2 geographical location

please tick one box to indicate where the organisation that you are providing data for is based	east midlands		west midlands	
	eastern england		yorkshire & the humber	
	london		scotland	
	north-east england		wales	
north-west england and merseyside		northern ireland		
south-east england		channel islands		
south-west england		isle of man		

3 number of staff

please indicate how many members of staff, paid and unpaid, are working for your organisation at present please ensure that all staff, including those on short-term or temporary contracts are included	paid		unpaid	
	archaeological staff	<input type="text"/>	<input type="text"/>	<input type="text"/>
	non-archaeological support staff	<input type="text"/>	<input type="text"/>	<input type="text"/>
	total staff	<input type="text"/>	<input type="text"/>	<input type="text"/>

have these numbers varied in the course of the past year? If so, please indicate the maximum and minimum numbers of staff, paid and unpaid, that your organisation has had at any given time in the course of the past year	paid		unpaid		
	min	max	min	max	
	archaeological staff	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	non-archaeological support staff	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
total staff	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	

4 employee rights / benefits

	yes	no	don't know
do employees receive 20 or more days paid holiday leave per annum?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
do employees receive paid sickness leave over and above Statutory Sick Pay?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
do employees receive paid maternity leave over and above Statutory Maternity Pay?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
do employees receive the opportunity to take unpaid maternity leave?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
do employees receive paid paternity leave?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
do employees receive the opportunity to take unpaid paternity leave?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
are employees provided with the opportunity to jobshare or use other flexible working arrangements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
are employees provided with subsidised accommodation or subsistence allowance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
please give details of any other employee benefits which the organisation provides [eg reimbursement of IFA subscriptions]			

5 salary scales

	yes	no	don't know
are salaries within the organisation tied to any scale system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
if yes , then please indicate the type of scale system in use			
	civil service	<input type="checkbox"/>	<input type="checkbox"/>
	local authority	<input type="checkbox"/>	<input type="checkbox"/>
	university	<input type="checkbox"/>	<input type="checkbox"/>
	locally defined or own scale	<input type="checkbox"/>	<input type="checkbox"/>
	other [please specify]	<input type="text"/>	

trades unions

	yes	no	don't know
are there any recognised trades unions in the organisation's workplace?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
if yes , which unions are these? [tick all that apply]			
	Amicus	<input type="checkbox"/>	<input type="checkbox"/>
	AUT [Association of University Teachers]	<input type="checkbox"/>	<input type="checkbox"/>
	Prospect	<input type="checkbox"/>	<input type="checkbox"/>
	Unison	<input type="checkbox"/>	<input type="checkbox"/>
	other [please specify]	<input type="text"/>	

7 past and future staff numbers

<p>please indicate how the numbers of members of staff [in terms of Full-time Equivalents] have changed over the last few years and how you anticipate staff numbers to change in the near future</p> <p>please ensure that all staff, including those on short-term or temporary contracts, are included</p>	how did the numbers employed by the organisation one year ago [2001/02] compare with the present? [circle more if there were more employees one year ago etc.]						
	paid staff	more	the same	fewer		don't know	not trading
	unpaid staff	more	the same	fewer	none	don't know	not trading
	how did the numbers employed by the organisation three years ago [1999/2000] compare with the present?						
	paid staff	more	the same	fewer		don't know	not trading
	unpaid staff	more	the same	fewer	none	don't know	not trading
	how did the numbers employed by the organisation five years ago [1997/98] compare with the present?						
	paid staff	more	the same	fewer		don't know	not trading
	unpaid staff	more	the same	fewer	none	don't know	not trading
	how do you anticipate the numbers employed by the organisation one year in the future [2003/04] to compare with the present? [circle more if you anticipate there being more employees in one year's time etc.]						
	paid staff	more	the same	fewer		don't know	
	unpaid staff	more	the same	fewer	none	don't know	
	how do you anticipate the numbers employed by the organisation three years in the future [2005/06] to compare with the present?						
	paid staff	more	the same	fewer		don't know	
	unpaid staff	more	the same	fewer	none	don't know	

8 Investors in People and other quality standards

<p>do you employ a quality system [for example ISO 9000]</p> <p>if you answered yes to this question then please tick all the quality systems that you apply</p>		yes	no	don't know
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ISO 9000			<input type="checkbox"/>
	Investors in People			<input type="checkbox"/>
	SQMS [Scottish Quality Management System]			<input type="checkbox"/>
	EFQM [European Foundation for Quality Management]			<input type="checkbox"/>
	BEM [Business Excellence Model]			<input type="checkbox"/>
	Charter Mark			<input type="checkbox"/>
	Museum Registration			<input type="checkbox"/>
	IFA Registered Archaeological Organisation			<input type="checkbox"/>
other [please specify]			<input type="checkbox"/>	

relating to Investors in people [liP] is your organisation [tick one box only]	recognised liP	<input type="checkbox"/>	considered and rejected	<input type="checkbox"/>
	committed to liP	<input type="checkbox"/>	not considered	<input type="checkbox"/>
	considered not yet working towards it	<input type="checkbox"/>	don't know	<input type="checkbox"/>

if your organisation has not committed to liP which of the following is the main reason?	too much paper work	<input type="checkbox"/>	no LSC / LEC funding	<input type="checkbox"/>
	time not available	<input type="checkbox"/>	other [please add]	<input type="checkbox"/>
	benefits not clear	<input type="checkbox"/>		
	seemed irrelevant	<input type="checkbox"/>		

relating to IFA registration is your organisation [tick one box only]	registered archaeological organisation		working towards registration	
	considered not yet working towards it		considered and rejected	
	not considered		don't know	

if you have not committed to IFA registration which of the following is the main reason?	too much paper work		part of a larger organisation that will not commit	
	time not available		other [please add]	
	benefits not clear			
	seemed irrelevant			

9 staff training and development

	yes	no	don't know
do you identify training needs for individuals and the organisation as a whole?			
do you provide training or other development opportunities for paid employees?			
do you provide training or other development opportunities for unpaid staff?			
if yes to either of the two questions above, how do you develop your staff – tick all that apply	paid staff	unpaid staff	
formal off-job training [eg outside training courses]			
formal in-job training [eg in-house training course]			
informal off-job training [eg supported individual research and learning]			
informal in-job training [eg mentoring]			
	yes	no	don't know
does your organisation have a formal training plan?			
does your organisation have a training budget?			
is your training budget under your organisation's direct control?			
do you record how much time employees spend training?			
do you formally evaluate the impact of training on individuals?			
do you formally evaluate the impact of training on the organisation?			
does your organisation operate a performance appraisal scheme?			
does your organisation encourage individuals to engage in continuing professional development?			

10 training supply and demand

do you employ new entrants to the profession?	yes	no	don't know	
if so, how much training do you have to give new entrants? [on average]	very little	little	considerable	very considerable
how well equipped with skills are new entrants to the profession?	very poorly	poorly	well	very well
how well do currently available courses match the requirements of the profession?	very poorly	poorly	well	very well

11 skills gaps

has your organisation brought in outside specialists or consultants in the last year for specific non-archaeological purposes? If so, please indicate in which areas they contributed to the work of your organisation.	leadership		project management	
	information technology		business skills	
	people management		non English language	
	education / training		customer care	
	marketing / sales		advocacy / influencing others	
	other [please specify]			

has your organisation brought in outside specialists or consultants in the last year for technical, archaeological purposes? if so, please indicate in which areas they contributed to the work of your organisation	conducting [direct] intrusive investigations [evaluation, excavation]		contributing to intrusive investigations [evaluation, excavation]	
	conducting [direct] non-intrusive field investigations [geophysical survey]		contributing to non-intrusive field investigations [geophysical survey]	
	conducting [direct] other non-intrusive field investigations		contributing to other non-intrusive field investigations	
	archaeological landscape characterisation		desk-based research	
	conservation of artefacts or ecofacts		artefact or ecofact research	
	other [please specify]			

what non-archaeologically specific skills are a priority for training your organisation's staff over the next two years [please select up to three]	leadership		project management	
	information technology		business skills	
	people management		non English language	
	education / training		customer care	
	marketing / sales		advocacy / influencing others	
	other [please specify]			

what technical, archaeological skills are a priority for training your organisation's staff over the next two years? [please select up to three]	conducting [direct] intrusive investigations [evaluation, excavation]		contributing to intrusive investigations [evaluation, excavation]	
	conducting [direct] non-intrusive field investigations [geophysical survey]		contributing to non-intrusive field investigations [geophysical survey]	
	conducting [direct] other non-intrusive field investigations		contributing to other non-intrusive field investigations	
	archaeological landscape characterisation		desk-based research	
	conservation of artefacts or ecofacts		artefact or ecofact research	
	other [please specify]			

12 **vocational qualifications**

are you aware of any vocational qualifications in archaeological practice?	yes	no	don't know	
how much support would you give staff to work towards such qualifications?	very little	little	considerable	very considerable

13 **further comments**

if you have any further comments about any aspect of archaeological employment in the UK, please make them here	
---	--

please now complete **part two: post profiles**

Archaeology Labour Market Intelligence: Profiling the Profession 2002/03

part two: post profiles

--

please complete this sheet for each post title within the organisation, for both archaeological staff and any dedicated support staff that work with the archaeologists. note that while each entry relates to a particular post, this may well relate to a number of individuals.

please photocopy this sheet as many times as required, noting that the sheet is double-sided

post title	
number of paid individuals employed in this post	
number of individuals working in this post on an unpaid basis	

please indicate the principal role of the individuals working in this post [tick one box only]	archaeologist: field investigation and research services	
	archaeologist: historic environment advice and information services	
	archaeologist: museum and visitor / user services	
	archaeologist: educational and academic research services	
	support staff	

number of individuals working in this post by age and gender	paid staff	female	male	unpaid staff	female	male
	aged under 20				aged under 20	
aged 20 – 29				aged 20 - 29		
aged 30 – 39				aged 30 - 39		
aged 40 – 49				aged 40 - 49		
aged 50 – 59				aged 50 - 59		
aged 60 and over				aged 60 and over		

gross salary	minimum		does this include any weighting allowance?	yes		how much?	minimum	
	maximum			no			maximum	
	average						average	

does your organisation operate a performance-related pay scheme?	yes	
	no	
	don't know	

working hours per week [please complete in terms of numbers of individuals]	paid staff	unpaid staff	
	part-time [<30h pw]	part-time [<30h pw]	
	full-time [≥30h pw]	full-time [≥30h pw]	

length of contract for paid staff [please complete in terms of numbers of individuals]	up to 3 months		12 – 24 months	
	3 – 6 months		> 24 months	
	6 – 12 months		permanent / open ended	

length of employment to date – paid staff [please complete in terms of numbers of individuals]	up to 3 months	
	3 – 6 months	
	6 – 12 months	
	12 – 24 months	
	> 24 months	

length of time working with organisation – unpaid staff [please complete in terms of numbers of individuals]	up to 3 months	
	3 – 6 months	
	6 – 12 months	
	12 – 24 months	
	> 24 months	

how many of the paid posts are funded by establishment income or by project grants / contracts [please complete in terms of numbers of individuals]	establishment	
	project	

does the organisation contribute to the pension of individuals working in this post? [please complete in terms of numbers of individuals]	yes	
	no	

in the last year, have there been vacancies for this post that have been difficult to fill? [post advertised for over six months]	yes	
	no	
	don't know	

how many of the people working in this post have each of the following qualifications [for those with multiple qualifications count only their highest]	doctorate	paid staff	unpaid staff	
	postgraduate [masters]	paid staff	unpaid staff	
	first degree or HND	paid staff	unpaid staff	
	A level, Highers, GNVQ, GSVQ, GCSE, S-Grade	paid staff	unpaid staff	

what are the ethnic origins of the people working in this post [please complete in terms of numbers of individuals]	black african	paid staff	unpaid staff	
	black caribbean	paid staff	unpaid staff	
	east asian	paid staff	unpaid staff	
	south asian [Indian subcontinent]	paid staff	unpaid staff	
	white	paid staff	unpaid staff	
	other	paid staff	unpaid staff	

how many of the people working in this post are disabled, as defined in the Disability Discrimination Act 1995 as being anyone 'with a physical or mental impairment which has a substantial and long-term adverse effect upon their ability to carry out normal day-to-day activities' ?	paid staff		unpaid staff	
---	------------	--	--------------	--

Appendix IV: National Statistics Classification

Below are details of the group of professional occupations into which archaeologists are classified by National Statistics (formerly the Office of Populations, Censuses and Surveys).

MINOR GROUP 29

PROFESSIONAL GROUPS NEC (NOT ELSEWHERE CATEGORISED)

Workers in this minor group perform a variety of professional occupations not elsewhere classified in MAJOR GROUP 2: PROFESSIONAL OCCUPATIONS.

Occupations in this minor group are classified into the following unit groups:

- 290 Psychologists
- 291 Other Social and Behavioural Scientists
- 292 Clergy
- 293 Social Workers, Probation Officers

291 OTHER SOCIAL AND BEHAVIOURAL SCIENTISTS

Other social and behavioural scientists study the origin, structure and characteristics of language, the earth's surface and the form, behaviour, social patterns and interrelationships of human beings.

TYPICAL ENTRY ROUTES AND ASSOCIATED QUALIFICATIONS

Entry is most common with a degree or equivalent qualification but is possible with other academic qualifications or relevant experience.

TASKS

- organises and controls field excavations to study artifacts, ancient ruins and fossilised remains;
- traces the evolution of word and language forms, compares grammatical structures and analyses the relationships between ancient parent and modern languages;
- compiles and analyses economic, demographic, legal, political, social and other data;
- studies the characteristics and uses of the earth's surface and natural resources;
- arranges findings in a form suitable for publication and advises national/local bodies on policy issues.

RELATED JOB TITLES

Archaeologist Anthropologist Geographer Historian Philologist Sociologist

Source: EDG 1990.

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Discovering the Archaeologists of Europe:

UNITED KINGDOM



Archaeology Labour Market Intelligence:
Profiling the Profession 2007/08

Kenneth Aitchison & Rachel Edwards



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0 Summary and recommendations

0.1 Aims

The aim of the *Archaeology Labour Market Intelligence 2007-08* project was to improve understanding of the needs of the archaeological profession by identifying, collecting, quantifying and disseminating labour market information for the sector.

The objectives were to

- generate a profile of the workforce, highlighting any diversity issues
- gather and interpret information on training needs, skills shortages and skills gaps
- gather and interpret details of the nature and extent of the archaeology sector, including accurate employment figures
- gather and interpret information on professional roles including potential recruitment and career progression difficulties
- identify labour market trends and issues including training investment and supply and other financial, business and staffing issues
- identify potential barriers to employment
- feed these data into the Europe-wide *Discovering the Archaeologists of Europe* project so contributing to a wider dataset about the archaeological profession in twelve of the 27 EU countries.
- inform the archaeological sector of the outcomes of this research

This research addressed the whole of the archaeology profession and included volunteers (unpaid staff) who work alongside paid staff as well as those in paid employment. This research does not represent an audit of the whole voluntary sector in archaeology.

0.2 Summary

Comprehensive Labour Market Intelligence for the archaeological profession has now been gathered for the third time. This baseline survey used basically the same methodology that was previously employed in 1997-98 and 2002-03, and consequently a time-series dataset has been compiled which allows trends to be identified with increasing confidence.

The estimated numbers of archaeologists working in the UK

1. The estimated archaeological workforce in 2007-08 was 6865, a 20% increase on the figure of 5772 estimated for 2002-03 (and a 55% increase over ten years on the estimated archaeological workforce in 1997-98 of 4425).
2. A further estimated 866 people worked as dedicated support staff within archaeological organisations, giving an estimated total of 7731 people directly earning from archaeology.

Age, gender, ethnicity, disability status and country of origin

3. The average age of a working archaeologist was 38; female archaeologists were on average aged 36, and male archaeologists 39. The average age of working archaeologists has not changed over the last five years.

4. The survey found that 41% of archaeologists were female and 59% were male. In 2002-03, the proportions were 36:64.
5. Archaeology is not an ethnically diverse profession. 99% of working archaeologists were white. This is effectively unchanged since 2002-03.
6. The proportion of people with disabilities working in archaeology was very low, with 98.4% of archaeologists not being disabled. In 2002-03 the equivalent figure was 99.6%.
7. 93% of archaeologists working in the UK were from the UK, 5% were from elsewhere in the European Union, 0.3% were from non-EU Europe and 2% were from elsewhere in the world.

Growth of the sector

8. Overall, employers were confident that further growth could be expected in the next five years, although not as many have reported growth over the last five years as anticipated it five years ago. It should be noted that the survey was undertaken immediately before the potential impact of the 2007-08 credit squeeze became apparent.

Developer funding

9. 48% of organisations were funded at least in part by income generated by work related to development or the planning process. This equates to 58% of archaeological posts being funded by income generated by work related to development or the planning process.

Estimated numbers working in each job type

10. Of 6865 archaeologists working in the UK, 667 (10%) worked for national government agencies, 1151 (17%) worked in local government, 1014 (15%) worked for universities, 3497 (51 %) worked in the private sector and 535 (8%) worked for other types of organisations.
11. 3890 (57%) of these people worked for organisations that provide field investigation and research services, 1816 (27%) for organisations that provide historic environment advice, 310 (5%) provide museum and visitor services and 836 (12 %) work for organisations that provide education and academic research.

Geographical differences

12. More archaeologists worked in the south east and south west of England than other areas, but this largely reflects the overall pattern of the UK population distribution. The proportion of archaeologists working in London has fallen over the five years since 2002-03, and this continues a trend that extends to 1997-98.

Range of jobs

13. The survey collected information on 2733 archaeologists and support staff working in 808 jobs with 519 different post titles. This represented one post title for every 5.3 individuals. In 2002-03 there was one post title for every 5.5 individuals.

Salaries

14. On average, full-time archaeologists earned £23,310 per annum. The median archaeological salary was £20,792 (50% of archaeologists earned more than this, 50% earned less). The average salary for those employed in the private sector, which employed 51% of the archaeological workforce, was £20,916. By comparison, the average for all UK full-time workers was £29,999 – so, overall, the average archaeologist earned 78% of the UK average.
15. Over the five years since 2002-03, the average earnings of archaeologists have increased by 22%. The national average has increased by 23% over that same period, so archaeological earnings are increasing at approximately the same rate as the national average.
16. This contrasts with the five years to 2002-03; as reported in Aitchison and Edwards 2003 (40) when archaeological earnings had increased by only 12% over those five years while the national average had increased by 22%.

Staff qualifications

17. Nearly one in eight (12%) of archaeologists held a Doctorate or post-doctoral qualification, 40% held a Masters degree of higher and 90% of archaeologists held a Bachelors degree or higher.
18. Effectively, 100% of archaeologists aged under 30 for whom qualifications data was available were graduates.

Potential skills shortages and skills gaps

19. Particular skills issues (gaps or shortages) were identified in the areas of: conducting and contributing to surveys of historic buildings, conducting and contributing to geophysical survey, desk-based research and assessment, conservation of artefacts or ecofacts, artefact research and ecofact research. Information technology and report writing were also identified as areas where there were potential non-archaeological skills issues.

Employers' commitment to training and qualifications

20. A very high proportion (93%) of employers identified training needs for individuals and provided training for paid staff. Just over half had a training plan and just under half formally evaluated the impact of training on individuals. Less than a third evaluated the impact of training on the organisation (compared with three quarters which identified needs for the organisation as a whole).

0.3 Recommendations

1. This research should continue to be repeated at least every five years to ensure that the data continues to be up to date and relevant to the needs of employers and other stakeholders.
2. Further projects which apply the National Occupational Standards in Archaeological Practice in the workplace to improve business and individual performance are recommended.
3. Further research is needed to identify why there continues to be so few black or minority ethnic people working in the sector. More support is needed to help employers increase diversity in the workplace.
4. The creation of a single, annually updated, directory of archaeologists and archaeological organisations would greatly assist future iterations of this project and would aid employers, individual employees and potential employees.
5. Comprehensive, up-to-date information about those participating in archaeology on a voluntary basis is needed. This project looked at voluntary participants working with paid employees, but there is need for a comprehensive and comparable study of voluntary participation in archaeology in order to identify potential skills and training issues for this group of individuals

1 Introduction and background

1.1 Introduction

Archaeology Labour Market Intelligence: Profiling the Profession 2007-08 is the third in a series of labour market intelligence surveys which have been carried out every five years since 1998. The project has updated the information gathered in 2002-03 and 1997-98, and has collected additional data not requested in previous years.

Collectively, the results of these projects represent time series datasets which allow econometric trends to be identified in the field of archaeological employment in the United Kingdom.

The project was undertaken by the Institute of Field Archaeologists (IFA) with assistance from Arboretum Archaeological Consultancy. As the UK component of the transnational *Discovering the Archaeologists of Europe* project, the project received funding from the Leonardo da Vinci programme as part of the European Commission's Lifelong Learning Programme.

UK funding was provided by English Heritage, Cadw, Historic Scotland, and the Environment and Heritage Service (Department of the Environment, Northern Ireland).

1.2 Context and background

European context – Discovering the Archaeologists of Europe

For the first time, comparable data about the archaeological profession has been collected for other European countries as well as the UK. *Profiling the Profession 2007-08* is part of a wider project funded in part by the European Commission Leonardo da Vinci programme. *Discovering the Archaeologists of Europe* has collected comparable data across twelve EU countries to describe the archaeological profession in 2007-08. It is a transnational project, managed from the UK by IFA, with partners in Austria, Belgium, Cyprus, the Czech Republic, Germany, Greece, Hungary, the Republic of Ireland, the Netherlands, Slovakia, Slovenia, and the European Association of Archaeologists. In addition to twelve national reports on archaeological employment in each of the participating countries (of which this is one), these results also contribute to a transnational summary and overview of that project (Aitchison 2008a).

Discovering the Archaeologists of Europe seeks to improve understanding of the requirements for, and capacity to provide, transparent qualifications for archaeologists across Europe. The project objectives at European and national levels are

- to identify barriers to entry to the profession of archaeology and to transnational mobility
- to identify labour market information and trends, including training investment, recruitment and career progression difficulties
- to establish the number of archaeologists working in each state
- to identify training needs and skills shortages

- to provide archaeological employers with information to aid business planning and improve organisational performance

UK context

The project has relevance at individual, organisational and strategic levels for professional archaeologists in the UK.

At an individual level the summary of organisations, jobs and employment conditions for archaeologists in the UK will be of use in career planning, and in the identification of training and development opportunities. The European context provided by *Discovering the Archaeologists of Europe* will enhance understanding of the potential for transnational working and individual mobility for archaeologists.

The project will help archaeological employers in business planning by providing comparative information about organisations and posts across the UK and in the twelve EU partner countries of the *Discovering the Archaeologists of Europe* project.

At a strategic level, the project offers an up to date and better understanding of the archaeological profession in the UK. This will assist government, national heritage agencies, professional institutes and trade unions in planning for the future. Analysis of training and development needs will contribute to strategic planning by identifying skills needs and gaps. As the third in a series of projects covering ten years, it offers the potential for identifying trends over time.

1.3 Structure of the report

The first chapter provides the introduction and background to the survey, the second gives an account of the methodology used for the survey. The next four chapters outline the results of the 2007-08 survey in relation to organisations, archaeologists, jobs and training respectively. Comparison with the previous two Profiling the Profession surveys and identification of trends over time are made in the final chapter. The first appendix summarises the post profile data for all 41 profiles identified by the 2007-08 survey, and provides a concordance with job titles reported to the survey. All free text 'further comments' made by respondents are reproduced without identifying data in the second appendix. The third appendix consists of a copy of the questionnaire and covering letter.

Throughout the report, estimated figures are presented in italics.

1.4 Previous work

Introduction

A series of projects since 1975 have examined one or more aspects of labour market information in archaeology, some covering the whole sector across the whole of the UK, and others covering parts of the sector or parts of the country. The summary which follows is repeated from Aitchison 1999 and Aitchison and Edwards 2003, with the addition of material from more recent work.

Figure 1 and Table 1 bring together the estimated numbers of professional archaeologists working in the UK from the summaries below and other references. The earliest available data is for 1930, and comprehensive but partial information began to be collected systematically in the later 1970s. The startling drop in the late 1980s and early 1990s is interpreted partly as a result of the end of the Manpower Services Commission's Community Programme in 1988, a governmental unemployment relief scheme which had provided a source of funding for archaeological research projects with greater individual participation (Chitty and Baker 1999, 51) and partly by the consequences of an economic downturn in the early 1990s which led to a reduction in the amount of construction work being undertaken and a consequent drop in associated archaeological fieldwork.

Figure 1 Historical growth of archaeology

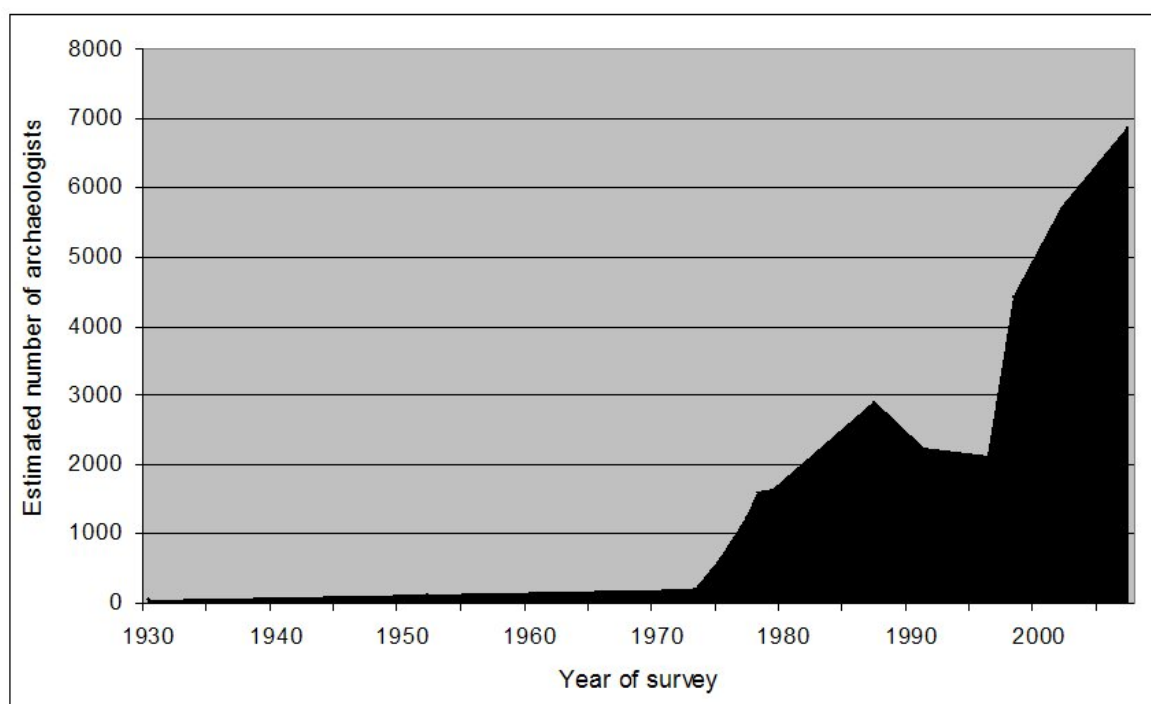


Table 1 Historical growth of archaeology

Year	Number of professional archaeologists working in UK	Source	Notes
1922	24	Wheeler 1957, 122	
1925	30	Myres 1975, 5	
1930	40	Jones 1984, 5	
1952	117	Kenyon 1952, appendix IV	
1973	200	Thomas 1974, 10	
1975	632	Bishop, J. 1975	
1977	1221	Dennis 1979	'Rescue' archaeologists only, excludes Northern Ireland
1978	1594	Dennis 1979	'Rescue' archaeologists only, excludes Northern Ireland
1979	1614	Dennis 1979	'Rescue' archaeologists only, excludes Northern Ireland
1987	2900	Plouviez 1988	'Rescue' archaeologists only, excludes Northern Ireland

Year	Number of professional archaeologists working in UK	Source	Notes
1991	2200	Spoerry 1992	'Rescue' archaeologists only, excludes Northern Ireland
1996	2100	Spoerry 1997	'Rescue' archaeologists only, excludes Northern Ireland
1998	4425	Aitchison 1999	
2002	5712	Aitchison & Edwards 2003	
2007	6865	Aitchison & Edwards 2008	

Profiling the Profession 1997-98

Profiling the Profession: a survey of archaeological jobs in the UK (Aitchison 1999) was the first comprehensive labour market intelligence review undertaken for the archaeological sector. This was conducted by postal questionnaire, and is the work on which the present survey and its predecessor in 2002-03 were modelled. The data from that project related to financial year 1997-98 and have been used in the present survey to examine trends over the past ten years (see Chapter 7 below).

The 1997-98 survey identified that there were an estimated 4425 professional archaeologists working in the UK at that time, with respondents to the questionnaire considering that the profession had grown over the previous five years, particularly amongst archaeological 'contractors', with further growth anticipated over the five years to 2002-03.

The survey identified the ranges of salaries being paid in different types of job in different parts of the UK, and found that average earnings for archaeologists in 1997-98 were £17,079 per annum, which compared with a national average for all occupations in 1997 of £19,167.

Profiling the Profession 2002-03

Archaeology Labour Market Intelligence: Profiling the Profession 2002-03 (Aitchison and Edwards 2003) was the second comprehensive review undertaken for the archaeological sector. This survey followed the model established by its predecessor, but expanded the range of data collected. Trends observable from the three sets of comparable data are discussed in Chapter 7 below.

The 2002-03 survey estimated that there were 5712 professional archaeologists working in the UK, an increase of 29% over five years. More respondents reported that their organisations had grown than reported that their organisations had contracted over the previous five years. There was optimism for the future too, with further growth anticipated for the next five years.

Average earnings for all archaeologists in 2002-03 were £19,161 per annum, compared with a national average full-time salary of £24,498.

Carter and Robertson 2002

As part of a wider project to develop National Occupational Standards for archaeological practice, Carter and Robertson's (2002a, 14-16) report on the

occupational and functional mapping of the archaeological profession reviewed and re-assessed some of the data provided in Aitchison 1999. This led to the numbers of archaeologists that had been assigned to particular categories of working environment being usefully redistributed, to give perhaps a more realistic assessment of the numbers of archaeologists working in different areas of the profession. These figures suggested that archaeological contractors – those working for organisations that undertake field research and investigation on a commercial basis represented a larger proportion of the whole sector than had been identified in Aitchison 1999. This reassessment was valuable, and provided more useful comparative data than the figures presented in Aitchison 1999. The figures that were revised are presented in Table 2.

Table 2: Estimated numbers of archaeologists working by sector, after Carter and Robertson 2002a

	Profiling the Profession (Aitchison 1999)		Carter and Robertson (2002a)	
	Individuals	% of whole profession	Individuals	% of whole profession
Independent consultants and specialists	153	3%	150	3%
Archaeological contractors	1341	30%	1850	42%
Local government curators	605	14%	350	8%
Other local government organisations (primarily museums)	190	4%	125	3%
National museums	156	4%	150	3%
University archaeology departments and research groups	644	15%	575	13%
National heritage agencies and Royal Commissions	680	15%	675	15%
Archaeological societies	25	1%	25	1%
Other commercial organisations	170	4%	175	4%
Other organisations (non-commercial)	461	10%	350	8%
	4425		4425	

The invisible diggers

The invisible diggers was a study carried out by Paul Everill towards his PhD research (Everill 2007, 2008). Quantitative survey data were gathered between 2003 and 2005 and used alongside qualitative interviews and participant observation to provide a multi-faceted analysis of the British commercial sector. Results indicated that the average British commercial archaeologist was a white male, 32.37 years old, with an undergraduate degree and 7.49 years of 'contract' field experience. This survey portrayed a profession with an exceedingly high turnover of staff, many of whom were becoming disillusioned and choosing to leave after about five years. It also demonstrated that there is still a core of staff remaining from the late 1980s Manpower Services Commission era. This survey suggested that there was a level of discontent among respondents with the system within which commercial organisations operate. 41% of contract archaeologists believed their profession was 'already in a crisis', and a further 36% believed that 'a crisis was inevitable unless changes are made'. It was also reported that both the IFA and trade unions were failing to recruit effectively from under-represented sections of the profession.

RESCUE surveys

RESCUE: The British Archaeological Trust conducted surveys of archaeologists in the UK in 1978-79 (Dennis 1979), 1986-87 (Plouviez 1988), 1990-91 (Spoerry 1992), and 1995-96 (preliminary results published as Spoerry 1997), seeking to identify the numbers and geographical distribution of archaeologists working in 'rescue' archaeology.

These surveys covered a slightly restricted range of professional archaeologists, concentrating on '... those bodies that can be described as actively involved in rescue archaeology' (Spoerry 1992, 1). As a consequence, certain groups of organisations were not canvassed, including academic departments without consultancy services, museums, and any other organisations which did not (in the terms of the present survey) conduct field investigation and research services or provide historic environment advice and information services. No responses from Northern Ireland were received. The numbers of archaeologists reported by these surveys are included in Table 1 above.

The RESCUE figures suggest that there was a rapid rise in the number of archaeologists employed in rescue archaeology through the 1970s and 1980s. The numbers employed in archaeology subsequently fell away rapidly following the ending of Manpower Services Commission funding in the late 1980s, with an abrupt fall in 1990 in the first few months of an economic recession and associated reduction in the volume and scale of construction projects.

Salaries were examined in the 1990-91 and 1995-6 surveys (Spoerry 1992, 1997). Pay levels were broken down by bands rather than figures, which did not allow for precise estimates of average archaeological salaries.

Spoerry estimated that '... in 1990-91 three-quarters of archaeologists in Britain were paid less than £12,000 pa, when the national average earnings (both sexes) was about £13,000 pa, calculated from 1990 Government figures. In 1995-96, just over three-quarters of archaeologists were paid less than £16,000 pa, when the figure for national average earnings (both sexes) was about £17,500 pa, from the 1995 Government figures (most recent available when calculated)' (Spoerry 1997, 6).

IFA Jobs Information Service studies

An annual series of studies of the advertised jobs reported in the Institute of Field Archaeologists' Jobs Information Service (JIS) has been carried out for the last ten years (Aitchison and Anderson 1995; Turner 1996, 1997, 1998, 1999; Malcolm 2000, 2001; Drummond-Murray 2002, 2003, 2004, 2005, 2006, 2007, 2008). These surveys form a review of advertised posts from 1993-2007, including details of salaries and conditions. The sample is relatively small, owing to the paucity of posts advertised in the press. However, as the figures relate to controlled samples over a number of years, they remain very useful in terms of labour market intelligence. The findings are presented in Table 3.

Note that the methodology used to collect the data changed in 1996; the figures presented for 1996 to 1999 use the revised methodology, and are directly comparable with the figures for 2000 to 2002, while the parenthesised figures for 1996 to 1999 are directly comparable with the data for 1993 to 1995. National average salary data is drawn from the Office of National Statistics' annual New Earnings Survey publications (National Statistics 2002) up to 2002, and from the

Annual Survey of Hours and Earnings (ASHE) from the same year (National Statistics 2002-2007).

Table 3: Advertised Posts 1993-2006

Year	Jobs advertised	Advertised starting salaries (average)	National average salaries		
			New Earnings Survey	ASHE, full-time	
				Calculation methodology	
			2005	2007	
1993	134	£10,766	£16,523		
1994	186	£12,666	£16,982		
1995	150	£12,228	£17,560		
1996	282 (154)	£11,653 (£12,620)	£18,338		
1997	299 (176)	£12,100 (£12,327)	£19,167		
1998	388 (148)	£12,364 (£13,554)	£20,048		
1999	573	£13,220	£21,408		
2000	549	£14,033	£21,842		
2001	362	£14,576	£23,499		
2002	79	£15,581	£24,498	£24,911	
2003	127, salaries given for 124	£17,071		£25,818	
2004	127, salaries given for 114	£16,721		£27,027	
2005	210	£18,118		£28,191	
2006	199	£18,828		£29,269	£29,079
2007	306	£18,916			£29,999

These advertisements have been used to examine starting salaries in archaeological posts, as ‘where a salary range was given, the minimum point was used for analysis in line with normal public sector policy’ (Aitchison and Anderson 1995, 7). The average starting salaries have risen by 45% over that period; in that time national average earnings have risen by 48% (no figures are available for national average *starting* salaries, which will inevitably be lower than the average for all).

The numbers of posts advertised annually has also fluctuated since 1993. Over ten years there have been a total of 3002 posts advertised.

Fluctuations in the overall numbers of posts advertised and the average salaries offered have been considered to be directly (if crudely) related to archaeological practice’s relationship with the construction industry. If this is the case, the increase in the numbers of jobs advertised and average starting salaries is likely to be related to the construction boom that began in the late 1990s – although it has to be noted that there has been a paucity of junior fieldworking posts advertisements in the JIS over the years. This is presumably because of the cost of advertising in national newspapers. The remarkable drop in the number of jobs advertised in 2002 does not appear to have followed any downturn in the amount of construction work being carried out, but the author of the report in which those data are contained (Drummond-Murray 2003) considers that this might relate to an ‘uncertain economic climate’ in 2002.

OutWage, a pay survey carried out by James Drummond-Murray and Kevin Wooldridge, was incorporated into the publication of the Report and

Recommendations of the Archaeological Employment in Britain Working Party (Schaaf 1996). It largely related to posts advertised in the JIS in 1994-95, and incorporated comparisons of archaeological salaries with the national average wage.

IFA pay benchmarking

A project was undertaken in 2007-08 to compare a sample of archaeological posts with similar posts in related and other sectors (Price and Geary 2008). The structured evaluation of sample archaeological posts led the authors to conclude that archaeological posts are relatively under-rewarded, with 'a significant gap between current IFA salary minima and external comparators when matched against a) average range minima for posts with similar JEGS (Job Evaluation Grading System) scores in organisations which employ professional / specialist staff with similar levels of qualifications and skills and b) against published average salary levels for professional surveyors and environmental managers and assessors with similar levels of qualification and responsibility' (Price and Geary 2008, para 17).

IFA equal opportunities surveys

Three surveys have been carried out by the Institute of Field Archaeologists on equal opportunities; the first of these was conducted by the IFA's Equal Opportunities Working Party with the report published as *Women in Archaeology* (Morris 1992).

The IFA subsequently published the results of a Quality of Work/Life Survey in 1995 (Reeve 1995).

These questionnaires covered a variety of issues; for comparison with this study, the relevant topics include gender, contracts, length of service and salaries. Information on pay received in this study was, like the RESCUE surveys, broken down by bands.

The surveys all demonstrated that the gender balance in archaeology was approximately 1:2 female: male, the average female salary was lower than the average male salary, and that more women worked in part-time posts.

IFA Practitioner survey

Moloney (1998) conducted a survey of Practitioner grade members of IFA which concentrated on the profile of the IFA and general career issues, but which also included a section on job profiles.

Archaeological employment in Scotland

A survey of archaeological employment in Scotland was published by the CSA (Aitchison 1997). This was a very straightforward head-count of archaeologists in Scotland, asking for very few details beyond simple numbers, conducted by telephone and email. 37 organisations were contacted, all of which co-operated. The survey produced an estimate of 250 archaeologists working in Scotland in 1997.

IPMS survey

The trade union IPMS conducted a Survey of Archaeologists' Pay and Conditions in 1996-97 (results unpublished). The response rate was poor for this very detailed survey, and the questionnaire proved primarily useful in influencing the questionnaire design for the *Profiling the Profession* survey.

Survey of Archaeological Specialists

A survey and analysis of the provision of specialist services in the archaeological profession was undertaken by Landward Archaeology Ltd in 1999 (Aitchison 2000). This consisted of a postal survey of the providers and users of archaeological specialist services. The 85 specialisms identified by the survey were grouped into ten categories. Individual specialists returned 45% of responses, 13% came from small organisations (<= 5 employees) and 42% from large organisations (>5 employees). The larger organisations were typically able to provide a wider range of services, and appeared to provide the bulk of specialist services. The majority of specialist services were provided as in-house services (81%). Far fewer were either out-sourced or provided as combined in-house / out-sourced services. The provision of many specialist services appeared to be either threatened or in under-supply. Rates charged by specialists and paid by users of specialist services were examined. Respondents considered that there was a lack of provision for training to undertake specialist services, both at entry-level and as continuing professional development.

Museums Professionals Group

On behalf of the Museums Professionals Group, SMSR Ltd and Priestman (2001) explored the experiences of recent entrants to the museums profession, including archaeological curators and conservators. This was a study of perceptions, rather than 'hard' data, but it was able to demonstrate that junior museum professionals experienced financial hardship and that job insecurity created through short-term contracts was a major issue.

2 Methodology

2.1 Introduction

Archaeology Labour Market Intelligence: Profiling the profession 2007-08 was the third in a series of comprehensive, quinquennial surveys of employment in archaeology in the UK. The first was carried out in 1997-98 (Aitchison 1999) and the second in 2002-03 (Aitchison and Edwards 2003). The present survey was designed to build on that work and produce up-to-date and expanded information.

As set out in the project design, the principal aim of the project was to improve understanding of the needs of the archaeological profession by identifying, collecting, quantifying and disseminating labour market information for the sector. The specific objectives were to

- generate a profile of the workforce, highlighting any diversity issues
- gather and interpret information on training needs, skills shortages and skills gaps
- gather and interpret details of the nature and extent of the archaeology sector, including accurate employment figures
- gather and interpret information on professional roles including potential recruitment and career progression difficulties
- identify labour market trends and issues including training investment and supply and other financial, business and staffing issues
- identify potential barriers to employment
- feed these data into the Europe-wide *Discovering the Archaeologists of Europe* project, and so contributing to a wider dataset about the archaeological profession in twelve of the 27 European Union member states
- inform the archaeological sector of the outcomes of this research

Although the survey aimed to include those working in a voluntary capacity within professional archaeological organisations (see section 4.7), it specifically excluded wholly voluntary organisations.

The project team reported to a Project Board, consisting of representatives of the UK national funding bodies, the Institute of Field Archaeologists, the Archaeology Training Forum, and two specialist advisors. The Project Board provided advice to the project team at significant stages of the work, meeting in person on four occasions, and submitting comments by email on the final draft of the report, but any opinions presented within this report are those of the named authors and do not necessarily represent those of the Project Board members nor the organisations that they represent.

2.2 Survey methodology

The survey was carried out by means of a postally-distributed questionnaire, using the same approach as the previous two projects (Aitchison 1999, Aitchison and Edwards 2003). A two-part questionnaire was addressed to organisations employing archaeologists and to the self-employed, not to individual archaeological employees. The first part asked a series of questions about the organisation as a whole, then respondents were asked to complete a separate copy of the second part of the

questionnaire for each post in the organisation to allow profiles of all archaeological and support posts to be drawn up.

The target population for the survey was all organisations employing archaeologists and all self-employed archaeologists in the UK and so questionnaires were sent to all such organisations. As the mailing list was not likely to be perfect, there will have been some *coverage error* (omission, duplication or wrongful inclusion of population elements) but minimal *sampling error* (where only a subset of the total population is sampled). The levels of non-response (discussed in data collection below) may have potentially introduced some *non-response error* (all error definitions after Groves 1989) if the non-respondents had differed significantly from the respondents, but the authors and project board are confident that the non-responding organisations would not have provided data that would have been significantly different in qualitative terms.

This approach was designed to achieve maximum coverage of the profession, as a single completed questionnaire could provide information about a large number of archaeologists, in the case of the larger employers. The drawback of this approach is that there are some limitations to the multivariate analyses which are possible, because detailed information about individuals is not collected by this method (see Introduction to Appendix 1).

The questionnaire was based on that used in 2002-03, with a number of amendments to allow more detailed information on training requirements and provision to be obtained. Other adaptations were designed to facilitate responses from self-employed archaeologists, and to maximise responses relating to all those employed as historic environment professionals. The Project Board provided valuable advice and guidance with the questionnaire content and design.

The questionnaire was sent to all organisations and self-employed individuals on the mailing list (section 2.3), together with a covering letter and guidance note. A 'census date' of 13 August was used, to ensure that no employees were omitted or counted twice as a result of changing jobs. Respondents were specifically asked to include temporary staff, support staff and any unpaid volunteers. A copy of the questionnaire, covering letter and guidance note are reproduced as Appendix 3.

2.3 Mailing list

The mailing list of organisations employing archaeologists was based on that used in 2002-03, updated from a variety of overlapping sources. The process of updating the list included checking for any changes of addresses or names of organisations; removing any duplicate organisations; removing organisations which had ceased trading; adding those established since 2002, and adding self-employed archaeologists.

Data sources used included

- 2002-03 mailing list
- IFA databases of Registered Archaeological Organisations and Directory of Members' work addresses
- ALGAO member list
- TORC Directory
- Organisations advertising for staff in BAJR
- UCAS list of institutions offering archaeology degrees
- List of contracting organisations provided by Everill (2008)

- IFA Finds Group mailing list
- AAI&S membership list

The mailing list database remained separate from the survey results database to ensure confidentiality. The final mailing list consisted of 1997 addresses of organisations believed to potentially employ archaeologists and individual archaeologists believed to be self-employed.

2.4 Data collection

The questionnaires, each with covering letter, guidance note and postage-paid reply envelope were distributed by post during the week beginning 17 September 2007. An electronic version in *Microsoft Word* was made available via the IFA website. The deadlines for responses were 26 October 2007 for completed paper questionnaires and 9 November for questionnaires returned as email attachments. Many organisations were able to respond within these timescales, but some, especially those employing large numbers of staff, requested extensions to the deadline. Follow-up emails were sent and telephone calls were made to targeted non-respondents during November and December 2007 and January 2008. A total of 466 responses was received by 15 February 2008, representing 23% of the 1997 addresses on the mailing list.

This was a low, but not unacceptably low, level of response for this type of survey. Self-administered mail surveys, where there is no interviewer to guide the respondent, produce levels of return that are in general lower than for face-to-face or telephone surveys (De Leeuw and Hox 2008, 240). De Leeuw (2008, 128-9) notes that although no systematic comparisons are available, response figures for commercial and market research surveys are in general lower than for official (government) surveys.

In this survey, with responses coming from employers rather than individuals, it should also be noted that this 23% return rate (of all organisations approached) provided the project with hard data regarding 39% of the total (estimated) archaeological workforce.

Data entry

The 242 relevant responses comprised 200 paper returns and 42 electronic returns using the *Microsoft Word* form provided. The results were entered onto a *Microsoft Access 2003* database. The database contains data for 242 organisations (Part 1 of the questionnaire), and 808 post profiles (Part 2 of the questionnaire). The data were entered onto three linked tables designed to allow analysis of the full range of variables.

Level and completeness of response

Of the 466 responses, 242 were relevant, and 224 were null returns comprising the following: 74 responded that their returns were included in an overall response from their organisation or that duplicate questionnaires had been received; 32 employed no archaeologists; 71 were returned as the addressee or organisation was not known; 14 were entirely voluntary organisations; 9 were returned blank with no explanation; 10 were in employment rather than self-employed; 7 were no longer

relevant for a range of reasons (project completed, individuals retired etc); and 7 were returned for miscellaneous other reasons.

By contrast with the previous two surveys no completed duplicate responses were received. All organisations which had received multiple questionnaires either deliberately (for example where one organisation had offices based in different regions) or by accident (due to difficulties with perfecting the mailing list) successfully liaised with colleagues and ensured that only the correct returns were sent. In many cases respondents informed the survey team of duplicate questionnaires received.

In addition to the level of non-response, there was a low and variable level of *measurement error* on a question-by-question basis. Measurement error is defined as inaccuracies in responses arising from respondent error or errors due to weaknesses in the wording of the survey questionnaire (Schonlau *et al* 2002, 14). Where these measurement errors have been identified, they are commented on in the relevant parts of this report.

Table 4 shows the number of responses and the proportion of estimated responses from organisations, ordered by the role and basis ascribed to each (see section 0 below).

Table 4 Questionnaire returns by ascribed organisation type and basis

		Number of organisations				Total
		Field investigation and research services	Historic environment advice and information services	Museum and visitor / user services	Educational and academic research services	
National government	Responses	1	10	1	1	13
	<i>Estimated total</i>	2	49	29	6	86
	<i>% response</i>	50%	20%	3%	17%	15%
Local government	Responses	7	41	29	0	77
	<i>Estimated total</i>	16	189	107	4	316
	<i>% response</i>	44%	22%	27%	0%	24%
University	Responses	4	4	0	18	26
	<i>Estimated total</i>	12	10	9	155	186
	<i>% response</i>	33%	40%	0%	12%	14%
Private sector	Responses	31	70	2	5	108
	<i>Estimated total</i>	205	367	29	19	620
	<i>% response</i>	15%	19%	7%	26%	17%
Other	Responses	3	10	3	2	18
	<i>Estimated total</i>	7	41	21	76	145
	<i>% response</i>	43%	24%	14%	3%	12%
Total	Responses	46	135	35	26	242
	<i>Estimated total</i>	242	656	195	260	1353
	<i>% response</i>	19%	21%	18%	10%	18%

Questionnaire completion

As was the case in both previous surveys, some respondents chose not to answer some of the questions (item non-response, see 2.5 below). Where responses are discussed, the number of respondents to each question is noted or included in tabulations.

2.5 Data analysis

Calculating workforce size

From a statistical point of view, the level of non-response to the survey meant that the data was incomplete, as not all potential respondents provided data on the number of archaeologists working for them. In all areas other than producing estimates for the total workforce size, this did not present a problem as data were available in sufficient quality and quantity to allow useful comparative results to be presented.

As these missing data were, in statistical terms, absent for reasons of *unit* non-response (no response at all from those potential respondents, rather than partial or *item* non-response), the approach used to correct this bias in the data was to generate figures by weighting the complete data from respondents based on the background data that was available for all of the survey population.

This allowed a model to be used that predicted responses from background variables which are available for both the respondents and non-respondents, in this case, the assumed function and organisational structure of the respondent and non-respondent organisations.

The techniques applied were founded upon those used in 2002-03 and 1997-98.

The primary source was the returned questionnaires, which asked (Question 3) how many staff were working for the organisation on 13 August 2007. For non-responding organisations, these figures were estimated, with the exception of non-responding IFA Registered Archaeological Organisations, for which the staff numbers published in the IFA *Yearbook and directory 2007* were used.

As in 2002-03 all organisations on the mailing list were ascribed to categories of structural basis and organisational role, without reference to the returned questionnaires (see Table 4). This was done by examining the sources from which addresses had been obtained and through the personal knowledge of the research team.

The 'ascribed' organisational categories were then compared with those given on actual returns, and this was found to be 83% accurate. Testing the ascribed organisational roles against the returned data was less straightforward, as respondents were given the option to indicate the 'broad %' of their work that fell into the four different organisational roles used (Question 1). The overall accuracy was found to be 74%, although the accuracy in respect of Historic environment advice and information services was only 43%, while that of the other categories averaged 84%. Rather than interpreting the low correlation between the ascribed and selected roles as an indication of a flawed methodology, it is suggested that the diversity of respondent-selected roles reflects the reality of archaeological work in this sub-sector. Relatively few organisations only provide advice and information. Most fulfil one or more other roles as well.

On a similar basis, all organisations were ascribed to anticipated categories of size (0-1 individuals, 2-5, 6-10, 11-20, 21-50, 51-100 and 101+). When compared with the returns, this was found to be 60% accurate.

As these levels of accuracy were considered to be satisfactory (categorisation being more important than the ascribed size for this process), estimated sizes were then calculated for all the organisations which had not returned questionnaires but which were considered to employ archaeologists (all duplicate addresses and organisations that had indicated that they did not employ archaeologists had been discarded from this process).

All of these organisations had thus been ascribed organisational roles, structural bases and geographical locations.

The numbers of people working for these organisations was then estimated by calculating the averages that had been returned for the numbers employed by organisations (using the returned structural basis and organisational roles). This set of numbers was then refined by comparing these calculated averages with the previously ascribed estimated sizes, and weighting them by using multipliers to reduce or increase these numbers as appropriate.

Finally, the returned totals of organisations and individuals by role/basis were added to the calculated figures, to produce an overall, calculated estimated size for the archaeological workforce which can be broken down and analysed on structural, functional and geographical bases.

Throughout the report, estimated figures in tables are presented in *italics*.

Salary data

The questionnaire asked for the gross salary scale of each post. Respondents were invited to provide minimum, maximum and average salaries. The figures presented in this report are all average salaries. If no average salary was given but only a minimum or a maximum, that was regarded as an average salary for that post. When no average was given but both a maximum and a minimum, the average was taken to be the minimum plus one third of the difference between the minimum and maximum, as this was found to be an accurate approach in the two previous *Profiling the Profession* surveys.

Analysis and presentation of reported figures

Collation and analysis of the data reported to the survey was carried out in *Microsoft Access 2003* and *Microsoft Excel 2003*. Where applicable the figures and percentages presented in the report have been rounded up to the nearest integer, if 0.5 or higher. In the case of percentages, the un-rounded figures add up to 100%, even if the rounded figures may total 101% or 99%.

2.6 Creation of post profiles

Information was received about 519 different posts, including archaeologists and support staff. These were aggregated to produce 41 post profiles, following the methods used in the previous two surveys.

Three new profiles have been added to the 38 used in the previous survey (Aitchison and Edwards 2003, 11). These are: Education and Outreach posts, Rural Advice,

and Characterisation posts. The former Assistant Archaeologist post profile has been renamed to Project Assistant and adjusted to include all Project Assistants. The new and amended profile titles are shown in bold in Table 5 below.

As in the previous surveys post profiles were created by searching the database for specific words. For example, the Academic Staff profile consisted of all posts whose titles included the words 'academic', 'fellow', 'lecturer', 'postgraduate', 'professor', 'reader' or 'tutor'. The post profile title 'Academic Staff' was then added to the database records for the posts selected. It was necessary to follow a careful sequence when carrying this out, to ensure that staff ended up in the most appropriate profile. For example, the profile for Photographer was created before that for Senior posts, so the post title 'Head of Photography' was grouped with other Photographers, rather than in the less specific Senior posts profile, in which other 'Head of' posts were included. The selection criteria and sequence of selection are listed in Table 5 below. Asterisks * are used as wildcards, so *photo* will select 'Photographer' or 'Head of Photography' or 'Photographic Assistant'. After completing 38 of the post profiles using the Access database programme Update Query with the selection criteria described below, the three remaining profiles 'Other support posts', 'Junior posts' and 'Other posts' were assigned manually.

Table 5 Criteria and sequence of selection for post profiles

Post profile	Words included within post title
Computing Officer	*multi media* or *data* or *geomatics* or IT* or *network* or *comput* or *systems*
Administrator	*admin* or *clerical* or *secretar* or *personal assistant* or *receptionist* or *office assistant* or *office manager*
Archaeological Assistant	*archaeological assistant* or archaeology assistant
Academic Staff	*academic* or *fellow* or *lecturer* or *postgraduate* or *professor* or *reader* or *tutor*
Education and outreach posts	*community* or *education* or *outreach* or *interpret* or *access* or *exploring* or *open day* or *teaching*
Editor	*editor* or *publication*
Characterisation posts	*characterisation*
Inspector	*insp*
Buildings Archaeologist	*building* or *blg* role not admin
Finds Officer	*artefact* or *brick* or *ceramic* or *coin* or *finds* or *pottery* or *wood* or *timber* or *medieval pot* or *lithic* or *samian* or *glass*
Rural Advice	*adviser* or *countryside* or *rural* or *agri-environment* (after Finds, to ensure that Finds Advisers are not in rural advice)
Consultant	*consultant*
Project Manager	*project manager*
Illustrator	*graphic* or *design* or *drafts* or *draughts* or *illustrator* or *CAD*.
Investigator	*investigator*
Surveyor	*geophys* or *survey* or *geomatic*

Post profile	Words included within post title
Historic Environment Record Officer	*sites and monuments* or *record* or *information* or *UAD* or *SMR* and not *archive*. This time, however, it was not necessary specifically to exclude archive record staff as no posts were reported to the survey. Including *record* covered Historic Environment Record posts, and Information and Record posts. *HER* was not used as it brought up all Researcher posts, and all HER-only posts were spelled out in full.
Planning Archaeologist	*development control* or *DC* or *plann* or *historic environment*. A range of posts including the term 'historic environment' were still unaccounted for, and it was considered more appropriate to locate them as Planning Archaeologists than as HER staff or as County or Regional Archaeologists.
Conservator	*conservator*
Warden	*warden*
Excavator or Site Assistant	*excavator* or *site assistant*
Photographer	*photo*
County or Regional Archaeologist	*borough* or *city archaeologist* or *county* or *district archaeologist* or *regional* or *territory* or *national park* or [placename omitted] archaeologist
Conservation Archaeologist	*conservation*
Archives Officer	*archiv* and not *conserv*
Museum Archaeologist	*curator* or *collection* or *museum* or *exhibition* or *keeper* and not *book keeper*. 2 posts called Head of Curatorial Services were included as Planning Archaeologists;
Senior Archaeologist	senior archaeologist*
Archaeological Scientist	*animal bone* or *archaeobot* or *archaeozoo* or *geoarchaeol* or *osteoaarchaeo* or *osteolog* or *human bone* or *laborat* or *environment* or *palynol* or *petrographer* or *biologist* or *scien*. Excluded Technician as last time, as word is now used for a variety of different post profiles.
Financial posts	*financ* or *book keeper* or resource* or *credit controller* or *treasurer*
Field Officer	*field officer*
Project Officer	*project officer*
Archaeological Officer	*archaeological officer* or *archaeology officer* or cathedral archaeologist
Archaeologist	archaeologist* or *project archaeologist* or field archaeologist or contract archaeologist excluding those included in other profiles
Supervisor	*archaeological supervisor* or *assistant supervisor* or *project supervisor* or *site supervisor* or supervisor or *field supervisor* or excavation supervisor
Project Assistant	assistant archaeologist or *project assistant*. Replaces Assistant Archaeologist profile.
Director or Manager	*director* or *manager* and not *assist* and not *deputy* and not *project*
Researcher	*research*
Senior posts	*director* or *head* or *proprietor* or *principal* or *senior* or *chief* or *team leader* or *partner*

Post profile	Words included within post title
Other support posts	Selected manually, to include all remaining posts with titles implying a support role
Junior posts	Selected manually, to include all remaining archaeological posts in junior role, including unpaid volunteers
Other posts	All posts not already assigned to a post profile.

2.7 Electronic access to the report and data

This report will be made available for free access on the IFA website. A copy of the project database will also be made freely available electronically for subsequent analysis, but any commercially sensitive data will be removed, so data cannot be connected with the organisation which provided them. These data will be curated by the Archaeology Data Service.

3 Organisations

3.1 Introduction

Questionnaires were sent to all organisations in the UK that were believed to employ archaeologists, including self-employed individuals. Completed questionnaires were returned from 242 organisations. In most cases organisations with different offices or departments across the country completed a single questionnaire covering all UK employees.

Further details of how the questionnaire was compiled and distributed, and about the level of response are given in Chapter 2 above.

3.2 Types of organisations

Respondents to the questionnaire were asked to describe their organisation's basis and principal role, using the same categories as the previous survey (Aitchison and Edwards 2003, 13). The categories for the organisation basis were:

- National government or agency
- Local government
- University
- Private sector
- Other

As Table 6 indicates, the highest proportion of respondents reported that their organisations were based in the private sector (109, 45%), followed by local government based organisations (76, 31%).

Table 6 Organisation basis

Organisation basis	Number of responses	% of responses
National government or agency	13	5%
Local government	76	31%
University	25	10%
Private sector	109	45%
Other	19	8%
Total	242	100%

Unlike the previous survey, where respondents had been asked to select a single principal role, this time they were offered the opportunity to indicate the proportions of the following roles undertaken, if it were impossible to select a single option

- Field investigation and research services
- Historic environment advice and information services
- Museum and visitor / user services
- Educational and academic research services

Responses revealed that organisations frequently have more than one significant role. Excluding questionnaires returned by self-employed individuals, only 48% (117) were able to identify one single principal role. Table 7 summarises responses,

indicating that over a third (37%) of the overall role of organisations relates to field investigation and research services, and just over a quarter (27%) to historic environment advice and information services.

Table 7 Organisation principal role

Principal role	Sum of responses	% of responses
Field investigation and research services	90	37%
Historic environment advice and information services	66	27%
Museum and visitor / user services	43	18%
Educational and academic research services	37	15%
Other	6	3%
Total	241	100%

Registered charities

Respondents were asked to indicate charitable status separately from the organisation basis. Of the 242 organisations that returned questionnaires, 36 indicated that they were registered charities (15%).

These organisations employed 44% of the total reported archaeological workforce, and provided voluntary opportunities to 96% of all of the volunteers working for archaeological organisations with paid staff. Table 8 presents the numbers and proportions of paid and unpaid staff working for charities.

Table 8 Total employees per organisation

	Total	Registered charity	Employees of charities as % of all employees
Paid archaeologists	2665	1169	44%
Paid support staff	334	163	49%
Total employees	2999	1332	44%
Voluntary archaeologists	510	492	97%
Voluntary support staff	16	12	75%
Total volunteers	526	504	96%

Self-employed individuals

In order to clarify which responses were from self-employed individuals, the questionnaire specifically asked whether respondents were self-employed. Sixty-eight questionnaires were returned by self-employed respondents (28% of the 242 returned). Although the majority were single-person organisations, five each included two paid individuals, and another response covered eight individuals, giving a total of 80 paid self-employed archaeologists (3% of the total 2665).

Two unpaid archaeologists worked as volunteers with one of the self-employed respondents.

3.3 Estimated numbers of organisations

Table 9 presents the numbers of organisations categorised by organisation basis and functional role. The table shows figures for those organisations which returned questionnaires and the estimated totals including those which did not. The reported

organisation roles were calculated from the percentages indicated by respondents (see Methodology section 2.5 for further details).

High figures have been estimated for private sector / historic environment advice as responses were sought from all individual consultants who were on the mailing list. As not all of these people do actually work on an individual basis, the average number of archaeologists per organisation for this category has been calculated as less than 1. National government / museum and visitor services is also a notably high figure as each department of the British Museum was treated separately. The estimated numbers of individuals working in each category are discussed below (section 4.1).

Table 9 Estimated numbers of organisations

		Field investigation & research	Historic environment advice	Museum & visitor services	Education & academic research	Other	Total
National government or agency	Reported number of organisations	2	5	2	2	2	13
	<i>Estimated total</i>	2	49	29	6		86
	<i>% of workforce</i>	1%	7%	1%	<1%		10%
Local government	Reported number of organisations	8	34	31	3	0	76
	<i>Estimated total</i>	16	189	107	4		316
	<i>% of workforce</i>	4%	11%	2%	<1%		17%
University	Reported number of organisations	6	0	0	19	0	25
	<i>Estimated total</i>	12	10	9	155		186
	<i>% of workforce</i>	5%	<1%	<1%	10%		15%
Private sector	Reported number of organisations	69	23	5	11	2	110
	<i>Estimated total</i>	205	367	29	19		620
	<i>% of workforce</i>	43%	7%	1%	<1%		51%
Other	Reported number of organisations	4	3	5	2	2	17
	<i>Estimated total</i>	7	41	21	76		145
	<i>% of workforce</i>	4%	2%	<1%	2%		8%
Reported total		90	66	43	37	6	241
<i>Estimated total</i>		242	656	195	260		1353
		57%	27%	5%	12%		101%

3.4 Size of Organisations

The results of the survey indicated that the archaeological profession is dominated by very small organisations, as shown in Table 10 and Table 11. The average number of employees across all organisations including self-employed was 12.5, including 11.1 archaeologists and 1.4 support staff. If the self-employed are excluded, the

average number of employees rises to 17, including 15 archaeologists and 2 support staff. Nearly three-quarters of organisations employed ten or fewer people, and close to a third (excluding self-employed) employed just one archaeologist, presumably normally within a larger organisation.

Table 10 Size of archaeological organisations (including self-employed)

Total employees	Number of employing organisations	% of organisations providing data
1	111	46%
2-10	77	32%
11-49	40	17%
50-99	6	3%
100-249	4	2%
250+	1	0%
Total organisations	239	100%

Table 11 Size of archaeological organisations, self-employed only

Total employees	Number of employing organisations	% of organisations providing data
1	62	91%
2	5	7%
8	1	1%
Total organisations	68	100%

3.5 Organisation funding

The questionnaire asked respondents what proportion of the organisation's income was generated by work related to development or the planning process (excluding local authorities funded to process planning applications). Of the 239 organisations which responded to this question, 114 (48%) were funded in this way at least in part, and 22 (9%) were 100% development-funded.

Overall, calculating on a crude organisation-by-organisation basis, 33% of income was generated by development-related work. A much more useful figure includes the number of paid staff funded in this way. A total of 1551 or 58% of archaeological posts reported to the survey were funded by income derived from development or the planning process.

3.6 Quality Standards

Just over half of the organisations which responded employed at least one quality system, as Table 12 shows.

Table 12 Organisations' commitment to quality systems

Do you employ a quality system?	Number of organisations	% of all organisations	% of responses to question
Yes	131	54%	56%
No	87	36%	37%
Don't know	16	7%	7%
Total	234	97%	100%

Twelve formal quality systems were cited (see Table 13), in addition to internal quality assurance procedures and individual membership of professional associations. Just under a third of organisations were recognised Investors in People, nearly a fifth were Registered Museums, and over one in six were IFA Registered Archaeological Organisations. One in ten had implemented one or more ISO standards. Although only two mentioned the local authority performance indicators and assessment, it can be assumed that all 76 local authority organisations will have had to contribute to these measures.

Table 13 Quality systems used in archaeology

Quality system used	No	% of all organisations
Investors in People	72	30%
IFA Registered Archaeological Organisation	39	16%
Registered Museum	45	19%
ISO 9000	18	7%
ISO 9001	2	1%
ISO 14001	4	2%
ISO 18001	1	<1%
Best Value Performance Indicators (BVPIs), Comprehensive Performance Assessment (CPA)	2	1%
Chartermark	4	2%
Office for Standards in Education (Ofsted)	1	<1%
Quality Assurance Agency for Higher Education (QAA)	2	1%
Visitor Attraction Quality Assurance Service (VAQAS)	1	<1%
Internal QA procedures	10	4%
IFA member	2	1%
AAIS member	1	<1%

Responses to specific questions regarding Investors in People (IiP) are summarised in Table 14. IiP is the national standard which sets a level of good practice for training and development of people to achieve business goals.

Table 14 Position on Investors in People

Position on IiP	No	% of all organisations
Recognised IiP	65	27%
Committed to IiP	14	6%
Considered not yet working towards it	12	5%
Considered and rejected	7	3%
Not considered	36	15%
Don't know	22	9%
Total	156	64%

Those organisations that were neither formally recognised as Investors in People nor formally committed to recognition were asked why. Table 15 summarises their responses. The 'other' responses included two who did not know, one new firm, one for whom other priorities had precedence, and one respondent who noted that commitment to IiP was not in their control. In addition to these, four respondents had not heard of IiP, and twelve noted that they considered it was not relevant to self-employed individuals.

Table 15 Reason for non-commitment to liP

Reason for non-commitment to liP	No	% of all organisations
Too much paperwork	6	2%
Time not available	13	5%
Benefits not clear	13	5%
Seemed irrelevant	32	13%
No LSC/LEC funding	0	0%
All of the above reasons	2	1%
Parts of organisation recognised, other parts working towards liP	3	1%
Under consideration	2	1%
Other	5	2%
Total	81	33%

Respondents were also asked about their position with regard to registering their organisation with the IFA as a Registered Archaeological Organisation (RAO). IFA RAOs have formally resolved to carry out all their work in accordance with the IFA's Code of Conduct and other by-laws, and are accepted onto the register following peer review including an interview and inspection of the organisation. Registration must be renewed every two years, with repeat inspections every six years.

Table 16 Position on IFA Registration

Position on IFA Registration	No	% of all organisations
Registered Archaeological Organisation	40	17%
Considered not yet working towards it	29	12%
Not considered	83	34%
Working towards Registration	10	4%
Considered and rejected	21	9%
Don't know	12	5%
Total	195	81%

Table 17 summarises respondents' reasons for non-commitment to IFA Registration. A significant number considered that the scheme was not relevant to them, despite there already being similar organisations within the scheme. Curators and consultancies are accepted, as are sole traders, educational organisations and those who do not carry out fieldwork, although in each case one or more respondents considered that they could not register. Five others indicated that they are considering Registration, two were not eligible (one was not a MIFA, the other noted that their management structure would not permit registration). Five considered Registration to be too expensive.

Table 17 Reason for non-commitment to IFA Registration

Reason for non-commitment to IFA Registration	No	% of all organisations
Too much paperwork	2	1%
Time not available	17	7%
Benefits not clear	21	9%
Seemed irrelevant	75	31%
Part of a larger organisation that will not commit	15	6%
Other	19	8%

4 Archaeologists

4.1 Estimated size of the workforce

Respondents provided information about 2665 archaeologists working in the UK, from which we have extrapolated the estimated archaeological workforce in 2007-08 to be **6865**. Table 18 presents the reported and estimated numbers of archaeologists working in the UK.

We estimate that a further 866 people work as dedicated support staff within archaeological organisations, giving a total of 7731 people directly earning from archaeology.

Slightly more than half of all archaeologists work in the private sector, with the majority undertaking field investigation and research.

Table 18 Estimated archaeological workforce by organisational type

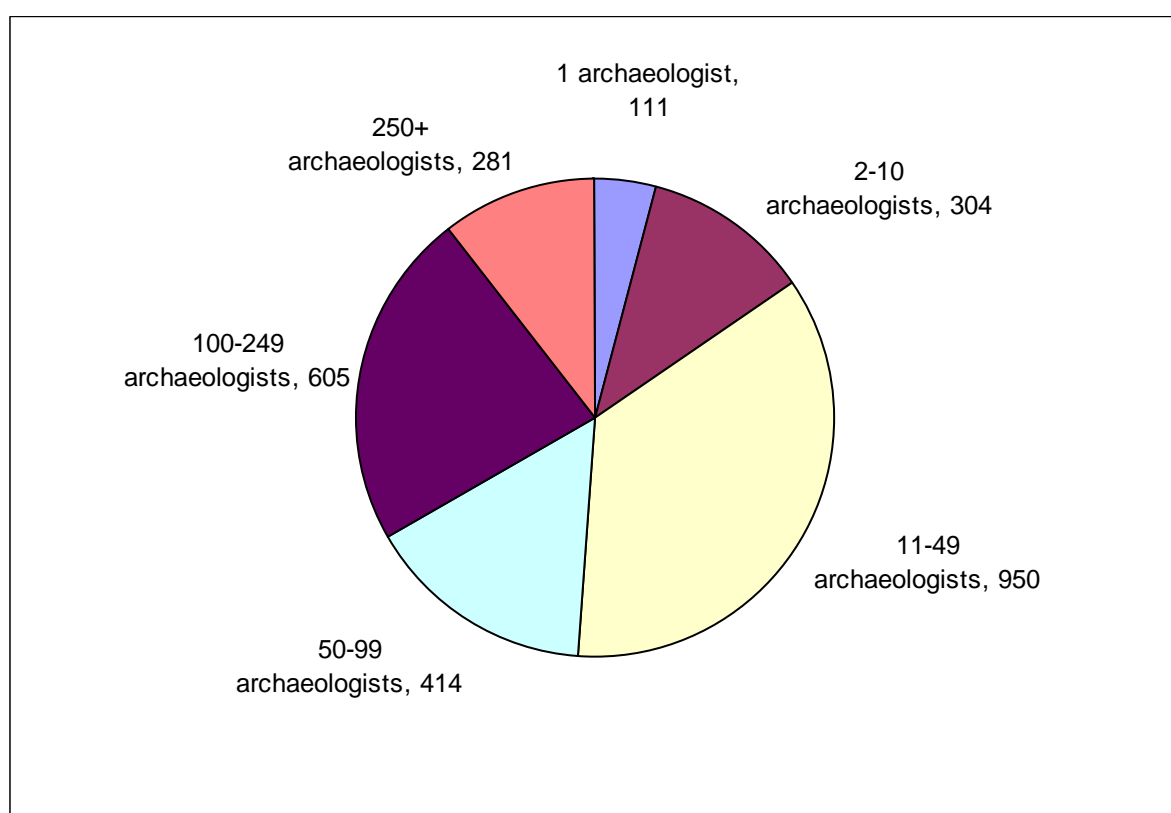
		Field investigation & research	Historic environment advice	Museum & visitor services	Education & academic research	Other	Total
National government or agency	Reported number of staff	111	99	59	29	29	328
	<i>Estimated total</i>	85	492	83	6		666
	<i>% of workforce</i>	1.2%	7.2%	1.2%	0.1%		9.7%
Local government	Reported number of staff	159	147	65	18	0	389
	<i>Estimated total</i>	299	724	124	4		1151
	<i>% of workforce</i>	4.4%	10.5%	1.8%	0.1%		16.8%
University	Reported number of staff	202	2	1	233	0	437
	<i>Estimated total</i>	308	13	20	668		1009
	<i>% of workforce</i>	4.5%	0.2%	0.3%	9.7%		14.7%
Private sector	Reported number of staff	994	185	18	23	2	1221
	<i>Estimated total</i>	2929	487	58	30		3504
	<i>% of workforce</i>	42.7%	7.1%	0.8%	0.4%		51.0%
Other	Reported number of staff	227	30	10	8	15	290
	<i>Estimated total</i>	267	115	25	128		535
	<i>% of workforce</i>	3.9%	1.7%	0.4%	1.9%		7.8%
	Total reported number of staff	1693	462	153	311	46	2665
	<i>Estimated total</i>	3888	1831	310	836		6865
	<i>% of workforce</i>	56.6%	26.7%	4.5%	12.2%		100%

The largest proportion of archaeologists reported to the survey worked for organisations employing 11-49 archaeologists, as Table 19 shows. A significant proportion worked for large organisations of over 100 people (34% overall, working for 5 organisations). Although over three-quarters of organisations employed ten or fewer archaeologists, just 415 archaeologists or 16% of the reported workforce of 2665 worked for these organisations. Figure 2 depicts these results graphically.

Table 19 Organisation size and archaeologists, including self-employed

Total employees	Number of employing organisations	Reported number of archaeologists	% of reported archaeologists	% of organisations providing data
1	111	111	4%	46%
2-10	77	304	11%	32%
11-49	40	950	36%	17%
50-99	6	414	16%	3%
100-249	4	605	23%	2%
>250	1	281	11%	0%
Total	239	2665	100%	100%

Figure 2 Proportion of archaeologists working in different sizes of organisations



Variation in staff numbers 2006-07

Respondents were asked whether the numbers of staff had varied in the course of the previous year. Responses from 81 of the 174 employing organisations (47%) indicated that numbers of staff had varied. Self-employed respondents were excluded from this analysis. At the time of the survey census date in August 2007 these organisations employed 1911 archaeologists. At their smallest, they had employed 1635 archaeologists, 14% fewer, and at their largest they had employed 2142, 12% more archaeologists. The degree of variation in staff numbers differed between organisations. In 34 of the 81 organisations reporting variation, this was only plus or minus two individual archaeologists over the course of a year. In thirteen other cases variation was in excess of ten archaeologists, in one case an organisation reported maximum numbers 59 higher than at the time of the survey.

This variation in staff numbers reveals changes in organisation size. At low levels these changes can be interpreted as natural movement of individuals between jobs as they progress in their careers. The larger variations in organisation size are more likely to reflect the volatility of parts of the profession. When variation in staff numbers is compared with contract lengths reported by respondents (see section 5.4), an interesting pattern emerges. A total of 445 contracts of less than 12 months was reported to the survey, which is not very different from the total variation in staff numbers which amounted to 507 over the course of the year. This could be interpreted as an indication that the variation in staff numbers consisted of around 445 short-term posts and 60 permanent or longer term posts. Of course in many cases posts do not remain vacant, but are filled without delay, and therefore there would be no variation in staff numbers to report. Interestingly, respondents reported difficulty in filling 59 posts (see section 5.8).

4.2 Growth of the profession

Archaeologists

Overall, the number of people employed as archaeologists is estimated to have grown by 20% in the past five years, from 5712 to 6865. This continues the trend observed in 2002-03 (Aitchison and Edwards 2003) and discussed above (section 1.4) and in Chapter 7 below.

Respondents were asked whether their organisation had grown in the last one, three and five years. In each case more organisations reported growth than shrinkage, as can be seen from their responses in Table 20.

Table 20 Past paid staff numbers, number of responding organisations

Past paid staff	2002-03		2004-05		2006-07	
	5 years ago		3 years ago		Last year	
Employed fewer than now – organisation has grown	78	41%	74	37%	52	24%
Employed same as now – organisation is stable	68	36%	88	44%	135	62%
Employed more than now – organisation has contracted	43	23%	40	20%	30	14%
Subtotal	189	100%	202	100%	217	100%
Don't know	6		3		1	
Not trading	16		10		2	

Respondents were also asked whether they expected their organisations to grow in the future, with opinions sought on what they thought the sizes of their organisations would be one and three years in the future (Table 21). A quarter of employers were confident that further growth could be expected over the next year, with a majority anticipating stability. There is a little more optimism for three years ahead, with over a third anticipating growth. As the questionnaire was circulated in summer 2007, answers reflect opinions at that time and respondents may have not recognised the potential impact of the credit squeeze that began in August of that year.

Table 21 Future paid staff numbers, number of responding organisations

Future paid staff	2008-09		2010-11	
	Next year		In 3 years' time	
Will employ more than now – growth anticipated	52	25%	65	36%
Will employ same as now – stability anticipated	136	64%	100	55%
Will employ fewer than now – contraction anticipated	24	11%	18	10%
Subtotal	212	100%	183	100%
Don't know	11		28	
Will not be trading	0		2	

Self-employed archaeologists

Responses from self-employed archaeologists confirmed the relative stability of this sector of the profession. Table 22 shows that the majority of self-employed organisations were the same size in August 2007 as they were three and five years ago. Relatively few have shrunk over that time. Twelve have come into being in the last five years.

Table 22 Self-employed, past numbers of staff, number of self-employed organisations responding

Past self-employment	2002-03		2004-05		2006-07	
	5 years ago		3 years ago		Last year	
Employed fewer than now – organisation has grown	14	30%	11	22%	4	8%
Employed the same as now – organisation is stable	27	57%	35	70%	44	86%
Employed more than now – organisation has contracted	6	13%	4	8%	3	6%
Don't know	0	0%	0	0%	0	0%
Total	47	100%	50	100%	51	100%

Table 23 indicates that the majority of self-employed respondents intend to remain as single-person organisations. Just seven respondents responded that they intended to expand their organisations in the next three years, suggesting that self-employment was generally not seen as the first stage in setting up a larger organisation.

Table 23 Self-employed, future numbers of staff, number of self-employed organisations responding

Future self-employment	2008-09		2010-11	
	Next year		In 3 years' time	
More than now – growth anticipated	4	7%	7	13%
The same as now – stability anticipated	45	83%	35	66%
Fewer than now – contraction anticipated	3	6%	4	8%
Don't know	2	4%	7	13%
Total	54	100%	53	100%

Unpaid volunteer staff

The survey asked about the numbers of unpaid volunteers working with paid staff. Table 24 shows the reported changes in use of unpaid volunteers over the last five years. These figures reveal a slight but steady increase in the numbers of unpaid

volunteers working with paid staff. It is clear that respondents did not report a reduction in the use of volunteers.

Table 24 Past unpaid volunteer staff numbers

Past unpaid volunteers	2002-03		2004-05		2006-07	
	5 years ago		3 years ago		Last year	
Used fewer than now – growth	15	33%	12	24%	6	12%
Used same as now – stability	19	41%	26	52%	33	67%
Used more than now – reduction	5	11%	2	4%	1	2%
Used none	7	15%	10	20%	9	18%
Subtotal	46	100%	50	100%	49	100%
Don't know	5		1		0	
Not trading	0		0		0	

Table 25 identifies respondents' intentions to offer opportunities to unpaid volunteers. Here too there are no indications that they intend to restrict such opportunities, rather, there is an intention to use the same or higher numbers of unpaid volunteers.

Table 25 Future unpaid volunteer staff numbers

Future unpaid volunteers	2008-09		2010-11	
	Next year		In 3 years' time	
Will use more than now – growth anticipated	8	16%	9	21%
Will use same as now – stability anticipated	32	64%	26	60%
Will use fewer than now – reduction anticipated	2	4%	2	5%
Will use none	8	16%	6	14%
Subtotal	50	100%	43	100%
Don't know	3		8	
Will not be trading	0		0	

New entrants to the profession

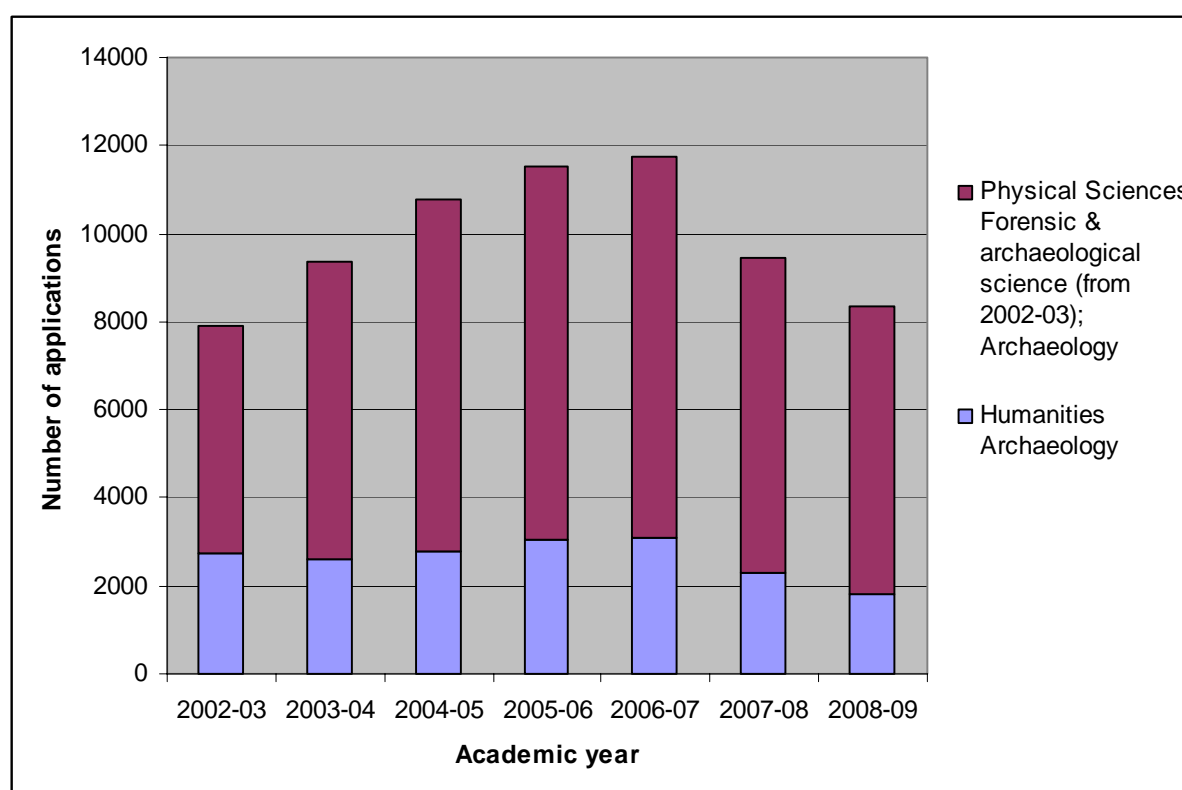
As shown in section 4.5 below, the overwhelming majority of archaeologists are graduates, and most new entrants are coming into the profession following university graduation. Compiling statistics on the number of students graduating with degrees in archaeology is complicated by the wide variety of courses available, the numbers of courses which include archaeology in combined honours rather than as a single subject, and the ways in which statistics are compiled by the Universities and Colleges Admissions Service (UCAS), as archaeology courses can be 'bundled' into a range of different subject areas (I Ralston pers comm).

The UCAS website lists 91 undergraduate courses with archaeology as a single subject at 28 universities for 2008 entry (website accessed 14 May 2008). Data on the numbers of people applying to study archaeology are available for each year from 2002-03 to 2008-09. This rose to a peak in 2006-07 and has been declining since, as shown in Table 26 and Figure 3 (data from UCAS 2008).

Table 26 Applications for undergraduate study in archaeology

Academic year	Physical Sciences	Humanities	Total
	Forensic & archaeological science; Archaeology	Archaeology	
2002-03	5152	2744	7896
2003-04	6740	2603	9343
2004-05	7996	2796	10792
2005-06	8496	3037	11533
2006-07	8648	3078	11726
2007-08	7152	2291	9443
2008-09	6561	1803	8364

Figure 3 Applications for undergraduate study in archaeology



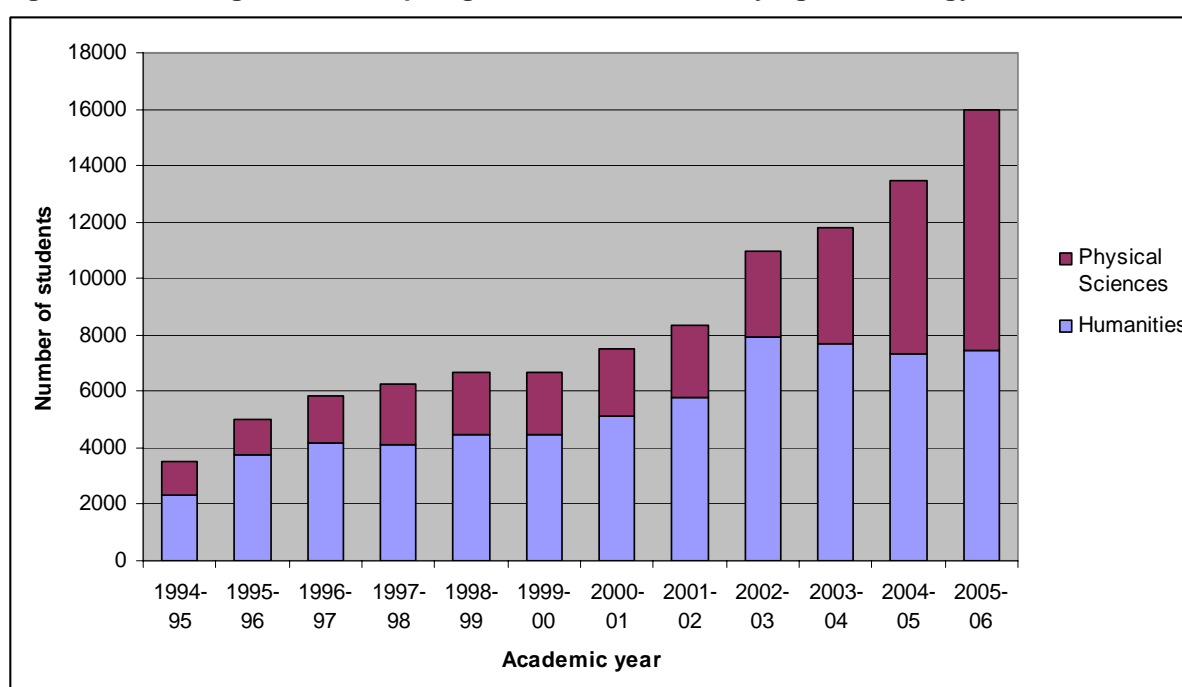
Figures are available from the Higher Education Statistics Agency (HESA) for the total number of students studying archaeology in any given academic year, at undergraduate and postgraduate level (Ramsden and Brown 2002, Ramsden 2006 and Ramsden 2007). As Table 27 and Figure 4 show, these figures reveal that the total number enrolled on Higher Education courses of study at any one time has risen in every year from 1994-95 to 2005-6 (the period for which data is available).

Table 27 All undergraduate and postgraduate students studying archaeology

Academic year	Archaeology		Total
	Physical Sciences (includes forensic science from 2002-03)	Humanities	
1994-95	1197	2299	3496
1995-96	1242	3777	5019
1996-97	1636	4189	5825
1997-98	2134	4126	6260
1998-99	2247	4441	6688
1999-00	2200	4490	6690
2000-01	2375	5120	7495
2001-02	2560	5785	8345
2002-03	3065	7900	10965
2003-04	4085	7690	11775
2004-05	6140	7315	13455
2005-06	8535	7455	15990

(data from Ramsden & Brown 2002, Ramsden 2006 and Ramsden 2007)

Figure 4 All undergraduate and postgraduate students studying archaeology



The figures from 2002 on are complicated by the combination of archaeology within physical sciences with forensic science. Separate data for the two disciplines are not available. While the total studying archaeology (or forensic science) as a physical science has been constantly increasing since 1994-05, the number of students studying archaeology within humanities has been in decline since 2002-03, as shown in Table 27 and Figure 4.

The Inclusive Accessible Archaeology project surveyed archaeology departments in 2005 (Phillips and Gilchrist 2005). Responses from eighteen universities identified a

total of 2309 students, as shown in Table 28. Thirty-five questionnaires were sent out; twenty were returned, of which eighteen provided details of numbers of students. Eight of the universities were classified as 'small' (1-99 undergraduate students) and 12 as 'large' (>100 undergraduate students).

Table 28 Number of archaeology undergraduates 2004-05

Degree	Full-time students	%	Part-time students	%	Total	%
Single/Major	1352	58.6%	101	4.4%	1453	63.0%
Subsidiary	166	7.2%	15	0.6%	181	7.8%
Joint	568	24.6%	107	4.6%	675	29.2%
Total	2086	90.4%	223	9.6%	2309	100.0%

(taken from Phillips and Gilchrist 2005, table 2)

The results of the survey discussed below (see section 4.5) indicate that all those now entering the profession are graduates. Overall, 91% of archaeologists reported to the survey had a Bachelors degree or higher, including 77% whose qualification is in archaeology.

The Higher Education Academy Subject Centre for History, Classics and Archaeology is currently undertaking a destination survey of archaeology graduates who received their degrees since 2000. Results are expected later in 2008.

4.3 Geographical distribution

The geographical distribution of archaeologists across the UK is shown in Table 29. The distribution of archaeologists across the UK approximates to the overall distribution of the UK population, with perhaps a heavier concentration where the largest private sector archaeological organisations are based (south-east and south-west England, London and Scotland). Overall, the distribution of archaeologists matches reasonably closely to the distribution of the total UK workforce (in all sectors), but there are some noticeable differences – in comparison with the overall distribution of employment in all sectors, there are many less archaeologists in North West England and many more in South West England.

Table 29 Geographical distribution of archaeologists

Geographical location	Paid archaeologists (reported)	Paid archaeologists (estimated)	% of UK archaeological total	Total UK workforce 2007-08 *
English region				
East of England	138	505	7%	9%
East Midlands	261	500	7%	7%
London	347	665	10%	13%
North East	97	319	5%	4%
North West	111	366	5%	11%
South East	430	1091	16%	14%
South West	425	934	14%	9%
West Midlands	189	467	7%	9%
Yorkshire & the Humber	137	590	9%	8%
Scotland	325	848	12%	9%
Wales	125	422	6%	5%
Northern Ireland	66	126	2%	3%
Channel Islands	0	11	0.2%	<i>not available</i>
Isle of Man	7	20	0.3%	<i>not available</i>
Total	2658	6865	101%	101%

* National Statistics 2007a, table 18 (1) regional labour market summary

4.4 Diversity

Gender balance

Information was received about the gender of 2445 archaeologists, of whom 1013 (41%) were female and 1432 (59%) were male (Table 30). Figures for all employees in the UK for the period of the survey were 46% female and 54% male (based on figures published in National Statistics 2007a, 2). Women are under-represented in the archaeological profession, but to a lesser extent than was found in 2003 or 1998 (see Chapter 7 for discussion of change over time).

Table 30 Gender balance in archaeology and the UK working population

	Archaeologists		UK working population (millions)	
Female	1013	41%	13.42	46%
Male	1432	59%	15.80	54%
Total	2445	100%	29.22	100%

Table 31 summarises the gender balance in different post roles as reported to the survey. Three fifths of those working in field investigation and research are male, and similar proportions are found in education and academic research services. Slightly higher proportions of women work in historic environment advice and information services, but the proportions are reversed in museum and visitor/user services, where almost two thirds of archaeologists are female.

Table 31 Gender by individual's principal role – archaeologists

	Male		Female		Total	
Field investigation & research services	1025	61%	659	39%	1684	100%
Historic environment advice & information services	216	55%	176	45%	392	100%
Museum & visitor / user services	44	37%	76	63%	120	100%
Educational & academic research services	111	60%	74	40%	185	100%
Archaeological management	33	58%	24	42%	57	100%
Total	1429	59%	1009	41%	2438	100%

Table 32 shows the gender balance by organisational basis as reported by questionnaire respondents. Proportions of female archaeologists working for national government or agencies and for local government were a little higher than the overall proportions. Slightly higher proportions of male archaeologists worked in universities and in the private sector.

Table 32 Gender by organisational basis – archaeologists

	Male		Female		Total	
National government or agency	146	56%	116	44%	262	100%
Local government	217	56%	173	44%	390	100%
University	210	61%	136	39%	346	100%
Private sector	685	62%	426	38%	1111	100%
Other	170	52%	158	48%	328	100%
Total	1428	59%	1009	41%	2437	100%

Age range

Table 33 shows the age range and gender of archaeologists reported to the survey. The age and gender trends are illustrated graphically in Figure 5. Male archaeologists outnumbered female in all age bands except 25-29. In the subsequent age bands the numbers of female archaeologists fell significantly below those of male archaeologists, although a small rise in numbers was recorded for those aged 45-49.

The average age of archaeologists as reported to the survey was 38; the average age for female archaeologists was 36, and for male archaeologists 39. Average ages were calculated using the five-year age bands provided. For the purpose of calculation it was assumed that all in each age band were the median age of that age band, eg all aged 20-24 were 22. From these figures, the overall average (mean) was calculated.

Analysis of survey results showed that over four fifths (84%) of archaeologists were between 20 and 50 years old, 56% were between 30 and 50, and 16% were over 50 years old. This contrasts with the overall working population, where 72% were aged between 18 and 50 at the same time as the survey, and 26% were 50 and over (based on National Statistics 2008). The proportion of archaeologists over 50 is low compared to national UK figures.

Table 33 Age range – archaeologists

	Male		Female		Total	
	Count	Percentage	Count	Percentage	Count	Percentage
16-19	5	<1%	1	<1%	6	<1%
20-24	110	8%	121	12%	231	9%
25-29	212	15%	249	25%	461	19%
30-34	237	17%	182	18%	419	17%
35-39	228	16%	126	12%	354	15%
40-44	198	14%	102	10%	300	12%
45-49	180	13%	106	11%	286	12%
50-54	135	9%	58	6%	193	8%
55-69	79	6%	45	4%	124	5%
60-64	35	2%	19	2%	54	2%
65+	13	1%	4	<1%	17	1%
Total	1432	100%	1013	100%	2445	100%

Figure 5 Age and gender of archaeologists

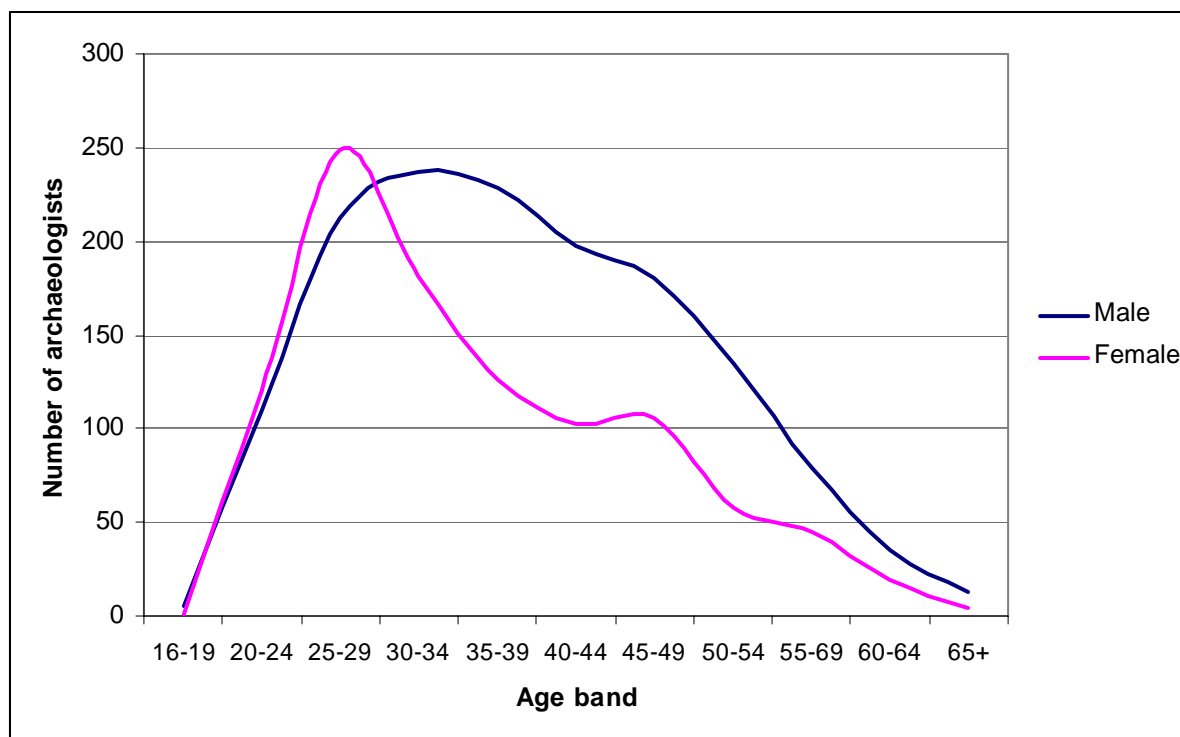


Table 34 shows the numbers and percentages of individuals by age in each post role. Small numbers are recorded for archaeological management as this category was not included on the questionnaire, but added during analysis subsequently. This information is presented graphically in Figure 6, which shows the percentages of archaeologists in each post role by age bands. Archaeological management posts have been omitted from the figure. The different post roles have very different age profiles, with a high proportion of 25-29 year old archaeologists working in field investigation and research services (24%). In historic environment advice and information services 18% were aged 35-39. In museum and visitor/user services numbers rise to 13% between the ages of 25 and 35, then fall, and rise again to 18% in the 45-49 age band. As has been noted above, three fifths of archaeologists working in this role are women, and the pattern of age bands reflects high proportions of female archaeologists working in museum posts in the 25-29 and 45-

49 age bands (18% and 21% respectively), and low proportions in the 35-39 band (8%).

Table 34 Age by individual's principal role – archaeologists

	Field investigation & research services		Historic environment advice & information services		Museum & visitor / user services		Educational & academic research services		Archaeological management		Total	
16-19	6	1%	0	0%	0	0%	0	0%	0	0%	6	<1%
20-24	190	15%	13	3%	6	5%	4	2%	0	0%	213	11%
25-29	312	24%	38	10%	16	13%	28	15%	3	6%	397	20%
30-34	241	19%	59	16%	16	13%	27	15%	4	8%	347	17%
35-39	169	13%	66	18%	13	11%	31	17%	6	12%	285	14%
40-44	126	10%	44	12%	13	11%	27	15%	12	25%	222	11%
45-49	118	9%	48	13%	22	18%	19	10%	15	31%	222	11%
50-54	64	5%	50	13%	11	9%	24	13%	7	14%	156	8%
55-69	40	3%	36	10%	10	8%	12	7%	2	4%	100	5%
60-64	10	1%	18	5%	9	8%	10	5%	0	0%	47	2%
65+	1	<1%	4	1%	4	3%	1	1%	0	0%	10	1%
Total	1277	100%	376	100%	120	100%	183	100%	49	100%	2005	100%

Figure 6 Archaeologists by age bands and post roles

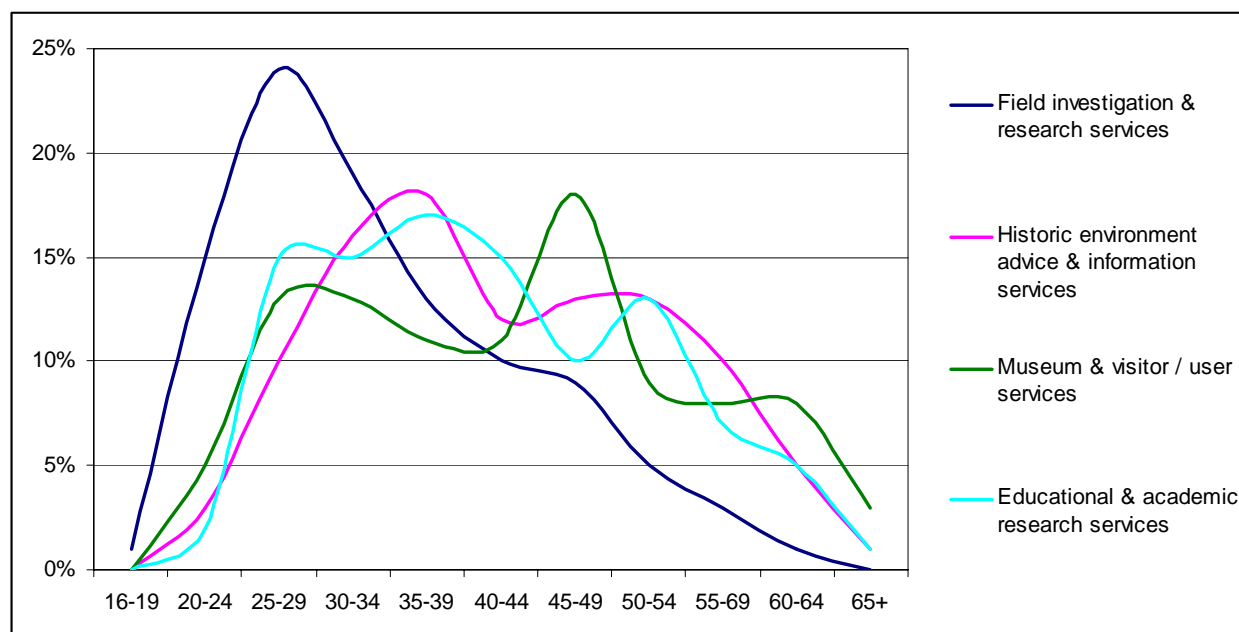
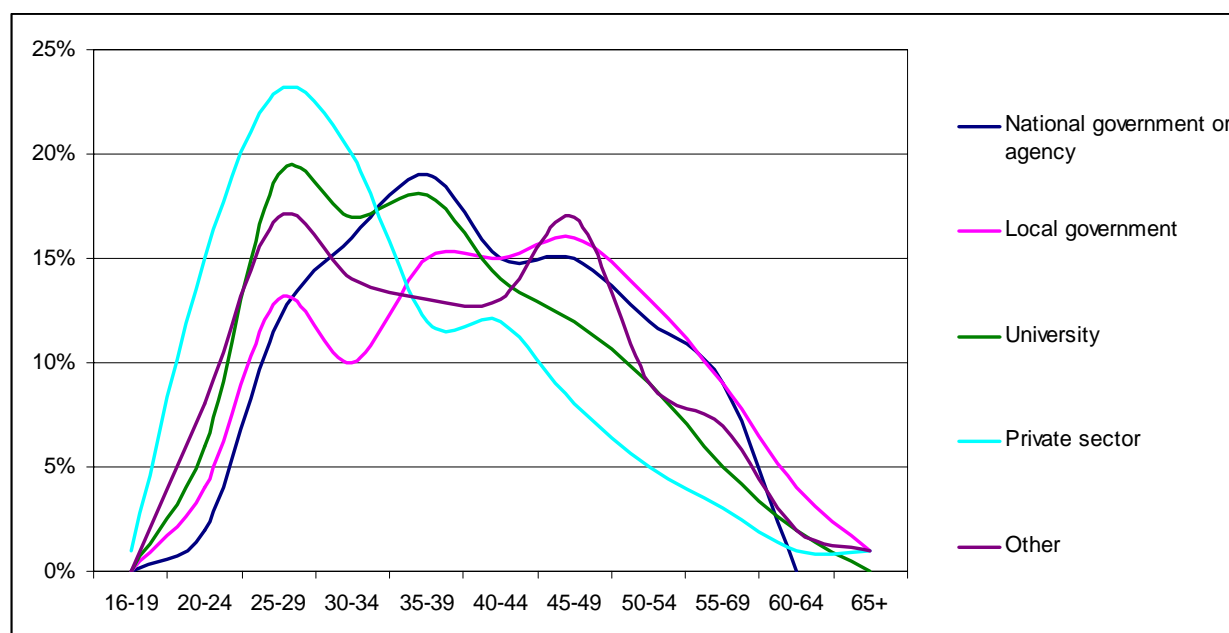


Table 35 presents the age profiles of archaeologists working in different types of organisation, and the information is depicted in Figure 7. A broad similarity can be seen, with local government, university, private sector and other employers all showing relatively high proportions of archaeologists in the 25-29 age band. National government or agency organisations are the exception, with the highest proportion in the 35-39 age band. Given the patterns described above in relation to post role, it seems likely that the high numbers for 25-29 year old archaeologists are those working in field investigation and research service roles for the different types of employers.

Table 35 Age by organisational basis – archaeologists

	National government or agency		Local government		University		Private sector		Other		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
16-19	0	0%	1	<1%	0	0%	5	1%	0	0%	6	<1%
20-24	6	2%	15	4%	22	6%	124	15%	26	8%	193	9%
25-29	30	12%	45	13%	67	19%	195	23%	60	17%	397	19%
30-34	41	16%	35	10%	60	17%	166	20%	47	14%	349	16%
35-39	48	19%	51	15%	64	18%	101	12%	46	13%	310	14%
40-44	38	15%	51	15%	49	14%	98	12%	43	13%	279	13%
45-49	39	15%	54	16%	43	12%	71	8%	59	17%	266	12%
50-54	30	12%	44	13%	31	9%	42	5%	30	9%	177	8%
55-69	22	9%	30	9%	17	5%	27	3%	24	7%	120	6%
60-64	0	0%	13	4%	6	2%	12	1%	8	2%	39	2%
65+	0	0%	3	1%	1	<1%	9	1%	2	1%	15	1%
Total	254	100%	342	100%	360	100%	850	100%	345	100%	2151	100%

Figure 7 Archaeologists by age bands and organisation basis



Ethnic diversity

Respondents were asked to identify the ethnic groups to which staff in each post belonged. The categories offered followed National Statistics practice introduced in 2001. Table 36 summarises responses. The majority of archaeologists and support staff were white, with only 1.02% of archaeologists and 1.12% of all staff identified as being Black or Minority Ethnic (BME) persons. By contrast BME groups represented 7.9% of the UK population as a whole in the 2001 census (National Statistics 2003).

Table 36 Ethnic diversity

	Archaeologists		All staff	
	Number	%	Number	%
White	2539	98.99%	2650	98.88%
Mixed	4	0.16%	4	0.15%
Black or Black British	1	0.04%	4	0.15%
Asian or Asian British	10	0.39%	11	0.41%
Chinese	1	0.04%	1	0.04%
Other ethnic group	10	0.39%	10	0.37%
Total	2565	100.01%	2680	100.00%

Disability status

The questionnaire asked respondents to indicate the disability status of individuals in each post. The question made a distinction between *Disability Discrimination Act (DDA) disabled*, which includes those who have a long-term physical or mental disability which substantially limits their day-to-day activities, and *Work-limiting disabled*, which includes those who have a long-term disability which affects the kind or amount of work they might do. Table 37 summarises the disability status of archaeologists reported to the survey. The total proportion of disabled archaeologists was 1.65%.

Table 37 Disability status of archaeologists reported to the survey

Disability status	Number	%
Not disabled	2285	98.36%
Work limiting disabled only	28	1.21%
DDA disabled only	5	0.22%
Work limiting and DDA disabled	5	0.22%
Total	2323	100.01%

The proportion of disabled employees reported to the survey is very low in comparison with statistics for the working population as a whole. Figures relating to disabled people in employment published by the Shaw Trust for December 2006 indicate that whereas 19% of the population as a whole is disabled, 13% of those in employment are disabled (Shaw Trust 2008).

The Inclusive Accessible Archaeology project (IAA) is looking specifically at disability in archaeology. The project 'aims to address the dual issues of disability and transferable skills in the teaching of archaeological fieldwork.' The project 'will increase awareness of disability issues in Archaeology and improve the integration of disability in fieldwork teaching' (IAA 2008). The first stage of the project, carried out in 2005 involved a survey to ascertain the current situation and responses to disability in relation to archaeological fieldwork. This survey included university archaeology departments, and archaeological employers (Phillips and Gilchrist 2005). In sixteen of nineteen university departments who responded, 282 or 13.8% of 2060 archaeology students had some form of disability (Phillips and Gilchrist 2005, table 8). The most common was dyslexia (63.1%), followed by unseen disability (15.2%). Figures provided to the IAA project by the Higher Education Statistics Agency indicated that overall 6.5% of first degree students were disabled. Six of the nineteen department employed disabled staff, amounting to twelve individuals. The total number of staff employed was not identified.

The IAA survey of archaeological employers was more difficult to compare with the present survey, as it asked about the number of disabled people employed over the last five years. The total number of employees of the organisations responding to the survey was 1245, and over the past five years responding organisations had employed 119 disabled individuals. It is not known how many were employed at the time of the survey, but the figures indicate a maximum of 9.6% disabled employees in 2005. Of the 47 employers who responded to the survey, 28 or 59.6% declared disabled employees. Employers reported that ‘unseen disabilities account for over half the reported impairments, 69 incidences, or 53.5%, of the sample. This is followed by 20 reports of dyslexia (15.5%), 11 each of Restricted Mobility and Mental Illness (8.5%) and 9 of visual impairment (7.0%)’ (Phillips and Gilchrist 2005). The disabled individuals reported to the IAA survey worked in a variety of different and overlapping roles, so one individual might have worked in field investigation and in education. Field investigation roles included 101 disabled staff, historic environment advice 13, education 29 and support staff 28.

The IAA figures indicate that the number of disabled employees reported to the present survey may have been underrepresented. Whilst the IAA figures cover five years, and may therefore over-represent the proportion of disabled employees, there is considerable stability in archaeological employment (see section 5.4 below), so it would not be correct simply to divide the total by five to extrapolate a point-in-time figure.

Country of origin

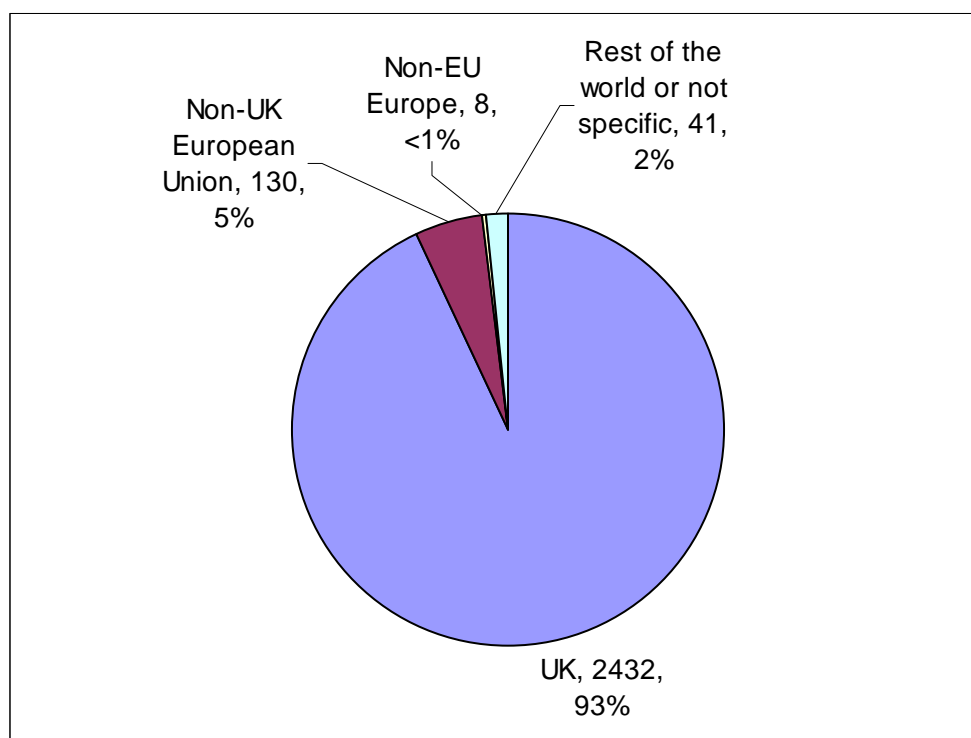
Respondents to the post profile questionnaire provided information about 179 archaeologists whom they identified as not being from the UK (of 2611 archaeologists for whom post profile information was provided). Table 38 summarises the responses, which are depicted graphically in Figure 8. Almost 7% of archaeologists reported to the survey were not from the UK. Of these, most were from the EU (5% of the total). Whilst Polish archaeologists represented the largest sub-group, they only amounted to 40 individuals or 1.5% of the total. The 11 archaeologists from the United States represented less than 1% of all archaeologists reported to the survey.

Table 38 Country of origin of archaeologists working in the UK

Country of origin	Total	% of all reported archaeologists	Specific country of origin																																				
UK	2432	93%																																					
Non-UK European Union	130	5%	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Poland</td> <td style="width: 5%;">40</td> <td style="width: 50%;">Netherlands</td> <td style="width: 5%;">3</td> </tr> <tr> <td>Spain</td> <td>19</td> <td>Denmark</td> <td>2</td> </tr> <tr> <td>France</td> <td>13</td> <td>Finland</td> <td>2</td> </tr> <tr> <td>Republic of Ireland</td> <td>11</td> <td>Belgium</td> <td>1</td> </tr> <tr> <td>Italy</td> <td>11</td> <td>Cyprus</td> <td>1</td> </tr> <tr> <td>Sweden</td> <td>8</td> <td>Hungary</td> <td>1</td> </tr> <tr> <td>Germany</td> <td>7</td> <td>Portugal</td> <td>1</td> </tr> <tr> <td>Austria</td> <td>5</td> <td>Polish / German</td> <td>1</td> </tr> <tr> <td>Greece</td> <td>4</td> <td></td> <td></td> </tr> </table>	Poland	40	Netherlands	3	Spain	19	Denmark	2	France	13	Finland	2	Republic of Ireland	11	Belgium	1	Italy	11	Cyprus	1	Sweden	8	Hungary	1	Germany	7	Portugal	1	Austria	5	Polish / German	1	Greece	4		
Poland	40	Netherlands	3																																				
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Country of origin	Total	% of all reported archaeologists	Specific country of origin																												
Rest of the world or not specific	41	2 %	<table border="0"> <tr> <td>US</td> <td>11</td> <td>Israel</td> <td>1</td> </tr> <tr> <td>New Zealand</td> <td>7</td> <td>Sri Lanka</td> <td>1</td> </tr> <tr> <td>Australia</td> <td>6</td> <td>'Asian British'</td> <td>1</td> </tr> <tr> <td>Canada</td> <td>6</td> <td>'British / Australian'</td> <td>1</td> </tr> <tr> <td>South Africa</td> <td>2</td> <td>'Former Yugoslavia'</td> <td>1</td> </tr> <tr> <td>China</td> <td>1</td> <td>'French / Mexican'</td> <td>1</td> </tr> <tr> <td>Iran</td> <td>1</td> <td>'North American'</td> <td>1</td> </tr> </table>	US	11	Israel	1	New Zealand	7	Sri Lanka	1	Australia	6	'Asian British'	1	Canada	6	'British / Australian'	1	South Africa	2	'Former Yugoslavia'	1	China	1	'French / Mexican'	1	Iran	1	'North American'	1
US	11	Israel	1																												
New Zealand	7	Sri Lanka	1																												
Australia	6	'Asian British'	1																												
Canada	6	'British / Australian'	1																												
South Africa	2	'Former Yugoslavia'	1																												
China	1	'French / Mexican'	1																												
Iran	1	'North American'	1																												
Total	2611	100%																													

Figure 8 Country of origin of archaeologists working in the UK



4.5 Staff qualifications

The questionnaire asked about the highest levels of qualifications achieved by members of staff working in each job role. Respondents were asked to specify whether those qualifications were in archaeology or another subject, and in broad terms, where they had been obtained.

Some respondents did not complete this section of the questionnaire, and it is not possible to determine in all cases whether this meant that the individual(s) concerned had no qualifications or whether respondents were not able to collate the data required. Therefore, proportions must be used carefully. Information was provided about qualifications for individuals in 724 of the 808 posts for which post profile questionnaires were completed, so it is reasonable to assume that full details were provided about qualifications for all 2484 individuals in those 724 posts. In relation to archaeological posts, information about qualifications is given in respect of 665 of the 733 posts, in which 2385 archaeologists were employed.

Highest qualification achieved

Table 39 and Table 40 below set out the highest level of qualifications achieved by archaeologists and by all staff working for archaeological organisations. The tables identify the equivalent level of these qualifications on the revised National Qualifications Framework (NQF) for England, Wales and Northern Ireland (QCA 2006). The numbers in parentheses in the NQF column are the original (pre-2006) NQF levels.

A total of 91% of archaeologists has a Bachelors degree or higher, 39% have a Masters degree or higher and 11% have a Doctorate or post-doctoral qualification. Just 2% identified their highest qualification as a Foundation degree or HND, for 4% their highest qualifications were obtained at school and just under 4% have no qualifications at all.

Table 39 Highest level of qualification achieved, number and % of paid archaeologists for whom information on qualifications was provided

NQF		Archaeology		Other		Total	
8 (5)	Post-doctoral qualification	6	0%	3	0%	9	0%
8 (5)	Doctorate (PhD or DPhil)	230	10%	33	1%	263	11%
7 (5)	Postgraduate (Masters)	567	24%	105	4%	672	28%
6 (4)	First degree	1049	44%	175	7%	1224	51%
5 (4)	Foundation degree or HND	13	1%	25	1%	38	2%
3	A level, Highers	20	1%	40	2%	60	3%
2	GCSE, Standard Grade	4	0%	31	1%	35	1%
	Total with qualifications	1889	79%	412	17%	2301	96%
	No qualifications					84	4%
	Total for whom some qualification information was provided					2385	100%

Table 40 highest level of qualification achieved, number and % of all paid staff for whom information on qualifications was provided

NQF		Archaeology		Other		Total	
8 (5)	Post-doctoral qualification	6	0%	5	0%	11	0%
8 (5)	Doctorate (PhD or DPhil)	233	9%	33	1%	266	11%
7 (5)	Postgraduate (Masters)	572	23%	110	4%	682	27%
6 (4)	First degree	1064	43%	197	8%	1261	51%
5 (4)	Foundation degree or HND	15	1%	34	1%	49	2%
3	A level, Highers	23	1%	60	2%	83	3%
2	GCSE, Standard Grade	5	0%	41	2%	46	2%
	Total with qualifications	1918	77%	480	19%	2398	97%
	No qualifications					86	3%
	Total for whom some qualification information was provided					2484	100%

Highest qualification achieved by archaeologists by country of qualification

Of archaeologists working in the UK, 91% received their highest qualification in the UK, 7% achieved this elsewhere in the European Union and 2% gained their highest qualifications outside the EU as shown in Table 41. These figures closely mirror those for the countries of origin of archaeologists working in the UK (92% UK, 6% EU, 2% Rest of World; see Table 38 above).

Table 41 Highest level of qualification achieved by archaeologists by country of qualification

	UK		EU		Rest of world		Total	
Post-doctoral qualification	4	0%	3	2%		0%	7	0%
Doctorate (PhD or DPhil)	212	11%	10	7%	8	20%	230	11%
Postgraduate (Masters)	540	29%	47	34%	8	20%	595	29%
First degree	1003	53%	78	57%	24	59%	1105	54%
Foundation degree or HND	36	2%		0%		0%	36	2%
A level, Highers	48	3%		0%	1	2%	49	2%
GCSE, Standard Grade	34	2%		0%		0%	34	2%
Total	1877	91%	138	7%	41	2%	2056	100%

Highest qualification achieved by age

As the questionnaire asked about posts not individuals, it is only possible to compare age band and qualifications obtained for a limited sample of the whole database. The data in Table 42 are biased towards those in posts with few individuals, all one age group, or with the same qualifications, and cover 714 individuals, 30% of those for whom information on qualifications was received. Of this sample, in 2007-08, almost 100% of archaeologists aged under 30 are graduates.

Table 42 highest level of qualification achieved by archaeologists by age

	Post-doctoral	Doctorate	Masters	Degree	Foundation	A level	GCSE	Total
Number								
16-19				1				1
20-24		1	8	33		1		43
25-29		3	40	54				97
30-34		14	37	36	1			88
35-39	1	16	48	58	1	1	1	126
40-44		18	33	37	4	4	1	97
45-49	1	13	29	51	2	1		97
50-54		16	18	45	2	2		83
55-59		9	12	27	1			49
60-64		7	6	7		2		22
65+		2		5	3		1	11
Total	2	99	231	354	14	11	3	714
Percent of each age band								
16-19	0%	0%	0%	100%	0%	0%	0%	100%
20-24	0%	2%	19%	77%	0%	2%	0%	100%
25-29	0%	3%	41%	56%	0%	0%	0%	100%
30-34	0%	16%	42%	41%	1%	0%	0%	100%
35-39	1%	13%	38%	46%	1%	1%	1%	100%
40-44	0%	19%	34%	38%	4%	4%	1%	100%
45-49	1%	13%	30%	53%	2%	1%	0%	100%
50-54	0%	19%	22%	54%	2%	2%	0%	100%
55-59	0%	18%	24%	55%	2%	0%	0%	100%
60-64	0%	32%	27%	32%	0%	9%	0%	100%
65+	0%	18%	0%	45%	27%	0%	9%	100%
Total	0%	14%	32%	50%	2%	2%	0%	100%

Average salaries by highest qualification

A comparison between the highest qualification achieved and average salary could be made for posts where salary data had been provided and where all the individuals in the post had the same level of qualifications. Table 43 shows the results of this comparison for the 714 individuals for whom it could be made.

The results of the comparison indicate that higher qualifications were reflected in progression to higher salaries for the sample group. While it would appear that no significant difference can be drawn between the earning power of Foundation and Bachelors degree, note that the sample size for those holding Foundation degrees or HNDs is very small. No clear patterns could be identified in the increases in salaries for those with particular levels of qualifications.

Table 43 Salaries by highest level of qualification achieved, all paid archaeologists

NQF		Average salary	Sample size	Increase since 2002-03
8 (5)	Post-doctoral qualification	£38,549	5	n/a
8 (5)	Doctorate (PhD or DPhil)	£30,998	95	14%
7 (5)	Postgraduate (Masters)	£25,608	208	21%
6 (4)	First degree	£22,010	357	17%
5 (4)	Foundation degree or HND	£22,115	16	n/a
3	A level, Highers	£18,619	24	23%
2	GCSE, Standard Grade	£16,396	9	n/a
	Total		714	
	Average for all archaeologists	£23,310		

4.6 Self-employment

Questionnaire responses provided information about 80 paid self-employed archaeologists and two unpaid archaeologists who worked as volunteers for one of the self-employed respondents.

Age and gender information were provided for 68 individuals of whom 46 were male (68%) and 22 female (32%). The overall gender balance for self-employed archaeologists is more heavily weighted towards males than the overall proportions of male and female archaeologists (41% female to 59% male, discussed above section 4.4).

Table 44 and Table 45 summarise the gender and age balance of self-employed archaeologists, which is shown graphically in Figure 9. Compared with the picture for all archaeologists discussed above (section 4.4), self-employed archaeologists were generally older than the averages for all archaeologists. A possible interpretation for the rise in numbers of self-employed males in their 60s is that this represents those who have retired from employment and have then taken on some consultancy work. This difference may, however, be due the effect of the small sample size in exaggerating variations between age bands, as can be seen in Figure 9.

Table 44 Self-employed archaeologists: age range by gender

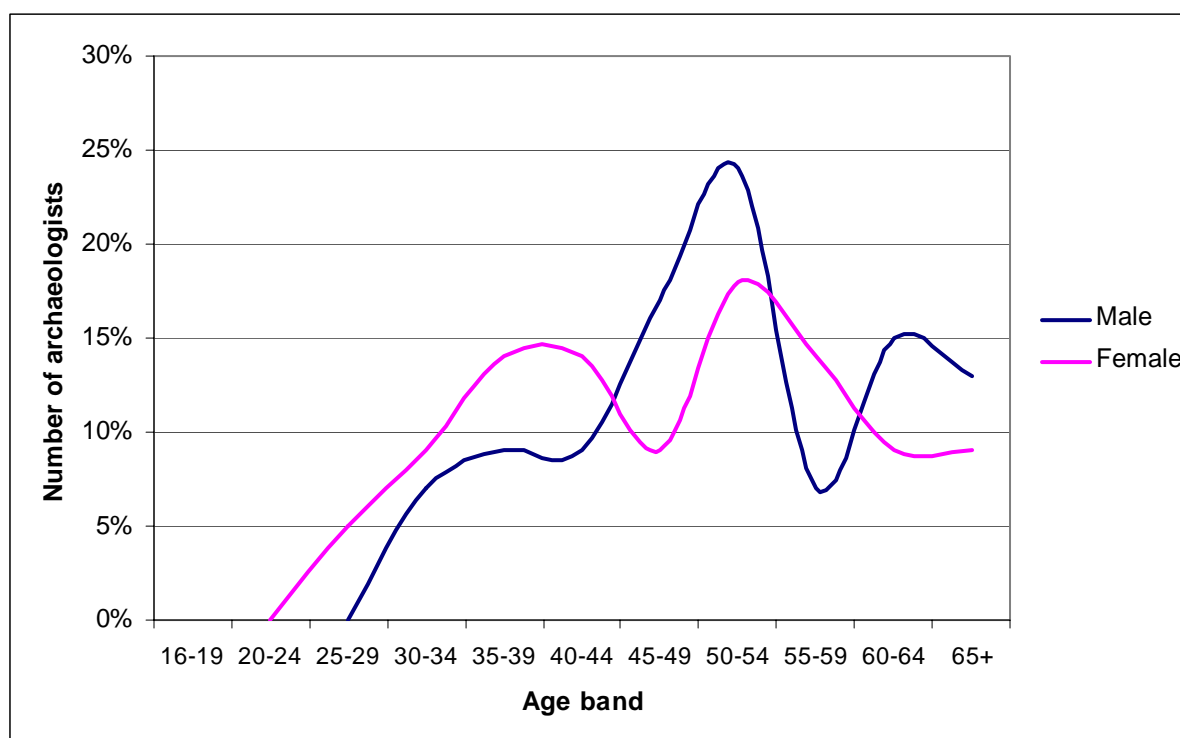
Age	Female		Male		Total	
	Number	%	Number	%	Number	%
16-19	0	0%	0	0%	0	0%
20-24	0	0%	0	0%	0	0%

Age	Female		Male		Total	
	Number	%	Number	%	Number	%
25-29	1	5%	0	0%	1	1%
30-34	2	9%	3	7%	5	7%
35-39	3	14%	4	9%	7	10%
40-44	3	14%	4	9%	7	10%
45-49	2	9%	8	17%	10	15%
50-54	4	18%	11	24%	15	22%
55-59	3	14%	3	7%	6	9%
60-64	2	9%	7	15%	9	13%
65+	2	9%	6	13%	8	12%
Total	22	100%	46	100%	68	100%

Table 45 Self-employed archaeologists: gender balance by age range

Age	Female		Male		Total	
	Number	%	Number	%	Number	%
16-19	0	0%	0	0%	0	0%
20-24	0	0%	0	0%	0	0%
25-29	1	100%	0	0%	1	100%
30-34	2	40%	3	60%	5	100%
35-39	3	43%	4	57%	7	100%
40-44	3	43%	4	57%	7	100%
45-49	2	20%	8	80%	10	100%
50-54	4	27%	11	73%	15	100%
55-59	3	50%	3	50%	6	100%
60-64	2	22%	7	78%	9	100%
65+	2	25%	6	75%	8	100%
Total	22	32%	46	68%	68	100%

Figure 9 Age and gender of self-employed archaeologists



All the self-employed archaeologists who provided information were white. Just four were not from the UK, two of whom were from Germany and two from the US.

Table 46 summarises the disability status of the 49 individuals for whom information was provided. 92% were not disabled. *Disability Discrimination Act (DDA) disabled* includes those who have a long-term physical or mental disability which substantially limits their day-to-day activities. *Work-limiting disabled* includes those who have a long-term disability which affects the kind or amount of work they might do. The proportions of disabled self-employed archaeologists are higher than that for all archaeologists (see Table 37 above).

Table 46 Self-employed archaeologists: disability status

Disability status	Number	%
Not disabled	45	92%
Work-limiting disabled only	2	4%
DDA disabled only	2	4%
Both DDA and work limiting disabled	0	0%
Total	49	100%

All responses relating to self-employed archaeologists provided information about qualifications. Self-employed archaeologists had slightly higher qualifications than all archaeologists, as can be seen from Table 47, compared with Table 39, section 4.5. A higher proportion of self-employed archaeologists have Masters degrees or PhDs, a total of 52%, although the overall proportion of those with Bachelors degrees or higher is the same (91%). More self-employed archaeologists have qualifications in other subjects than archaeology, at 35% of the total.

Table 47 Self-employed archaeologists: qualifications obtained

NQF	Qualification level	Archaeology		Other subject		Total	
8 (5)	Post-doctoral qualification	0	0%	0	0%	0	0%
8 (5)	Doctorate (PhD or DPhil)	10	15%	4	6%	14	22%
7 (5)	Postgraduate (Masters)	16	25%	4	6%	20	31%
6 (4)	First degree	16	25%	9	14%	25	38%
5 (4)	Foundation degree or HND	0	0%	4	6%	4	6%
3	A level, Highers	0	0%	0	0%	0	0%
2	GCSE, Standard Grade	0	0%	2	3%	2	3%
	Total with qualifications	42	65%	23	35%	65	100%
	No qualifications					0	0%
	Total for whom some qualification information was provided					65	100%

Few self-employed archaeologists obtained their qualifications outside the UK. One of those who did so was from the UK, and two of those not from the UK obtained their qualifications in the UK, as Table 48 shows.

Table 48 Self-employed archaeologists: where qualifications were obtained

Qualification level	UK		EU		Rest of world		Total	
Post-doctoral qualification	0		0		0		0	
Doctorate (PhD or DPhil)	12	92%	1	8%	0	0%	13	100%
Postgraduate (Masters)	18	100%	0	0%	0	0%	18	100%
First degree	19	86%	1	5%	2	9%	22	100%
Foundation degree or HND	3	100%	0	0%	0	0%	3	100%
A level, Highers	0		0		0		0	
GCSE, Standard Grade	2	100%	0	0%	0	0%	2	100%
Total	54	93%	2	3%	2	3%	58	100%

Self-employed archaeologists could be found in all English regions, in Wales, and in Scotland, but none responded from Northern Ireland, as can be seen in Table 49.

Table 49 Self-employed archaeologists: geographical base

Geographical location	Number	%
English region		
East of England	5	7%
East Midlands	3	4%
London	3	4%
North East	5	8%
North West	6	8%
South East	7	10%
South West	14	21%
West Midlands	5	7%
Yorkshire & the Humber	6	9%
Scotland	10	14%
Wales	6	8%
Northern Ireland	0	0%
Channel Islands	0	0%
Isle of Man	0	0%
Total	70	100%

4.7 Unpaid volunteer archaeologists

The questionnaire asked respondents to provide data relating to the unpaid volunteer archaeologists who worked alongside paid colleagues. Those working in the wholly voluntary sector were not included in this survey. The same level of detail was requested in relation to unpaid volunteers as to paid archaeologists and support staff. Although responses to the first part of the questionnaire acknowledged a total of 110 unpaid archaeologists and 16 unpaid support staff, post profile data was only provided for 41 individuals.

The average age of unpaid volunteers was 41, but as Table 50 shows, this is not representative of the actual age ranges recorded. Female volunteers made up 57% of the workforce compared with 43% male unpaid volunteers. Table 50 shows the age and gender of volunteers by five-year age bands. Despite the average age being in the middle of the distribution, the highest numbers of volunteers were in the 20-24 age band and the second highest in the 60-64 age band. An interpretation of this pattern would be that the younger age group were gaining experience of

archaeology, perhaps after university and before entering the paid workforce, and that the older age group were retired and interested in archaeology.

Table 50 Age and gender of unpaid volunteers

	Male		Female		Total	
16-19	1	6%	2	10%	3	8%
20-24	5	31%	6	29%	11	30%
25-29	0	0%	1	5%	1	3%
30-34	0	0%	2	10%	2	5%
35-39	2	13%	1	5%	3	8%
40-44	0	0%	0	0%	0	0%
45-49	2	13%	1	5%	3	8%
50-54	0	0%	0	0%	0	0%
55-69	1	6%	0	0%	1	3%
60-64	3	19%	6	29%	9	24%
65+	2	13%	2	10%	4	11%
Total	16	100%	21	100%	37	100%

Table 51 summarises information provided on the ethnic diversity of volunteers.

Table 51 Ethnic diversity of unpaid volunteers

	Unpaid volunteers	
White	40	95.24%
Mixed	1	2.38%
Black or Black British	0	0.00%
Asian or Asian British	0	0.00%
Chinese	1	2.38%
Other ethnic group	0	0.00%
Total	42	100.00%

None of the unpaid volunteers in respect of whom detailed information was provided were disabled.

4.8 Support staff

Questionnaire respondents identified 334 support staff, and post profile detail was provided in respect of 122 individuals in 75 posts. The estimated total support staff workforce was 866.

Table 52 shows the gender balance and age range of support staff, shown graphically in Figure 10. The gender balance of support staff was 72% female and 28% male, which contrasts with the balance for archaeologists of 41% female to 59% male. The average age of a member of support staff was 45. The average age of female support staff was 45 and male support staff on average were 44 years old. Whereas archaeologists were in general younger than the figures for the UK working population as a whole, support staff were generally older. Support staff between the ages of 20 and 50 made up 64% of the total, compared with a figure for the overall working population of 72% aged between 18 and 50. Support staff over 50 years old made up 35% of the total, compared with a national figure of 26%, and a figure for archaeologists of just 16% (figures based on National Statistics Labour Force Survey dataset lfs2ac for July to September 2007 [National Statistics 2007a]).

Table 52 Age range – support staff

	Male		Female		Total	
16-19	0	0%	0	0%	0	0%
20-24	2	6%	5	6%	7	6%
25-29	5	16%	6	7%	11	9%
30-34	2	6%	7	8%	9	8%
35-39	2	6%	9	11%	11	9%
40-44	5	16%	11	13%	16	14%
45-49	5	16%	16	19%	21	18%
50-54	3	9%	9	11%	12	10%
55-69	4	13%	16	19%	20	17%
60-64	4	13%	5	6%	9	8%
65+	0	0%	0	0%	0	0%
Total	32	100%	84	100%	116	100%

Figure 10 Age and gender of support staff

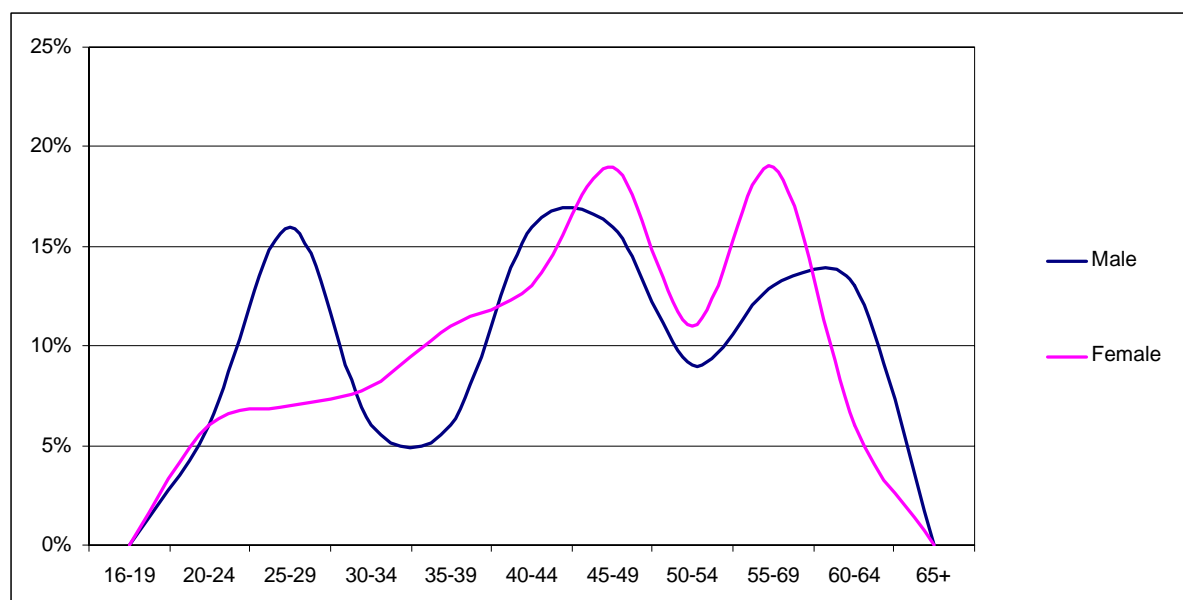


Table 53 summarises the highest qualifications achieved by paid support staff. Just over half (53%) had a Bachelors degree or higher, 23% of whom had qualifications in archaeology, and 29% in other subjects. A total of 45% had foundation degrees or school level qualifications. Very few support staff had no qualifications at all, only 4 or 4% of the total for whom qualification information was provided.

Table 53 highest level of qualification achieved, all paid support staff

NQF		Archaeology		Other		Total	
8 (5)	Post-doctoral qualification		0%	2	2%	2	2%
8 (5)	Doctorate (PhD or DPhil)	3	3%		0%	3	3%
7 (5)	Postgraduate (Masters)	5	5%	5	5%	10	10%
6 (4)	First degree	15	15%	22	22%	37	37%
5 (4)	Foundation degree or HND	2	2%	9	9%	11	11%
3	A level, Highers	3	3%	20	20%	23	23%
2	GCSE, Standard Grade	1	1%	10	10%	11	11%
	Total with qualifications	29	29%	66	67%	95	96%
	No qualifications					4	4%
	Total for whom some qualification information was provided					99	100%

Table 54 summarises responses relating to the ethnic diversity of support staff. The majority of support staff were white, with only 3.48% identified as being of other ethnicities. Although low, this figure is more than three times the proportion of black and minority ethnic archaeologists (1.02%, see Table 36 and section 4.4 above). These groups represented 7.9% of the UK population as a whole in the 2001 census (National Statistics 2003).

Table 54 Ethnic diversity – support staff

	Support staff		All staff	
White	111	96.52%	2650	98.88%
Mixed	0	0.00%	4	0.15%
Black or Black British	3	2.61%	4	0.15%
Asian or Asian British	1	0.87%	11	0.41%
Chinese	0	0.00%	1	0.04%
Other ethnic group	0	0.00%	10	0.37%
Total	115	100.00%	2680	100.00%

None of the support staff in respect of whom detailed information was provided were disabled.

4.9 Estimated numbers of archaeologists by type, role and location of employing organisation

Archaeologists by type of employing organisation

Figures are presented in the following tables for the estimated numbers of archaeologists working for the different types of employing organisation used for the survey and subdivided by areas of the UK.

Table 55 Archaeologists working for national government or agencies

Geographical location	Estimated number of archaeologists in area	Estimated number working for national government or agencies	% of area total	% of all archaeologists working for national government or agencies
English region				
East of England	505	27	5%	4%
East Midlands	500	15	3%	2%
London	665	94	14%	14%
North East	319	42	13%	6%
North West	366	20	5%	3%
South East	1091	31	3%	5%
South West	934	88	9%	13%
West Midlands	467	39	8%	6%
Yorkshire & the Humber	590	34	6%	5%
Scotland	848	148	17%	22%
Wales	422	74	18%	11%
Northern Ireland	126	39	31%	6%
Channel Islands	11	3	27%	0.4%
Isle of Man	20	12	60%	2%
Total	6865	667	10%	99%

Table 56 Archaeologists working for local government

Geographical location	Estimated number of archaeologists in area	Estimated number working for local government	% of area total	% of all archaeologists working for local government
English region				
East of England	505	199	39%	17%
East Midlands	500	125	25%	11%
London	665	56	8%	5%
North East	319	34	11%	3%
North West	366	61	17%	5%
South East	1091	121	11%	11%
South West	934	160	17%	14%
West Midlands	467	124	27%	11%
Yorkshire & the Humber	590	105	18%	9%
Scotland	848	108	13%	9%
Wales	422	51	12%	4%
Northern Ireland	126	0	0%	0%
Channel Islands	11	8	73%	1%
Isle of Man	20	0	0%	0%
Total	6865	1151	17%	100%

Table 57 Archaeologists working for universities

Geographical location	Estimated number of archaeologists in area	Estimated number working for universities	% of area total	% of all archaeologists working for universities
English region				
East of England	505	45	9%	4%
East Midlands	500	84	17%	8%
London	665	64	10%	6%
North East	319	73	23%	7%
North West	366	64	17%	6%
South East	1091	164	15%	16%
South West	934	72	8%	7%
West Midlands	467	72	15%	7%
Yorkshire & the Humber	590	124	21%	12%
Scotland	848	135	16%	13%
Wales	422	85	20%	8%
Northern Ireland	126	29	23%	3%
Channel Islands	11	0	0%	0%
Isle of Man	20	4	20%	0.4%
Total	6865	1014	15%	97%

Table 58 Archaeologists working for private sector organisations

Geographical location	Estimated number of archaeologists in area	Estimated number working in the private sector	% of area total	% of all archaeologists working in the private sector
English region				
East of England	505	211	42%	6%
East Midlands	500	232	46%	7%
London	665	184	28%	5%
North East	319	165	52%	5%
North West	366	181	49%	5%
South East	1091	711	65%	20%
South West	934	595	64%	17%
West Midlands	467	230	49%	7%
Yorkshire & the Humber	590	294	50%	8%
Scotland	848	426	50%	12%
Wales	422	208	49%	6%
Northern Ireland	126	57	45%	2%
Channel Islands	11	0	0%	0%
Isle of Man	20	4	20%	0.1%
Total	6865	3497	51%	100%

Table 59 Archaeologists working for other organisations

Geographical location	Estimated number of archaeologists in area	Estimated number working for other organisations	% of area total	% of all archaeologists working for other organisations
English region				
East of England	505	23	5%	4%
East Midlands	500	44	9%	8%
London	665	267	40%	50%
North East	319	5	2%	1%
North West	366	40	11%	7%
South East	1091	64	6%	12%
South West	934	20	2%	4%
West Midlands	467	3	1%	1%
Yorkshire & the Humber	590	33	6%	6%
Scotland	848	32	4%	6%
Wales	422	4	1%	1%
Northern Ireland	126	2	2%	0.3%
Channel Islands	11	0	0%	0%
Isle of Man	20	0	0%	0%
Total	6865	535	8%	100%

Archaeologists by principal role of employing organisation

The next four tables present the estimated numbers of archaeologists working for organisations with each of the principal roles used for the survey and subdivided by areas of the UK.

Table 60 Archaeologists working for organisations undertaking field investigation and research

Geographical location	Estimated number of archaeologists in area	Estimated number working for organisations undertaking field investigation	% of area total	% of all archaeologists working for organisations undertaking field investigation
English region				
East of England	505	289	57%	7%
East Midlands	500	315	63%	8%
London	665	334	50%	9%
North East	319	187	59%	5%
North West	366	202	55%	5%
South East	1091	751	69%	19%
South West	934	498	53%	13%
West Midlands	467	204	44%	5%
Yorkshire & the Humber	590	284	48%	7%
Scotland	848	526	62%	14%
Wales	422	235	56%	6%
Northern Ireland	126	55	44%	1%
Channel Islands	11	0	0%	0%

Geographical location	Estimated number of archaeologists in area	Estimated number working for organisations undertaking field investigation	% of area total	% of all archaeologists working for organisations undertaking field investigation
Isle of Man	20	11	55%	0.3%
Total	6865	3890	57%	99%

Table 61 Archaeologists working for organisations providing historic environment advice and information

Geographical location	Estimated number of archaeologists in area	Estimated number working for organisations providing historic environment advice and information	% of area total	% of all archaeologists working for organisations providing historic environment advice and information
English region				
East of England	505	134	27%	7%
East Midlands	500	152	30%	8%
London	665	153	23%	8%
North East	319	67	21%	4%
North West	366	109	30%	6%
South East	1091	191	18%	11%
South West	934	314	33%	17%
West Midlands	467	176	38%	10%
Yorkshire & the Humber	590	160	27%	9%
Scotland	848	211	25%	12%
Wales	422	101	24%	6%
Northern Ireland	126	39	31%	2%
Channel Islands	11	10	91%	1%
Isle of Man	20	14	70%	1%
Total	6865	1816	26%	102%

Table 62 Archaeologists working for organisations providing museum and visitor / user services

Geographical location	Estimated number of archaeologists in area	Estimated number working for organisations providing museum and visitor services	% of area total	% of all archaeologists working for organisations providing museum and visitor services
English region				
East of England	505	19	4%	6%
East Midlands	500	12	2%	4%
London	665	74	11%	24%
North East	319	40	13%	13%

Geographical location	Estimated number of archaeologists in area	Estimated number working for organisations providing museum and visitor services	% of area total	% of all archaeologists working for organisations providing museum and visitor services
North West	366	12	3%	4%
South East	1091	39	4%	13%
South West	934	35	4%	11%
West Midlands	467	9	2%	3%
Yorkshire & the Humber	590	20	3%	6%
Scotland	848	34	4%	11%
Wales	422	14	3%	4%
Northern Ireland	126	2	2%	1%
Channel Islands	11	0	0%	0%
Isle of Man	20	0	0%	0%
Total	6865	310	5%	100%

Table 63 Archaeologists working for organisations providing educational and academic research services

Geographical location	Estimated number of archaeologists in area	Estimated number working for organisations providing education and academic research services	% of area total	% of all archaeologists working for organisations providing education and academic research services
English region				
East of England	505	64	13%	8%
East Midlands	500	21	4%	2%
London	665	104	16%	12%
North East	319	26	8%	3%
North West	366	39	11%	5%
South East	1091	111	10%	13%
South West	934	85	9%	10%
West Midlands	467	78	17%	9%
Yorkshire & the Humber	590	126	21%	15%
Scotland	848	77	9%	9%
Wales	422	72	17%	9%
Northern Ireland	126	31	25%	4%
Channel Islands	11	0	0%	0%
Isle of Man	20	3	15%	0%
Total	6865	836	12%	99%

5 Jobs

5.1 Range of jobs

The survey collected information on 2733 archaeologists and support staff working in 808 jobs with 519 different post titles. This represents one post title for every 5.3 individuals, a slight reduction since 2002-03 when the equivalent figure was one post title for every 5.5 individuals (Aitchison and Edwards 2003, 38).

This complexity reflects the range and diversity of roles held by archaeologists and other historic environment professionals, a point commented on by Carter and Robertson (2002b, 4). At the outset of their research they expected that 'archaeology, like most professions, would have a central core of functions which most practitioners would be involved in and that the variance within the profession would be reflected primarily in different disciplinary contexts and, to a more limited extent by additional job functions.' They subsequently concluded that 'the significant variations in job titles identified by Aitchison [1999] in earlier research are indicative not just of semantic confusion, but of very real diversity in work roles – to the extent that few within the profession actually share a common range of responsibilities in employment.' 'Practitioners evidently combine their technical / disciplinary expertise with project management, organisational management and advisory and inspection / statutory roles in very different permutations – and no robust, common pattern emerged.' (*ibid*).

The previous two surveys have established and refined the use of post profiles as a means of summarising information about comparable posts (Aitchison 1999, Aitchison and Edwards 2003). Using the methods described in section 2.6 above, the 808 jobs were summarised into 41 post profiles for the present survey. These include those from the previous surveys (a total of 34 in 1997-98 and a total of 38 in 2002-03), together with an additional three archaeological post profiles (see section 2.6).

Appendix 1 presents summary information for each profile and includes a concordance between post titles and post profiles.

Respondents were asked about the principal role of individuals working in each post, and these are summarised in Table 64 for each post profile.

Table 64 Post profiles indicating the role carried out by individuals in the posts included within profiles

Post group	Total	Field investigation and research services	Historic environment advice and information services	Museum and visitor / user services	Educational and academic research services	Archaeologist: management	Support staff
Academic Staff	113	1	0	0	112	0	0
Archaeological Assistant	63	62	0	1	0	0	0
Archaeological Officer	25	11	13	0	0	1	0
Archaeological Scientist	44	41	0	0	3	0	0
Archaeologist	343	339	4	0	0	0	0
Archives Officer	18	5	0	5	6	2	0
Buildings Archaeologist	12	5	2	5	0	0	0
Characterisation posts	15	9	6	0	0	0	0

Post group	Total	Field investigation and research services	Historic environment advice and information services	Museum and visitor / user services	Educational and academic research services	Archaeologist: management	Support staff
Computing Officer	43	3	25	0	3	2	10
Conservation Archaeologist	7	1	6	0	0	0	0
Conservator	9	5	0	4	0	0	0
Consultant	109	54	49	6	0	0	0
County or Regional Archaeologist	34	0	34	0	0	0	0
Director or Manager	93	58	15	2	3	13	2
Editor	10	5	0	0	2	3	0
Education and Outreach posts	42	0	4	8	29	1	0
Excavator or Site Assistant	48	48	0	0	0	0	0
Field Officer	25	25	0	0	0	0	0
Finds Officer	72	54	7	4	6	1	0
Historic Environment Record Officer	40	0	40	0	0	0	0
Illustrator	72	53	4	0	3	12	0
Inspector	79	0	79	0	0	0	0
Investigator	30	30	0	0	0	0	0
Museum Archaeologist	98	13	2	82	1	0	0
Photographer	5	5	0	0	0	0	0
Planning Archaeologist	40	1	39	0	0	0	0
Project Assistant	148	139	7	0	0	2	0
Project Manager	143	139	1	0	2	0	1
Project Officer	235	232	1	0	2	0	0
Researcher	45	12	4	0	29	0	0
Rural Advice	17	0	17	0	0	0	0
Senior Archaeologist	85	79	6	0	0	0	0
Supervisor	190	190	0	0	0	0	0
Surveyor	76	76	0	0	0	0	0
Warden	21	4	17	0	0	0	0
Administrator	94	0	11	0	0	0	83
Financial posts	13	0	0	0	0	1	12
Other support posts	24	8	0	0	4	0	12
Senior posts	90	39	31	1	0	18	1
Junior posts	17	11	5	0	0	1	0
Other posts	46	31	5	3	6	0	1
Totals	2733	1788	434	121	211	57	122

Organisations were given the opportunity to indicate the relative proportions of the different roles they undertook, unlike the previous survey when only a single principal role could be indicated. Table 65 summarises the relative proportions of overall organisation roles, of all posts and of all individuals. Nearly two thirds of individuals are engaged in field investigation and research services, almost half of all posts relate to this area, but it represents just under two fifths of the overall role of organisations.

Table 65 Summary of organisation roles and roles of posts

	Organisation roles	Post roles	Individuals (% of actual responses)
Field investigation and research services	37%	48%	65%
Historic environment advice and information services	27%	26%	16%
Museum and visitor / user services	18%	11%	4%
Educational and academic research services	15%	12%	8%
Other	3%	3%	6% support & management
Total	100%	100%	100%

5.2 Salaries and earnings

The project received information about the salaries and earnings of 2237 full-time archaeologists and of 69 full-time support staff. Part-time was defined as less than 30 hours per week, so there was a potentially wide range of hours worked by those in posts reported to the survey. It was not clear in some cases whether quoted salaries were full-time equivalent, or *pro rata*. As a consequence, all part-time salaries have been excluded from all calculations and from the figures presented below.

Self-employed individuals who identified themselves as working full-time were included in the overall figures for all archaeologists, and represent 1% of those for whom salary data was available. Although information on annual earnings provided by eight of this group were below £10,000, as they represent less than 0.4% of those for whom salary information was available, these low figures are not considered to bias the overall totals.

On average, full-time archaeologists earned £23,310 per annum, as Table 66 shows. The median archaeological salary was £20,792 (50% of archaeologists earned more than this, 50% earned less). By comparison, the average for all UK full-time workers at the time of the survey was £29,999 (National Statistics 2007b, table 2.7a full time employee jobs). The average archaeologist reported to the survey earned 78% of the UK average for all full-time workers.

Table 66 Earning distribution in archaeology

	Full-time archaeologists	Full-time support staff	All full-time UK workers*
Lowest 10% earn less than	£14,921	£15,470	£12,862
Lower 25% earn less than	£16,557	£17,500	£17,040
Median	£20,792	£19,714	£24,002
Upper 25% earn more than	£28,000	£20,963	£33,943
Highest 10% earn more than	£35,000	£28,154	£47,747
Average (mean)	£23,310	£20,553	£29,999
Sample size	2237	69	14,759,000

* National Statistics 2007b, table 2.7a full time employee jobs

The IFA recommends minimum pay levels for archaeologists exercising levels of responsibility equivalent to the three grades of corporate membership. In 2007-08, these were £14,197 for Practitioner (PIFA), £16,536 for Associate (AIFA) and £21,412 for Member (MIFA). This is part of an overall salary package including

recommendations regarding pensions, working hours, paid annual leave and sick leave, discussed below (see section 5.3).

As reported to the survey, 5.9% of full-time archaeologists earned less than the PIFA minimum.

Earnings by organisational structure

As Table 67 indicates, the highest paying organisational sector was national government. By contrast, the private sector, which employed the largest workforce, paid least.

Table 67 Earning distribution by organisation basis

	National government or agency	Local government	University	Private sector	Other
Lowest 10% earn less than	£20,578	£15,153	£15,667	£13,900	£15,500
Lower 25% earn less than	£25,840	£17,503	£19,262	£15,000	£17,010
Median	£29,523	£22,166	£23,733	£17,707	£18,903
Upper 25% earn more than	£34,000	£27,594	£30,913	£24,500	£24,316
Highest 10% earn more than	£37,136	£30,667	£38,881	£31,000	£30,000
Average (mean)	£29,694	£23,120	£26,293	£20,916	£21,276
Sample size	331	312	310	1027	256

Earnings by individual role

The functional role of archaeological management was the highest paying of the roles into which archaeologists were categorised, with field investigation and research the lowest paying as can be seen in Table 68. It should be noted, however, that the archaeological management category was not available for respondents to select on the questionnaire. This was added during data entry and analysis for those posts given an 'Admin' role, but with a senior level of responsibility and a post title which strongly implied an archaeological management role. The sample number for this category is very small.

Table 68 Salary distribution by individual role

	Field investigation and research services	Historic environment advice and information services	Museum and visitor / user services	Educational and academic research services	Management
Lowest 10% earn less than	£14,696	£19,470	£14,700	£20,005	£20,792
Lower 25% earn less than	£15,667	£22,833	£18,000	£22,332	£25,389
Median	£18,912	£28,000	£23,636	£30,000	£39,365
Upper 25% earn more than	£24,500	£35,426	£26,122	£36,064	£42,000
Highest 10% earn more than	£30,000	£37,136	£30,667	£47,811	£42,450
Average (mean)	£20,686	£29,553	£23,232	£30,865	£35,082
Sample size	1576	334	77	163	38

Earnings by geographical area

Table 69 presents average salaries as reported to the survey for the regions of the UK. The figures are based on the location of the single address from which organisations responded, and do not take account of staff based in more than one area.

Table 69 Earnings by geographical area

	Full time archaeologists average	All UK workers average*	Archaeologists' pay as % of all workers	Sample
English region				
East of England	£21,494	£29,200	74%	102
East Midlands	£20,706	£26,306	79%	172
London	£24,747	£45,274	55%	424
North East	£19,481	£24,318	80%	50
North West	£22,473	£27,297	82%	13
South East	£21,150	£31,462	67%	437
South West	£24,121	£27,046	89%	326
West Midlands	£21,948	£26,557	83%	140
Yorkshire & the Humber	£27,409	£26,112	105%	146
Scotland	£22,767	£27,218	84%	273
Wales	£26,363	£24,499	108%	98
Northern Ireland	£29,600	£24,787	119%	55
Channel Islands	-	n/a	-	0
Isle of Man	-	n/a	-	0
Total	£23,310	£29,999	78%	2236

* National Statistics 2007b, table 3.7a full-time employee jobs

Self-employed earnings

Earnings by self-employed archaeologists varied widely, as can be seen from the figures in Table 70. The maximum salary quoted by respondents for full-time self-employed archaeologists was £60,000 per annum, and the minimum was £5,000. It is difficult to explain the very low figures given for full-time self-employed workers, and these affect the mean and median figures for this group. If salaries below £10,000 were omitted from the calculations, the mean would be £22,657, and the median £16,334. On the basis of the figures provided by respondents, self-employed archaeologists are less well paid than full-time archaeologists in employment (although it must be noted that this is working from a very small sample size).

Table 70 Self-employed archaeologists' earnings

	Full-time self-employed	Full-time archaeologists	All full-time UK workers*
Lowest 10% earn less than	£6,000	£14,921	£12,862
Lower 25% earn less than	£7,000	£16,557	£17,040
Median	£14,000	£20,792	£24,002
Upper 25% earn more than	£25,000	£28,000	£33,943
Highest 10% earn more than	£47,500	£35,000	£47,747
Average (mean)	£22,660	£23,310	£29,999
Sample	25	2237	14,759,000

* National Statistics 2007b, table 2.7a full time employee jobs

Support staff earnings

Table 71 summarises earnings of full-time support staff, and compares these with the average full-time salaries for comparable 'administrative and secretarial occupations' and with all UK workers. Support staff working in archaeological organisations earn more than the comparable occupations at the middle and lower end of the scale, but the pattern is reversed at the upper end of the scale. Except for the lowest 10% and lower 25%, earnings are significantly below those of all full-time UK workers.

Table 71 Support staff earnings

	Full-time support staff	UK average 'administrative and secretarial occupations', full-time	All full-time UK workers*
Lowest 10% earn less than	£15,470	£12,410	£12,862
Lower 25% earn less than	£17,500	£14,853	£17,040
Median	£19,714	£18,157	£24,002
Upper 25% earn more than	£20,963	£22,787	£33,943
Highest 10% earn more than	£28,154	£28,615	£47,747
Average (mean)	£20,553	£19,535	£29,999
Sample	69	1,805,000	14,759,000

* National Statistics 2007b, table 2.7a full time employee jobs

Earnings and post profiles

Table 72 summarises annual earnings by post profile (see Appendix 1 below for the full profiles). The figures used exclude part-time employees. Self-employed individuals who identified themselves as working full-time were included, and as 32% of annual earnings provided by this group were below £10,000, this explains the low minimum salaries quoted in several cases.

Directors or Managers earn the highest average and highest maximum salaries, £37,092 and £115,000 respectively. Excavators or Site Assistants earn the lowest average salary, £14,077, and the lowest maximum at £16,221. This profile also earns one of the lowest minimum salaries (£11,045), although a number of lower salaries below £10,000 were recorded for Conservator, Archaeological Scientist, Senior posts, Other support posts, Project Officer and Other posts.

Table 72 Earnings by post profile

Post profile	Minimum salary	Maximum salary	Average salary
Academic Staff	£12,000	£64,826	£36,701
Administrator	£11,938	£32,000	£19,326
Archaeological Assistant	£13,900	£17,000	£14,489
Archaeological Officer	£19,872	£33,291	£25,958
Archaeological Scientist	£6,000	£52,882	£23,174
Archaeologist	£11,999	£43,000	£17,178
Archives Officer	£18,000	£41,046	£23,811
Buildings Archaeologist	£15,153	£31,840	£26,928
Characterisation posts	£19,170	£52,882	£28,859
Computing Officer	£16,858	£46,460	£23,440
Conservation Archaeologist	£18,907	£41,046	£25,701
Conservator	£5,000	£33,536	£19,375
Consultant	£13,000	£49,000	£28,466

Post profile	Minimum salary	Maximum salary	Average salary
County or Regional Archaeologist	£19,431	£43,887	£32,378
Director or Manager	£24,652	£115,000	£37,092
Editor	£16,483	£33,667	£25,378
Education and Outreach posts	£16,000	£46,460	£23,387
Excavator or Site Assistant	£11,045	£16,221	£14,077
Field Officer	£16,536	£27,000	£22,005
Financial posts	£15,885	£55,218	£23,487
Finds Officer	£13,164	£39,365	£20,821
Historic Environment Record Officer	£13,336	£35,852	£23,767
Illustrator	£12,000	£39,365	£19,320
Inspector	£21,000	£62,298	£35,226
Investigator	£24,652	£41,046	£29,733
Junior posts	£13,854	£33,536	£17,057
Museum Archaeologist	£14,000	£53,554	£22,762
Other posts	£9,550	£41,046	£20,335
Other support posts	£7,500	£32,795	£18,283
Photographer	£18,960	£36,000	£25,851
Planning Archaeologist	£15,353	£41,046	£27,885
Project Assistant	£14,492	£21,000	£16,001
Project Manager	£19,500	£45,397	£28,316
Project Officer	£8,000	£30,420	£20,809
Researcher	£14,200	£52,882	£23,660
Rural Advice	£23,749	£38,078	£25,729
Senior Archaeologist	£18,476	£41,046	£25,404
Senior posts	£7,000	£60,000	£34,522
Supervisor	£14,500	£23,000	£17,361
Surveyor	£15,090	£52,882	£24,856
Warden	£19,148	£26,278	£22,713

Earnings in other occupations

Archaeological earnings were compared with other occupations with which archaeologists have professional contact, on the basis of figures produced by National Statistics (2007b, table 2.7a and table 14.7a full time employee jobs). The results are shown in Table 73. The occupation classifications follow those now used by National Statistics (2000) and are different from those quoted in the previous survey (Aitchison and Edwards 2003, table 56). The names of the previous classifications have been included in brackets.

Table 73 earning comparison with other occupations

Occupations ordered by earnings (all FT workers)	Average gross earning*
Managers in construction (previously Managers in building and contracting)	£44,942
Chartered surveyors (not quantity surveyors) (previously Building, land, mining and 'general practice' surveyors)	£44,132
Higher education teaching professionals (previously University and polytechnic teaching professionals)	£42,620
Architects	£40,845
Civil engineers (previously Civil, structural, municipal, mining and quarrying engineers)	£35,618
Teaching and research professionals	£34,166
Town planners	£33,664
Culture, media and sport occupations	£29,728
Draughtspersons	£27,679
Conservation and environmental protection officers	£26,725
Scientific and engineering technicians (previously Scientific technicians)	£26,126
Librarians and related professionals	£25,195
Conservation associate professionals	£25,169
Skilled construction and building trades (previously Construction trades)	£23,400
Archaeologists	£23,310
Road construction operatives (previously Road construction and maintenance workers)	£22,962
Building trades (previously Builders, building contractors)	£21,566
Labourers in building and woodworking trades (previously Other building and civil engineering labourers not elsewhere categorised)	£19,485
(All) professional occupations	£38,840
National average	£29,999

* National Statistics 2007b, table 2.7a and table 14.7a full time employee jobs

Earnings by gender

Table 74 compares salaries by gender, and includes comparative data on UK full-time employees. On average, male archaeologists earn £23,746 per annum and female archaeologists £21,361. This represents a differential of £2,385; on average, female archaeologists earn 90% of the amount male archaeologists earn. For all UK workers the overall average female salary is 71% of the average male salary.

Table 74 Earning distribution by gender

Gender	Archaeologists			All UK employees*	
	Female	Male	All	Female	Male
Lowest 10% earn less than	£14,882	£14,921	£14,921	£11,574	£14,315
Lower 25% earn less than	£16,000	£16,669	£16,557	£14,964	£18,994
Median	£19,661	£21,300	£20,792	£20,476	£26,297
Upper 25% earn more than	£25,000	£28,240	£28,000	£29,415	£37,042
Highest 10% earn more than	£30,806	£35,934	£35,000	£38,354	£53,838
Average (mean)	£21,361	£23,746	£23,310	£24,081	£33,736
Sample	916	1317	2237	5,712,000	9,047,000

* National Statistics 2007b, table 1.7a full time employee jobs

Earnings by age

Table 75 shows earnings by age for full-time archaeologists. The highest average salary was earned by those in their early 50s, after which point average earnings decreased. Those in their early 50s also earned the highest median salary, but the decrease in median earnings was more gradual for those in their 50s. Earnings of the upper 25% continued to increase until archaeologists were in their later 50s. The figures for those in their early 60s are based on a very small sample, so the apparent changes at this point may not be a true reflection of earnings across the archaeological workforce.

Table 75 Earning distribution by age – archaeologists

Age	Lowest 10% earn less than	Lower 25% earn less than	Median	Upper 25% earn more than	Highest 10% earn more than	Average (mean)	Sample
16-19			£16,400			£15,781	6
20-24	£13,863	£14,500	£15,000	£16,500	£17,583	£15,835	227
25-29	£13,900	£15,000	£16,858	£20,117	£22,500	£18,025	445
30-34	£15,000	£16,858	£20,147	£24,500	£30,012	£21,411	393
35-39	£15,000	£18,912	£22,713	£28,010	£35,934	£24,289	329
40-44	£16,669	£19,938	£25,840	£29,791	£36,034	£26,022	266
45-49	£16,669	£20,005	£25,840	£30,913	£39,159	£26,984	253
50-54	£16,409	£20,578	£27,638	£35,000	£44,083	£29,302	167
55-59	£16,000	£20,792	£27,368	£35,852	£40,110	£27,960	104
60-64	£14,696	£16,858	£24,115	£32,407	£43,000	£27,121	41
65+			£14,200			£20,373	5

Weighting allowances

The salaries of 34 posts, held by 90 employees, included weighting allowances. 19 of these posts (32 individuals) are with organisations that undertake 100% of their work in London. 2 further posts (2 individuals) are with organisations that undertake at least 98% of their work in the South-East of England, 1 post (1 individual) is with an organisation that undertakes 100% of its work in the East of England and 2 posts (2 individuals) are with organisations that undertake 100% of their work in Scotland. The weighting amounts included in the salaries were given for 16 of these posts (held by 52 individuals) and ranges from £500 to £2,700, with an average of £2,213.

Salary scales

Salary scales were used by 142 organisations responding to the survey (59% of the sample). These organisations, however, employed 91% of paid staff, as Table 76 shows.

Table 76 Use of salary scales, by organisations and number of staff affected

	Organisations		Paid staff	
	Number	%	Number	%
Yes	142	59%	2494	91%
No	89	37%	197	7%
Don't know	2	1%	2	0%
Not answered	9	4%	37	1%
Total	242	100%	2730	100%

As can be seen from Table 77, of those organisations which indicated that they used salary scales, the majority followed Local Authority scales (33% of all organisations, 59% of those using salary scales). Whilst 12% of organisations use locally defined scales, these affect 1008 individuals, or 37% of all paid staff.

Table 77 Type of salary scale used, by organisations and number of staff affected

Type of scale	Organisations		Paid staff	
	Number	% of all organisations	Number	% of all paid staff
Civil service	7	3%	137	5%
Local authority	79	33%	838	31%
University	23	10%	402	15%
Locally defined	30	12%	1008	37%
Other	4	2%	6	0%
Total	143	59%	2391	88%

Of the respondents who provided additional information about the scales in use, one used the HAY scheme, three used Local Authority scales but locally defined, and one was linked to the Civil Service scale. Other salary scales described included one using voluntary sector nationally agreed scales, one using 'IFA pay scales' and two citing BAJR. One self-employed respondent based their rates on monitoring salary scales in job adverts, and another's day rate was based on the senior lecturer scale.

5.3 Employee rights and benefits

Table 78 summarises responses to questions about employee rights and benefits. The 68 responses relating to 80 self-employed individuals were excluded from these figures, which therefore cover a maximum of 174 organisations and 2585 individuals. Not all organisations responded to the questions. Table 79 presents the same data, but in relation to the numbers of employees affected. The issues raised by these responses are discussed in the paragraphs which follow.

Table 78 Employee rights / benefits, numbers of organisations

	Yes		No		Don't know or not applicable		Total	
	Number	%	Number	%	Number	%	Number	%
20 or more days paid holiday leave per annum	166	97%	1	1%	4	2%	171	100%
Occupational sick pay (paid sickness leave over and above Statutory Sick Pay)	146	85%	12	7%	13	8%	171	100%
Paid maternity leave over and above Statutory Maternity Pay	112	66%	34	20%	24	14%	170	100%

	Yes		No		Don't know or not applicable		Total	
The opportunity to take unpaid maternity leave	132	77%	6	4%	33	19%	171	100%
Paid paternity leave over and above Statutory Paternity Pay	85	51%	36	21%	47	28%	168	100%
The opportunity to take unpaid paternity leave	119	71%	9	5%	40	24%	168	100%
The opportunity to jobshare or use other flexible working arrangements	144	85%	14	8%	12	7%	170	100%
Subsidised accommodation or subsistence allowance	52	31%	93	55%	23	14%	168	100%

Table 79 Employee rights / benefits, all employees

	Yes		No		Don't know or not applicable		Total	
20 or more days paid holiday leave per annum	2626	100%	2	0%	5	0%	2633	100%
Occupational sick pay (paid sickness leave over and above Statutory Sick Pay)	2532	96%	83	3%	18	1%	2633	100%
Paid maternity leave over and above Statutory Maternity Pay	1577	60%	993	38%	60	2%	2630	100%
The opportunity to take unpaid maternity leave	2195	83%	331	13%	107	4%	2633	100%
Paid paternity leave over and above Statutory Paternity Pay	1615	62%	749	29%	224	9%	2588	100%
The opportunity to take unpaid paternity leave	2109	80%	354	13%	164	6%	2627	100%
The opportunity to jobshare or use other flexible working arrangements	2548	97%	31	1%	50	2%	2629	100%
Subsidised accommodation or subsistence allowance	1869	71%	638	24%	120	5%	2627	100%

Legislation and regulations

There have been considerable changes to employee rights and benefits over the ten years since the first archaeological labour market survey in 1997-98. The *Employment Act 2002* introduced new employment legislation designed to help working parents. The *Work and Families Act 2006* aims to establish a balanced package of rights and responsibilities for both employers and employees including measures relating to maternity, paternity and adoption leave, and flexible working. This Act also includes enabling legislation to increase minimum entitlements to paid annual leave. Some of these changes are being introduced progressively, for example the minimum holiday entitlement was increased on 1 October 2007, and will be increased again on 1 April 2009.

IFA recommended minimum salary package

The IFA has established a recommended minimum salary scheme, which all Registered Archaeological Organisations (RAOs) must adhere to, and which is recommended for all archaeological employers. From April 1 2007, the

recommended minimum salaries are based on the assumption of a minimum total employment package which includes the following

1. 6% employer pension contribution subject to any reasonable qualifying period
2. Average 37.5 hour working week
3. Paid annual leave of at least 20 days plus statutory holidays
4. Sick leave allowance of at least one month on full pay subject to any reasonable qualifying period

Any shortfall in the above increases the minimum salary requirement, although betterment of the stated terms does not justify a reduction in basic pay (see <http://www.archaeologists.net/modules/icontent/index.php?page=206>).

Paid holiday

Paid holiday is a right not a benefit, which applies to 'employees' and 'workers' as defined in law¹. The first increase in statutory holiday entitlement for nine years came into force on 1 October 2007 (after the questionnaire census date, but before many questionnaires had been returned). The minimum entitlement up to that time was to four weeks' paid holiday per year (equivalent to 20 days for those working 5 days a week). This entitlement could include bank holidays (8 in Britain, 10 in Northern Ireland). From 1 October 2007 the entitlement is to 4.8 weeks paid holiday (24 days for those working 5 days a week). This can include bank holidays. The entitlement will rise again to 5.6 weeks (28 days) from 1 April 2009, when the legal minimum will match the present IFA recommended minimum paid holiday allowance.

As Table 78 shows, the response of one organisation suggests that it was acting illegally in not providing the statutory minimum of 20 days of paid holiday, and those who completed four questionnaires did not appear to be aware of their responsibilities to their workers and employees under the law.

Occupational sick pay

Sick pay over and above Statutory Sick Pay is a benefit not a right, which twelve organisations are not offering to a total of 83 individuals. As the question sought to establish whether additional sick pay is offered as a benefit or not, the answers did not establish whether the level of sick pay matches the IFA-recommended minimum.

Paid and unpaid maternity leave

Paid maternity leave over and above Statutory Maternity Pay is a benefit not a right, which was offered by 66% of responding organisations (employing 1577 individuals). The IFA-recommended minimum package makes no reference to maternity pay or leave. The period of time for which statutory maternity pay is given rose on 1 April 2007 from 26 to 39 weeks so at the time of the survey, some women on paid maternity leave would have been covered by the former period, and some by the latter.

¹ Employees are those working under a contract of employment, written or verbal, by which the terms and conditions of employment have been agreed. The category of workers is broader than 'employees' and normally excludes those who are self-employed. Most agency workers, short term casual workers and some freelancers are likely to be workers but not employees. http://www.direct.gov.uk/en/Employment/Employees/EmploymentContractsAndConditions/DG_10027916 (accessed 16/04/2008)

There was also a change in the period of statutory maternity leave, which increased to 52 weeks for those whose babies were born after 1 April 2007. For those born before this, the statutory leave period was 26 weeks, with an extra 26 weeks if certain conditions were met. The question asked was not specific about the nature of the unpaid maternity leave referred to, and 77% of organisations said they do give women the opportunity to take unpaid maternity leave.

Both parents of a child also have the right to parental leave, consisting of thirteen weeks off work (in total, not per year) for each child, up to their fifth birthday (or up to five years after the placement date of an adopted child), or eighteen weeks for each disabled child, up to the child's 18th birthday. Parental leave is usually unpaid, is limited to employees, rather than casual or agency staff, and generally requires a year of continuous service for the same employer.

Paid and unpaid paternity leave

Statutory paid paternity leave consists of up to two weeks for employees who meet the relevant criteria. Paid paternity leave over and above Statutory Paternity Pay was offered by 51% of organisations. The IFA-recommended minimum package makes no reference to paternity pay or leave.

There is no statutory period of unpaid paternity leave, but fathers who meet the relevant conditions could take a proportion of their legal allowance of thirteen weeks parental leave (see above) following the birth of a child. 71% of organisations offered fathers the opportunity to take unpaid paternity leave.

Flexible working

'Flexible working' describes any working pattern adapted to suit an employee's needs, such as part-time, flexi-time, annualised hours, compressed hours, staggered hours or job sharing. Whilst anyone may ask their employer for flexible work arrangements, there is a statutory right for employees who are parents or carers and who meet certain conditions to ask for flexible working. Under the law the employer must seriously consider such an application, but is permitted to deny the application if there is a good business reason not to agree.

The opportunity to jobshare or to use other flexible working arrangements was offered as a benefit by 83% of organisations employing 2548 individuals.

Subsistence or subsidised accommodation

Subsidised accommodation or subsistence allowance was offered by 30% of responding organisations employing 1869 individuals. Although this benefit was offered by a minority of responding organisations, it related to 71% of those employed by the organisations who responded.

Other benefits

Sixty-eight respondents listed a range of other benefits, covering 1555 employees. It is highly probably that many respondents did not answer this question or include all the benefits offered to employees.

The additional benefits listed included:

- some or all of IFA and / or other professional subscriptions – 51 organisations
- pensions – 20 organisations
- profit share or bonus – 4
- first aid enhanced pay – 1
- training was considered to be a benefit by 9 organisations; conference attendance by 3, CPD by 3. One organisation pays research degree fees.
- private health care was offered by 6 organisations, in one case only to managers
- free eye tests for VDU users were offered by 3 organisations
- company cars, car schemes or lease cars were offered by 5
- travel loans, in one case a buy bicycle scheme were mentioned by four
- travelling expenses and own car business use mileage were considered benefits by two organisations
- an annual clothing allowance – 1, PPE supplied – 1, diving equipment servicing costs – 1
- additional leave, or the opportunity to buy extra leave were offered by 3
- compassionate leave – 3, allowance for medical appointments in work time – 1
- parental leave for dependents – 1 (but see above as right not benefit)
- child care benefit or salary sacrifice scheme – 2
- relocation expenses – 2
- home working option – 2
- discount on local café costs – 1

Pensions

Respondents were asked whether the organisation contributed to the pension of individuals working in this post. Table 80 summarises responses. The phrasing of the question means that the answers cannot be considered to show organisations' willingness to contribute to pensions, as individuals can and do opt of pension schemes. The proportion of archaeologists receiving organisation contributions towards pensions was lower than that of support staff, at 69% compared with 75% of support staff.

Table 80 Organisations contributing to pensions, number of staff

	Contributes to pension		No contribution to pension		Don't know		Total	
Archaeologists	1705	69%	704	28%	71	3%	2480	100%
Support staff	91	75%	31	25%		0%	122	100%
All staff	1796	69%	735	28%	71	3%	2602	100%

Table 81 compares the types of organisations with contributions to pensions. National government or agency, local government and university based organisations contribute to the pensions of over 85% of the staff employed. Only 46% of private sector organisations do so. Private sector organisations include many of the self-employed respondents to the survey, a lower proportion of whom were making pension contributions.

Table 82 lists the post profiles for which lower than average (less than 69%) proportions of employer pension contributions. Seven of the ten profiles are fieldwork posts. However, six of the ten posts are junior level posts, most likely to be held by younger staff who may potentially have opted out of a pension. Table 83 compares

level of seniority with employer contributions to pensions. A higher proportion of employers contributed to the pensions of those in senior level posts. Of posts with a single level of seniority, employer pension contributions were recorded for 52% of junior posts, 77% of middle-ranking posts, and 85% of senior posts.

Note that the numbers presented in Table 81, Table 82 and Table 83 refer to the number of individuals identified within post profiles.

Table 81 Types of organisations contributing to pensions

	Employer contributes to pension		Employer does not contribute to pension		Not known whether employer contributes to pension		Total	
National government or agency	356	95%	17	5%		0%	373	100%
Local government	366	91%	27	7%	8	2%	401	100%
University	347	88%	36	9%	13	3%	396	100%
Private sector	494	46%	539	50%	48	4%	1081	100%
Other	230	66%	116	33%	2	1%	348	100%
Total	1793	69%	735	28%	71	3%	2599	100%

Table 82 Post profiles with lower than average proportion of employer's contribution to pensions

	Employer contributes to pension		Employer does not contribute to pension		Not known whether employer contributes to pension		Total
Finds Officer	48	68%	22	31%	1	1%	71
Project Officer	154	66%	64	27%	17	7%	235
Buildings Archaeologist	6	60%	4	40%		0%	10
Junior posts	10	59%	7	41%		0%	17
Illustrator	31	46%	32	48%	4	6%	67
Excavator or Site Assistant	19	40%	29	60%		0%	48
Project Assistant	53	36%	83	56%	12	8%	148
Archaeological Assistant	20	32%	42	68%		0%	62
Archaeologist	75	29%	187	71%		0%	262
Supervisor	42	24%	117	66%	19	11%	178

Table 83 Level of seniority of posts and pension contributions

	Employer contributes to pension		Employer does not contribute to pension		Not known whether employer contributes to pension		Total	
Junior	432	52%	389	47%	3	0%	824	100%
Middle	606	77%	128	16%	51	6%	785	100%
Senior	380	85%	65	15%	2	0%	447	100%
Total	1418	69%	582	28%	56	3%	2056	100%

5.4 Job security

Length of contract

The questionnaire asked about length of contract for each member of staff working in each post. Table 84 shows the results for the 2673 individuals for whom information was provided, for all posts and for archaeological posts. Almost three quarters of employees are on permanent or open-ended contracts.

Table 84 Length of contract

	All		Archaeologists	
<3 months	119	4%	119	5%
3-6 months	114	4%	113	4%
6-12 months	219	8%	213	8%
12-24 months	90	3%	89	3%
>24 months	87	3%	87	3%
Permanent/open-ended	1974	74%	1859	73%
Other	70	3%	69	3%
Total	2673	100%	2549	100%

Table 85 shows the numbers and proportions of staff in different roles with their contract lengths. Whilst good majorities in all roles have permanent or open-ended contracts, the lowest proportion – just over two thirds – is found in those working in field investigation and research. This role also has the highest proportion of short contracts, with 23% having contracts of twelve months or less.

Table 85 Length of contract by working role

	Field investigation and research services		Historic environment advice and information services		Museum and visitor / user services		Educational and academic research services		Archaeological management		Support staff	
<3 months	118	7%	0	0%	1	1%	0	0%	0	0%	0	0%
3-6 months	106	6%	1	0%	0	0%	4	2%	2	4%	1	1%
6-12 months	173	10%	15	3%	10	8%	15	8%	0	0%	6	5%
12-24 months	58	3%	6	1%	10	8%	14	7%	1	2%	1	1%
>24 months	47	3%	16	4%	3	3%	19	10%	2	4%	0	0%
Permanent/open-ended	1186	68%	387	90%	95	80%	140	71%	51	91%	115	93%
Other	59	3%	4	1%	0	0%	6	3%	0	0%	1	1%
Total	1747	100%	429	100%	119	100%	198	100%	56	100%	124	100%

In relation to organisational basis, shown in Table 86, national government or agencies are most likely to offer permanent or open-ended contracts (83%), followed closely by private sector organisations (78%).

Table 86 Length of contract by organisation basis, all staff

	National government or agency		Local government		University		Private sector		Other	
<3 months	1	0%	0	0%	29	7%	78	7%	11	3%
3-6 months	3	1%	3	1%	26	7%	38	3%	44	13%
6-12 months	21	5%	43	11%	26	7%	72	6%	56	16%
12-24 months	10	3%	35	9%	35	9%	6	1%	4	1%
>24 months	32	8%	16	4%	37	9%	1	0%	1	0%
Permanent/open-ended	321	83%	295	74%	239	61%	897	78%	220	64%
Other	1	0%	8	2%	1	0%	52	5%	8	2%
Total	389	100%	400	100%	393	100%	1144	100%	344	100%

Length of employment to date

The 2007-08 questionnaire asked for more detail about long term employment than has been asked in the past. The responses indicate a reasonable degree of stability in employment, and can be considered to challenge anecdotal perceptions that all jobs in archaeology are short-term and insecure.

Table 87 shows the length of employment to date for all staff including support staff, and for archaeologists, and Figure 11 shows this graphically for archaeologists. The largest proportion of individuals have worked for the same organisation for between two and five years (25%, or 609 archaeologists). Whilst there are 910 archaeologists (37%) who have worked for an organisation for 24 months or less, 911 archaeologists (37%) have worked for the same organisation for five years or more, including 7% who have worked for the same employer for over 20 years.

Table 87 Length of employment to date

	All staff		Archaeologists	
<3 months	153	6%	149	6%
3-6 months	184	7%	179	7%
6-12 months	235	9%	226	9%
12-24 months	372	15%	356	15%
2-5 years	640	25%	609	25%
5-10 years	405	16%	380	16%
10-20 years	389	15%	361	15%
>20 years	174	7%	170	7%
Total	2552	100%	2430	100%

Figure 11 Archaeologists – length of employment

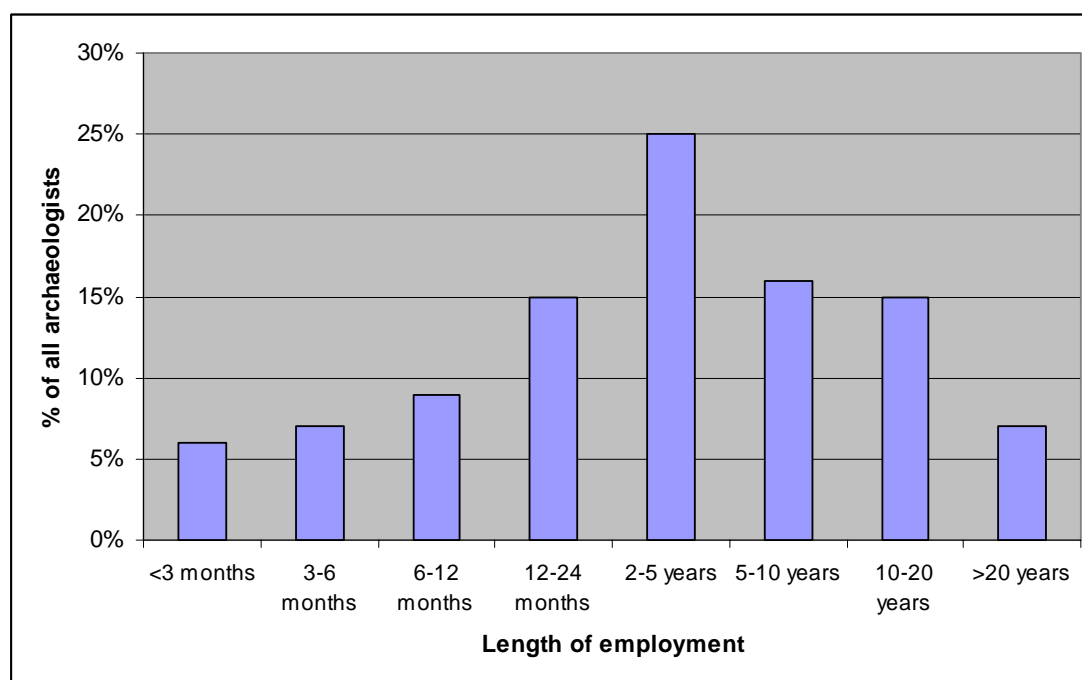


Table 88 shows that both higher numbers and a higher proportion of those whose role is in field investigation and research services have been employed for shorter periods. However, this is not the rule for all in that role, as 546 individuals (32%) have worked for the same organisation for five years or more.

Table 88 Length of employment to date by working role

	Archaeologist: field investigation and research services		Archaeologist: historic environment advice and information services		Archaeologist: museum and visitor / user services		Archaeologist: educational and academic research services		Archaeologist: management		Support staff	
<3 months	137	8%	4	1%	1	1%	4	2%	3	5%	4	3%
3-6 months	147	9%	6	2%	4	3%	21	10%	1	2%	5	4%
6-12 months	164	10%	28	8%	6	5%	27	13%	1	2%	9	7%
12-24 months	275	16%	43	12%	15	13%	20	10%	3	5%	16	13%
2-5 years	414	25%	100	27%	31	27%	53	26%	11	20%	31	25%
5-10 years	229	14%	87	23%	26	22%	27	13%	11	20%	25	20%
10-20 years	221	13%	63	17%	19	16%	41	20%	17	30%	28	23%
>20 years	96	6%	41	11%	14	12%	10	5%	9	16%	4	3%
	1683	100%	372	100%	116	100%	203	100%	56	100%	122	100%

Individuals are most likely to have been employed by the same organisation for over five years for national government or agency employers (53%), or local government employers (55%), as Table 89 indicates.

Table 89 Length of employment to date by organisation basis, all staff

	National government or agency		Local government		University		Private sector		Other	
<3 months	7	3%	6	2%	12	3%	97	8%	31	9%
3-6 months	13	5%	9	2%	24	6%	105	9%	33	10%
6-12 months	13	5%	36	9%	49	12%	116	10%	21	6%
12-24 months	28	11%	57	14%	67	17%	186	16%	33	10%
2-5 years	56	22%	69	17%	95	24%	332	29%	87	25%
5-10 years	38	15%	74	19%	63	16%	174	15%	56	16%
10-20 years	61	24%	89	22%	75	19%	121	10%	42	12%
>20 years	33	13%	57	14%	12	3%	32	3%	40	12%
	249	100%	397	100%	397	100%	1163	100%	343	100%

5.5 Full-time and part-time work

Although at one time the definition of part-time work in UK law was based on the number of hours worked, this is no longer the case. 'Part-time workers are (generally) defined as those whose hours of work are less than the normal hours of work of a comparable full time worker' (Lourie 2000). Since 2000 part-time workers in the UK must not be treated less favourably than their full-time colleagues, in line with the *Part-time Workers (Prevention of Less Favourable Treatment) Regulations 2000*. These regulations and further amendments in 2002 entitle part-time workers to the same hourly rates of pay, the same access to company pension schemes, the same entitlements to annual leave and maternity/parental leave on a pro rata basis, the same entitlement to contractual sick pay and no less favourable treatment in access to training (BERR 2008).

The survey asked whether individuals worked full-time or part-time, using a definition employed by National Statistics up to 2003, whereby full-time was considered to be 30 hours or more per week, and part time less than 30 hours per week (National Statistics 2003, appendix 1). Table 90 summarises the information received for 2674 individuals. The overall proportions for staff working in the sector can be compared to the UK workforce as a whole, of whom 25.8% have a part-time job as their main job (Usher *et al* 2007, 24). Although a higher proportion of support staff (43%) work on a part-time basis compared with the national average, a significantly lower proportion of archaeological staff work part-time (just 11%).

Table 90 Full-time and part-time work, all staff

	Part-time		Full-time		Total	
All archaeological staff	284	11%	2274	89%	2558	100%
Support staff	52	43%	70	57%	122	100%
All staff	331	12%	2343	88%	2674	100%

Full time and part time work by role

The level of part-time work varies considerably by working role, as Table 91 indicates. Relatively few individuals with roles in field investigation and research services work part-time. Of archaeological roles, museums have the highest proportions of part-time staff, and as has been noted earlier, the highest proportion of

female staff at 63% (see section 4.4 above). The highest proportion of part-time working is found amongst support staff.

Table 91 Full-time and part-time work, by role

	Part-time		Full-time		Total	
Archaeologist: field investigation and research services	120	7%	1621	93%	1741	100%
Archaeologist: historic environment advice and information services	69	16%	362	84%	431	100%
Archaeologist: museum and visitor / user services	42	35%	77	65%	119	100%
Archaeologist: educational and academic research services	39	19%	169	81%	208	100%
Archaeologist: management	9	17%	44	83%	53	100%
Subtotal: all archaeological staff	284	11%	2274	89%	2558	100%
Support staff	52	43%	70	57%	122	100%
Total: all staff	331	12%	2343	88%	2674	100%

Full time and part time work by organisation basis

There is some variation in the level of part-time working by organisational sector, with this being most common in local government, as Table 92 indicates, followed closely by universities.

Table 92 Full-time and part-time work, by organisation basis

	Part-time		Full-time		Total	
National government or agency	46	12%	340	88%	386	100%
Local government	79	20%	321	80%	400	100%
University	66	17%	332	83%	398	100%
Private sector	101	9%	1078	91%	1179	100%
Other	39	13%	269	87%	308	100%
Total	331	12%	2340	88%	2671	100%

Full time and part time work by gender

Where posts were filled exclusively by men or women it was possible to extract data comparing gender and full- or part-time work. Table 93 shows the proportions of men and women working part- or full-time for the 608 individuals for whom this question could be asked. It should be noted that these figures cannot be reliably extrapolated to all archaeological employment, and that they are biased towards those posts with relatively few employees.

Table 93 Full-time and part-time work, % by gender, employed only

	Part-time		Full-time		Total	
Female, employed, all staff	101	35%	186	65%	287	100%
Male, employed, all staff	35	11%	286	89%	321	100%
Total where staff either all male or all female	136	22%	472	78%	608	100%
Female, employed, archaeologists only	69	30%	159	70%	228	100%
Male, employed, archaeologists only	29	10%	273	90%	302	100%
Total archaeologists, staff all male or female	98	18%	432	82%	530	100%

Table 94 shows the proportions of part-time staff by gender and full-time staff by gender, excluding the self-employed, both for all staff and just for archaeologists. In the UK labour force as a whole, 80% of part-time workers are female, whilst 61.3% of full-time workers are men (Usher *et al* 2007, 24). The proportions which could be extracted from the survey are relatively close to the UK total figures, although slightly lower in respect of part-time female archaeologists, who make up 70% of the part-time workforce, and slightly higher for full-time male archaeologists, who represent 63% of the full-time archaeological workforce.

Table 94 Full-time and part-time work, by gender, % by full-time and part-time, employed only

	Part-time		Full-time		Total	
Female, employed, all staff	101	74%	186	39%	287	47%
Male, employed, all staff	35	26%	286	61%	321	53%
Total where staff either all male or all female	136	100%	472	100%	608	100%
Female, employed, archaeologists only	69	70%	159	37%	228	43%
Male, employed, archaeologists only	29	30%	273	63%	302	57%
Total archaeologists, staff all male or female	98	100%	432	100%	530	100%

5.6 Self-employment

This section considers self-employment in relation to the jobs undertaken, rather than the demographic profile of this group, which is covered in section 4.6 above.

Sixty-eight questionnaire returns were received, covering 80 self-employed respondents. Part 2 of the questionnaire covering post profiles was complete by 66 respondents covering 70 self-employed individuals (four questionnaires each included two individuals).

Table 95 lists the fourteen post profiles which summarise the 48 different post titles of self-employed archaeologists.

Table 95 Post profiles of self-employed archaeologists

Post profile	Number	%
Archaeological Scientist	4	6%
Archaeologist	3	4%
Buildings Archaeologist	4	6%
Conservator	2	3%
Consultant	12	17%
Director or Manager	12	17%
Education and Outreach posts	2	3%
Finds Officer	5	7%
Illustrator	10	14%
Other posts	8	11%
Project Officer	1	1%
Researcher	2	3%
Senior posts	4	6%
Supervisor	1	1%
Total	70	100%

In relation to their level of seniority, 49 identified themselves as senior, one as middle, and 20 did not respond to the question.

As Table 96 shows, of those who provided data, most classed themselves as archaeologists working in field investigation and research services (64%). Just under one in five worked in historic environment advice and information services, one in ten in education and academic research services, and smaller proportions in museums and other roles. It is interesting that such a high proportion of respondents consider their work to be field investigation and research, despite most of their post profiles relating to advice-giving roles which are often based on secondary analysis of material, rather than being roles that undertake primary research in the field.

Table 96 Post roles of self-employed archaeologists

Role	Number	%
Field investigation and research services	45	64%
Historic environment advice and information services	13	19%
Museum and visitor / user services	4	6%
Educational and academic research services	7	10%
Other	1	1%
Total	70	100%

Table 97 compares the salaries of full-time self-employed archaeologists with those for all archaeologists (see also section 5.2). The average and median salaries for self-employed archaeologists were both lower than those which also include employed staff. The data provided by respondents for salaries of full-time self-employed archaeologists indicates either that some described themselves as full-time when in fact they worked part-time, or that they are charging very low sums for their services, given that the minimum full-time salary was £5,000.

Table 97 Full-time self-employed salaries

Full-time	Self-employed	All archaeologists
Minimum	£5,000	£5,000
Median	£14,000	£20,792
Average (mean)	£22,660	£23,310
Maximum	£60,000	£115,000

Only fourteen self-employed archaeologists were paying pension contributions (27% of those who responded to this question). This suggests that as many as three quarters of self-employed archaeologists may not be paying pension contributions.

Self-employment seems to suit certain individuals, who remain self-employed for many years. As Table 98 shows, relatively few had been self-employed for only a short while, but 62% had been self-employed for five years or more.

Table 98 Duration of self-employment by job role

	6-12 months		12-24 months		2-5 years		5-10 years		10-20 years		>20 years		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Field investigation and research services	1	3%	3	9%	8	24%	3	9%	11	32%	8	24%	34	100%
Historic environment advice and information services	0	0%	0	0%	5	56%	1	11%	2	22%	1	11%	9	100%

	6-12 months		12-24 months		2-5 years		5-10 years		10-20 years		>20 years		Total	
Museum and visitor / user services	0	0%	1	25%	0	0%	1	25%	0	0%	2	50%	4	100%
Educational and academic research services	1	25%	0	0%	1	25%	1	25%	1	25%	0	0%	4	100%
Archaeological management	0	0%	0	0%	0	0%	1	100%	0	0%	0	0%	1	100%
Total	2	4%	4	8%	14	27%	7	13%	14	27%	11	21%	52	100%

Overall, 52% of self-employed individuals worked part time, and 48% worked full time, as Table 99 shows. There was some variation by different job roles, but as the numbers were relatively small, these may not be representative of a wider population of self-employed archaeologists.

Table 99 Self-employment, full- and part-time employment by job role

	Part-time		Full-time		Total	
Archaeologist: field investigation and research services	19	44%	24	56%	43	100%
Archaeologist: historic environment advice and information services	7	70%	3	30%	10	100%
Archaeologist: museum and visitor / user services	2	50%	2	50%	4	100%
Archaeologist: educational and academic research services	5	83%	1	17%	6	100%
Archaeologist: management	0	-	0	-	0	-
Total	33	52%	30	48%	63	100%

Table 100 compares the proportions of full- and part-time self-employed and employed respondents with their gender. There was no difference between the proportions of males and females choosing full- or part-time employment. One third of part-time and one third of full-time staff were female. This contrasts dramatically with the proportions for employed staff which show that seven out of ten part-time archaeological staff were female (it should be noted that the figures for employed staff were based only a limited number of posts where staff are all male or all female).

Table 100 Self-employment, employment, gender, and full- and part-time employment

	Female		Male		Total	
Full-time self-employed	10	33%	20	67%	30	100%
Part-time self-employed	11	33%	22	67%	33	100%
Total self-employed	21	33%	42	67%	63	100%
Full-time employed archaeologists	159	37%	273	63%	432	100%
Part-time employed archaeologists	69	70%	29	30%	98	100%
Total employed archaeologists	228	43%	302	57%	530	100%

5.7 Sources of funding

The questionnaire asked whether posts were funded from establishment income or from project grants and/or contracting income. Table 101 summarises the response, and includes self-employed individuals. Respondents clearly had different approaches to answering this question. In some private sector organisations all funding appeared to be regarded as project or contracting income, whilst in others it was seen as establishment income.

Table 101 Source of funding for posts

	Establishment income		Project or contracting income		Total	
	No of posts	% of posts	No of posts	% of posts	No of posts	% of posts
Archaeological posts	709	31%	1580	69%	2289	100%
Admin posts	90	74%	32	26%	122	100%
Total	799	33%	1612	67%	2411	100%

Table 102 compares the source of funding for posts with the roles of the individuals in those posts. The highest proportions of establishment-funded posts were in museum and visitor / user services (81%) and in archaeological management posts (82%), whilst the lowest proportion was found amongst archaeologists working in field investigation and research services (15%).

Table 102 Source of funding for posts, by job role

	Establishment income		Project or contracting income		Total	
	No of posts	% of posts	No of posts	% of posts	No of posts	% of posts
Archaeologist: field investigation and research services	230	15%	1331	85%	1561	100%
Archaeologist: historic environment advice and information services	244	64%	135	36%	379	100%
Archaeologist: museum and visitor / user services	73	81%	17	19%	90	100%
Archaeologist: educational and academic research services	119	58%	88	42%	206	100%
Archaeologist: management	44	82%	9	18%	53	100%
Support staff	90	74%	32	26%	122	100%
Total	799	33%	1612	67%	2411	100%

NB figures have been rounded up to the nearest whole individual where posts were part establishment and part project funded.

Table 103 reveals a high rate of project funding amongst all organisation types, with the exception of national government or agency organisations, although even in these 25% of posts were funded from project or contracting income.

Table 103 Source of funding for posts, by organisation basis

	Establishment income		Project or contracting income		Total	
	No of posts	% of posts	No of posts	% of posts	No of posts	% of posts
National government or agency	178	75%	60	25%	238	100%
Local government	173	46%	201	54%	374	100%
University	109	27%	292	73%	401	100%
Private sector	263	25%	793	75%	1056	100%
Other	75	22%	264	78%	339	100%
Total	797	33%	1611	67%	2408	100%

NB figures have been rounded up to the nearest whole individual where posts were part establishment and part project funded.

5.8 Vacancies

The questionnaire asked whether organisations had had difficulties in filling posts. No strict definition was given of what such difficulties might entail, but the example of 'post had to be re-advertised' was provided.

Excluding respondents who answered 'don't know', 692 responses were received. Of these, 59 (9% of those answering either yes or no) said there had been problems in filling that post within the last year.

The largest proportion of difficulties in filling posts was reported in relation to post roles in field investigation and research services, as Table 104 shows. However, this was also the role in which the largest number of individuals worked.

Table 104 Vacancies difficult to fill and job role

Post role	Number of reported difficulties	% of reported difficulties	Total no of individuals in posts
Archaeologist: field investigation and research services	38	64%	1788
Archaeologist: historic environment advice and information services	12	20%	434
Archaeologist: museum and visitor / user services	2	3%	121
Archaeologist: educational and academic research services	5	8%	211
Archaeologist: management	0	0%	57
Support staff	2	3%	122
Total	59	100%	2733

Table 105 compares vacancies which were difficult to fill and the organisation type. The highest proportion of reported difficulties came from the private sector, but private sector organisations also employed the largest number of individuals.

Table 105 Vacancies difficult to fill and organisation type

Organisation type	Number of reported difficulties	% of reported difficulties	Total no of individuals in posts
National government or agency	3	5%	391
Local government	15	26%	404
University	12	21%	403
Private sector	23	40%	1187
Other	5	9%	345
Total	58	100%	2730

Table 106 lists all post profiles for which it was reported that it had been one or more vacancy which had been difficult to fill, together with the average salaries for those vacancies and for the profiles as a whole. Five posts in four profiles (Buildings Archaeologist, Administrator, Director or Manager, and Surveyor) were more than 20% below the average for their profiles, so it is possible that low salaries were part of the reason for these vacancies being difficult to fill.

Table 106 Vacancies difficult to fill and post profiles including salary

Post profile	Number of reported difficulties	Average vacancy salary	Average profile salary	% of role average
Academic Staff	2	£30,000	£36,701	82%
Administrator	1	£14,483	£19,326	75%
Archaeological Officer	1	£22,200	£25,958	86%
Archaeological Scientist	2	£20,323	£23,174	88%
Archaeologist	6	£20,597	£17,178	120%
Buildings Archaeologist	1	£15,508	£26,928	58%
Computing Officer	1	£20,578	£23,440	88%
Consultant	9	£30,542	£28,466	107%
Director or Manager	2	£29,246	£37,092	79%
Education and Outreach posts	2	£21,636	£23,387	93%
Excavator or Site Assistant	1	£14,750	£14,077	105%
Finds Officer	1	£19,517	£20,821	94%
Historic Environment Record Officer	2	£22,381	£23,767	94%
Illustrator	4	£18,127	£19,320	94%
Museum Archaeologist	1	£26,067	£22,762	115%
Other support posts	1	£17,426	£18,283	95%
Planning Archaeologist	3	£26,020	£27,885	93%
Project Assistant	1	£16,500	£16,001	103%
Project Manager	5	£28,795	£28,316	102%
Project Officer	3	£22,427	£20,809	108%
Researcher	2	£20,500	£23,660	87%
Senior Archaeologist	1	£22,500	£25,404	89%
Senior posts	1	£36,912	£34,522	107%
Supervisor	5	£15,981	£17,361	92%
Surveyor	1	£19,479	£24,856	78%

5.9 Trade Unions

The questionnaire did not ask about individual union membership, but asked whether any trade unions were recognised in the workplace.

Trade unions were recognised in 128 archaeological workplaces, 53% of the sample, where 2327 archaeologists and support staff worked (78% of the sample).

Responses to the survey indicated that union recognition was universal in national government agency workplaces as well as those within local government and universities (Table 107). Unison and UCU (Universities and Colleges Union) were particularly well represented within local government and university workplaces. By contrast, unions were only recognised in 55% of private sector archaeological workplaces.

Table 107 Trade union recognition

Is there a trade union recognised in your workplace?	Yes		No	
	Employees	%	Employees	%
National government	406	100%	0	0%
Local government	459	100%	0	0%
Universities	478	100%	0	0%
Private sector	728	55%	595	45%
Other	256	78%	74	22%
Total	2327	78%	669	22%

A total of nine different unions were recognised in archaeologists' workplaces as can be seen in Table 108. Unison was recognised in more workplaces than any other trade union although Prospect was recognised in workplaces where more archaeologists work.

Table 108 Trade unions recognised in archaeological organisations

	Organisations where union is recognised		Employees at those organisations	
	Number	%	Number	%
Prospect	28	16%	1318	44%
Unison	89	51%	749	25%
UCU	24	14%	452	15%
Unite	12	7%	154	5%
Public and Commercial Services Union	3	2%	135	4%
First Division Association	1	1%	115	4%
Northern Ireland Public Service Alliance	1	1%	50	2%
GMB	10	6%	15	0%
National Union of Journalists	1	1%	3	0%
Respondent uncertain or unclear	5	3%	36	1%
Total	174	100%	3027	100%

6 Training

6.1 Introduction

Archaeological training has long been an area of considerable concern for the archaeological profession, partly because, unlike most other professions, there is no overall skills mix that is 'typical' for an individual archaeologist (Carter & Robertson 2002b). There is no common or core group of competencies that could be said to be essential for everyone entering the profession. Archaeologists working in different parts of the sector have very different roles and often perform only a few activities in common (ATF 2003).

Historically and until the late 1990s at least, a number of factors were militating against the successful provision of training in archaeology: an underdeveloped professional career structure, a lack of formal training, inadequate documentation of the skills required to practice in a given role, insufficient value being placed on training and insufficient resources being afforded to it (Bishop, Collis and Hinton 1999; Aitchison 2002).

Subsequently, the archaeological profession has attempted to address these training issues. On a strategic level, this has been led by the Archaeology Training Forum (ATF), 'a UK-wide delegate body which represents organisations which have an interest in the issues of training and career development within archaeology' (<http://www.britarch.ac.uk/training/atf.html>). The ATF-endorsed initiatives to identify training needs have included supporting this and the two previous UK archaeological labour market intelligence reviews. The ATF's forward plans are currently guided by *A Vision for Training and Career Development in Archaeology* (Aitchison 2008b), and much of this part of the report is drawn from that report (sometimes verbatim).

Frameworks for training

National Occupational Standards

The National Occupational Standards (NOS) in Archaeological Practice are benchmarks of performance, setting out what skilled practitioners need to be able to do in order to demonstrate their competence in undertaking particular tasks in the archaeological workplace. These skills encompass both technical, archaeological skills and the other, generic, workplace skills that are needed by archaeologists in their work.

They were prepared in 2002 (Carter & Robertson 2002a) and formally accepted by QCA (Qualifications and Curriculum Authority), SQA (Scottish Qualifications Authority) and ACCAC (now part of Welsh Assembly Government Department of Education and Skills) in 2003. They were restructured (although their content was not changed) by CCSkills in 2006, in consultation with IFA and the ATF, to form Areas of Competence (AOC), creating a common architecture for NOS in Archaeological Practice and Cultural Heritage. This has also allowed for the creation of Joint AOC between the two areas, reducing duplication in the process.

The NOS have subsequently become the bedrock of all training initiatives developed by the ATF. They are accessible from TORC at <http://www.torc.org.uk/nos/index.asp>.

National Vocational Qualifications

National Vocational Qualifications (NVQs) are vocational qualifications developed from National Occupational Standards, units of competence based on typical job responsibilities within an industry. They differ from traditional qualifications in that there are no formal entry requirements, learners are assessed primarily 'on-the-job' rather than by examinations, they take previous experience and learning into account, can be undertaken at the learner's own pace and can be gained in a variety of ways.

The NVQ in Archaeological Practice has been developed as a practice qualification by the Archaeology Training Forum and was launched in April 2007. It is currently offered at Levels 3 and 4, with Level 5 still under development (for details of the Levels on the National Qualifications Framework and a comparison with Higher Education awards on The Framework for Higher Education Qualifications, see Appendix 5 below). The awarding body for the qualification is Education Development International (EDI) who oversee a network of assessment centres offering the qualification. By agreement with the Scottish Qualifications Authority, there will be no separate SVQ in Scotland and the NVQ will be accepted across the entire UK.

The Qualification in Archaeological Practice consists of compulsory core units (covering research, health and safety and personal development) and a range of options for the candidate to choose from. Assessment takes place mainly in the workplace; prior learning can be accredited through submission of work completed prior to registration and there is no upper time limit for completion (Geary 2007a).

Each candidate is allocated an assessor who will guide them through the process of gathering evidence in support of the qualification. Assessors must be occupationally competent in the areas they are assessing – this means they will have worked in the area they are assessing for at least two years within the last five. Assessors must have, or be working towards, the 'A1' assessors' qualification. This qualification is offered by EDI and numerous other awarding bodies and is assessed in the same way as an NVQ, whereby the assessor is assessed as they work with their own NVQ candidates. All the assessment work of trainee assessors is checked and overseen by the awarding body (Geary 2007b).

There is a high level of enthusiasm for these qualifications, both from individual practitioners and from employers. 66% of employers said they would give 'considerable' or 'very considerable' support to staff in working towards vocational qualifications (Aitchison & Edwards 2003, 59). It will also create opportunities for the avocational sector: 'For amateur archaeologists, it will enable the accreditation of skills against exactly the same framework as those working in archaeology' (Heyworth 2007, 64-65).

Skills gaps and shortages

This report makes frequent references to skills 'gaps' and 'shortages'. A skills gap in an organisation can be filled by training an existing employee. A skills shortage in an organisation would require recruitment of a specialist employee or consultant. For some specialisms this is standard practice, but in other areas a skills shortage may affect a whole sector.

Training demand

Archaeological employers have the most straightforward demand for archaeological training as they need to have appropriately skilled and competent staff in order to

function effectively and competitively. Within the sector, employers do have a strong commitment to training as a principle. As noted below (section 6.2), 93% of organisations responded to the present survey that they identified training needs for individuals, 76% identified training needs for the organisation as a whole, 70% had a training budget, and 65% of organisations identified that the training budget was under their own control.

There is an ongoing level of disconnect between the expectations of archaeological employers, employees, training providers and students of archaeology in terms of the objectives of training and its outcomes.

Many employers believe that current undergraduate and postgraduate degree courses fall short of preparing graduates to work in archaeology and that students not only lack practical field experience and technical expertise, but also the conceptual, analytical and interpretative skills required by employers. Archaeology lecturers by contrast generally believe that the curriculum should deliver knowledge about the past and how it has been interpreted, within a sound theoretical and methodological framework, grounded in practical experience where possible. Whilst only a small proportion of archaeology students will continue in archaeology as employees or research students, all students at least expect their degree to enhance their generic employment prospects. Individuals working in archaeology want their working abilities and knowledge to be updated and supported through training experiences that are ideally funded by their employers or external agencies (after Aitchison and Giles 2006, 2).

Individual archaeologists seek training opportunities in order to further their career opportunities, and this is normally structured (sometimes informally) through the mechanisms of Continuing Professional Development (CPD), the process by which individual professionals develop and maintain their skills throughout their working lives.

The IFA has a policy that requires members to undertake and self-monitor their own Continuing Professional Development, whereby members are advised to undertake 50 hours of relevant professional development over a rolling two-year period. This is expected to become a compulsory requirement for members of the Institute by 2009 (Aitchison and White 2008).

Individuals' CPD requirements lead to demand for appropriate and relevant training in order for them to demonstrate that they are maintaining or updating their skills.

Training delivery

The principal deliverers of teaching and training in archaeological academic knowledge are higher education institutions.

Undergraduate degrees will typically deliver academic knowledge about human life in the past, a range of generic, transferable skills related to research and independent working, and a limited range of archaeologically specific technical skills. The content of courses varies considerably. 'Particular degree programmes will be located at different points within a triangle drawn between the complementary archaeologies of the humanities, sciences and professional practice' (QAA 2007, 2.18).

Taught postgraduate courses (Masters level) will often – but not always – focus on particular aspects of life in the past or of archaeological practice. Such courses can deliver much more detailed technical skills.

In addition to academic undergraduate and postgraduate degrees, in 2007-08 two providers – Bournemouth University and the University of Plymouth – were delivering Foundation degrees in archaeology. Foundation degrees are two-year courses, deliberately designed with employer engagement to provide students with skills-rich experiences.

The employability of graduates is increasingly important to higher education institutions; the QAA benchmark statement for archaeology sets out that:

The broad-based nature of the subject and of the skills it gives graduates provide a strong grounding for a wide range of career paths: the archaeology graduate is extremely well equipped with transferable skills from the mix of humanities and science training, engagement with theory and practice, and individual and team-based learning, together with the intellectual curiosity to continue learning, and the skills to benefit from challenging work environments (QAA 2007, 1.9).

A small number of short (one-day, two-day or week-long) technical, skills-based courses are also delivered through university archaeology departments and departments of continuing education. These formal, off-job learning experiences are often marketed towards practitioners as contributing towards their Continuing Professional Development. In addition to these courses, a significant, but diminishing, number of weekly (evening) courses are delivered by university continuing education or lifelong learning departments. Such courses are almost universally focussed on academic knowledge rather than skills.

Non-university training courses

The ATF's Training Online Resource Centre website (www.torc.org.uk) listed 1751 (June 2007) organisations and groups involved in archaeology in the UK; not all of these are providers of archaeological training opportunities.

Creative and Cultural Skills' analysis of the LearnDirect database of 900,000 UK lifelong learning courses considered that there are 328 providers of courses in archaeology, delivering a total of 2598 different courses (although it is noted that there might be a level of double counting inadvertently included in these figures) (CCSkills 2006, 240). The overwhelming majority of these courses are knowledge-based and do not aim to deliver skills or competences.

Many learned societies, specialist associations and professional associations including the IFA run annual conferences (delivering and updating knowledge); some of the IFA's special interest groups also deliver targeted skills-based day courses. As well as funding and facilitating training, some of the National Heritage Agencies are also able to deliver skills-based training directly.

Some practical fieldwork training is delivered through training excavations run outside the university sector, and there is also a small amount of archaeologically-specific training that is supplied by private sector providers.

Workplace learning and apprenticeships

There are two principal means by which learning can be delivered in the workplace; informally, through mentoring (see section 6.2), or in a formal, structured way, through apprenticeships

- Mentoring is a system whereby a more experienced employee works with a new or less experienced colleague, sharing their knowledge or expertise and offering support. Stephenson (2004) sets out a structured framework for implementing coach-mentoring in a fieldwork context
- Apprenticeships place a learner in the workplace, where they have a structured experience of learning skills on-the-job

A system of apprenticeships was identified as the preferred method for archaeological specialists to pass on their skills (Aitchison 2000); specialists are often working alone or with minimal support, and so find it difficult to invest in the training of other staff. Supported apprenticeships may be the best means for this expertise to be passed on to new specialists.

Presently, IFA is running two linked schemes, Workplace Learning Bursaries and EPPIC (English Heritage Professional Placements in Conservation), funded by HLF and English Heritage respectively, whereby an archaeologist at an early stage in their career's salary is paid in return for a host organisation providing a structured learning work-placement of six months to one year. While these cannot technically be called apprenticeships, they are effectively a model whereby the bursary holder is in all effect working as an apprentice. The participant's work plan is built around the NOS in Archaeological Practice and learning experiences can produce evidence that can be used towards the NVQ in Archaeological Practice (Geary 2006, Geary 2008).

This scheme is proving to be extremely successful, both with individual participants and with their host organisations. By training these people, the sector as a whole is benefiting as capacity is being built.

6.2 Employers' commitment to qualifications and training

Organisations' attitudes towards training

Questionnaire respondents were asked a range of questions relating to their attitudes towards training, whether they had a training budget, and the extent to which training was carried out systematically or on an *ad hoc* basis.

As Table 109 shows, the survey revealed a very high general commitment to training in responding organisations. Almost 93% of organisations employing 98% of archaeologists identified training needs for individuals, and 90% of organisations employing 98% of archaeologists provided training for paid staff.

Implementation of the high level of commitment could be better planned by some. Whilst over half of the organisations responding had a training plan, these organisations employed nearly three quarters of all individuals reported to the survey.

Organisations showed less evidence of a reflective approach to training. Just under half formally evaluated the impact of training on individuals, and less than a third evaluated the impact on the organisation (compared with the three quarters which identified needs for the organisation as a whole).

Performance appraisal schemes were operated by 129 organisations (60%), but in most cases this did not affect pay, as performance-related pay was identified for just 164 posts (21%) in 38 organisations (17%).

Whilst 82% of organisations answering the question responded positively about CPD, these organisations represented fewer than three-quarters of all those responding to the survey (73%), although employing 88% of archaeologists. There may be confusion between CPD and workplace performance review or appraisal, and a belief may be held by some individuals and employers that CPD is the same as workplace training.

Table 109 Organisations' attitudes towards training, number of organisations and % of those responding, number of individuals and % of all employees

		Yes		No		Don't know		Responses
Do you identify training needs for individuals?	Organisations	203	93%	15	7%	1	0%	219
	Individuals	2617	98%	25	1%	1	0%	
Do you identify training needs for the organisation as a whole?	Organisations	158	76%	41	20%	8	4%	207
	Individuals	2318	87%	279	10%	30	1%	
Do you provide training or other development opportunities for paid staff?	Organisations	191	90%	19	9%	3	1%	213
	Individuals	2605	98%	28	1%	3	0%	
Do you provide training or other development opportunities for unpaid staff?	Organisations	76	52%	57	39%	12	8%	145
	Individuals (unpaid)	505	99%	2	<1%	0	0%	
Does your organisation have a formal training plan?	Organisations	110	52%	94	44%	8	4%	212
	Individuals	1902	71%	609	23%	75	3%	
Does your organisation have a training budget?	Organisations	150	70%	61	28%	4	2%	215
	Individuals	2236	84%	364	14%	36	1%	
Is your training budget under your organisation's direct control?	Organisations	125	65%	58	30%	9	5%	192
	Individuals	2121	80%	237	9%	194	7%	
Do you record how much time employees spend training?	Organisations	143	68%	59	28%	8	4%	210
	Individuals	2283	86%	286	11%	61	2%	
Do you formally evaluate the impact of training on individuals?	Organisations	103	48%	101	47%	9	4%	213
	Individuals	1213	46%	1369	51%	52	2%	
Do you formally evaluate the impact of training on the organisation?	Organisations	58	28%	128	61%	24	11%	210
	Individuals	591	22%	1889	71%	150	6%	
Does your organisation operate a performance appraisal scheme?	Organisations	129	60%	77	36%	8	4%	214
	Individuals	2108	79%	456	17%	70	3%	
Does your organisation encourage individuals to engage in continuing professional development (CPD)?	Organisations	177	82%	31	14%	7	3%	215
	Individuals	2344	88%	220	8%	72	3%	

Preferred methods of training

The questionnaire asked how staff were developed. Table 110 identifies that the most popular training methods for paid staff were formal training courses, most frequently in the form of external formal training, although nearly two thirds of responding organisations used in-house formal training.

Table 110 Preferred methods of training for paid staff

	Number	%
Formal off-job training (eg outside training course)	173	71%
Formal in-job training (eg in-house training course)	158	65%
Informal off-job training (eg supported individual research and learning)	134	55%
Informal in-job training (eg mentoring)	133	55%

The questionnaire also asked about training for unpaid staff, and responses are summarised in Table 111. By contrast with paid staff, the most popular training methods for unpaid staff were in-house, and a preference for informal training was expressed.

Table 111 Preferred methods of training for unpaid staff

	Number	%
Formal off-job training (eg outside training course)	22	9%
Formal in-job training (eg in-house training course)	42	17%
Informal off-job training (eg supported individual research and learning)	32	13%
Informal in-job training (eg mentoring)	44	18%

6.3 Vocational qualifications

Four out of five respondents were aware of vocational qualifications as can be seen from responses shown in Table 112. The work-based NVQ in Archaeological Practice was launched in April 2007 (Geary 2007a), with qualifications available at Levels 3 and 4 (see section 6.1). The response is encouraging, but clearly more publicity of the qualification is needed within the profession. Table 113 indicates organisations' willingness to give support to staff working towards vocational qualifications. There was an encouraging response, but the proportions of those prepared to give little or very little support to staff would make it difficult for individuals to undertake the qualification in those workplaces.

Table 112 Awareness of vocational qualifications

	Yes	No	Not sure	Total
Are you aware of vocational qualifications in archaeological practice?	177 81%	25 11%	17 8%	219 100%

Table 113 Support for staff undertaking vocational qualifications

	Very little	Little	Considerable amount	Very considerable amount	Total
How much support would you give staff to work towards such qualifications?	23 14%	25 16%	93 58%	20 12%	161 100%

6.4 Skills gaps and shortages – summary

Skills lacked by new entrants to the profession and by existing staff could indicate either skills gaps where training is needed, or skills shortages where there is an overall lack of appropriate skills in an organisation or across a profession as a whole.

Sections 6.5, 6.6 and 6.7 below provide a detailed account of respondents' views regarding

- skills lacked by new entrants to the profession or by existing staff
- training provided by organisations in the last 12-18 months or planned for the following 12-18 months, and
- services which organisations have bought in over the same period or have had difficulty with buying in.

Archaeological skills

Intrusive investigation

Skills relating to intrusive investigation (ie archaeological fieldwork such as evaluation or excavation) included both conducting investigations and contributing to investigations, in line with the NOS. Unsurprisingly, a significant number of respondents reported that new entrants lacked the skill of conducting, ie leading or directing intrusive investigations, compared with existing staff. Some training had been undertaken and was planned both in conducting and contributing to such investigations. It was reported that conducting intrusive investigations was relatively frequently bought in, but that contributing to investigations was only sometimes bought in. This is likely to be the result of phrasing all the questions in the same way, as in most cases one would expect the entire intrusive investigation to have been bought in form a sub-contracting organisation which would supply all relevant staff.

- The survey did not identify any overall skills gaps or shortages in conducting or contributing to intrusive investigations.

Survey and interpretation of historic buildings

Skills relating to the survey and interpretation of historic buildings also included both conducting and contributing to this area of work. Respondents reported that conducting survey and interpretation of historic buildings was the most lacked skill by both new entrants (again unsurprisingly), but also, more significantly amongst existing staff. New entrants frequently lacked the skills involved in contributing to survey and interpretation of historic buildings, and to some extent existing staff also lacked these skills. A considerable amount of training had been undertaken and was planned both at the level of conducting and contributing to this area of work. It was reported that conducting survey and interpretation of historic buildings was relatively frequently bought in, but that contributing to this work was relatively infrequently bought in. As with intrusive investigation, the wording of the question is likely to have led to some confusion here, as again, the whole task of conducting and contributing to the survey and interpretation of a building is likely to be subcontracted together. Respondents reported that it was difficult to buy in services of conducting survey and interpretation of historic buildings.

- The survey identified a **potential general skills shortage in conducting and contributing to the survey and interpretation of historic buildings.**

Non-intrusive investigations – geophysical survey

Skills relating to geophysical survey included both conducting this specific type of non-intrusive investigation and contributing as team members. Respondents reported that there was a scarcity of skills in conducting geophysical surveys for both new entrants and existing staff. To some extent both new entrants and existing staff lacked skills in contributing to geophysical surveys. The lowest amount of training had been undertaken or was planned in conducting geophysical surveys, and only a small amount of training had been undertaken in contributing to such work. Here too, the wording of the question is likely to have led to some confusion, as the whole task of conducting and contributing to geophysical survey is likely to be subcontracted together. Conducting geophysical survey was the service most frequently bought in, and respondents found it relatively easy to buy in.

- The survey identified a skills shortage in geophysical survey which was managed appropriately in the profession by specialist providers of this service.

Other non-intrusive investigation

Skills relating to both conducting and contributing to other non-intrusive investigations were reported as slightly lacking amongst new entrants to the profession, whilst existing staff were generally competent in both areas. A small amount of training had been undertaken in both conducting and contributing to other non-intrusive investigations, and less training was planned for the following 12-18 months. Here too, the wording of the question is likely to have led to some confusion, as the whole task of conducting and contributing to non-intrusive investigation is likely to be subcontracted together. Conducting non-intrusive investigation was relatively frequently bought in, and respondents found it relatively easy to buy in.

- The survey did not identify any skills gaps or shortages in conducting or contributing to other non-intrusive investigation.

Desk-based historic environment research including desk-based assessment

Skills relating to desk-based research and assessment were significantly lacking amongst new entrants to the profession, but existing staff were reported to have obtained these skills. A high amount of training had been undertaken and slightly less was planned for the subsequent 12-18 months. Desk-based research and assessment skills were reported to be bought in fairly frequently and were relatively easy to buy in.

- The survey identified a skills gap in desk-based research and assessment amongst new entrants which would appear to be being well-managed by the provision of training. There were some indications that in some organisations this might be a skills shortage, but no difficulties with procurement were identified,

Creating, managing and maintaining Historic Environment Records

Skills relating to the work of creating, managing and maintaining HERs were lacking to some extent amongst both new entrants and existing staff. Some degree of training had been undertaken and more was planned for the following 12-18 months. This was not reported to be an area where services were frequently bought in, but where they were, no particular difficulties with supply were noted.

- The survey identified that any skills gaps in creating, managing and maintaining HERs are being successfully managed by training.

Historic environment characterisation

Respondents reported that skills in historic environment characterisation were lacking to a significant degree both amongst new entrants to the profession and existing staff. A relatively high amount of training had been undertaken and slightly less was planned. This was not reported to be an area where services were frequently bought in, and no particular problems with supply were noted.

- The survey identified that any skills gaps in historic environment characterisation are being successfully managed by training in this relatively new specialism.

Providing information and advice on the conservation and management of the historic environment

Skills in providing conservation and management information and advice were lacking to a significant degree amongst new entrants, but to a lesser degree amongst existing staff. A high amount of training had been undertaken and the highest amount was reported to be planned for the subsequent 12-18 months. Some conservation and management information and advice was bought in, and no particular problems with the supply of such advice were noted.

- The survey identified that any skills gaps in providing information and advice on the conservation and management of the historic environment are being successfully managed by training.

Conservation of artefacts or ecofacts

Skills in the conservation of artefacts or ecofacts were lacked to a relatively high degree by both new entrants to the profession and by existing staff. Some degree of training had been undertaken and was planned. This was the third most frequently bought in service, and some reported that it could be difficult to buy in.

- The survey identified a **potential general skills shortage** in the conservation of artefacts or ecofacts. It is possible that this is an area of specialist expertise which is being managed appropriately by specialist providers, but there are indications that organisations are attempting to increase their skills base in this area.

Artefact research

Skills in artefact research were lacked to some extent by new entrants and existing staff. The highest amount of training had been undertaken in this area compared to all other skills, and the second highest amount of training was planned for the next 12-18 months. This was the second most frequently bought in service, and the most difficult to buy in.

- The survey identified a **potential general skills shortage in artefact research**.

Ecofact research

Skills in ecofact research were lacked to some extent by new entrants to the profession, and were the third highest lack amongst existing staff. Little training had been undertaken or was planned for the subsequent 12-18 months. Ecofact research services were relatively frequently bought in and were reported to be the third most difficult service to buy in.

- The survey identified a **potential general skills shortage in ecofact research**.

Non-archaeological skills

Business skills

This area of non-archaeological skills was identified as lacking amongst new entrants and existing staff to a significant degree. Business skills were not reported to have been a particular focus for past or future training. These skills were relatively frequently bought in, but no particular difficulties with supply were noted. Business skills would appear to be a skills shortage managed by purchasing services as required.

Project management

Project management skills were identified as lacking amongst new entrants to a significant degree, but no particular problems were identified in relation to existing staff. These skills had been a focus of training in the past, and this was to continue for the subsequent 12-18 months. Project management services were not noted as frequently being bought in, nor were any difficulties with supply noted. Potential skills gaps in project management appear to be managed successfully by training.

People management

People management skills were identified as lacking amongst new entrants and existing staff to a significant degree. These skills had been a focus of training in the past, and this was to continue for the subsequent 12-18 months. People management services were not noted as frequently being bought in, nor were any difficulties with supply noted. Potential skills gaps in people management appear to be being addressed by training, although this would not appear to have had complete success yet.

Marketing / sales

New entrants and existing staff were reported to lack marketing and sales skills to a significant degree. These skills were not reported to have been a particular focus for past or future training, but were noted to be difficult to buy in.

Leadership

Leadership skills were not reported to be of concern in relation to new entrants or existing staff. Although not a focus for past training, this area had been identified for training in the following 12-18 months. Difficulties with buying in leadership services were noted.

Advocacy / influencing others

Skills in advocacy and influencing others were not reported to be of concern in relation to new entrants to the profession or existing staff. This was not an area where there had been significant training nor was this highlighted for the future. This area of skills had not been bought in very often, nor had there been any particular difficulties in obtaining services.

Customer care

Skills in customer care were not reported to be of concern in relation to new entrants to the profession or existing staff. This was not an area where there had been significant training nor was this highlighted for the future. This area of skills had not been bought in very often, nor had there been any particular difficulties in obtaining services.

Administrative skills

Administrative skills were not reported to be of concern in relation to new entrants to the profession or existing staff. This was not an area where there had been

significant training nor was this highlighted for the future. This area of skills had not been bought in very often, nor had there been any particular difficulties in obtaining services.

Information technology

Skills in information technology were not reported to be of concern in relation to new entrants to the profession, but existing staff lacked IT skills to a significant degree. This area had been a focus of past training, and was highlighted as a priority for training over the following 12-18 months. IT services were frequently bought in, and respondents reported difficulty in buying in these services. IT skills and services could be identified as an area of **potential skills gaps and shortages**.

Non-English language

Skills in languages other than English were not reported to be of concern in relation to new entrants to the profession or existing staff. This was not an area where there had been significant training nor was this highlighted for the future. This area of skills had not been bought in very often, nor had there been any particular difficulties in obtaining services.

Education / training

Skills in education and training were not reported to be of concern in relation to new entrants to the profession or existing staff. This area had been a focus of past training, but was not highlighted for the future. Education and training had been relatively frequently bought in, but no particular difficulties with buying such services were reported.

Report writing

Skills in report writing were noted by respondents in relation to both new entrants and existing staff. New entrants in particular lacked skills in writing good English. Training in report writing had been provided and was planned for the future. Some respondents classed this as an archaeological skill, others as a non-archaeological skill. The frequency with which it occurred as one of the 'other' skills, services or training areas identified indicates a **potential skills gap**.

Health and safety

Respondents noted a significant amount of training in health and safety in the past 12-18 months and planned further training for the future. In this area, any skills gaps were being addressed and managed effectively. Health and safety was an area where services of some sort had been bought in.

6.5 Skills gaps and shortages – new entrants to the profession and existing staff

Archaeological skills gaps and shortages

Table 114 summarises respondents' views on the archaeological skills lacked by new entrants to the profession, listed from the most reported to the least. The four most-reported areas were: conducting survey and interpretation of historic buildings; historic environment characterisation; desk-based historic environment research including desk-based assessment, and providing information and advice on the conservation and management of the historic environment. These areas were

identified by around half of those responding in each case. Of the 'other' skills noted by respondents, four identified report writing as a skill lacked by new entrants.

Some respondents noted that they do not employ new entrants and so were not able to comment.

Table 114 Archaeological skills which new entrants lack, number of responses and % of those reporting one or more lack

Archaeological skills	Number	%
Conducting (leading or directing) survey and interpretation of historic buildings	50	53%
Historic environment characterisation	47	50%
Desk-based historic environment research including desk-based assessment	46	49%
Providing information and advice on the conservation and management of the historic environment	46	49%
Conducting (leading or directing) intrusive investigations (evaluation, excavation)	42	45%
Contributing to survey and interpretation of historic buildings as team members	38	40%
Conservation of artefacts or ecofacts	38	40%
Conducting (leading or directing) non-intrusive investigations (geophysical survey)	36	38%
Artefact research	36	38%
Creating, managing and maintaining Historic Environment Records	34	36%
Ecofact research	32	34%
Contributing to non-intrusive investigations (geophysical survey) as team members	30	32%
Conducting (leading or directing) other non-intrusive investigations	27	29%
Contributing to intrusive investigations (evaluation, excavation) as team members or diggers	25	27%
Contributing to other non-intrusive investigations as team members	22	23%
Other archaeological skills (please specify)	16	17%
Total reporting one or more	94	100%

Other skills which respondents reported that new entrants lacked included the following:

- report writing – 4 respondents
- writing archaeological narrative
- general research skills
- professional context
- basic skills general archaeological excavation skills
- post-excavation – 2 respondents
- interpretation – 2 respondents
- giving talks, interpreting archaeology for audiences – 3 respondents
- appreciation of archaeological illustration as part of archaeology and as a manipulative tool
- archaeological planning management
- communication with developers and technical clients
- education
- collections management

- heritage law and planning – 2 respondents
- investigating historic designed landscapes
- understanding and application of digital and conventional cross-referencing systems / coordination of different types of data – 2 respondents
- archiving

Table 115 summarises responses from 100 organisations about the archaeological skills which their current staff lack, listed from the most reported to the least. The four most-reported areas were conducting survey and interpretation of historic buildings; conducting (leading or directing) non-intrusive investigations (geophysical survey); ecofact research, and historic environment characterisation. These areas were identified by around 40% of those responding in each case. Of the ‘other’ skills noted by respondents, three identified report writing as a skill lacked by existing staff.

Some respondents noted that they only employ staff who have the skills required for the post to which they are appointed.

Table 115 Archaeological skills which existing staff lack, number of responses and % of those reporting one or more lack

Archaeological skills	Number	%
Conducting (leading or directing) survey and interpretation of historic buildings	43	43%
Conducting (leading or directing) non-intrusive investigations (geophysical survey)	39	39%
Ecofact research	39	39%
Historic environment characterisation	36	36%
Conservation of artefacts or ecofacts	35	35%
Conducting (leading or directing) intrusive investigations (evaluation, excavation)	27	27%
Contributing to survey and interpretation of historic buildings as team members	27	27%
Creating, managing and maintaining Historic Environment Records	26	26%
Contributing to non-intrusive investigations (geophysical survey) as team members	25	25%
Providing information and advice on the conservation and management of the historic environment	24	24%
Artefact research	21	21%
Desk-based historic environment research including desk-based assessment	15	15%
Conducting (leading or directing) other non-intrusive investigations	13	13%
Other archaeological skills (please specify)	11	11%
Contributing to intrusive investigations (evaluation, excavation) as team members or diggers	7	7%
Contributing to other non-intrusive investigations as team members	5	5%
Total reporting one or more	100	100%

Other skills which respondents reported that existing staff lacked included the following:

- report writing – 3 respondents
- writing archaeological narrative
- general research skills
- practical skills – report writing style and archiving procedures

- archiving
- post-excavation – 2 respondents
- interpretation
- professional context
- applied knowledge of law and policy
- presentation
- appreciation of archaeological illustration as part of archaeology and as a manipulative tool
- investigating historic designed landscapes
- understanding and application of digital and conventional cross-referencing systems / coordination of different types of data – 2 respondents
- use of Cyrax (3D laser scanning system)

Non-archaeological skills gaps and shortages

Table 116 identifies the non-archaeological skills which respondents considered that new entrants and existing staff lacked, listed from the most reported for new entrants to the least.

The four most-reported areas for new entrants were business skills, project management, people management and marketing / sales. These areas were identified by between 73% and 55% of those responding in each case. Of the 'other' skills noted by respondents, seven identified the ability to write good English, and three identified report writing as a skill lacked by new entrants.

The four most-reported areas for existing staff were business skills, marketing / sales, people management and information technology. These areas were identified by between 60% and 35% of those responding in each case. Of the 'other' skills noted by respondents, three identified the ability to write good English as a skill lacked by existing staff.

Table 116 Non-archaeological skills which new entrants and existing staff lack, number of responses and % of those reporting one or more lack in either case

Non-archaeological skills	New entrants		Existing staff	
	Number	%	Number	%
Business skills	74	73%	67	60%
Project management	63	62%	37	33%
People management	58	57%	40	36%
Marketing / sales	56	55%	52	47%
Leadership	51	50%	33	30%
Advocacy / influencing others	48	48%	33	30%
Customer care	44	44%	20	18%
Administrative skills	38	38%	22	20%
Information technology	33	33%	39	35%
Non-English language	24	24%	33	30%
Education / training	22	22%	15	14%
Other non-archaeological skills (please specify)	19	19%	10	9%
Total reporting one or more	101	100%	111	100%

Other non-archaeological skills which respondents reported that new entrants lacked included the following:

- ability to write good English – 7 respondents
- report writing – 3 respondents
- numeracy
- illustration (CAD etc)
- common sense and teamwork
- contract administration and financial management
- delivering quality presentations
- health and safety
- site investigation (inc geotechnical work) as a whole
- understanding of legal and economic context of work and professional obligations to clients
- legal and contracting inc ICE/IFA contract

Other non-archaeological skills which respondents reported that existing staff lacked included the following:

- ability to write good English – 3 respondents
- report writing
- specialist knowledge / historical background
- delivering quality presentations
- disaster planning
- contract administration and financial management
- legal and contracting inc ICE/IFA contract
- time management

6.6 Skills gaps – training provided or planned for the future

Potential skills gaps, which can be filled by training existing employees, can be inferred from the skills which have been prioritised for training over the last 12 to 18 months, and those which organisations intend to prioritise in the next 12 to 18 months.

Archaeological skills gaps

Table 117 summarises the list of archaeological training which organisations had provided or bought in over the past 12-18 months, and the training which was proposed for the next 12-18 months. The table is ordered from the most-reported area of past training to the least.

The four areas in which most training had been provided were artefact research; desk-based historic environment research including desk-based assessment; providing information and advice on the conservation and management of the historic environment, and conducting survey and interpretation of historic buildings. These areas were reported by between 39% and 30% of those responding in each case. A range of other areas where training has taken place were noted by respondents, and these are listed below the table.

The four areas in which most training was planned were the same, but prioritised differently: providing information and advice on the conservation and management of the historic environment; artefact research; conducting survey and interpretation of

historic buildings, and desk-based historic environment research including desk-based assessment. These areas were reported by between 39% and 28% of respondents. Of the other areas identified for future training topographic survey was specified by four respondents.

The table shows a general correlation between training undertaken and training planned. Where a higher proportion of organisations were planning training for the next 12-18 months, this suggests a potential skills gap.

Table 117 Archaeological training provided or bought in, numbers of responses and % of organisations providing some information in relation to training in each case

Archaeological skills	Past 12-18 months		Next 12-18 months	
	Number	%	Number	%
Artefact research	47	39%	37	36%
Desk-based historic environment research including desk-based assessment	44	36%	29	28%
Providing information and advice on the conservation and management of the historic environment	43	36%	40	39%
Conducting (leading or directing) survey and interpretation of historic buildings	36	30%	32	31%
Historic environment characterisation	33	27%	26	25%
Contributing to survey and interpretation of historic buildings as team members	32	26%	28	27%
Creating, managing and maintaining Historic Environment Records	24	20%	26	25%
Contributing to intrusive investigations (evaluation, excavation) as team members or diggers	23	19%	19	18%
Other archaeological skills (please specify)	23	19%	21	20%
Conservation of artefacts or ecofacts	20	17%	19	18%
Conducting (leading or directing) intrusive investigations (evaluation, excavation)	18	15%	16	16%
Contributing to other non-intrusive investigations as team members	18	15%	12	12%
Conducting (leading or directing) other non-intrusive investigations	17	14%	10	10%
Contributing to non-intrusive investigations (geophysical survey) as team members	14	12%	7	7%
Ecofact research	13	11%	11	11%
Conducting (leading or directing) non-intrusive investigations (geophysical survey)	12	10%	9	9%
Total reporting one or more	121	100%	103	100%

Other archaeological training provided or bought in over the past 12-18 months included the following:

- academic archaeology
- application of scientific techniques
- archaeological archives
- archaeological planning management
- contributing to research frameworks
- cross-referencing digital and conventional systems
- geology; photography
- HE assessment through EIA and SEA
- illustration – 2 respondents

- illustration / reconstruction
- research into archaeological illustration
- interpreting archaeology for audiences
- knowledge of historic buildings
- museum curatorship – 2 respondents
- report writing
- research skills
- sampling strategies, costings, skills audit, report writing, photography, recording
- surveying
- topographic survey
- understanding of specific periods and themes
- web design

Other archaeological training planned for the next 12-18 months included the following:

- academic archaeology
- archaeological planning management
- environmental impact assessment
- geology; photography
- HE assessment through EIA and SEA
- illustration – 2 respondents
- illustration / reconstruction
- research into archaeological illustration
- interpreting archaeology for audiences
- museum related skills – 2 respondents
- report writing
- research skills
- sampling strategies, costings, skills audit, report writing, photography, recording
- soil identification/interpretation
- topographic survey – 4 respondents
- understanding of specific periods and themes

Non-archaeological skills gaps

Table 118 summarises the list of non-archaeological training which organisations had provided or bought in over the past 12-18 months, and the training which was proposed for the next 12-18 months. The table is ordered from the most-reported area of past training to the least.

The four areas in which most training had been provided were information technology, project management, people management and education / training. These areas were reported by between 68% and 36% of those responding in each case. Of the other areas in which past training had been undertaken health and safety was specified by eight respondents and first aid by three.

The four areas in which most training was proposed were similar, consisting of information technology, project management, people management and leadership. These areas were reported by between 62% and 33% of those responding in each case. Of the other areas identified for future training health and safety and first aid were each specified by three respondents.

Table 118 Non-archaeological training provided or bought in, numbers of responses and % of organisations providing some information in relation to training in each case

Non-archaeological skills	Past 12-18 months		Next 12-18 months	
	Number	%	Number	%
Information technology	92	68%	76	62%
Project management	65	48%	47	39%
People management	54	40%	43	35%
Education / training	49	36%	29	24%
Business skills	41	30%	37	30%
Leadership	38	28%	40	33%
Administrative skills	35	26%	23	19%
Customer care	25	19%	23	19%
Advocacy / influencing others	24	18%	28	23%
Other non-archaeological skills (please specify)	24	18%	15	12%
Marketing / sales	17	13%	22	18%
Non-English language	12	9%	9	7%
Total reporting one or more	135	100%	122	100%

Other non-archaeological training provided or bought in over the past 12-18 months included the following:

- first aid – 3 respondents
- health and safety – 8 responses
- defensive driving
- stress management
- financial management
- human resources, recruitment, appraisals – 3 responses
- disaster planning
- exhibition interpretation
- filling in forms
- ICE/IFA contracts if ever run
- internal auditing to ISO 9000
- full run of university courses
- museum based skills
- planning, urban design
- report writing
- training programme for graduates covers all the non-archaeological skills in the first two years of employment
- various covered by RICS CPD programme, mainly relating to planning system and legislation
- volunteer management

Other non-archaeological training planned for the next 12-18 months included the following:

- first aid – 3 respondents
- health and safety – 3 respondents
- disaster planning
- filling in forms
- financial management
- exhibition interpretation
- interpreting archaeology for audiences
- museum based skills
- report writing

- written English
- time management
- various covered by RICS CPD programme, mainly relating to planning system and legislation

6.7 Skills shortages – services bought in and services difficult to buy in

Archaeological skills shortages

A total of 131 organisations had bought in one or more archaeological service over the last 12-18 months. The survey did not enquire about how regularly a service was bought in, but just whether it had been bought in or not. Only 25 organisations reported difficulty with buying a service in. The general correlation with the other proportions illustrated indicates that these services are not altogether unrepresentative of those which might be reported by a larger overall sample of organisations, and that some significance can be inferred.

Table 119 summarises the list of archaeological services which organisations had bought in over the past 12-18 months, and those which they had encountered difficulty in buying in. The table is ordered from the most-reported service bought in to the least.

The four services most frequently bought in were conducting non-intrusive investigations (geophysical survey); artefact research; conservation of artefacts or ecofacts, and conducting intrusive investigations. These areas were reported by between 42% and 33% of those responding in each case. A range of other services bought in were noted by respondents, and these are listed below the table.

The four services most difficult to buy in were artefact research; conducting survey and interpretation of historic buildings; ecofact research, and conservation of artefacts or ecofacts. These areas were reported by between 32% and 16% of those responding in each case. Three other services difficult to buy in were noted by respondents, and these are listed below the table.

Table 119 Archaeological services bought in and services difficult to buy in, number of responses and % of organisations reporting one or more difficulties in each case

Archaeological services	Services bought in		Services difficult to buy in	
	Number	%	Number	%
Conducting (leading or directing) non-intrusive investigations (geophysical survey)	55	42%	2	8%
Artefact research	52	40%	8	32%
Conservation of artefacts or ecofacts	50	38%	4	16%
Conducting (leading or directing) intrusive investigations (evaluation, excavation)	43	33%	4	16%
Conducting (leading or directing) survey and interpretation of historic buildings	43	33%	7	28%
Desk-based historic environment research including desk-based assessment	40	31%	2	8%
Ecofact research	36	27%	6	24%
Conducting (leading or directing) other non-intrusive investigations	30	23%	1	4%
Contributing to intrusive investigations (evaluation, excavation) as team members or diggers	27	21%	4	16%

Archaeological services	Services bought in		Services difficult to buy in	
Contributing to non-intrusive investigations (geophysical survey) as team members	24	18%	3	12%
Providing information and advice on the conservation and management of the historic environment	22	17%	2	8%
Other archaeological services (please specify)	21	16%	2	8%
Contributing to survey and interpretation of historic buildings as team members	17	13%	4	16%
Creating, managing and maintaining Historic Environment Records	15	11%	2	8%
Historic environment characterisation	13	10%	1	4%
Contributing to other non-intrusive investigations as team members	11	8%	1	4%
Total reporting one or more	131	100%	25	100%

Other archaeological services bought in included the following:

- archaeological artwork/reconstructions
- archaeological technical editing
- community outreach
- construction of a research agenda for a particular period/area
- craft demonstrations eg weaving and spinning/re-enaction
- scientific dating – 3 responses, more than 3 dating techniques
- conservation scientist – waterlogged deposits, physical and chemical testing
- environmental analysis
- research / documentary research – 2 responses
- illustration – 3 responses
- digital illustration / CAD – 2 responses
- post-excavation and publication
- dealing with printers for publication
- photogrammetry
- site conservation work – masonry
- special metalwork post-excavation

Other archaeological services which were difficult to buy in included the following:

- HEC for built heritage
- illustration, post-excavation and publication
- some specific finds groups are becoming difficult to get people to do

Non-archaeological skills shortages

Table 120 summarises the list of non-archaeological services which organisations had bought in over the past 12-18 months, and those which they had encountered difficulty in buying in. A total of 77 organisations had bought in non-archaeological services, and just 14 had found it difficult to buy in a service. The table is ordered from the most-reported service bought in to the least.

The four services most frequently bought in were information technology, education / training, other non-archaeological services, and business skills. These areas were reported by between 53% and 14% of those responding in each case. The other

services bought in are listed below the table, and include four references to services relating to health and safety.

The four services which respondents reported the most difficulty in buying in were information technology, marketing / sales, leadership, and other non-archaeological services. These areas were reported by between 36% and 14% of those responding in each case. The other services which respondents found it difficult to buy in are listed below the table.

Table 120 Non-archaeological services bought in and services difficult to buy in, number of responses and % of organisations reporting one or more in each case

Non-archaeological services	Services bought in		Services difficult to buy in	
	Number of responses	% of organisations	Number of responses	% of organisations
Information technology	41	53%	5	36%
Education / training	16	21%		0%
Other non-archaeological services (please specify)	14	18%	2	14%
Business skills	11	14%	1	7%
Administrative skills	10	13%		0%
Marketing / sales	9	12%	4	29%
Advocacy / influencing others	8	10%	1	7%
People management	8	10%	2	14%
Project management	8	10%	1	7%
Non-English language	7	9%		0%
Leadership	4	5%	3	21%
Customer care	4	5%	1	7%
Total reporting one or more	77	100%	14	100%

Other non-archaeological services bought in included the following:

- web-design
- design
- design skills, marine biology, structural engineer, GIS
- engineers to design preservation in situ and safe backfill/reinstatement method and materials
- filming for museum interpretation videos
- first aid
- fundraising
- health and safety – 4 respondents
- risk assessment training
- writing, reconstruction artwork, comic artwork, design, printing, photography, web-design

Other non-archaeological services which were difficult to buy in included the following:

- biology
- landscape architecture, GIS

7 Changes over time

7.1 Introduction

This chapter summarises change over time, identifying trends and comparing results from this survey with those from the previous two comparable surveys, carried out for 1997-98 and 2002-03.

The survey and responses

In 1997-98 a four-page organisation questionnaire and single-page post profile questionnaire were sent out to 1290 addresses. Relevant returns were received from 349 organisations employing 2829 archaeologists in 890 posts with 455 different post titles. These posts were summarised into 34 post profiles. The 441 non-relevant or uncompleted returns included 168 duplicates from different parts of the same organisation, 268 returns from entirely voluntary organisations, and five refusals to provide data.

In 2002-03 a five and a half page organisation questionnaire and two-page post profile were sent out to 992 addresses. Relevant returns were received from 236 organisations employing 2348 archaeologists and support staff in 906 posts with 428 different post titles. These posts were summarised into 38 post profiles. The 88 non-relevant or uncompleted returns included seven not known at the mailing address, 47 duplicates of other organisations which did respond, and 34 which no longer employed archaeologists.

In 2007-08 an eight-page organisation questionnaire was sent out with a three and a half page post profile questionnaire to 1997 addresses. Relevant returns were received from 242 organisations employing 2733 archaeologists and support staff in 808 posts with 519 post titles. These were summarised into 41 post profiles. The 224 non-relevant or uncompleted returns included 74 duplicates from different parts of the same organisation, 32 employing no archaeologists, 71 were not known at the mailing address, 14 were entirely voluntary organisations, and 24 were returned for a variety of other reasons.

Trends The questionnaire has become longer and more complex each time the survey has been carried out. It is likely that this may have influenced the rate of response received. Although many organisations and self-employed individuals have been willing to spend the time required to provide the detailed information requested, some sent partial responses or no data at all because the full questionnaire was deemed to be too time-consuming to complete.

7.2 Organisations

Types of organisations

In 1997-98 respondents were asked to select the relevant organisation type from the options shown in Table 121, which summarises responses.

Table 121 Types of organisations, 1997-98

	Number of responses	% of all responses
Central government	13	4%
Local government	122	35%
University	49	14%
Private (charity / trust / company)	105	30%
Other	60	17%
Total	349	100%

In 2002-03 respondents were offered a matrix from which to select the single option which best described their organisation basis and role. Table 122 summarises responses.

Table 122 Organisation basis and role, 2002-03

	Field investigation and research services		Historic environment advice and information services		Museum and visitor/user services		Educational and academic research services		Total	
National government	2	1%	15	6%	2	1%			19	8%
Local government	6	3%	51	22%	32	14%			89	38%
University	7	3%	1	0%	5	2%	14	6%	27	12%
Commercial organisation	56	24%	14	6%	2	1%	1	0%	73	31%
Other	5	2%	14	6%	4	2%	1	0%	24	10%
Total	76	33%	95	41%	45	19%	16	7%	232	100%

In 2007-08, in response to those who had found it impossible to select a single option in the matrix used in 2002-03, the question was subdivided. Organisations were asked separately about the basis and the different proportions of roles undertaken. Table 123 summarises the basis, and Table 124 presents the overall proportions of roles identified.

Table 123 Organisation basis, 2007-08

Organisation basis	Number of responses	% of responses
National government or agency	13	5%
Local government	76	31%
University	25	10%
Private sector	109	45%
Other	19	8%
Total	242	100%

Table 124 Organisation principal role, 2007-08

Principal role	% of responses
Field investigation and research services	37%
Historic environment advice and information services	27%
Museum and visitor / user services	18%
Educational and academic research services	15%
Other	3%
Total	100%

Trends An increase in response from the private sector can be observed, and a slow decline in responses from universities.

The different ways of categorising organisations deserve comment. Whilst the matrix used in 2002-03 was elegant in its simplicity, and therefore helpful with analysis and estimation, respondents found it to be a poor representation of the reality they perceived. In both 2002-03 and 2007-08 there was inconsistency in how organisations perceived 'historic environment advice and information'. For some this meant all non-field based archaeological work, including post-excavation; for others post-excavation and all tasks working with primary field-derived data would be included in 'field investigation and research', whilst HER and archaeological consultancy would be included in 'historic environment advice and information'. Some consultancies, however, classed their work as 'field investigation and research'.

Registered charities

This question was asked for the first time in 2007-08, so no comparable data can be presented.

Self-employed individuals

In 1997-98 the questionnaire asked about self-employment indirectly by enquiring whether income tax was deducted at source as PAYE for each post. A total of 107 individuals, or 5% of archaeologists, could be thus categorised. Less than half this number of responses were categorised as from 'Independent consultants or specialists'.

In 2002-03 there was no option for respondents to identify themselves as self-employed.

In 2007-08 the questionnaire asked directly whether respondents were self-employed. Sixty-eight respondents selected this option (28% of the 242 received), employing 80 individuals.

Trends As information about self-employment has been collected in different ways in two of the surveys, and not collected at all for 2002-03, no comments on trends can be made.

Estimated numbers of organisations

In 1997-98 responses were categorised into the ten groups shown in Table 125, which summarises the estimated number of organisations in each group and the proportion of the workforce employed in each. Of the ten groups, only 'local government curators' and 'national museums' are directly comparable with the results of the two later surveys.

Table 125 Estimated numbers of organisations, 1997-98

	Estimated total	% of workforce employed
Independent consultants or specialists	123	3%
Archaeological contractors	93	30%
Local government curators	98	14%
Local government others	65	4%
University archaeology departments and research groups	72	15%
National heritage agencies and royal commissions	9	15%
National museums	15	4%
Archaeological societies	12	1%
Other commercial organisations	31	4%
Other organisations	96	10%
Total	614	100%

In 2002-03 respondents were asked to classify their organisation by choosing a single option from the matrix of organisation types and principal roles, as described above and shown in Table 126.

In 2007-08 as described above, respondents identified a single organisation type, and selected proportions for the different roles. The roles of estimated organisations, however, were assigned by the research team using a single option, as for 2002-03. Table 126 shows the estimated numbers of organisations and proportions of the estimated workforce.

Table 126 Estimated numbers of organisations, 2002-03 and 2007-08

		Field investigation & research		Historic environment advice		Museum & visitor services		Education & academic research		Total	
		2002-03	2007-08	2002-03	2007-08	2002-03	2007-08	2002-03	2007-08	2002-03	2007-08
National government or agency	<i>Estimated total</i>	2	2	29	49	17	29	0	6	48	86
	<i>% of workforce</i>	1%	1%	10%	7%	4%	1%	0%	<1%	15%	9%
Local government	<i>Estimated total</i>	22	16	130	189	86	107	0	4	238	316
	<i>% of workforce</i>	9%	4%	11%	11%	2%	2%	0%	<1%	22%	17%
University	<i>Estimated total</i>	20	12	3	10	11	9	67	155	101	186
	<i>% of workforce</i>	5%	5%	<1%	<1%	<1%	<1%	10%	10%	15%	15%
Private Sector	<i>Estimated total</i>	105	205	170	367	13	29	8	19	296	620
	<i>% of workforce</i>	34%	43%	7%	7%	<1%	1%	<1%	<1%	41%	51%
Other	<i>Estimated total</i>	7	7	41	41	38	21	6	76	92	145
	<i>% of workforce</i>	1%	4%	3%	2%	1%	<1%	1%	2%	6%	8%
<i>Estimated Total</i>	<i>Estimated total</i>	156	242	373	656	165	195	81	260	775	1353
	<i>% of workforce</i>	50%	57%	31%	27%	7%	4%	11%	12%	99%	100%

Trends Although the proportions of the workforce have remained consistent between 2002-03 and 2007-08, there is more variation in the estimated numbers of organisations.

Size of organisation

Table 127 summarises the relative sizes of responding organisations for 2002-03 and 2007-08. This information was not presented in the published report for 1997-98.

Trends The proportion of responses from small organisations was a little higher in the present survey, but overall the proportions responding each time were similar. A single organisation with over 250 employees was recorded for 2007-08.

Table 127 Total employees per organisation

Total employees	2002-03		2007-08 (exc self-employed)		2007-08 total	
	1	85	37%	49	29%	111
2-10	88	38%	71	42%	77	32%
11-49	51	22%	40	23%	40	17%
50-99	1	0%	6	4%	6	3%
100-249	6	3%	4	2%	4	2%
>250	0	0%	1	1%	1	0%
Total	236	100%	171	100%	239	100%

Organisation funding

The 2007-08 questionnaire asked respondents what proportion of the organisation's income was generated by work related to development or the planning process. This question had not been asked previously, so no comparable data can be presented.

Geographical location

In 1997-98 the analysis of organisations by geographical location within the UK focussed on the geographical spread of services provided by responding organisations. In 2002-03 a brief account of the number of responding organisations, the estimated total number of organisations and the proportion of the estimated workforce was given. This section has been omitted from the report for 2007-08 in Chapter 3 above. As no comparable data can be presented, there are no trends on which to comment. Note that the estimated numbers of individuals working in each part of the UK (as opposed to the number of organisations based in each country or region) has been analysed in Chapter 4 above and trends over time are presented in Table 131 and Table 132 below.

Quality standards

In 1997-98 the survey did not include any questions relating to quality standards.

In 2002-03 61% of organisations employed a quality system and 34% did not. Ten different quality assurance systems were used by organisations, in addition to some own or local systems. The most widely used was Investors in People (29%), followed by Museum Registration (23%) and 21% were IFA Registered Archaeological

Organisations (RAO). ISO 9000 had been implemented by 11%. In addition to those which had achieved RAO status, a further 6% were working towards Registration, 14% had considered Registration but not yet started working towards this, and 41% had not considered it. Of those organisations which were not yet registered, 25% reported that the benefits were not clear to them, and for 20% IFA Registration seemed irrelevant.

In 2007-08 54% of responding organisations employed at least one quality system and 36% did not. Twelve formal quality systems were cited, in addition to internal quality assurance procedures and individual membership of professional associations. Just under a third of organisations were recognised Investors in People (30%), nearly a fifth were Registered Museums (19%), and over one in six (16%) were IFA Registered Archaeological Organisations. One in ten had implemented one or more ISO standards. In addition to those which had achieved RAO status, 4% were working towards Registration, 12% had considered but had not yet begun working towards Registration and 34% had not considered it. Of those organisations which were not registered, 31% reported that IFA Registration seemed irrelevant, and for 9% the benefits were not clear.

Trends A lower proportion of organisations were using quality standards in 2007-08 than five years ago. It is not clear whether this reflects a real trend or whether more self-employed respondents, to whom formal quality systems may seem irrelevant, may have been included in the present survey. As discussed above (section 3.6), all local authority respondents will be complying with performance indicators relevant to that sector, although only two of 76 respondents mentioned these.

At the time of the 2002-03 survey there was a total of 45 IFA Registered Archaeological Organisations, 42 of which responded to the survey. Five years later there were 59, 39 of which responded to the survey. Over this time, the benefits of registration appear to have become clearer to non-RAO respondents, but a higher proportion considered that IFA Registration was irrelevant in 2007-08 compared with 2002-03.

7.3 Archaeologists

Estimated size of the workforce

In 1997-98 the estimated archaeological workforce amounted to 4425 people working in 614 organisations, an average of 7.2 archaeologists per organisation. A further 367 people were working as dedicated support staff in archaeological organisations, giving an estimated total of 4792 people in Britain who relied on archaeology for their livelihood.

In 2002-03 the estimated archaeological workforce was 5712. This represented a 29% increase on the figure of 4425 estimated in 1997-98, but was considered to include junior fieldworkers on short-term contracts (there was some doubt whether all respondents to the 1997-98 survey included this group). The estimated figure for support staff was 1096, giving an estimated total of 6800 people in the UK who made their living from archaeology. There were an estimated 776 organisations employing archaeologists, with an average of 7.4 archaeologists and 1.4 support staff working for each organisation.

In 2007-08 the estimated archaeological workforce was 6865, a 20% increase on the figure of 5772 estimated for 2002-03 (and a 55% increase over ten years on the estimated archaeological workforce in 1997-98 of 4425). An estimated 866 people were working as dedicated support staff within archaeological organisations, giving a total of 7731 people directly earning from archaeology.

Trends Table 128 summarises the changes in the estimated archaeological workforce since 1997-98 and 2002-03. Whilst the figures for archaeologists have increased steadily, the numbers of support staff appear to have fluctuated more widely. The estimated number of archaeological organisations has increased considerably.

Table 128 Estimated workforce, changes over five and ten years

	1997-98	2002-03	2007-08	% change 1997-98/2002-03	% change 2002-03/2007-08	% change 1997-98/2007-08
Archaeologists	4425	5712	6865	29%	20%	55%
Support staff	367	1096	866	199%	-21%	136%
Total	4792	6800	7731	42%	14%	61%
Organisations	614	776	1353	26%	74%	120%
Archaeologists per organisation	7.21	7.36	5.07	2%	-31%	-30%

Table 129 compares the proportions of the estimated archaeological workforce in 2002-03 and 2007-08 in each of the areas used for comparison in each survey. The estimated proportion of archaeologists working in the private sector has increased over the past five years, the estimated proportion working for national government or agencies has declined, and the estimated proportions working in other sectors have remained roughly stable.

Table 129 Proportions of estimated workforce by organisation basis and role, 2002-03 and 2007-08

		Field investigation & research	Historic environment Advice	Museum & visitor services	Education & academic research	Total
National government or agency	2002-03	1%	10%	4%	none	15%
	2007-08	1%	7%	1%	<1%	9%
Local government	2002-03	9%	11%	2%	none	22%
	2007-08	4%	11%	2%	<1%	17%
University	2002-03	5%	<1%	<1%	10%	16%
	2007-08	5%	<1%	<1%	10%	15%
Private sector	2002-03	34%	7%	<1%	<1%	41%
	2007-08	43%	7%	1%	<1%	51%
Other	2002-03	1%	3%	1%	1%	6%
	2007-08	4%	2%	<1%	2%	8%
Total	2002-03	49%	31%	8%	12%	100%
	2007-08	57%	27%	4%	12%	100%

Growth of the profession

Growth of the profession as reported and anticipated by respondents can be compared for the ten years since 1997-98, and estimates for the next three years were made by respondents to the survey.

Comparing growth, Table 130 shows that while the profession has grown in the last five years it has perhaps not matched the expectations of employers in 2002-03. The predictions for one year ahead of each survey (shown in lighter tone) were typically closer to what was subsequently reported to later surveys than the predictions for three years in the future (shown in darker tone).

Table 130 Anticipated and reported growth of the profession, 1992-2010

	Growth	Stable	Decline	Overall		Response
2010-11	33%	51%	15%	+18%	Anticipated in 07-08	213
2008-09	25%	64%	11%	+14%	Anticipated in 07-08	223
2006-07	24%	63%	13%	+11%	Reported in 07-08	220
2005-06	42%	45%	13%	+29%	Anticipated in 02-03	226
2004-05	36%	44%	20%	+16%	Reported in 07-08	216
2003-04	29%	59%	12%	+17%	Anticipated in 02-03	227
2002-03	41%	36%	23%	+18%	Reported in 07-08	211
2001-02	26%	59%	15%	+11%	Reported in 02-03	218
2000-01	33%	37%	8%	+25%	Anticipated in 97-98	306
1999-00	42%	41%	17%	+25%	Reported in 02-03	217
1998-99	25%	63%	8%	+19%	Anticipated in 97-98	310
1997-98	45%	31%	24%	+21%	Reported in 02-03	216
1995-96	29%	38%	25%	+4%	Reported in 97-98	306
1992-93	33%	28%	26%	+7%	Reported in 97-98	306

Geographical distribution

Table 131 and Table 132 illustrate the change over time of the estimated archaeological workforce, subdivided by region.

Table 131 Geographical distribution of workforce, estimated numbers and change over time, 1997-98, 2002-03 and 2007-08

	1997-98	2002-03		2007-08		
	Archae- ologists estd	Archae- ologists estd	Change on 1997-98	Archae- ologists estd	Change on 2002-03	Change on 1997-98
England (regions):						
East of England	265	364	+54%	505	+39%	+91%
East Midlands	206	339	+31%	500	+47%	+143%
London	820	798	-7%	665	-17%	-19%
North East	234	350	+51%	319	-9%	+36%
North West	209	295	+38%	366	+24%	+75%
South East	687	952	+46%	1091	+15%	+59%
South West	693	934	+34%	934	0%	+35%
West Midlands	259	249	-6%	467	+88%	+80%
Yorkshire and the Humber	357	486	+32%	590	+21%	+65%
Scotland	369	456	+30%	848	+86%	+130%
Wales	234	387	+70%	422	+9%	+80%
Northern Ireland	53	73	+38%	126	+73%	+138%
Channel Islands	6	9	+200%	11	+22%	+83%
Isle of Man	3	20	+300%	20	0%	+567%
Total	4395	5712	+29%	6865	+20%	+56%

Table 132 Geographical distribution of estimated archaeological workforce as proportions of the UK total archaeological workforce, 1997-98, 2002-03 and 2007-08

	% of UK total archaeological workforce		
	1997-98	2002-03	2007-08
England (regions):			
East of England	6%	6%	7%
East Midlands	5%	6%	7%
London	19%	14%	10%
North East	5%	6%	5%
North West	5%	5%	5%
South East	16%	17%	16%
South West	16%	16%	14%
West Midlands	6%	4%	7%
Yorkshire and the Humber	8%	9%	9%
Scotland	8%	8%	12%
Wales	5%	7%	6%
Northern Ireland	1%	1%	2%
Channel Islands	<0.1%	<0.1%	<0.1%
Isle of Man	<0.1%	<0.1%	<0.1%
Total	100%	100%	100%

Diversity

Gender balance

Table 133 Gender balance of archaeologists and UK workforce

		1997-98	2002-03	2007-08
Archaeologists	Female	35%	36%	41%
	Male	65%	64%	59%
UK workforce	Female		45%	46%
	Male		55%	54%

In 1997-98 just over a third of archaeologists (35%) were female and just under two thirds (65%) were male. These figures were representative of all those reported to the survey, as gender information was provided for all but 26 individuals.

In 2002-03 36% of the archaeologists whose gender was recorded in the survey were female, and 64% were male. Gender information was not provided for 218 individuals for whom other details were provided. Many of this group were junior fieldworkers, so it is possible that the overall figures may have been biased by the omission of this group.

In 2007-08 41% of archaeologists were female and 58% were male. Gender information was not provided for 173 individuals for whom other detailed information was given, but this time gender information was provided for the majority of junior fieldworkers.

Trends There was very little change in gender balance between 1997-98 and 2002-03 as Table 133 shows. The subsequent five years saw a 5% increase in female archaeologists between 2002-03 and 2007-08, amounting to a 6% increase in female archaeologists over the 10 years 1997-98 to 2007-08. Even with the increase to 41%

female, women remain underrepresented in the archaeological workforce by comparison with the UK workforce as a whole, and by comparison with the UK population at 51% female and 49% male.

Age range

Table 134 Average age of archaeologists

	1997-98	2002-03	2007-08
All archaeologists	36	38	38
Female archaeologists	34	36	36
Male archaeologists	37	39	39

In 1997-98 nearly 90% of archaeologists were aged between 20 and 50, two thirds were aged 30–50, and 12% were over 50. The overall the average age was 36, the average for female archaeologists was 34 and for male archaeologists 37.

In 2002-03 86% of archaeologists were aged 20-50, 61% were aged 30-50 and 14% were over 50. On the basis of the 10-year age ranges recorded, the average age of professional archaeologists was 38, with the average for female archaeologists being 36 and for male archaeologists 39. The average age of unpaid volunteer archaeologists was 50.

In 2007-08 84% of archaeologists were aged 20-50, 56% were between 30 and 50, and 16% were over 50 years old. The average age of a professional archaeologist was 38; female archaeologists were on average 36, and male archaeologists 39.

Trends The average age of working archaeologists increased by two years between 1997-98 and 2002-03, but has remained the same over the last five years. Nevertheless, overall, the population of professional archaeologists is growing older. The proportion under 50 has been steadily reducing, and is 6% lower now than 10 years ago, whilst the proportion over 50 has increased from 12% to 16% over the last ten years. It is possible that the numbers of younger archaeologists may have been under-represented in 2002-03, as fully detailed information was not given for 218 individuals (around 10% of all paid archaeologists), many of whom were junior fieldworkers. However, as figures for 2007-08 were not subject to this bias, the increasing proportion of archaeologists over 50 is considered to be an accurate representation.

Ethnic diversity

In 1997-98 the survey did not include any questions relating to the ethnicity of individuals.

In 2002-03 99.34% of archaeologists and 99.25% of all staff were white.

In 2007-08 98.99% of archaeologists and 98.88% of all staff were white.

Trends Although the proportions of white archaeologists have changed very little, the proportions of those who are of black or minority ethnicity have almost doubled from 0.56% to 1.01%. This is still very low indeed by comparison with the figure of 7.9% for the UK population in 2001 (National Statistics 2003).

Disability status

Table 135 Disability status of archaeologists 2002-03 and 2007-08

	2002-03		2007-08	
	Not disabled	2353	99.66%	2285
Work limiting disabled only			28	1.21%
DDA disabled only	8	0.34%	5	0.22%
Work limiting and DDA disabled			5	0.22%
Total	2361	100.00%	2323	100.01%

In 1997-98 the survey did not include any questions relating to disability status.

In 2002-03 eight disabled archaeologists were reported to the survey, and two disabled unpaid volunteer staff. The proportion of disabled archaeologists recorded was 0.34%, compared with 19% of all people of working age in employment (Disability Rights Commission 2002).

In 2007-08 the question on disability was more sophisticated, and distinguished between work limiting disabled and Disability Discrimination Act disabled. Although a higher proportion of disabled archaeologists were reported to the survey, it was still much lower than the figures of 19% disabled people in the UK population as a whole, 13% in the UK workforce, and nearly 14% of archaeology students in the survey carried out in 2005 as part of the Inclusive, Accessible Archaeology (IAA) project (Phillips and Gilchrist 2005, table 8). See section 4.4 above for further discussion.

Trends Given the very low numbers reported to the survey in 2002-03 and 2007-08, it is considered that disability has been under-reported in both surveys. The IAA survey of employers was not directly comparable as it did not collect point-in-time data, but the results suggest a higher overall incidence of disability than has been reported here. It is considered likely that hidden disabilities have not been included by all respondents, either in 2002-03 or 2007-08, and that there may not be a clear understanding about what could be considered to be a disability.

Country of origin

This question was asked for the first time in 2007-08, so no comparable data can be presented.

Staff qualifications

Highest qualification achieved

Table 136 Highest qualification achieved, 2002-03 and 2007-08

	2002-03		2007-08					
	All subjects		Archaeology		Other subject		Total	
Post-doctoral qualification	Not asked		6	<1%	3	1%	9	<1%
Doctorate (PhD or DPhil)	202	10%	230	12%	33	8%	263	11%
Postgraduate (Masters)	412	21%	567	30%	105	25%	672	29%
First degree	1131	58%	1051	56%	176	42%	1227	53%
Foundation degree or HND	Not asked		13	1%	26	6%	39	2%
A level, Highers	199	10%	20	1%	41	10%	61	3%
GCSE, Standard Grade			4	<1%	32	8%	36	2%
Total	1944	99%	1891	100%	416	100%	2307	100%

In 1997-98 the survey did not include any questions relating to staff qualifications.

In 2002-03 the survey asked about the highest level of qualification obtained by archaeologists and other staff, but not about the subject of that qualification. Of archaeologists with qualifications, 10% of professional archaeologists were found to have a doctorate as their highest level of academic qualifications and 21% had a Masters degree. A further 58% had a first degree, with 10% having qualifications from secondary education.

In 2007-08 the survey asked about the highest level of qualification obtained in greater detail than before, and also distinguished between qualifications in archaeology and those in other subjects. Of archaeologists with qualifications, 12% had a Doctorate or post-doctoral qualification, 29% had a Masters degree, 53% had a Bachelors degree and 7% had qualifications from secondary education or a foundation degree. It was possible to repeat the analysis to include responses for archaeologists with no qualifications, and these figures have been presented in section 4.5 above.

Trends The data obtained in answer to this question in both surveys have to be used with care. The question asked about qualifications obtained, but did not offer the option of 'none'. As a consequence it is difficult to distinguish between questionnaire returns relating to those with no qualifications and those returns which were not completed fully. The level of detail required for this question caused difficulty for a number of respondents, particularly those with large numbers of staff.

What can be seen from the data collected is that the archaeologists (for whom qualification data was available) have become more highly qualified over the past five years. The proportion with a Doctorate has increased from 10% to 12%, and those with a Masters degree have increased from 21% to 29%. Those with school qualifications only have declined from 10% to 5%.

Highest qualification achieved by country

Data on where qualifications were obtained was requested for the first time in 2007-08, so no comparable data can be presented from the previous surveys.

Highest qualification by age

In 1997-98 the survey did not include any questions relating to staff qualifications, so analysis of qualifications by age was not possible.

In 2002-03 and 2007-08 analysis of qualifications by age had to be limited to restricted sub-sets of data covering individuals in posts either all of the same age group, or all with the same qualifications. Table 137 shows the percentages of each age group of those with qualifications. It is difficult to identify clear trends, given the limited dataset, and the point mentioned in section 4.5 above regarding the impossibility of knowing what proportion of individual post-holders reported to the survey had no qualifications (as opposed to respondents failing to complete the section relating to qualifications).

Table 137 Highest qualification by age, percentage of each age group for each survey, 2002-03 and 2007-08

	Doctorate or higher		Masters		Degree or foundation		School	A level	GCSE
	2002-03	2007-08	2002-03	2007-08	2002-03	2007-08	2002-03	2007-08	2007-08
20s	4%	3%	38%	34%	56%	62%	2%	1%	0%
30s	11%	14%	36%	40%	45%	45%	9%	0%	0%
40s	13%	17%	23%	32%	57%	48%	7%	3%	1%
50s	17%	19%	30%	23%	42%	57%	11%	2%	0%
60s	17%	27%	17%	18%	50%	45%	17%	6%	3%
Total	11%	14%	31%	32%	50%	52%	8%	2%	0%

Average salaries by highest qualification

Table 138 summarises the relationship between salary and highest qualification achieved for 2002-03 and 2007-08. In 1997-98 the survey did not include any questions relating to staff qualifications, so analysis of qualifications and salaries was not possible. It is important to note that this table is based on a relatively small subset of data where all individuals in a post had the same highest level of qualification and where salary data was also provided.

Table 138 Salaries by highest level of qualification achieved, 2002-03 and 2007-08

	Average salary 2002-03	Average salary 2007-08	Increase since 2002-03
Post-doctoral qualification		£38,549	n/a
Doctorate (PhD or DPhil)	£27,222	£30,998	14%
Postgraduate (Masters)	£21,186	£25,608	21%
First degree	£18,835	£22,010	17%
Foundation degree or HND		£22,115	n/a
A level, Highers	£15,132	£18,619	23%
GCSE, Standard Grade		£16,396	n/a
Average for all archaeologists	£19,161	£23,310	22%
Sample size		714	

Trends The average salaries for 2007-08 appear to confirm the impression from 2002-03 that postgraduate qualifications correlate with higher than average salaries. There are no clear patterns in the level of increase in salaries between the two surveys, however. It is possible that this is related to the small sample of data upon which these figures are based, but the difference in questions asked between 2002-03 and 2007-08 may also have influenced this variation.

Self-employed archaeologists

In 1997-98 the questionnaire identified self-employed staff by asking whether income tax for each post was deducted at source as PAYE. The number of archaeologists identified by this means was 107, or 5% of the total reported to the survey. There was little analysis of self-employed archaeologists as a group in the published results.

In the 2002-03 questionnaire there was no specific question to identify self-employed individuals, so no analysis was possible.

In 2002-03 the questionnaire asked specifically whether respondents were self-employed. Returns provided general information about 80 self-employed archaeologists, and more detailed post profile information for 68 individuals. Summaries are included in Chapters 4 and 5 above relating to self-employed archaeologists, but no comparisons with the earlier surveys can be made.

Unpaid volunteer archaeologists

In 1997-98 the questionnaire asked whether the involvement of unpaid or voluntary archaeologists was welcomed. It also asked how many volunteers had been accepted during the previous 12 months. Responses from 236 organisations (68% of the sample) indicated that they welcomed the involvement of unpaid volunteer archaeologists, and 113 (32%) responded that they did not or could not. The number of unpaid archaeologists taken on ranged from 1 to 150. In total, 2,502 volunteers were accepted, representing an average of 11 individuals per organisation that welcomed volunteers. Seven of the organisations accepting volunteers ran fieldwork projects that were specifically aimed at unpaid archaeologists. Organisations most willing to accept volunteers were national museums (100%), local government others (97%), curators (83%) and other organisations (82%), while those least willing were consultants (17%) and other commercial organisations (38%). However, in overall numbers, the bulk of volunteers found work during the previous year at other organisations (29%), curators (20%), contractors (15%), local government others (13%) and universities (11%).

In 2002-03 the questionnaire asked about unpaid or voluntary archaeologists in a different way to the earlier survey. Respondents were asked to include numbers of paid and unpaid archaeologists and support staff on the organisation questionnaire, and they were asked to include unpaid archaeologists in the post profile part of the questionnaire. The assumption was that separate post profiles would be completed for any 'posts' filled entirely by unpaid staff. Responses from 39 organisations (17% of the sample) included a total of 145 unpaid volunteer staff, representing an average of 3.7 individuals per organisation. Unpaid volunteers were included on 25 post profiles which provided more detailed information about 79 individuals (54%), although full details were only included for some of these individuals.

Information about the age and gender of 42 unpaid volunteer workers was received. Overall, 52% of unpaid volunteers were female, 48% were male and the average age of the unpaid volunteers was 52 years. All of the unpaid volunteers for whom information was received on their ethnicity were white. 46% of all unpaid volunteers were educated to degree level or above. Table 139 summarises age and gender for unpaid volunteers for 2002-03 and 2007-08, and indicates that the pattern of age and gender is more variable than an average age would indicate. The highest proportion of unpaid volunteers were in their 60s, but a not insignificant proportion were in their 20s.

Table 139 Age and gender of unpaid volunteers, 2002-03 and 2007-08

	Female		Male		Total	
	2002-03	2007-08	2002-03	2007-08	2002-03	2007-08
16-19	5%	10%	5%	6%	5%	8%
20-24	18%	29%	5%	31%	12%	30%
25-29		5%		0%		3%

	Female		Male		Total	
	2002-03	2007-08	2002-03	2007-08	2002-03	2007-08
30-34	5%	10%	10%	0%	7%	5%
35-39		5%		13%		8%
40-44	14%	0%	10%	0%	12%	0%
45-49		5%		13%		8%
50-54	27%	0%	15%	0%	21%	0%
55-69		0%		6%		3%
60-64	32%	29%	55%	19%	43%	24%
65+		10%		13%		11%
Total	100%	100%	100%	100%	100%	100%
Sample size	22	21	20	16	42	37

In 2007-08 the questionnaire asked about unpaid volunteers in the same way as in 2002-03. Although responses to the first part of the questionnaire acknowledged a total of 110 unpaid archaeologists and 16 unpaid support staff, post profile data was only provided for 41 individuals (33%). Female volunteers made up 57% of the workforce compared with 43% male unpaid volunteers. The average age of unpaid volunteers was 41, but this was not representative of the actual age ranges recorded. As Table 139 shows, despite the average age being in the middle of the distribution, the highest numbers of volunteers are in the 20-24 age band, and the second highest in the 60-64 age band. Over 95% (40 of 42 – a very limited dataset) of the volunteers for whom detailed information was provided were white.

Trends As noted above, the first survey asked different questions about the use of unpaid volunteers alongside professional archaeologists, so the data cannot be compared with later results. Whilst the way the questions were asked in 2002-03 and 2007-08 treated unpaid volunteers in the same way as paid staff, respondents clearly did not treat them in the same way when it came to completing the questionnaire, so the responses cannot be considered to be an accurate reflection of the use of unpaid volunteers by responding organisations.

Support staff

In 1997-98 the question asked about support staff did not distinguish sufficiently clearly between support staff working exclusively to assist archaeologists, and those employed in other support duties in organisations with a wider remit than just archaeology. As a consequence, reliable numbers for support staff in the sector as a whole were not obtained. It was, however, possible to examine the numbers of support staff working for 'archaeological contractors'. The archaeological contracting organisations responding to the survey employed a total of 64 dedicated support staff working for 766 archaeological staff. This ratio of one member of support staff to twelve archaeologists was extrapolated to provide an overall estimate of 376 support staff working for the estimated 4425 archaeologists. No detailed information was sought about the posts held by support staff or the individuals in those posts.

In 2002-03 respondents were asked to complete post profile forms for support staff as for archaeological staff, as well as quantifying support staff on the organisation part of the questionnaire. Respondents identified a total of 401 support staff, and post profile detail was provided in respect of 184 individuals (46%) in 115 posts. The estimated total support staff workforce was 1096. There was an average of 1.4 support staff per organisation, and one member of support staff for every 5.2 archaeologists.

The average age of the 184 individuals was 39, 40 for female support staff and 37 for male. The majority were female (70%). Support staff were almost exclusively white (98%). None of the support staff were considered to be disabled. Average earnings were £15,264 per annum, and median earnings were £15,000. Just under two thirds of support staff worked full-time (63%). A total of 77 support staff were educated to degree level or higher, and 31 either had no qualifications, or no information on their qualifications was provided.

In 2007-08 questionnaire respondents identified 334 support staff, and post profile detail was provided in respect of 122 individuals (37%) in 75 posts. The estimated total support staff workforce was 866. There was an average of 0.6 support staff per organisation, and one member of support staff for every 7.9 archaeologists.

The average age of the 122 individuals was 45 for all support staff and for female support staff, and for male support staff 44. The gender balance of support staff was 72% female and 28% male. Black and minority ethnic individuals made up just 3.5% of support staff. None of the support staff were considered to be disabled. Average earnings were £20,553, and median earnings £19,714 per annum. A total of 63 support staff were educated to degree level or higher, and 27 either had no qualifications, or no information on their qualifications was provided.

Trends Although the 1997-98 survey did provide an estimate of the total number of support staff, as this was based on partial data it is not considered to be very reliable in retrospect. The figures for the subsequent two surveys should have been more reliable, but the trend in the estimated numbers of support staff is unexpected. By 2007-08 the estimated total for support staff had reduced to just 80% of the figure estimated for 2002-03, while the estimated figure for archaeologists rose by 120% over the same period.

It is suggested that some *measurement error* may have affected the estimated totals, as some respondents provided incomplete information (Cui 2003). As with unpaid volunteers, respondents may have been less willing to spend the time required to complete the detailed post profiles for support staff than for archaeologists. The proportion of support staff for whom post profiles were completed was only 46% in 2002-03 and reduced to 37% in 2007-08. It also seems likely that some respondents completely omitted information about the support staff who contribute to the work of their organisations. In 2007-08 one organisation with over 100 paid archaeologists and four with 20 or more did not identify any support staff in the totals given on the organisation questionnaire.

A further issue relating to the data collected in the last two surveys, is that support staff were identified in the analysis phase of the project as those given an 'admin' role by respondents. This had been intended for those in supporting roles, not those in managerial posts. In the data entry phase in 2007-08 an additional category was created for managerial posts.

7.4 Jobs

Range of jobs

Table 140 summarises the post profiles into which posts were grouped in 1997-98, 2002-03 and 2007-08.

In 1997-98 respondents provided information about 2132 archaeologists working in 890 jobs with 455 different post titles (one post title for every 4.7 individuals). The information about these archaeologists and their jobs was collated into 34 post profiles which included 'Administrator' and three general profiles for posts which could not be easily included in any of the other profiles.

In 2002-03 respondents provided information about 2348 archaeologists, support staff and unpaid volunteers working in 907 jobs with 428 post titles (one post title for every 5.5 individuals). The information about these staff and their jobs was collated into 38 post profiles, which included two new archaeological posts and two new support posts: 'Financial posts' and 'Other support posts'.

In 2007-08 respondents provided information about 2733 archaeologists, support staff and unpaid volunteers working in 808 jobs with 519 post titles (one post title for every 5.3 individuals). The information about these staff and their jobs was collated into 41 post profiles, which included three new archaeological profiles. Two profiles were renamed, as Table 140 shows.

Table 140 Number of staff in each post profile, 1997-98, 2002-03 and 2007-08

Post profile	Number of staff		
	1997-98	2002-03	2007-08
Academic Staff	211	128	113
Archaeological Assistant	46	37	63
Archaeological Officer	35	35	25
Archaeological Scientist	87	35	44
Archaeologist	137	264	343
Archives Officer	-	20	18
Buildings Archaeologist	35	18	12
Characterisation posts	-	-	15
Computing Officer	12	18	43
Conservation Archaeologist	14	7	7
Conservator	20	36	9
Consultant	24	26	109
County or Regional Archaeologist	41	45	34
Director or Manager	92	119	93
Editor	26	9	10
Education and Outreach posts	-	-	42
Excavator or Site Assistant	185	99	48
Field Officer	49	42	25
Finds Officer	44	57	72
Historic Environment Record Officer (SMR Officer 2002-03 and 1997-98)	40	41	40
Illustrator	53	49	72
Inspector	102	45	79
Investigator	-	48	30
Museum Archaeologist	122	66	98
Photographer	15	8	5
Planning Archaeologist	10	26	40
Project Assistant (Assistant Archaeologist 2002-03 and 1997-98)	17	4	148
Project Manager	77	105	143
Project Officer	105	166	235

Post profile	Number of staff		
	1997-98	2002-03	2007-08
Researcher	45	29	45
Rural Advice	-	-	17
Senior Archaeologist	83	92	85
Supervisor	81	188	190
Surveyor	23	5	76
Warden	32	19	21
Administrator	19	78	94
Financial posts	-	16	13
Other support posts	-	51	24
Senior posts	52	75	90
Junior posts	98	143	17
Other posts	150	99	46
Total	2132	2348	2733

Trends Some the variation between the three surveys is to be expected, given that there was some variation in responding organisations on each occasion. For example, the reduction in the number of County or Regional Archaeologists does not indicate an overall reduction in posts to the degree indicated above. However, some of the variation which can be seen in the table may indicate overall trends. The number of Excavator or Site Assistant posts has fallen dramatically over the last ten years, but there has been a substantial increase in the number of Archaeologist and Project Assistant posts. This could be interpreted as indicating a change in post titles. The introduction of Education and Outreach posts, and of Rural Advice reflect changes in the overall work pattern of professional archaeologists in 2007-08. In neither case were there significant numbers of individuals working in these areas five years ago. The low numbers in the three 'catch all' posts for 2007-08 is the result of the effort made to include as many posts as possible in appropriate profiles, even if this meant adding new profiles or renaming existing ones. For example, the 143 staff in 'Junior posts' in 2002-03 included 115 Project Assistants, but the profile of this name was only created in 2007-08.

Earnings

Table 141 summarises the average and median full-time archaeological earnings reported to the survey in 1997-98, 2002-03 and 2007-08, and compares these with the relevant average and median figures for all UK full-time workers' earnings.

Trends Between 1997-98 and 2002-03 the percentage increases in average and median UK earnings were in each case more than double the percentage increases in archaeological earnings. Over the second five year period, the increase in archaeological earnings was considerably higher and was comparable with the rise in all workers' earnings. In the case of median earnings, the rise in archaeologists' earnings exceeded that in UK median earnings by 1%, with the increase in average UK earnings being just 1% higher than the increase in average archaeological earnings. Over the whole ten-year period, however, average UK earnings have increased by 57%, compared with archaeological earnings increasing by 36%. Median UK earnings have increased by 46% compared with archaeological earnings increasing by 31%.

Table 141 Average and median full-time archaeological and UK earnings, 1997-98, 2002-03 and 2007-08

	1997-98	2002-03		2007-08		
			% increase since 1997-98		% increase since 2002-03	% increase since 1997-98
Average full-time archaeological earnings	£17,079	£19,161	12%	£23,310	22%	36%
Median full-time archaeological earnings	£15,905	£17,127	8%	£20,792	21%	31%
Average UK full-time earnings	£19,167	£24,498	28%	£29,999	23%	57%
Median UK full-time earnings	£16,419	£20,010	22%	£24,002	20%	46%

Earnings by organisational structure

Table 142 shows the average and median earnings for archaeologists by organisational structure in 2002-03 and 2007-08. No direct comparisons can be made for 1997-98 as the organisation categories were significantly different. It was noted in 1997-98, however, that the highest average and median full-time salaries were found in national heritage agencies and universities, and the lowest in non-curatorial local government organisations and contractors.

Trends National government or agency employers have consistently paid the highest average and median salaries. In both 1997-98 and 2002-03 it was noted that median salaries were higher than the average for national government or agency employees, indicating organisations which are top-heavy, with a large proportion of well-paid employees. Private sector organisations have consistently paid the lowest salaries, and the difference between median and average salaries has indicated in each survey that there have been significant numbers of organisations that were pyramidal in structure, with most employees earning less than the average. In 2007-08 'other' employers moved from the middle-ranking position to the second lowest paid, and local government employers took the middle place.

Table 142 Average and median earnings by organisational structure, 2002-03 and 2007-08

	2002-03		2007-08	
	Average (mean)	Median	Average (mean)	Median
National government or agency	£23,971	£24,000	£29,694	£29,523
Local government	£18,756	£17,440	£23,120	£22,166
University	£22,883	£21,125	£26,293	£23,733
Private sector	£17,421	£15,917	£20,916	£17,707
Other	£21,036	£20,000	£21,276	£18,903

Earnings by organisational or post role

Table 143 shows average and median archaeological earnings by organisational role for 2002-03 and post role for 2007-08. No direct comparisons can be made for 1997-98 as the organisation categories were significantly different.

Trends Field investigation and research services were consistently lowest paid, both in respect of average and median earnings. The second-lowest average in both surveys was museum and visitor / user services, although in 2002-03 the median for that group was significantly higher in second-highest place, then falling to second-lowest in 2007-08. The highest paid in both measures and both surveys were employees of educational and academic research services.

Table 143 Average and median earnings by organisational or post role, 2002-03 and 2007-08

	2002-03		2007-08	
	Average (mean)	Median	Average (mean)	Median
Field investigation and research services	£17,264	£15,957	£20,686	£18,912
Historic environment advice and information services	£21,678	£20,000	£29,553	£28,000
Museum and visitor / user services	£20,772	£22,000	£23,232	£23,636
Educational and academic research services	£27,081	£28,000	£30,865	£30,000

Earnings by geographical area

Table 144 examines archaeological earnings as a percentage of average earnings for all full-time workers in that area for 1997-98, 2002-03 and 2007-08. The overall average level of archaeological earnings has been lower than the UK full-time average for the last ten years. In a few areas, however, archaeological earnings have been higher than the area averages, in Yorkshire and the Humber, Scotland, Wales and Northern Ireland.

Trends Earnings for archaeologists working in London have fallen significantly over the last ten years as a proportion of average earnings in London. Between 1997-98 and 2002-03 archaeological earnings fell as a proportion of the average earnings for all workers in all areas except Yorkshire and the Humber, where there was a 2% rise, and Scotland which remained unchanged at 101% of the Scottish average for all workers. Between 2002-03 and 2007-08 archaeological earnings rose a little whilst remaining below the average earnings for all workers in the North West and the South West. In Wales, Northern Ireland and Yorkshire and the Humber archaeological earnings rose above the average for all workers.

Table 144 Earnings by geographical area as a percentage of average salaries for all full-time workers in that area, 1997-98, 2002-03 and 2007-08

	1997-98	2002-03	2007-08
English region			
East of England	79%	79%	74%
East Midlands	84%	80%	79%
London	83%	57%	55%
North East	87%	82%	80%
North West	81%	75%	82%
South East	70%	68%	67%
South West	88%	82%	89%
West Midlands	98%	81%	83%
Yorkshire & the Humber	101%	103%	105%
Scotland	101%	101%	84%
Wales	124%	103%	108%
Northern Ireland	-	95%	119%
Channel Islands	-	-	-
Isle of Man	-	-	-
Total	92%	78%	78%

Earnings and post profiles

In 1997-98 the highest average income was earned by those in the Inspector profile, and the lowest by those in the Excavator or Site Assistant post profile.

In 2002-03 the highest average earnings were for Academic Staff and the lowest for those in the Excavator or Site Assistant post profile.

In 2007-08 the highest average earnings were for those in the Director or Manager profile, and the lowest for those in the Excavator or Site Assistant profile.

Earnings in other occupations

Table 145 compares archaeological earnings with those in the range of occupations used by the surveys over the last ten years.

Trends Archaeologists have remained at fourth place above the lowest rank, although they have fallen from rank 10 in 1997-98 to rank 15 in 2007-08. The apparent decline results from the interposing of a number of additional categories, due to changes in how National Statistics classify occupations. Whilst the national average salary has increased by 57% over the last ten years, and that of Managers in Construction has increased by 75%, archaeologists' earnings have only increased by 36%.

Table 145 Archaeological earnings in comparison with other occupations, 1997-98, 2002-03 and 2007-08

Occupations ordered by 2007-08 earnings (all FT workers)	1997-98		2002-03			2007-08			
	Rank	Average gross earnings	Rank	Average gross earnings	% increase since 1997-8	Rank	Average gross earning	% increase since 2002-03	% increase since 1997-8
Managers in construction (previously Managers in building & contracting)	5	£25,689	3	£33,924	+32%	1	£44,942	+32%	+75%
Chartered surveyors (not quantity surveyors) (previously Building, land, mining & 'general practice' surveyors)	6	£24,495	5	£30,275	+24%	2	£44,132	+46%	+80%
Higher education teaching professionals (previously University & polytechnic teaching professionals)	1	£30,179	1	£34,791	+15%	3	£42,620	+23%	+41%
Architects	3	£25,882	2	£34,426	+33%	4	£40,845	+19%	+58%
Civil engineers (previously Civil, structural, municipal, mining & quarrying engineers)	2	£28,286	4	£31,527	+12%	5	£35,618	+13%	+26%
Teaching & research professionals	-	-	-	-	-	6	£34,166	-	-
Town planners	4	£25,887	6	£27,064	+5%	7	£33,664	+24%	+30%
Culture, media & sport occupations	-	-	-	-	-	8	£29,728	-	-
Draughtspersons	7	£19,745	7	£23,227	+18%	9	£27,679	+19%	+40%
Conservation & environmental protection officers	-	-	-	-	-	10	£26,725	-	-
Scientific & engineering technicians (previously Scientific technicians)	8	£19,641	8	£23,157	+18%	11	£26,126	+13%	+33%
Librarians & related professionals	9	£19,010	9	£22,728	+18%	12	£25,195	+11%	+33%
Conservation associate professionals	-	-	-	-	-	13	£25,169	-	-
Skilled construction & building trades (previously Construction trades)	12	£15,512	13	£18,809	+21%	14	£23,400	+24%	+51%
Archaeologists	10	£17,079	12	£19,161	+12%	15	£23,310	+22%	+36%
Road construction operatives (previously Road construction & maintenance workers)	11	£16,904	10	£20,183	+19%	16	£22,962	+14%	+36%
Building trades (previously Builders, building contractors)	13	£15,345	11	£19,277	+26%	17	£21,566	+12%	+41%
Labourers in building & woodworking trades (previously Other building & civil engineering labourers not elsewhere categorised)	14	£13,843	14	£17,455	+26%	18	£19,485	+12%	+41%
(All) professional occupations		£25,987		£32,577	+25%		£38,840	+19%	+49%
Professional occupations not elsewhere categorised		£18,656		£22,622	+21%		-	-	-
National average		£19,167		£24,498	+28%		£29,999	+22%	+57%
Source			National Statistics 2002			National Statistics 2007b			

Earnings by gender

Table 146 shows female earnings as a percentage of male earnings and illustrates the differences between male and female archaeologists' earnings in 1997-98, 2002-03 and 2007-08. Figures for all UK workers for 2007-08 are given by way of comparison.

Trends The worst-paid female and male archaeologists have consistently been equally poorly paid. The best-paid female archaeologists have been losing ground to their male colleagues over the past ten years. In 1997-98 they earned the same as their male counterparts, but in 2007-08 they earned 86% of the equivalent male earnings. The average female salary has declined from 94% of the male in 1997-98 and 2002-03 to 90% in 2007-08. Despite the increasing lack of parity between male and female earnings in archaeology, the figures for all UK workers indicate that, nationally, the situation shows considerably greater disparity across the whole workforce.

Table 146 Female earnings as a percentage of male earnings, 1997-98, 2002-03 and 2007-08

	Archaeologists			UK workers
	1997-98	2002-03	2007-08	2007-08
Lowest 10%	100%	100%	100%	81%
Lower 25%	99%	97%	96%	79%
Median	90%	94%	92%	78%
Upper 25%	93%	92%	89%	79%
Highest 10%	100%	91%	86%	71%
Average (mean)	94%	94%	90%	71%

Earnings by age

Table 147 summarises average and median earnings for archaeologists by age in 1997-98, 2002-03 and 2007-08, with the highest figures emboldened.

Trends In 1997-98 archaeologists in their 40s earned the highest average amounts, but the highest median earnings were made by those in their 50s. In 2002-03 those in their 50s received both the highest average and highest median earnings. In 2007-08 age data was more precise, and those between the ages of 50 and 54 proved to be the highest average and median earners.

Table 147 Earning distribution by age – archaeologists, 1997-98, 2002-03 and 2007-08

Age	1997-98		2002-03		2007-08	
	Average (mean)	Median	Average (mean)	Median	Average (mean)	Median
16-19	£11,729	£11,157	£12,832		£15,781	£16,400
20-24	£12,455	£11,512	£15,822	£14,679	£15,835	£15,000
25-29					£18,025	£16,858
30-34	£16,936	£16,196	£19,297	£18,055	£21,411	£20,147
35-39					£24,289	£22,713
40-44	£20,227	£19,751	£21,860	£20,748	£26,022	£25,840
45-49					£26,984	£25,840
50-54	£20,172	£20,000	£24,370	£23,373	£29,302	£27,638
55-59					£27,960	£27,368
60-64	£20,906*	£18,512	£23,692	£21,000	£27,121	£24,115
65+					£20,373	£14,200

* Anomalous figure ignored as it results from a very small sample in this category

Weighting allowances

In 1997-98 the earnings of 83 posts (9% of all posts), held by 312 archaeologists (15%), included weighting allowances. The weighting amount included in the earnings ranged from £250 to £3,405 a year, with an average of £2,375 and a median of £1,822.

In 2002-03 the earnings of 41 posts (5%), held by 110 archaeologists (5%), included weighting allowances. The weighting amount included in the earnings ranged from £680 to £3,858 a year.

In 2007-08 the earnings of 34 posts (4%), held by 90 employees (3%), included weighting allowances. The weighting amounts included in the earnings ranged from £500 to £2,700, with an average of £2,213.

Trends On the basis of the information reported to the survey, the practice of including weighting allowances in archaeological earnings has declined significantly over the last ten years. It is possible that some respondents omitted this section from their responses, and that the apparent decline is the result of the increasing length and complexity of the questionnaire. The value of the weighting allowances has also fallen from an average of £2,375 in 1997-98 to £2,213 in 2007-08.

Salary scales

In 1997-98 salary scales were used by 225 organisations (64% of responding organisations), employing 82% of all archaeologists in the survey. Of these organisations, 12 (5% of those using scales) used the civil service scale, 133 (59%) used local authority scales (not all being local authority organisations), 54 (24%) used university scales and 25 (11%) used other scales.

In 2002-03 salary scales were used by 171 organisations (73% of responding organisations), employing 86% of all archaeologists and support staff in the survey. Of these organisations, 12 (7% of those using scales) used the civil service scale, 89 (52%) used local authority scales, 26 (15%) used university scales, 43 (25%) used locally defined or own scales, and 3 used other scales.

In 2007-08 salary scales were used by 142 organisations (59% of responding organisations), employing 91% of all archaeologists and support staff in the survey. Of these organisations, 7 (5% of those using scales) used the civil service scale, 79 (56%) used local authority scales, 23 (16%) used university scales, 30 (21%) used locally defined or own scales, and 4 used other scales.

Trends Although the number of responding organisations using salary scales has reduced over the past ten years, the number of archaeologists and support staff whose earnings are based on defined scales has increased from 82% in 1997-98 to 91% in 2007-08. Over 50% of those using scales in each case were using local authority scales.

Employee rights / benefits

Table 148 summarises employee rights and benefits provided to employees as reported to the survey in 2002-03 and 2007-08. Similar questions were asked in 1997-98, but the account of the responses focussed on the number of organisations offering the rights and benefits, rather than the number or proportion of employees

affected. The proportion of employees affected was provided in relation to sickness leave, paternity leave and subsidised accommodation for 1997-98.

Trends The proportions of employees in receipt of twenty or more days holiday, occupational sick pay, opportunities for flexible working and subsidised accommodation or subsistence have increased since 2002-03 or 1997-98 as applicable. The proportions receiving the maternity and paternity benefits and rights appear to have declined. However, over the same period there has been an increase in statutory rights in these areas, so it is possible that overall the same packages are being offered by many employers, but that the legislative changes mean that these same packages now appear to be less generous.

Table 148 Employee rights / benefits, number of employees and percentage of employees for whom information was provided, 2002-03 and 2007-08

	1997-98	2002-03		2007-08	
20 or more days paid holiday leave per annum		3021	97%	2626	100%
Occupational sick pay (paid sickness leave over and above Statutory Sick Pay)	82%	2838	92%	2532	96%
Paid maternity leave over and above Statutory Maternity Pay		2067	67%	1577	60%
The opportunity to take unpaid maternity leave		2802	90%	2195	83%
Paid paternity leave 2002-03 Paid paternity leave over and above Statutory Paternity Pay 2007-08	64%	2217	72%	1615	62%
The opportunity to take unpaid paternity leave		2594	84%	2109	80%
The opportunity to jobshare or use other flexible working arrangements		2750	89%	2548	97%
Subsidised accommodation or subsistence allowance	55%	1833	59%	1869	71%

Pensions

In 1997-98 employers made pension contributions in respect of 1434 individuals, 71% of those about whom this information was provided.

In 2002-03 employers made pension contributions in respect of 1632 individuals, 74% of those about whom this information was provided.

In 2007-08 employers made pension contributions in respect of 1796 individuals, 69% of those about whom this information was provided.

Trends Although there was an increase of 3% in the proportion of individuals for whom employers made pension contributions between 1997-98 and 2002-03, there was a 5% drop over the last five years to 2007-08. There appeared to be relatively little consistency in the posts which had lower than average employer pension contributions, however, as Table 149 shows. In 2002-03 eight profiles fell below the 74% average. In 2007-08 ten profiles fell below the lower average of 69%. Supervisor, Archaeological Assistant, Archaeologist and Excavator or Site Assistant were below average in both surveys. Ten other profiles were above average in one or the other survey.

Table 149 Post profiles with lower than average proportion of employer's contribution to pensions, number and percentage of individuals

	Lower than average employer pension contributions	
	2002-03	2007-08
Average	74%	69%
Supervisor	74%	24%
Consultant	73%	above average
Field Officer	67%	above average
Surveyor	60%	above average
Other posts	60%	above average
Archaeological Assistant	44%	32%
Archaeologist	38%	29%
Excavator or Site Assistant	26%	40%
Finds Officer	above average	68%
Project Officer	above average	66%
Buildings Archaeologist	above average	60%
Junior posts	above average	59%
Illustrator	above average	46%
Project Assistant	above average	36%

Job security

Length of contract

Table 150 summarises the length of contract of archaeologists over the last ten years.

Trends In 1997-98 34% of archaeologists were on temporary contracts. This number had reduced to 29% by 2002-03, and again to 23% by 2007-08. Employment legislation has changed since the first survey, in particular the *Fixed Term Employees Regulations (Prevention Of Less Favourable Treatment) Regulations 2002* now prevent fixed term employees being treated less favourably than similar permanent employees, and limit the use of successive fixed term contracts. It is likely that the increase in permanent or open-ended contracts has been influenced by this legislative change.

Table 150 Length of contract – archaeologists, 1997-98, 2002-03 and 2007-08

	1997-98		2002-03		2007-08	
	Number	Percentage	Number	Percentage	Number	Percentage
<3 months	234	11%	182	9%	119	5%
3-6 months	139	7%	68	3%	113	4%
6-12 months	195	9%	176	9%	213	8%
12-24 months	49	2%	79	4%	89	3%
>24 months	90	4%	74	4%	87	3%
Permanent/open-ended	1394	66%	1450	71%	1859	73%
Other	-	-	-	-	69	3%
Total	2101	100%	2029	100%	2549	100%

Table 151 summarises permanent contracts by working role for 2002-3 and 2007-08, showing the number of individuals and permanent contracts as a percentage of all contracts in each role. As different information was collected in 1997-98, data cannot

be compared with the later surveys. The proportions of permanent contracts have increased in each role with the exception of museum and visitor / user services.

Table 151 Proportion of permanent contracts by working role, 2002-03 and 2007-08

Working role	2002-03		2007-08	
	Count	Percentage	Count	Percentage
Field investigation and research services	862	66%	1186	68%
Historic environment advice & information services	266	83%	387	90%
Museum and visitor / user services	77	92%	95	80%
Educational and academic research services	95	68%	140	71%
Archaeological management	-	-	51	91%
Support staff	140	85%	115	93%

Length of employment to date

Table 152 summarises archaeologists' length of employment in 1997-98, 2002-03 and 2007-08. The first two surveys asked about periods up to and exceeding two years, at one time the qualifying period for a range of statutory employment rights. In 2007-08 longer time periods in excess of two years were included in the survey, in order to obtain a clearer picture of the overall pattern of how stable or precarious employment was across the profession.

Trends The proportion of individuals continuously employed by the same employer for over two years fell from 70% in 1997-98 to 63% in 2002-03, and remained at 63% in 2007-08. The proportion of very short contracts fell to 6% in 2007-08, and the proportion of 12-24 month contracts rose by a third over the last five years.

Table 152 Length of employment – archaeologists, 1997-98, 2002-03 and 2007-08

	1997-98		2002-03		2007-08	
	Count	Percentage	Count	Percentage	Count	Percentage
<3 months	206	10%	231	10%	149	6%
3-6 months	105	5%	145	7%	179	7%
6-12 months	111	6%	232	10%	226	9%
12-24 months	183	9%	212	10%	356	15%
>24 months	1407	70%	1401	63%	-	-
2-5 years	-	-	-	-	609	25%
5-10 years	-	-	-	-	380	16%
10-20 years	-	-	-	-	361	15%
>20 years	-	-	-	-	170	7%
Total	2012	100%	2221	100%	2430	100%

Table 153 shows the number of staff and percentage of employment for two years or more (as a percentage of all periods of employment) for the different working roles used for the survey in 2002-03 and 2007-08. The proportion of longer employment in field investigation and research has reduced, as has that in museum and visitor services, whilst there have been increases in longer employment in historic environment advice and educational and academic roles.

Table 153 Employment for longer than two years by working role, 2002-03 and 2007-08

Working role	2002-03		2007-08	
	Count	Percentage	Count	Percentage
Field investigation and research services	864	59%	960	57%
Historic environment advice & information services	237	73%	291	78%
Museum and visitor / user services	68	83%	90	78%
Educational and academic research services	92	61%	131	65%
Archaeological management	-	-	48	86%
Support staff	125	70%	88	72%

Full-time and part-time work

Table 154 summarises changes to the pattern of full- and part-time work as reported to the survey over the past ten years. The definition of part-time used for the survey was less than 30 hours per week.

Trends A clear difference can be observed between the proportions of archaeologists working part-time in 1997-98, at 5%, and the proportions in the subsequent two surveys, 12% for 2002-03 and 11% for 2007-08. Since 2000 part-time workers in the UK must not be treated less favourably than their full-time colleagues, in line with the *Part-time Workers (Prevention of Less Favourable Treatment) Regulations 2000*. It is possible that the introduction of these regulations and their strengthening in subsequent years have affected archaeological employers, resulting in the proportion of part-time archaeologists more than doubling between 1997-98 and 2002-03. The proportions for the UK as a whole have not changed to the same extent, however, statistics have become more difficult to compile as the part-time is now generally officially defined as 'those whose hours of work are less than the normal hours of work of a comparable full time worker' (Lourie 2000).

Table 154 Full-time and part-time work, 1997-98, 2002-03 and 2007-08

Year	Working role	Part-time		Full-time		Total	
		Count	Percentage	Count	Percentage	Count	Percentage
1997-98	Archaeologists	1746	5%	90	95%	1836	100%
	All UK workers		23%		77%		100%
2002-03	Archaeologists	259	12%	1834	88%	2093	100%
	Support staff	67	37%	113	63%	180	100%
	All staff	326	14%	1947	86%	2273	100%
	All UK workers		25%		75%		100%
2007-08	Archaeologists	284	11%	2274	89%	2558	100%
	Support staff	52	43%	70	57%	122	100%
	All staff	331	12%	2343	88%	2674	100%
	All UK workers		26%		74%		100%

Full-time and part-time work by role

Table 155 summarises the changes in full-time and part-time working over the past five years. As information was categorised differently for 1997-98, no comparisons can be made over the whole ten year period.

Trends A slight decrease in part-time working in field investigation and research services can be observed. There has been a small increase in part-time working in historic environment advice and information services, and a very considerable increase in museum and visitor / user services.

Table 155 Full-time and part-time work by role, 1997-98, 2002-03 and 2007-08

Role	Part-time		Full-time		Total	
	2002-03	2007-08	2002-03	2007-08	2002-03	2007-08
Archaeologist: field investigation and research services	10%	7%	90%	93%	100%	100%
Archaeologist: historic environment advice and information services	14%	16%	86%	84%	100%	100%
Archaeologist: museum and visitor / user services	8%	35%	92%	65%	100%	100%
Archaeologist: educational and academic research services	35%	19%	65%	81%	100%	100%
Support staff	37%	43%	63%	57%	100%	100%

Full-time and part-time work by organisation basis

Information on full-time and part-time work by organisation basis was not analysed in 1997-98 or 2002-03, so no comparisons can be made with the data for 2007-08.

Full-time and part-time work by gender

Table 156 summarises the proportions of female and male archaeologists working full-time and part-time.

Trends Table 156 shows that the proportion of female archaeologists working part-time has increased over the last ten years from 9% to 30%. The proportion of male archaeologists working part-time has increased from 3% to 10% over the same period.

Table 156 Full-time and part-time work by gender, 1997-98, 2002-03 and 2007-08

Year of survey		Part-time	Full-time	Total
1997-98	Female	9%	91%	100%
	Male	3%	97%	100%
2002-03	Female	14%	86%	100%
	Male	7%	93%	100%
2007-08	Female	30%	70%	100%
	Male	10%	90%	100%

Self-employment

In 1997-98 the questionnaire identified self-employed staff by asking whether income tax for each post was deducted at source as PAYE. The number of archaeologists identified by this means was 107, or 5% of the total reported to the survey. The published organisation categories / roles of self-employed archaeologists cannot be directly compared with the roles or posts identified in 2007-08. Earnings were lower for the self-employed than for those working for other organisations. Average full-time self-employed earnings were 98% of the overall average salary identified by the survey, and median self-employed earnings were 92% of the overall median salary. One third of self-employed archaeologists worked on a part-time basis.

In the 2002-03 questionnaire there was no specific question to identify self-employed individuals, so no analysis was possible.

In 2002-03 the questionnaire asked specifically whether respondents were self-employed. Returns provided general information about 80 self-employed archaeologists and more detailed post profile information for 70 individuals. Summaries are included in Chapters 4 and 5 above relating to self-employed archaeologists, but only some of this information is included and discussed here, as few direct comparisons with the 1997-98 survey can be made. Average full-time self-employed earnings were 97% of the overall average salary identified by the survey for archaeologists, and median self-employed earnings were 67% of the overall median archaeological salary. Just over half (52%) of self-employed individuals worked part time, and 48% worked full time.

Trends Very few aspects relating to the jobs undertaken by self-employed individuals can easily be compared between the two surveys for which there is data. In both cases, earnings were lower than the average and median for all archaeologists reported to the survey. The median earnings identified in 2007-08 were only 67% of the overall median compared with 92% in 1997-98, but the figures were based on only a small number of responses, which included some very low figures for annual earnings, apparently for full-time work (see section 5.2 above). Comparing full- and part-time working, there seems to have been an increase in part-time self-employed working, from one third to just over a half of those who responded to the survey.

Sources of funding

In 1997-98 48% of archaeological posts were funded by establishment income, and 52% were paid for by project grants or contracts.

In 2002-03 34% of all posts (32% of archaeological posts) were funded by establishment income, and 66% of all posts (68% of archaeological posts) were paid for by project grants or contracts.

In 2007-08 33% of all posts (31% of archaeological posts) were funded by establishment income, and 67% of all posts (69% of archaeological posts) were paid for by project grants or contracts.

Trends For 2002-03 and 2007-08 source of funding and post role can be compared, as shown in Table 157. This shows a decrease in establishment funding in all archaeological roles which can be compared, but an increase for support roles over the last five years. The largest rise in project funding (12%) was seen in educational and academic research services. The level of project funding in field investigation and research services has remained consistently high. It should be emphasised, however, that respondents had different approaches to answering this question. In some private sector organisations all funding was regarded as project or contracting income, whilst in others it was seen as establishment income.

Table 157 Source of funding for posts, by job role, 2002-03 and 2007-08

	2002-03			2007-08		
	Establish-ment	Project / contract	Total	Establish-ment	Project / contracting	Total
	% of posts	% of posts	% of posts	% of posts	% of posts	% of posts
Archaeologist: field investigation and research services	17%	83%	100%	15%	85%	100%
Archaeologist: historic environment advice and information services	68%	32%	100%	64%	36%	100%
Archaeologist: museum and visitor / user services	91%	9%	100%	81%	19%	100%
Archaeologist: educational and academic research services	70%	30%	100%	58%	42%	100%
Archaeologist: management	-	-	100%	82%	18%	100%
Support staff	52%	48%	100%	74%	26%	100%
Total	36%	66%	100%	33%	67%	100%

Vacancies

In 1997-98 the survey did not ask about post vacancies which were difficult to fill.

In 2002-03 in answer to the question about whether there had been difficulties in filling the post in the last year 5% of responses mentioned difficulties.

In 2007-08 9% of responses to the question noted difficulties in filling posts.

Table 158 summarises the vacancies which were difficult to fill by post profiles for 2002-03 and 2007-08, in each case giving the average vacancy salary as a percentage of the average for that profile. This approach can indicate whether posts have been difficult to fill because low salaries were offered, however, some post profiles cover a wide range of levels of responsibility.

Trends It is interesting that vacancies were difficult to fill in twelve of the post profiles (excluding the general 'senior posts' profile) in both 2002-03 and 2007-08. In five of these cases, the average vacancy salary exceeded the average for that post profile, which suggests that salary may not have been a disincentive to applications. It is possible that there are insufficient suitable applicants for some of these posts.

Table 158 Vacancies difficult to fill and post profiles, 2002-03 and 2007-08

Post profile	2002-03		2007-08	
	Number of reported difficulties	Vacancy salary as % of role average	Number of reported difficulties	Vacancy salary as % of role average
Academic Staff	-	-	2	82%
Administrator	-	-	1	75%
Archaeological Assistant	1	95%	-	-
Archaeological Officer	-	-	1	86%
Archaeological Scientist	-	-	2	88%
Archaeologist	5	119%	6	120%
Buildings Archaeologist	-	-	1	58%
Computing Officer	1	87%	1	88%
Consultant	2	103%	9	107%
Director or Manager	-	-	2	79%
Editor	2	102%	-	-
Education and Outreach posts	-	-	2	93%
Excavator or Site Assistant	-	-	1	105%
Field Officer	1	86%	-	-
Finds Officer	2	98%	1	94%
Historic Environment Record Officer	1	92%	2	94%
Illustrator	2	98%	4	94%
Museum Archaeologist	1	112%	1	115%
Other support posts	-	-	1	95%
Planning Archaeologist	1	Unknown	3	93%
Project Assistant	-	-	1	103%
Project Manager	6	106%	5	102%
Project Officer	6	100%	3	108%
Researcher	-	-	2	87%
Senior Archaeologist	3	102%	1	89%
Senior posts	1	93%	1	107%
Supervisor	3	100%	5	92%
Surveyor	-	-	1	78%

Trade unions

In 1997-98 unions were recognised at 201 organisations (58% of the sample) which employed 2041 archaeologists (72%).

In 2002-03 unions were recognised at 145 organisations (64% of the sample) which employed 2146 archaeologists and support staff (71%).

In 2007-08 unions were recognised at 128 organisations (53% of the sample) which employed 2327 archaeologists and support staff (78%).

Table 159 shows the proportion of employees working for organisations which recognise unions, segmented by the organisation types used for the surveys in 2002-03 and 2007-08. As organisations were categorised differently in 1997-98 only partial figures can be given.

Table 159 Proportion of employees working in organisations which recognise one or more trade unions, 1997-98, 2002-03, 2007-08

	1997-98	2002-03	2007-08
National government or agency	100%	100%	100%
Local government	96% / 97%	99%	100%
University	95%	100%	100%
Private sector		35%	55%
Other		66%	78%
Overall proportion of employees	72%	71%	78%

Trends The proportions of employees working for organisations which recognise one or more unions has increased to 78% in 2007-08, although the proportion declined slightly between 1997-98 and 2002-03. The proportion of private sector organisation employees who could join a recognised union has increased by 20% over the last five years from just over a third to 55%.

Unison has consistently been the union recognised in the highest number of workplaces in all three surveys. In terms of numbers of employees working for organisations where unions are recognised, Unison and Prospect have each been most represented, Prospect in 1997-98 and 2007-08, and Unison in 2002-03.

7.5 Training

Questions were not asked about training in the 1997-98 survey, and so data gathered in 2007-08 can only be compared with the 2002-03 results.

Employers' commitment to qualifications and training

Comparisons between the present survey and 2002-03 are slightly complicated because the questions regarding identifying training needs for individuals and for the organisation as a whole were asked as a single question in 2002-03, but the commitment of employers to identify training needs for individuals has remained at a consistently very high level.

The same remains true for providing training opportunities for paid staff, and a significantly higher proportion of employers are now committed to training unpaid staff.

Noticeably, however, there has been a significant drop in the percentage of organisations that have formal training plans (from 71% of organisations to only 52%), and there has also been a drop (although less marked) in the proportion of organisations that have a training budget, which is mirrored by a drop in the proportion that have that budget under their direct control.

The percentage of organisations recording training time has also fallen, along with evaluating the impact of training on individuals, its impact on the organisation and on the number of organisations encouraging employees to participate in CPD (all data presented in Table 160).

As the 2002-03 report only presented figures by the proportions of employers, rather than by the total number of employees working for those employers, it is impossible to determine if this has been skewed by higher levels of response from very small

organisations in 2007-08 (which, historically, have lower levels of commitment to staff training). However, these statistics do appear to present a disturbing reduction in commitment from employers to the structured planning and evaluation of training.

Table 160: employers' commitment to qualifications and training, change over time

		Yes	No	Don't know
Do you identify training needs for individuals? (and the organisation as a whole in 2002-03)	2007-08 2002-03	93% 93%	7% 6%	0% 1%
Do you identify training needs for the organisation as a whole? (and for individuals in 2002-03)	2007-08 2002-03	76% 93%	20% 6%	4% 1%
Do you provide training or other development opportunities for paid staff?	2007-08 2002-03	90% 93%	9% 6%	1% 1%
Do you provide training or other development opportunities for unpaid staff?	2007-08 2002-03	52% 42%	39% 48%	8% 10%
Does your organisation have a formal training plan?	2007-08 2002-03	52% 71%	44% 23%	4% 3%
Does your organisation have a training budget?	2007-08 2002-03	70% 78%	28% 21%	2% 1%
Is your training budget under your organisation's direct control?	2007-08 2002-03	65% 72%	30% 24%	5% 1%
Do you record how much time employees spend training?	2007-08 2002-03	68% 71%	28% 25%	4% 4%
Do you formally evaluate the impact of training on individuals?	2007-08 2002-03	48% 57%	47% 38%	4% 5%
Do you formally evaluate the impact of training on the organisation?	2007-08 2002-03	28% 35%	61% 55%	11% 10%
Does your organisation operate a performance appraisal scheme?	2007-08 2002-03	60% 60%	36% 36%	4% 4%
Does your organisation encourage individuals to engage in continuing professional development (CPD)?	2007-08 2002-03	82% 89%	14% 8%	3% 3%

Preferred methods of training

Table 161 and Table 162 show changes from 2002-03 to 2007-08 in employers' preferred methods of training paid and unpaid staff.

The most notable point is that the preference for using all methods of training paid staff has significantly declined since 2002-03, and that preferences for using techniques to train unpaid staff has declined by such an amount that it can be considered to have almost collapsed.

These declines may or may not represent a real reduction in commitment to training staff – the results of the overall commitment to supporting training suggest not – but this perhaps suggests organisations are much more selective about how they train their paid staff, and that this does signify a marked reduction in commitment to train unpaid staff. As noted above, however, responses relating to unpaid staff are not considered to be fully reliable as a reflection of all relevant employers' opinions.

Table 161: Preferred methods of training paid staff, changes over time

		%
Formal off-job training (eg outside training course)	2007-08	71%
	2002-03	92%
Formal in-job training (eg in-house training course)	2007-08	65%
	2002-03	85%
Informal off-job training (eg supported individual research and learning)	2007-08	55%
	2002-03	71%
Informal in-job training (eg mentoring)	2007-08	55%
	2002-03	72%

Table 162: Preferred methods of training unpaid staff, changes over time

		%
Formal off-job training (eg outside training course)	2007-08	9%
	2002-03	27%
Formal in-job training (eg in-house training course)	2007-08	17%
	2002-03	64%
Informal off-job training (eg supported individual research and learning)	2007-08	13%
	2002-03	48%
Informal in-job training (eg mentoring)	2007-08	18%
	2002-03	75%

Vocational qualifications

Table 163 sets out the changes in employers' awareness of vocational qualifications, which shows a marked increase, from 68% to 81% being aware of the vocational qualifications in archaeological practice. This is entirely reasonable, as in 2002-03 these qualifications were in development, and they were subsequently launched in 2007.

Table 163: Awareness of vocational qualifications, changes over time

		Yes	No	Not sure
Are you aware of vocational qualifications in archaeological practice?	2007-08	81%	11%	8%
	2002-03	68%	25%	7%

The level of support that employers would offer to their staff to undertake vocational qualifications is set out in Table 164. Overall, the level of support has increased between 2002-03 and 2007-08, but not by a very great amount.

Table 164: Support for staff undertaking vocational qualifications, changes over time

		Very little	Little	Considerable amount	Very considerable amount
How much support would you give staff to work towards such qualifications?	2007-08	14%	16%	58%	12%
	2002-03	12%	22%	60%	6%

Archaeological skills gaps and shortages

Employers were asked about archaeological and generic, non-archaeological, skills that were priorities for training – skills gaps – and skills that they had to buy in from external suppliers – skills shortages.

In Table 165, the data for areas where archaeological training had been provided or bought in during the 12 months preceding the 2007-08 survey is compared with the equivalent data from 2002-03. In 2002-03, respondents were not asked about the skillsets needed for working on the survey and interpretation of historic buildings, on historic environment characterisation, on providing information and advice on the conservation and management of the historic environment or on creating, managing and maintaining Historic Environment Records, and so these are absent from the tables below.

Table 165: Archaeological skills gaps, changes over time

Archaeological skills	2007-08	2002-03
Artefact research (artefact or ecofact research in 2002-03)	39%	30%
Desk-based historic environment research including desk-based assessment	36%	40%
Contributing to intrusive investigations (evaluation, excavation) as team members or diggers	19%	18%
Other archaeological skills (please specify)	19%	24%
Conservation of artefacts or ecofacts	17%	15%
Conducting (leading or directing) intrusive investigations (evaluation, excavation)	15%	25%
Contributing to other non-intrusive investigations as team members	15%	19%
Conducting (leading or directing) other non-intrusive investigations	14%	9%
Contributing to non-intrusive investigations (geophysical survey) as team members	12%	16%
Ecofact research (artefact or ecofact research in 2002-03)	11%	30%
Conducting (leading or directing) non-intrusive investigations (geophysical survey)	10%	9%

The relative importance as training priorities of almost all of these areas has remained fairly constant over the five years from 2002-03 to 2007-08. The most significant change has been a very large reduction in the number of organisations seeking to train staff in ecofact research. There has been a moderate reduction in the proportion of organisations seeking to train people to conduct intrusive investigations, which is almost exactly balanced by an increase in the number seeking to train individuals in conducting non-intrusive investigations.

In terms of areas where external specialists were brought in (areas of skills shortage), almost every area sees a drop in the proportion of organisations seeking to buy in expertise (Table 166). This has been at its most pronounced in terms of ecofact research, an area that is also not a priority for training. The only areas that have maintained the same levels of demand are in conducting and contributing to geophysical survey, suggesting that this remains a specialism which is routinely bought in while organisations are increasingly seeking to provide other services in-house.

Table 166: Archaeological skills shortages, changes over time

	2007-08	2002-03
Conducting (leading or directing) non-intrusive investigations (geophysical survey)	42%	52%
Artefact research (artefact or ecofact research in 2002-03)	40%	53%
Conservation of artefacts or ecofacts	38%	48%
Conducting (leading or directing) intrusive investigations (evaluation, excavation)	33%	33%
Desk-based historic environment research including desk-based assessment	31%	39%
Ecofact research (artefact or ecofact research in 2002-03)	27%	53%
Conducting (leading or directing) other non-intrusive investigations	23%	28%
Contributing to intrusive investigations (evaluation, excavation) as team members or diggers	21%	33%
Contributing to non-intrusive investigations (geophysical survey) as team members	18%	18%
Other archaeological services (please specify)	16%	15%
Historic environment characterisation (archaeological landscape characterisation in 2002-03)	10%	11%
Contributing to other non-intrusive investigations as team members	8%	18%

Non-archaeological skills gaps and shortages

Respondents were also asked about non-archaeological or generic skills gaps (priorities for training) and shortages (areas where expertise had to be brought in). Administrative skills were not asked about in 2002-03, and so are absent from these tables.

Table 167 shows that information technology remains the skill most in demand for training, followed by project management (although there are small reductions for both in the proportions of organisations prioritising them). Almost every other area has seen an increase in the proportions of employers seeking to train staff. There have been significant increases in the proportions of organisations seeking training in people management, leadership and education / training, and modest increases in all other areas except marketing / sales. This contrasts with the demand for archaeological skills training, which has remained largely constant – suggesting generic skills are becoming increasingly important for archaeological employers to have in house.

Table 167: Non-archaeological skills gaps, changes over time

	2007-07	2002-03
Information technology	68%	74%
Project management	48%	54%
People management	40%	25%
Education / training	36%	24%
Business skills	30%	21%
Leadership	28%	16%
Customer care	19%	13%
Advocacy / influencing others	18%	14%
Other non-archaeological skills (please specify)	18%	5%
Marketing / sales	13%	19%
Non-English language	9%	4%

By contrast, Table 168 shows that there has been a general reduction in the proportions of organisations buying in non-archaeological skills in almost every area. This can be considered to mark a reduction in non-archaeological skills shortages which is being addressed through increasing commitment of organisations to train their own staff, rather than to buy in expertise.

Table 168: Non-archaeological skills shortages, changes over time

	2007-08	2002-03
Information technology	53%	67%
Education / training	21%	33%
Other non-archaeological services (please specify)	18%	22%
Business skills	14%	14%
Marketing / sales	12%	24%
Advocacy / influencing others	10%	9%
People management	10%	23%
Project management	10%	23%
Non-English language	9%	8%
Leadership	5%	13%
Customer care	5%	16%

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Appendix 1 Post Profiles

A1.1 Introduction

The post profiles are the collation of data from groups of individual but similar posts, as described above (section 2.6). Each post title and its corresponding post profile is listed below in sections A1.2 to A1.45. The first three profiles are overall summaries, covering All staff, All archaeologists (excluding support staff), and Self-employed archaeologists respectively.

How to read the post profile information

The data in the post profiles are the actual numbers reported to the survey, not the estimated numbers in the profession discussed above in section 4.1.

Where percentages are given, these relate to the data for that part of the profile only, eg there are a total of 13 Editors, of whom 10 or 77% were paid, compared with 3 or 23% who were unpaid. However, data was only provided about the gender of 10 individuals, therefore the 7 females represent 70% of those for whom there was data, compared with the 3 or 30% males.

All data relate to paid staff, except the total number of individuals and the number and percentage of paid and unpaid.

Where no information was available, the relevant sections have been left blank (eg much of the data for Investigator).

The salary data are for full-time posts, including both employed and self-employed. The minimum, average and maximum salary data presented were derived from the information provided on the questionnaires, which asked about all three. In some cases minimum and maximum were not provided, and in other cases average salaries were not provided. Any missing average salaries were calculated from the maximum and minimum figures provided.

In some cases, the data presented do not add up to 100%, eg in the case of temporary or permanent contracts. In these cases, some individuals reported 'other' in answer to the question about contract length. For example, 60 Archaeological Assistants are on temporary contracts, and 0 are on permanent contracts, but the 60 represent 97% of those about whom information relating to contracts was provided.

In every case, location refers to the location of the organisation's office or offices, rather than that of the work carried out.

Respondents' interpretations of some of the questions varied. In some cases private sector contracting organisations considered that the majority of their staff were 'project funded', whilst in other cases they considered them to be 'establishment funded'. Similarly, responses relating to seniority varied, and apparently very similar posts were assigned to different levels of seniority in different organisations.

How to use the post profile information

If the information required for a particular purpose is clearly available from the tables, by all means use it in this form. However, the post profiles are a distillation of a more comprehensive and complex dataset, which can be made available for use by researchers who require more detailed information. For example, the data collected included age and gender for 2560 individuals, although the data presented in the profiles summarises age and gender separately. If a particular project required combined age and gender information for particular post profiles or other groupings not included elsewhere in this report, this information could be extracted from the database. Researchers are referred to the questionnaires, presented in Appendix 3, for an indication of the overall data available.

There are limitations to the dataset, however, because the questionnaires asked about posts rather than individuals. Consequently there are some questions which cannot be answered. For example, although it would be possible to say how many women were between 30 and 34 years old, and how many individuals (both men and women) had Masters degrees, it is not possible to discover the total number of women aged 30-34 with Masters degrees.

A1.2 All staff

Individuals	2774					
Employment				Gender		
	Paid	2733	99%	Female	1095	43%
	Unpaid	41	1%	Male	1466	57%
	Full-time paid	2343	88%			
	Part-time paid	331	12%			
Salary				Age		
	Minimum	£5,000		16-19	6	0%
	Average	£23,227		20-24	238	9%
	Maximum	£115,000		25-29	471	18%
				30-34	428	17%
Temporary contract		629	24%	35-39	364	14%
Permanent contract		1974	74%	40-44	316	12%
				45-49	306	12%
Length of service > 24m		1608	63%	50-54	205	8%
				55-59	142	6%
Establishment funded post		799	33%	60-64	63	2%
Project funded post		1612	67%	65+	21	1%
Employer contributes to pension		1796	69%			
Location				Qualifications		
English region				Post-doctoral	11	0%
	East of England	145		Doctorate	266	11%
	East Midlands	202		Masters	682	28%
	London	360		First degree	1261	53%
	North East	91		Foundation degree	49	2%
	North West	115		A level, Highers	83	3%
	South East	426		GCSE, Standard Grade	46	2%
	South West	395				
	West Midlands	200				
	Yorkshire & the Humber	169				
Scotland		378		Seniority		
Wales		158		Senior	608	23%
Northern Ireland		84		Middle	1084	40%
Channel Islands		0		Junior	1001	37%
Isle of Man		2				
Post role						
Field investigation and research services			1788			
Historic environment advice and information services			434			
Museum and visitor / user services			121			
Educational and academic research services			211			
Archaeological management			57			
Administrative support			122			
Organisation role						
National government or agency			391			
Local government			404			
University			403			
Private sector			1187			
Other			345			

A1.3 All archaeologists

Individuals	2650				
Employment					
	Paid	2611	99%	Gender	
	Unpaid	39	1%	Female	1009 41%
				Male	1429 59%
	Full-time	2273	89%		
	Part-time	279	11%		
Salary				Age	
	Minimum	£5,000		16-19	6 0%
	Average	£23,310		20-24	231 9%
	Maximum	£115,000		25-29	460 19%
				30-34	419 17%
Temporary contract		621	24%	35-39	353 14%
Permanent contract		1859	73%	40-44	300 12%
				45-49	285 12%
Length of service > 24m		1520	63%	50-54	193 8%
				55-59	122 5%
Establishment funded post		709	31%	60-64	54 2%
Project funded post		1580	69%	65+	16 1%
Employer contributes to pension		1705	69%		
Location				Qualifications	
English region				Post-doctoral	9 0%
	East of England	140		Doctorate	263 11%
	East Midlands	193		Masters	672 29%
	London	352		First degree	1224 53%
	North East	90		Foundation degree	38 2%
	North West	110		A level, Highers	60 3%
	South East	402		GCSE, Standard Grade	35 2%
	South West	378			
	West Midlands	188			
	Yorkshire & the Humber	162			
Scotland		361		Seniority	
Wales		148		Senior	588 23%
Northern Ireland		82		Middle	1047 41%
Channel Islands		0		Junior	939 36%
Isle of Man		2			
Post role					
Field investigation and research services					1788
Historic environment advice and information services					434
Museum and visitor / user services					121
Educational and academic research services					211
Archaeological management					57
Administrative support					0
Organisation role					
National government or agency					379
Local government					393
University					387
Private sector					1122
Other					329

A1.4 Self-employed archaeologists

Individuals	72					
Employment				Gender		
	Paid	70	97%	Female	22	32%
	Unpaid	2	3%	Male	46	68%
	Full-time	30	48%			
	Part-time	33	52%			
Salary	Minimum	£5,000		Age		
	Average	£22,660		16-19	0	0%
	Maximum	£60,000		20-24	0	0%
Temporary contract				25-29	1	1%
Permanent contract				30-34	5	7%
Length of service > 24m	46	66%		35-39	7	10%
Establishment funded post	2	4%		40-44	7	10%
Project funded post	43	96%		45-49	10	15%
Employer contributes to pension	14	27%		50-54	15	22%
				55-59	6	9%
				60-64	9	13%
				65+	8	12%
Location				Qualifications		
English region				Post-doctoral	0	0%
East of England	5			Doctorate	14	22%
East Midlands	3			Masters	20	31%
London	3			First degree	25	38%
North East	5			Foundation degree	4	6%
North West	6			A level, Highers	0	0%
South East	7			GCSE, Standard Grade	2	3%
South West	14					
West Midlands	5					
Yorkshire & the Humber	6					
Scotland	10			Seniority		
Wales	6			Senior	49	98%
Northern Ireland	0			Middle	1	2%
Channel Islands	0			Junior	0	0%
Isle of Man	0					
Post role						
Field investigation and research services		45				
Historic environment advice and information services		13				
Museum and visitor / user services		4				
Educational and academic research services		7				
Archaeological management		1				
Administrative support		0				
Organisation role						
National government or agency		0				
Local government		0				
University		1				
Private sector		63				
Other		4				

A1.5 Academic staff

Individuals	113					
Employment				Gender		
	Paid	113	100%	Female	24	24%
	Unpaid	0	0%	Male	76	76%
	Full-time	96	85%			
	Part-time	17	15%			
Salary	Minimum	£12,000		Age		
	Average	£36,701		16-19	0	0%
	Maximum	£64,826		20-24	0	0%
Temporary contract		20	18%	25-29	2	2%
Permanent contract		92	82%	30-34	10	10%
Length of service > 24m		92	81%	35-39	16	16%
Establishment funded post		97	87%	40-44	20	20%
Project funded post		15	13%	45-49	17	17%
Employer contributes to pension		108	97%	50-54	20	20%
				55-59	10	10%
				60-64	4	4%
				65+	1	1%
Location				Qualifications		
English region				Post-doctoral	4	4%
East of England	0			Doctorate	81	72%
East Midlands	1			Masters	17	15%
London	1			First degree	10	9%
North East	0			Foundation degree	0	0%
North West	2			A level, Highers	0	0%
South East	1			GCSE, Standard Grade	0	0%
South West	29					
West Midlands	16					
Yorkshire & the Humber	31					
Scotland	0			Seniority		
Wales	19			Senior	42	38%
Northern Ireland	13			Middle	54	48%
Channel Islands	0			Junior	16	14%
Isle of Man	0					
Post role						
Field investigation and research services			1			
Historic environment advice and information services			0			
Museum and visitor / user services			0			
Educational and academic research services			112			
Archaeological management			0			
Administrative support			0			
Organisation role						
National government or agency			0			
Local government			0			
University			109			
Private sector			0			
Other			4			

A1.6 Administrator

Individuals	94				
Employment				Gender	
	Paid	94	100%	Female	77 83%
	Unpaid	0	0%	Male	16 17%
	Full-time	46	49%		
	Part-time	48	51%		
Salary	Minimum	£11,938		Age	
	Average	£19,326		16-19	0 0%
	Maximum	£32,000		20-24	2 2%
				25-29	6 7%
				30-34	9 10%
Temporary contract		4	4%	35-39	10 11%
Permanent contract		89	95%	40-44	10 11%
				45-49	18 20%
Length of service > 24m		65	72%	50-54	8 9%
				55-59	15 16%
Establishment funded post		62	66%	60-64	9 10%
Project funded post		32	34%	65+	4 4%
Employer contributes to pension		72	77%		
Location				Qualifications	
English region				Post-doctoral	0 0%
	East of England	2		Doctorate	0 0%
	East Midlands	6		Masters	5 6%
	London	6		First degree	34 43%
	North East	1		Foundation degree	9 11%
	North West	3		A level, Highers	18 23%
	South East	17		GCSE, Standard Grade	13 16%
	South West	5			
	West Midlands	12			
	Yorkshire & the Humber	14			
Scotland		12		Seniority	
Wales		14		Senior	22 24%
Northern Ireland		2		Middle	24 26%
Channel Islands		0		Junior	46 50%
Isle of Man		0			
Post role					
Field investigation and research services			0		
Historic environment advice and information services			11		
Museum and visitor / user services			0		
Educational and academic research services			0		
Archaeological management			0		
Administrative support			83		
Organisation role					
National government or agency			11		
Local government			7		
University			16		
Private sector			44		
Other			16		

A1.7 Archaeological Assistant

Individuals	64					
Employment				Gender		
	Paid	63	98%	Female	25	40%
	Unpaid	1	2%	Male	37	60%
	Full-time	60	100%			
	Part-time	0	0%			
Salary	Minimum	£13,900		Age		
	Average	£14,489		16-19	0	0%
	Maximum	£17,000		20-24	25	40%
				25-29	29	47%
				30-34	4	6%
Temporary contract		60	97%	35-39	2	3%
Permanent contract		0	0%	40-44	0	0%
				45-49	2	3%
Length of service > 24m		4	6%	50-54	0	0%
				55-59	0	0%
Establishment funded post		0	0%	60-64	0	0%
Project funded post		62	100%	65+	0	0%
Employer contributes to pension		20	32%			
Location				Qualifications		
English region				Post-doctoral	0	0%
	East of England	0		Doctorate	0	0%
	East Midlands	20		Masters	1	2%
	London	0		First degree	42	93%
	North East	0		Foundation degree	0	0%
	North West	0		A level, Highers	2	4%
	South East	3		GCSE, Standard Grade	0	0%
	South West	0				
	West Midlands	0				
	Yorkshire & the Humber	0				
Scotland		40		Seniority		
Wales		0		Senior	0	0%
Northern Ireland		0		Middle	0	0%
Channel Islands		0		Junior	64	100%
Isle of Man		0				
Post role						
Field investigation and research services		62				
Historic environment advice and information services		0				
Museum and visitor / user services		1				
Educational and academic research services		0				
Archaeological management		0				
Administrative support		0				
Organisation role						
National government or agency		0				
Local government		3				
University		20				
Private sector		40				
Other		0				

A1.8 Archaeological Officer

Individuals	25				
Employment				Gender	
	Paid	25	100%	Female	9 36%
	Unpaid	0	0%	Male	16 64%
	Full-time	24	96%		
	Part-time	1	4%		
Salary	Minimum	£19,872		Age	
	Average	£25,958		16-19	0 0%
	Maximum	£33,291		20-24	0 0%
Temporary contract		4	16%	25-29	1 4%
Permanent contract		21	84%	30-34	4 16%
Length of service > 24m		23	92%	35-39	4 16%
Establishment funded post		14	61%	40-44	2 8%
Project funded post		9	39%	45-49	3 12%
Employer contributes to pension		23	96%	50-54	3 12%
				55-59	6 24%
				60-64	2 8%
				65+	0 0%
Location				Qualifications	
English region				Post-doctoral	0 0%
East of England	7			Doctorate	3 12%
East Midlands	0			Masters	4 16%
London	1			First degree	16 64%
North East	1			Foundation degree	0 0%
North West	0			A level, Highers	2 8%
South East	11			GCSE, Standard Grade	0 0%
South West	1				
West Midlands	1				
Yorkshire & the Humber	0				
Scotland	3			Seniority	
Wales	0			Senior	3 13%
Northern Ireland	0			Middle	19 79%
Channel Islands	0			Junior	2 8%
Isle of Man	0				
Post role					
Field investigation and research services		11			
Historic environment advice and information services		13			
Museum and visitor / user services		0			
Educational and academic research services		0			
Archaeological management		1			
Administrative support		0			
Organisation role					
National government or agency		0			
Local government		22			
University		0			
Private sector		0			
Other		3			

A1.9 Archaeological Scientist

Individuals	44		
Employment			
	Paid	44	100%
	Unpaid	0	0%
	Full-time	40	91%
	Part-time	4	9%
Salary			
	Minimum	£6,000	
	Average	£23,174	
	Maximum	£52,882	
	Temporary contract	12	28%
	Permanent contract	30	70%
	Length of service > 24m	19	61%
	Establishment funded post	4	13%
	Project funded post	28	88%
	Employer contributes to pension	31	70%
Location			
	English region		
	East of England	2	
	East Midlands	3	
	London	19	
	North East	2	
	North West	1	
	South East	2	
	South West	2	
	West Midlands	5	
	Yorkshire & the Humber	3	
	Scotland	3	
	Wales	0	
	Northern Ireland	0	
	Channel Islands	0	
	Isle of Man	0	
Post role			
	Field investigation and research services	41	
	Historic environment advice and information services	0	
	Museum and visitor / user services	0	
	Educational and academic research services	3	
	Archaeological management	0	
	Administrative support	0	
Organisation role			
	National government or agency	12	
	Local government	5	
	University	4	
	Private sector	7	
	Other	16	
Gender			
	Female	17	53%
	Male	15	47%
Age			
	16-19	0	0%
	20-24	3	9%
	25-29	5	16%
	30-34	10	31%
	35-39	0	0%
	40-44	2	6%
	45-49	6	19%
	50-54	3	9%
	55-59	2	6%
	60-64	1	3%
	65+	0	0%
Qualifications			
	Post-doctoral	0	0%
	Doctorate	5	16%
	Masters	15	47%
	First degree	12	38%
	Foundation degree	0	0%
	A level, Highers	0	0%
	GCSE, Standard Grade	0	0%
Seniority			
	Senior	6	14%
	Middle	15	34%
	Junior	23	52%

A1.10 Archaeologist

Individuals	343					
Employment				Gender		
	Paid	343	100%	Female	155	46%
	Unpaid	0	0%	Male	181	54%
	Full-time	335	98%			
	Part-time	8	2%			
Salary	Minimum	£11,999		Age		
	Average	£17,178		16-19	1	0%
	Maximum	£43,000		20-24	82	24%
Temporary contract		169	49%	25-29	113	34%
Permanent contract		168	49%	30-34	63	19%
Length of service > 24m		119	35%	35-39	27	8%
Establishment funded post		5	2%	40-44	20	6%
Project funded post		311	98%	45-49	14	4%
Employer contributes to pension		75	29%	50-54	10	3%
				55-59	4	1%
				60-64	2	1%
				65+	0	0%
Location				Qualifications		
English region				Post-doctoral	0	0%
East of England	2			Doctorate	8	2%
East Midlands	1			Masters	136	39%
London	114			First degree	190	55%
North East	22			Foundation degree	3	1%
North West	28			A level, Highers	9	3%
South East	97			GCSE, Standard Grade	0	0%
South West	14					
West Midlands	6					
Yorkshire & the Humber	3					
Scotland	23			Seniority		
Wales	17			Senior	17	5%
Northern Ireland	17			Middle	96	28%
Channel Islands	0			Junior	228	67%
Isle of Man	0					
Post role						
Field investigation and research services			339			
Historic environment advice and information services			4			
Museum and visitor / user services			0			
Educational and academic research services			0			
Archaeological management			0			
Administrative support			0			
Organisation role						
National government or agency			25			
Local government			23			
University			26			
Private sector			193			
Other			76			

A1.11 Archives Officer

Individuals	18				
Employment				Gender	
	Paid	18	100%	Female	6 35%
	Unpaid	0	0%	Male	11 65%
	Full-time	14	78%		
	Part-time	4	22%		
Salary				Age	
	Minimum	£18,000		16-19	0 0%
	Average	£23,811		20-24	0 0%
	Maximum	£41,046		25-29	3 18%
	Temporary contract	0	0%	30-34	4 24%
	Permanent contract	18	100%	35-39	2 12%
	Length of service > 24m	12	71%	40-44	4 24%
	Establishment funded post	8	53%	45-49	2 12%
	Project funded post	7	47%	50-54	1 6%
	Employer contributes to pension	18	100%	55-59	1 6%
				60-64	0 0%
				65+	0 0%
Location				Qualifications	
	English region			Post-doctoral	0 0%
	East of England	1		Doctorate	0 0%
	East Midlands	2		Masters	7 41%
	London	8		First degree	8 47%
	North East	0		Foundation degree	1 6%
	North West	0		A level, Highers	1 6%
	South East	0		GCSE, Standard Grade	0 0%
	South West	0			
	West Midlands	0			
	Yorkshire & the Humber	6			
	Scotland	0		Seniority	
	Wales	0		Senior	1 6%
	Northern Ireland	0		Middle	8 47%
	Channel Islands	0		Junior	8 47%
	Isle of Man	0			
Post role					
	Field investigation and research services		5		
	Historic environment advice and information services		0		
	Museum and visitor / user services		5		
	Educational and academic research services		6		
	Archaeological management		2		
	Administrative support		0		
Organisation role					
	National government or agency		1		
	Local government		6		
	University		6		
	Private sector		0		
	Other		5		

A1.12 Buildings Archaeologist

Individuals	12					
Employment				Gender		
	Paid	12	100%	Female	7	58%
	Unpaid	0	0%	Male	5	42%
	Full-time	10	83%			
	Part-time	2	17%			
Salary	Minimum	£15,153		Age		
	Average	£26,928		16-19	0	0%
	Maximum	£31,840		20-24	2	17%
				25-29	0	0%
				30-34	2	17%
Temporary contract		2	18%	35-39	3	25%
Permanent contract		8	73%	40-44	1	8%
				45-49	0	0%
Length of service > 24m		11	100%	50-54	1	8%
				55-59	1	8%
Establishment funded post		6	67%	60-64	0	0%
Project funded post		3	33%	65+	2	17%
Employer contributes to pension		6	60%			
Location				Qualifications		
English region				Post-doctoral	0	0%
	East of England	0		Doctorate	2	29%
	East Midlands	2		Masters	3	43%
	London	5		First degree	2	29%
	North East	1		Foundation degree	0	0%
	North West	1		A level, Highers	0	0%
	South East	2		GCSE, Standard Grade	0	0%
	South West	0				
	West Midlands	1				
	Yorkshire & the Humber	0				
Scotland		0		Seniority		
Wales		0		Senior	5	45%
Northern Ireland		0		Middle	4	36%
Channel Islands		0		Junior	2	18%
Isle of Man		0				
Post role						
	Field investigation and research services		5			
	Historic environment advice and information services		2			
	Museum and visitor / user services		5			
	Educational and academic research services		0			
	Archaeological management		0			
	Administrative support		0			
Organisation role						
	National government or agency		0			
	Local government		1			
	University		1			
	Private sector		9			
	Other		1			

A1.13 Characterisation posts

Individuals	15				
Employment				Gender	
	Paid	15	100%	Female	4 57%
	Unpaid	0	0%	Male	3 43%
	Full-time	15	100%		
	Part-time	0	0%		
Salary				Age	
	Minimum	£19,170		16-19	0 0%
	Average	£28,859		20-24	0 0%
	Maximum	£52,882		25-29	4 57%
	Temporary contract	6	40%	30-34	1 14%
	Permanent contract	9	60%	35-39	2 29%
	Length of service > 24m	3	43%	40-44	0 0%
	Establishment funded post	0	0%	45-49	0 0%
	Project funded post	7	100%	50-54	0 0%
	Employer contributes to pension	14	93%	55-59	0 0%
				60-64	0 0%
				65+	0 0%
Location				Qualifications	
	English region			Post-doctoral	0 0%
	East of England	1		Doctorate	0 0%
	East Midlands	1		Masters	3 43%
	London	1		First degree	4 57%
	North East	1		Foundation degree	0 0%
	North West	1		A level, Highers	0 0%
	South East	3		GCSE, Standard Grade	0 0%
	South West	3			
	West Midlands	3			
	Yorkshire & the Humber	3			
	Scotland	0			
	Wales	0		Seniority	
	Northern Ireland	0		Senior	4 27%
	Channel Islands	0		Middle	10 67%
	Isle of Man	0		Junior	1 7%
Post role					
	Field investigation and research services		9		
	Historic environment advice and information services		6		
	Museum and visitor / user services		0		
	Educational and academic research services		0		
	Archaeological management		0		
	Administrative support		0		
Organisation role					
	National government or agency		8		
	Local government		6		
	University		0		
	Private sector		0		
	Other		1		

A1.14 Computing Officer

Individuals	43					
Employment				Gender		
	Paid	43	100%	Female	19	46%
	Unpaid	0	0%	Male	22	54%
	Full-time	38	88%			
	Part-time	5	12%			
Salary	Minimum	£16,858		Age		
	Average	£23,440		16-19	0	0%
	Maximum	£46,460		20-24	4	10%
				25-29	10	24%
				30-34	5	12%
Temporary contract		10	22%	35-39	6	15%
Permanent contract		35	78%	40-44	6	15%
				45-49	6	15%
Length of service > 24m		26	65%	50-54	1	2%
				55-59	2	5%
Establishment funded post		31	76%	60-64	1	2%
Project funded post		10	24%	65+	0	0%
Employer contributes to pension		38	88%			
Location				Qualifications		
English region				Post-doctoral	0	0%
	East of England	0		Doctorate	2	5%
	East Midlands	1		Masters	18	44%
	London	1		First degree	17	41%
	North East	0		Foundation degree	4	10%
	North West	2		A level, Highers	0	0%
	South East	5		GCSE, Standard Grade	0	0%
	South West	5				
	West Midlands	0				
	Yorkshire & the Humber	2				
Scotland		25		Seniority		
Wales		0		Senior	6	14%
Northern Ireland		0		Middle	17	40%
Channel Islands		0		Junior	20	47%
Isle of Man		0				
Post role						
Field investigation and research services			3			
Historic environment advice and information services			25			
Museum and visitor / user services			0			
Educational and academic research services			3			
Archaeological management			2			
Administrative support			10			
Organisation role						
National government or agency			27			
Local government			0			
University			2			
Private sector			12			
Other			2			

A1.15 Conservation Archaeologist

Individuals	7					
Employment				Gender		
	Paid	7	100%	Female	1	17%
	Unpaid	0	0%	Male	5	83%
	Full-time	6	86%			
	Part-time	1	14%			
Salary	Minimum	£18,907		Age		
	Average	£25,701		16-19	0	0%
	Maximum	£41,046		20-24	0	0%
	Temporary contract	1	14%	25-29	0	0%
	Permanent contract	6	86%	30-34	1	17%
	Length of service > 24m	5	83%	35-39	0	0%
	Establishment funded post	5	100%	40-44	0	0%
	Project funded post	0	0%	45-49	1	17%
	Employer contributes to pension	7	100%	50-54	1	17%
				55-59	3	50%
				60-64	0	0%
				65+	0	0%
Location				Qualifications		
English region				Post-doctoral	0	0%
East of England	1			Doctorate	0	0%
East Midlands	0			Masters	2	33%
London	0			First degree	4	67%
North East	0			Foundation degree	0	0%
North West	0			A level, Highers	0	0%
South East	0			GCSE, Standard Grade	0	0%
South West	0					
West Midlands	0					
Yorkshire & the Humber	5					
Scotland	0			Seniority		
Wales	0			Senior	2	29%
Northern Ireland	0			Middle	4	57%
Channel Islands	0			Junior	1	14%
Isle of Man	0					
Post role						
Field investigation and research services		1				
Historic environment advice and information services		6				
Museum and visitor / user services		0				
Educational and academic research services		0				
Archaeological management		0				
Administrative support		0				
Organisation role						
National government or agency		1				
Local government		6				
University		0				
Private sector		0				
Other		0				

A1.16 Conservator

Individuals	9					
Employment				Gender		
	Paid	9	100%	Female	6	86%
	Unpaid	0	0%	Male	1	14%
	Full-time	8	89%			
	Part-time	1	11%			
Salary	Minimum	£5,000		Age		
	Average	£19,375		16-19	0	0%
	Maximum	£33,536		20-24	0	0%
	Temporary contract	1	17%	25-29	2	29%
	Permanent contract	4	67%	30-34	1	14%
	Length of service > 24m	4	57%	35-39	1	14%
	Establishment funded post	0	0%	40-44	0	0%
	Project funded post	7	100%	45-49	0	0%
	Employer contributes to pension	7	78%	50-54	1	14%
				55-59	1	14%
				60-64	1	14%
				65+	0	0%
Location				Qualifications		
English region				Post-doctoral	0	0%
East of England	0			Doctorate	0	0%
East Midlands	0			Masters	0	0%
London	2			First degree	7	100%
North East	0			Foundation degree	0	0%
North West	0			A level, Highers	0	0%
South East	2			GCSE, Standard Grade	0	0%
South West	3					
West Midlands	0					
Yorkshire & the Humber	0					
Scotland	0			Seniority		
Wales	0			Senior	3	33%
Northern Ireland	0			Middle	1	11%
Channel Islands	0			Junior	5	56%
Isle of Man	0					
Post role						
Field investigation and research services		5				
Historic environment advice and information services		0				
Museum and visitor / user services		4				
Educational and academic research services		0				
Archaeological management		0				
Administrative support		0				
Organisation role						
National government or agency		2				
Local government		2				
University		0				
Private sector		3				
Other		2				

A1.17 Consultant

Individuals	109					
Employment				Gender		
	Paid	109	100%	Female	30	34%
	Unpaid	0	0%	Male	59	66%
	Full-time	93	86%			
	Part-time	15	14%			
Salary				Age		
	Minimum	£13,000		16-19	0	0%
	Average	£28,466		20-24	3	3%
	Maximum	£49,000		25-29	15	17%
	Temporary contract	16	15%	30-34	32	36%
	Permanent contract	86	82%	35-39	13	15%
	Length of service > 24m	74	70%	40-44	12	13%
	Establishment funded post	5	5%	45-49	4	4%
	Project funded post	92	95%	50-54	3	3%
	Employer contributes to pension	88	87%	55-59	3	3%
				60-64	3	3%
				65+	1	1%
Location				Qualifications		
	English region			Post-doctoral	0	0%
	East of England	4		Doctorate	12	11%
	East Midlands	9		Masters	45	43%
	London	16		First degree	46	44%
	North East	3		Foundation degree	2	2%
	North West	0		A level, Highers	0	0%
	South East	7		GCSE, Standard Grade	0	0%
	South West	19				
	West Midlands	13				
	Yorkshire & the Humber	15				
	Scotland	6				
	Wales	2				
	Northern Ireland	15				
	Channel Islands	0				
	Isle of Man	0				
Post role				Seniority		
	Field investigation and research services		54	Senior	41	38%
	Historic environment advice and information services		49	Middle	38	36%
	Museum and visitor / user services		6	Junior	28	26%
	Educational and academic research services		0			
	Archaeological management		0			
	Administrative support		0			
Organisation role						
	National government or agency		0			
	Local government		1			
	University		15			
	Private sector		90			
	Other		3			

A1.18 County or Regional Archaeologist

Individuals	34		
Employment			
	Paid	34	100%
	Unpaid	0	0%
	Full-time	32	97%
	Part-time	1	3%
Salary	Minimum	£19,431	
	Average	£32,378	
	Maximum	£43,887	
Temporary contract		1	3%
Permanent contract		33	97%
Length of service > 24m		31	94%
Establishment funded post		30	95%
Project funded post		2	5%
Employer contributes to pension		34	100%
Location			
English region			
	East of England	3	
	East Midlands	3	
	London	1	
	North East	3	
	North West	2	
	South East	4	
	South West	2	
	West Midlands	3	
	Yorkshire & the Humber	1	
Scotland		5	
Wales		4	
Northern Ireland		1	
Channel Islands		0	
Isle of Man		0	
Post role			
	Field investigation and research services		0
	Historic environment advice and information services		34
	Museum and visitor / user services		0
	Educational and academic research services		0
	Archaeological management		0
	Administrative support		0
Organisation role			
	National government or agency		13
	Local government		16
	University		0
	Private sector		1
	Other		4
Gender			
	Female	11	32%
	Male	23	68%
Age			
	16-19	0	0%
	20-24	0	0%
	25-29	2	6%
	30-34	1	3%
	35-39	4	12%
	40-44	5	15%
	45-49	6	18%
	50-54	11	32%
	55-59	2	6%
	60-64	3	9%
	65+	0	0%
Qualifications			
	Post-doctoral	0	0%
	Doctorate	9	26%
	Masters	9	26%
	First degree	16	47%
	Foundation degree	0	0%
	A level, Highers	0	0%
	GCSE, Standard Grade	0	0%
Seniority			
	Senior	16	48%
	Middle	16	48%
	Junior	1	3%

A1.19 Director or Manager

Individuals	94					
Employment				Gender		
	Paid	93	99%	Female	21	24%
	Unpaid	1	1%	Male	67	76%
	Full-time	77	91%			
	Part-time	8	9%			
Salary				Age		
	Minimum	£24,652		16-19	0	0%
	Average	£37,092		20-24	0	0%
	Maximum	£115,000		25-29	0	0%
	Temporary contract	1	1%	30-34	5	6%
	Permanent contract	84	97%	35-39	12	14%
	Length of service > 24m	78	92%	40-44	22	25%
	Establishment funded post	16	19%	45-49	18	20%
	Project funded post	67	81%	50-54	17	19%
	Employer contributes to pension	72	83%	55-59	9	10%
				60-64	5	6%
				65+	0	0%
Location				Qualifications		
	English region			Post-doctoral	1	1%
	East of England	5		Doctorate	21	24%
	East Midlands	7		Masters	29	33%
	London	22		First degree	36	41%
	North East	5		Foundation degree	0	0%
	North West	1		A level, Highers	0	0%
	South East	4		GCSE, Standard Grade	0	0%
	South West	11				
	West Midlands	5				
	Yorkshire & the Humber	3				
	Scotland	23				
	Wales	6				
	Northern Ireland	0				
	Channel Islands	0				
	Isle of Man	0				
Post role				Seniority		
	Field investigation and research services		58	Senior	62	70%
	Historic environment advice and information services		15	Middle	26	29%
	Museum and visitor / user services		2	Junior	1	1%
	Educational and academic research services		3			
	Archaeological management		13			
	Administrative support		2			
Organisation role						
	National government or agency		3			
	Local government		9			
	University		19			
	Private sector		45			
	Other		17			

A1.20 Editor

Individuals	13		
Employment			
	Paid	10	77%
	Unpaid	3	23%
	Full-time	4	40%
	Part-time	6	60%
Salary	Minimum	£16,483	
	Average	£25,378	
	Maximum	£33,667	
Temporary contract		3	30%
Permanent contract		7	70%
Length of service > 24m		8	80%
Establishment funded post		7	70%
Project funded post		3	30%
Employer contributes to pension		8	80%
Location			
English region			
	East of England	1	
	East Midlands	3	
	London	3	
	North East	0	
	North West	0	
	South East	1	
	South West	0	
	West Midlands	0	
	Yorkshire & the Humber	1	
Scotland		1	
Wales		0	
Northern Ireland		0	
Channel Islands		0	
Isle of Man		0	
Post role			
	Field investigation and research services	5	
	Historic environment advice and information services	0	
	Museum and visitor / user services	0	
	Educational and academic research services	2	
	Archaeological management	3	
	Administrative support	0	
Organisation role			
	National government or agency	0	
	Local government	0	
	University	1	
	Private sector	4	
	Other	5	
Gender			
	Female	7	70%
	Male	3	30%
Age			
	16-19	0	0%
	20-24	0	0%
	25-29	1	10%
	30-34	0	0%
	35-39	1	10%
	40-44	1	10%
	45-49	2	20%
	50-54	1	10%
	55-59	2	20%
	60-64	1	10%
	65+	1	10%
Qualifications			
	Post-doctoral	0	0%
	Doctorate	2	20%
	Masters	2	20%
	First degree	6	60%
	Foundation degree	0	0%
	A level, Highers	0	0%
	GCSE, Standard Grade	0	0%
Seniority			
	Senior	6	50%
	Middle	5	42%
	Junior	1	8%

A1.21 Education and Outreach posts

Individuals	42					
Employment				Gender		
	Paid	42	100%	Female	29	69%
	Unpaid	0	0%	Male	13	31%
	Full-time	31	74%			
	Part-time	11	26%			
Salary	Minimum	£16,000		Age		
	Average	£23,387		16-19	0	0%
	Maximum	£46,460		20-24	2	5%
Temporary contract		27	64%	25-29	17	40%
Permanent contract		15	36%	30-34	4	10%
Length of service > 24m		19	48%	35-39	5	12%
Establishment funded post		17	40%	40-44	3	7%
Project funded post		25	60%	45-49	3	7%
Employer contributes to pension		38	93%	50-54	4	10%
				55-59	4	10%
				60-64	0	0%
				65+	0	0%
Location				Qualifications		
English region				Post-doctoral	0	0%
East of England	1			Doctorate	4	10%
East Midlands	1			Masters	15	38%
London	2			First degree	20	51%
North East	0			Foundation degree	0	0%
North West	0			A level, Highers	0	0%
South East	5			GCSE, Standard Grade	0	0%
South West	4					
West Midlands	1					
Yorkshire & the Humber	3					
Scotland	19			Seniority		
Wales	6			Senior	6	15%
Northern Ireland	0			Middle	19	48%
Channel Islands	0			Junior	15	38%
Isle of Man	0					
Post role						
Field investigation and research services			0			
Historic environment advice and information services			4			
Museum and visitor / user services			8			
Educational and academic research services			29			
Archaeological management			1			
Administrative support			0			
Organisation role						
National government or agency			19			
Local government			14			
University			3			
Private sector			3			
Other			3			

A1.22 Excavator or Site Assistant

Individuals	51					
Employment				Gender		
	Paid	48	94%	Female	19	40%
	Unpaid	3	6%	Male	29	60%
	Full-time	35	76%			
	Part-time	11	24%			
Salary	Minimum	£11,045		Age		
	Average	£14,077		16-19	0	0%
	Maximum	£16,221		20-24	21	44%
Temporary contract		34	71%	25-29	5	10%
Permanent contract		14	29%	30-34	7	15%
Length of service > 24m		10	21%	35-39	4	8%
Establishment funded post		2	4%	40-44	4	8%
Project funded post		46	96%	45-49	3	6%
Employer contributes to pension		19	40%	50-54	0	0%
				55-59	1	2%
				60-64	2	4%
				65+	1	2%
Location				Qualifications		
English region				Post-doctoral	1	3%
East of England	16			Doctorate	0	0%
East Midlands	12			Masters	8	21%
London	0			First degree	16	41%
North East	5			Foundation degree	1	3%
North West	0			A level, Highers	7	18%
South East	0			GCSE, Standard Grade	6	15%
South West	0					
West Midlands	13					
Yorkshire & the Humber	0					
Scotland	2			Seniority		
Wales	0			Senior	0	0%
Northern Ireland	0			Middle	3	6%
Channel Islands	0			Junior	45	94%
Isle of Man	0					
Post role						
Field investigation and research services		48				
Historic environment advice and information services		0				
Museum and visitor / user services		0				
Educational and academic research services		0				
Archaeological management		0				
Administrative support		0				
Organisation role						
National government or agency		5				
Local government		0				
University		12				
Private sector		19				
Other		12				

A1.23 Field Officer

Individuals	25					
Employment				Gender		
	Paid	25	100%	Female	5	20%
	Unpaid	0	0%	Male	20	80%
	Full-time	24	96%			
	Part-time	1	4%			
				Age		
Salary	Minimum	£16,536		16-19	0	0%
	Average	£22,005		20-24	0	0%
	Maximum	£27,000		25-29	5	20%
				30-34	5	20%
Temporary contract		10	40%	35-39	4	16%
Permanent contract		15	60%	40-44	6	24%
				45-49	3	12%
Length of service > 24m		24	96%	50-54	2	8%
				55-59	0	0%
Establishment funded post		0	0%	60-64	0	0%
Project funded post		25	100%	65+	0	0%
Employer contributes to pension		20	80%			
Location				Qualifications		
English region				Post-doctoral	0	0%
	East of England	0		Doctorate	2	13%
	East Midlands	8		Masters	1	7%
	London	0		First degree	12	80%
	North East	0		Foundation degree	0	0%
	North West	0		A level, Highers	0	0%
	South East	0		GCSE, Standard Grade	0	0%
	South West	0				
	West Midlands	8				
	Yorkshire & the Humber	9				
Scotland		0		Seniority		
Wales		0		Senior	0	0%
Northern Ireland		0		Middle	14	74%
Channel Islands		0		Junior	5	26%
Isle of Man		0				
Post role						
Field investigation and research services			25			
Historic environment advice and information services			0			
Museum and visitor / user services			0			
Educational and academic research services			0			
Archaeological management			0			
Administrative support			0			
Organisation role						
National government or agency			0			
Local government			6			
University			8			
Private sector			2			
Other			9			

A1.24 Financial posts

Individuals	13		
Employment			
Paid	13	100%	
Unpaid	0	0%	
Full-time	9	69%	
Part-time	4	31%	
Salary	Minimum	£15,885	
	Average	£23,487	
	Maximum	£55,218	
Temporary contract	0	0%	
Permanent contract	13	100%	
Length of service > 24m	10	77%	
Establishment funded post	13	100%	
Project funded post	0	0%	
Employer contributes to pension	10	77	
Location			
English region			
East of England	1		
East Midlands	2		
London	2		
North East	0		
North West	0		
South East	0		
South West	7		
West Midlands	0		
Yorkshire & the Humber	0		
Scotland	1		
Wales	0		
Northern Ireland	0		
Channel Islands	0		
Isle of Man	0		
Post role			
Field investigation and research services		0	
Historic environment advice and information services		0	
Museum and visitor / user services		0	
Educational and academic research services		0	
Archaeological management		1	
Administrative support		12	
Organisation role			
National government or agency		0	
Local government		1	
University		0	
Private sector		8	
Other		4	
Gender			
Female	9	69%	
Male	4	31%	
Age			
16-19	0	0%	
20-24	1	8%	
25-29	0	0%	
30-34	0	0%	
35-39	0	0%	
40-44	3	23%	
45-49	4	31%	
50-54	2	15%	
55-59	2	15%	
60-64	1	8%	
65+	0	0%	
Qualifications			
Post-doctoral	1	17%	
Doctorate	0	0%	
Masters	0	0%	
First degree	2	33%	
Foundation degree	0	0%	
A level, Highers	3	50%	
GCSE, Standard Grade	0	0%	
Seniority			
Senior	3	23%	
Middle	6	46%	
Junior	4	31%	

A1.25 Finds Officer

Individuals	72					
Employment				Gender		
	Paid	72	100%	Female	43	61%
	Unpaid	0	0%	Male	28	39%
	Full-time	52	71%			
	Part-time	21	29%			
Salary	Minimum	£13,164		Age		
	Average	£20,821		16-19	1	1%
	Maximum	£39,365		20-24	3	4%
Temporary contract		17	24%	25-29	6	8%
Permanent contract		47	66%	30-34	10	14%
Length of service > 24m		50	74%	35-39	13	18%
Establishment funded post		2	3%	40-44	12	17%
Project funded post		67	97%	45-49	9	13%
Employer contributes to pension		48	68%	50-54	8	11%
				55-59	6	8%
				60-64	3	4%
				65+	0	0%
Location				Qualifications		
English region				Post-doctoral	0	0%
East of England	10			Doctorate	15	23%
East Midlands	10			Masters	17	26%
London	24			First degree	31	47%
North East	1			Foundation degree	1	2%
North West	2			A level, Highers	1	2%
South East	2			GCSE, Standard Grade	1	2%
South West	2					
West Midlands	6					
Yorkshire & the Humber	2					
Scotland	6			Seniority		
Wales	0			Senior	13	19%
Northern Ireland	0			Middle	29	43%
Channel Islands	0			Junior	25	37%
Isle of Man	0					
Post role						
Field investigation and research services		54				
Historic environment advice and information services		7				
Museum and visitor / user services		4				
Educational and academic research services		6				
Archaeological management		1				
Administrative support		0				
Organisation role						
National government or agency		2				
Local government		21				
University		3				
Private sector		23				
Other		23				

A1.26 Historic Environment Record Officer

Individuals	42					
Employment				Gender		
	Paid	40	95%	Female	23	59%
	Unpaid	2	5%	Male	16	41%
	Full-time	34	85%			
	Part-time	6	15%			
Salary	Minimum	£13,336		Age		
	Average	£23,767		16-19	0	0%
	Maximum	£35,852		20-24	2	5%
Temporary contract		5	13%	25-29	5	13%
Permanent contract		35	88%	30-34	5	13%
Length of service > 24m		27	77%	35-39	6	15%
Establishment funded post		31	78%	40-44	7	18%
Project funded post		9	23%	45-49	4	10%
Employer contributes to pension		35	88%	50-54	7	18%
				55-59	2	5%
				60-64	0	0%
				65+	1	3%
Location				Qualifications		
English region				Post-doctoral	0	0%
East of England	2			Doctorate	2	5%
East Midlands	1			Masters	14	36%
London	2			First degree	21	54%
North East	0			Foundation degree	1	3%
North West	1			A level, Highers	1	3%
South East	5			GCSE, Standard Grade	0	0%
South West	11					
West Midlands	7			Seniority		
Yorkshire & the Humber	4			Senior	7	18%
Scotland	0			Middle	21	53%
Wales	7			Junior	12	30%
Northern Ireland	0					
Channel Islands	0					
Isle of Man	0					
Post role						
Field investigation and research services			0			
Historic environment advice and information services			40			
Museum and visitor / user services			0			
Educational and academic research services			0			
Archaeological management			0			
Administrative support			0			
Organisation role						
National government or agency			6			
Local government			31			
University			0			
Private sector			3			
Other			0			

A1.27 Illustrator

Individuals	72				
Employment				Gender	
	Paid	72	100%	Female	42 58%
	Unpaid	0	0%	Male	30 42%
	Full-time	48	70%		
	Part-time	21	30%		
Salary				Age	
	Minimum	£12,000		16-19	0 0%
	Average	£19,320		20-24	4 6%
	Maximum	£39,365		25-29	12 17%
				30-34	14 19%
Temporary contract		8	12%	35-39	8 11%
Permanent contract		57	85%	40-44	14 19%
				45-49	6 8%
Length of service > 24m		44	66%	50-54	3 4%
				55-59	6 8%
Establishment funded post		7	11%	60-64	2 3%
Project funded post		55	89%	65+	3 4%
Employer contributes to pension		31	46%		
Location				Qualifications	
English region				Post-doctoral	0 0%
	East of England	6		Doctorate	3 4%
	East Midlands	1		Masters	12 17%
	London	11		First degree	40 58%
	North East	3		Foundation degree	8 12%
	North West	6		A level, Highers	6 9%
	South East	16		GCSE, Standard Grade	0 0%
	South West	9			
	West Midlands	7			
	Yorkshire & the Humber	0			
Scotland		7		Seniority	
Wales		4		Senior	9 13%
Northern Ireland		2		Middle	36 54%
Channel Islands		0		Junior	22 33%
Isle of Man		0			
Post role					
	Field investigation and research services		53		
	Historic environment advice and information services		4		
	Museum and visitor / user services		0		
	Educational and academic research services		3		
	Archaeological management		12		
	Administrative support		0		
Organisation role					
	National government or agency		2		
	Local government		8		
	University		7		
	Private sector		51		
	Other		7		

A1.28 Inspector

Individuals	79					
Employment				Gender		
	Paid	79	100%	Female	17	35%
	Unpaid	0	0%	Male	32	65%
	Full-time	77	97%			
	Part-time	2	3%			
				Age		
Salary	Minimum	£21,000		16-19	0	0%
	Average	£35,226		20-24	4	8%
	Maximum	£62,298		25-29	1	2%
				30-34	11	22%
Temporary contract		0	0%	35-39	9	18%
Permanent contract		79	100%	40-44	3	6%
				45-49	5	10%
Length of service > 24m		28	72%	50-54	7	14%
				55-59	8	16%
Establishment funded post		37	100%	60-64	1	2%
Project funded post		0	0%	65+	0	0%
Employer contributes to pension		79	100%			
Location				Qualifications		
English region				Post-doctoral	0	0%
	East of England	3		Doctorate	16	32%
	East Midlands	3		Masters	13	26%
	London	3		First degree	21	42%
	North East	3		Foundation degree	0	0%
	North West	3		A level, Highers	0	0%
	South East	3		GCSE, Standard Grade	0	0%
	South West	6				
	West Midlands	3				
	Yorkshire & the Humber	3				
Scotland		27		Seniority		
Wales		10		Senior	29	37%
Northern Ireland		12		Middle	47	59%
Channel Islands		0		Junior	3	4%
Isle of Man		0				
Post role						
Field investigation and research services		0				
Historic environment advice and information services		79				
Museum and visitor / user services		0				
Educational and academic research services		0				
Archaeological management		0				
Administrative support		0				
Organisation role						
National government or agency		79				
Local government		0				
University		0				
Private sector		0				
Other		0				

A1.29 Investigator

Individuals	30			
Employment				Gender
	Paid	30	100%	Female
	Unpaid	0	0%	Male
	Full-time	30	100%	
	Part-time	0	0%	
Salary	Minimum	£24,652		Age
	Average	£29,733		16-19
	Maximum	£41,046		20-24
Temporary contract		0	0%	25-29
Permanent contract		30	100%	30-34
Length of service > 24m				35-39
				40-44
				45-49
Establishment funded post				50-54
Project funded post				55-59
				60-64
				65+
Employer contributes to pension		30	100%	
Location				Qualifications
English region				Post-doctoral
	East of England	3		Doctorate
	East Midlands	3		Masters
	London	3		First degree
	North East	3		Foundation degree
	North West	3		A level, Highers
	South East	3		GCSE, Standard Grade
	South West	6		
	West Midlands	3		
	Yorkshire & the Humber	3		
Scotland		0		Seniority
Wales		0		Senior
Northern Ireland		0		Middle
Channel Islands		0		Junior
Isle of Man		0		
				0
				12
				18
				0%
				40%
				60%
Post role				
	Field investigation and research services		30	
	Historic environment advice and information services		0	
	Museum and visitor / user services		0	
	Educational and academic research services		0	
	Archaeological management		0	
	Administrative support		0	
Organisation role				
	National government or agency		30	
	Local government		0	
	University		0	
	Private sector		0	
	Other		0	

A1.30 Junior posts

Individuals	44					
Employment				Gender		
	Paid	17	39%	Female	7	47%
	Unpaid	27	61%	Male	8	53%
	Full-time	15	88%			
	Part-time	2	12%			
Salary	Minimum	£13,854		Age		
	Average	£17,057		16-19	1	6%
	Maximum	£33,536		20-24	1	6%
Temporary contract		0	0%	25-29	2	13%
Permanent contract		14	100%	30-34	2	13%
Length of service > 24m		13	87%	35-39	2	13%
Establishment funded post		3	19%	40-44	6	38%
Project funded post		13	81%	45-49	1	6%
Employer contributes to pension		10	59%	50-54	1	6%
				55-59	0	0%
				60-64	0	0%
				65+	0	0%
Location				Qualifications		
English region				Post-doctoral	0	0%
East of England	1			Doctorate	1	3%
East Midlands	0			Masters	4	13%
London	1			First degree	18	60%
North East	2			Foundation degree	1	3%
North West	0			A level, Highers	5	17%
South East	0			GCSE, Standard Grade	1	3%
South West	0					
West Midlands	6			Seniority		
Yorkshire & the Humber	0			Senior	0	0%
Scotland	1			Middle	0	0%
Wales	4			Junior	17	100%
Northern Ireland	0					
Channel Islands	0					
Isle of Man	0					
Post role						
Field investigation and research services			11			
Historic environment advice and information services			5			
Museum and visitor / user services			0			
Educational and academic research services			0			
Archaeological management			1			
Administrative support			0			
Organisation role						
National government or agency			5			
Local government			6			
University			0			
Private sector			6			
Other			0			

A1.31 Museum Archaeologist

Individuals	98					
Employment				Gender		
	Paid	98	100%	Female	59	60%
	Unpaid	0	0%	Male	39	40%
	Full-time	61	62%			
	Part-time	37	38%			
Salary	Minimum	£14,000		Age		
	Average	£22,762		16-19	0	0%
	Maximum	£53,554		20-24	3	3%
Temporary contract		11	11%	25-29	11	11%
Permanent contract		87	89%	30-34	7	7%
Length of service > 24m		82	86%	35-39	14	14%
Establishment funded post		60	78%	40-44	9	9%
Project funded post		17	22%	45-49	23	23%
Employer contributes to pension		90	93%	50-54	11	11%
				55-59	9	9%
				60-64	8	8%
				65+	3	3%
Location				Qualifications		
English region				Post-doctoral	1	1%
East of England	2			Doctorate	4	4%
East Midlands	4			Masters	30	34%
London	10			First degree	30	34%
North East	13			Foundation degree	4	4%
North West	3			A level, Highers	9	10%
South East	19			GCSE, Standard Grade	11	12%
South West	6					
West Midlands	3					
Yorkshire & the Humber	5					
Scotland	9			Seniority		
Wales	24			Senior	24	24%
Northern Ireland	0			Middle	35	36%
Channel Islands	0			Junior	39	40%
Isle of Man	0					
Post role						
Field investigation and research services		13				
Historic environment advice and information services		2				
Museum and visitor / user services		82				
Educational and academic research services		1				
Archaeological management		0				
Administrative support		0				
Organisation role						
National government or agency		14				
Local government		75				
University		1				
Private sector		2				
Other		6				

A1.32 Other posts

Individuals	48					
Employment				Gender		
	Paid	46	96%	Female	19	48%
	Unpaid	2	4%	Male	21	53%
	Full-time	35	76%			
	Part-time	11	24%			
Salary				Age		
	Minimum	£9,550		16-19	0	0%
	Average	£20,335		20-24	2	5%
	Maximum	£41,046		25-29	8	20%
	Temporary contract	11	24%	30-34	7	18%
	Permanent contract	32	71%	35-39	8	20%
	Length of service > 24m	26	59%	40-44	2	5%
	Establishment funded post	10	24%	45-49	4	10%
	Project funded post	31	76%	50-54	5	13%
	Employer contributes to pension	40	89%	55-59	2	5%
				60-64	0	0%
				65+	2	5%
Location				Qualifications		
	English region			Post-doctoral	0	0%
	East of England	0		Doctorate	4	11%
	East Midlands	2		Masters	8	23%
	London	0		First degree	19	54%
	North East	0		Foundation degree	2	6%
	North West	1		A level, Highers	1	3%
	South East	13		GCSE, Standard Grade	1	3%
	South West	2				
	West Midlands	2				
	Yorkshire & the Humber	2				
	Scotland	16				
	Wales	2				
	Northern Ireland	5				
	Channel Islands	0				
	Isle of Man	0				
Post role				Seniority		
	Field investigation and research services		31	Senior	6	14%
	Historic environment advice and information services		5	Middle	16	37%
	Museum and visitor / user services		3	Junior	21	49%
	Educational and academic research services		6			
	Archaeological management		0			
	Administrative support		1			
Organisation role						
	National government or agency		1			
	Local government		4			
	University		19			
	Private sector		9			
	Other		13			

A1.33 Other support posts

Individuals	26					
Employment				Gender		
	Paid	24	92%	Female	17	65%
	Unpaid	2	8%	Male	9	35%
	Full-time	11	46%			
	Part-time	13	54%			
Salary				Age		
	Minimum	£7,500		16-19	0	0%
	Average	£18,283		20-24	2	8%
	Maximum	£32,795		25-29	5	19%
				30-34	0	0%
Temporary contract		7	29%	35-39	1	4%
Permanent contract		17	71%	40-44	7	27%
				45-49	3	12%
Length of service > 24m		17	71%	50-54	3	12%
				55-59	3	12%
Establishment funded post		13	54%	60-64	1	4%
Project funded post		11	46%	65+	1	4%
Employer contributes to pension		20	83%			
Location				Qualifications		
English region				Post-doctoral	0	0%
East of England	2			Doctorate	1	6%
East Midlands	0			Masters	3	17%
London	1			First degree	9	50%
North East	0			Foundation degree	2	11%
North West	0			A level, Highers	2	11%
South East	1			GCSE, Standard Grade	1	6%
South West	4					
West Midlands	3					
Yorkshire & the Humber	0					
Scotland	7					
Wales	4					
Northern Ireland	0					
Channel Islands	0					
Isle of Man	0					
Post role				Seniority		
Field investigation and research services		8		Senior	1	4%
Historic environment advice and information services		0		Middle	3	13%
Museum and visitor / user services		0		Junior	19	83%
Educational and academic research services		4				
Archaeological management		0				
Administrative support		12				
Organisation role						
National government or agency		2				
Local government		6				
University		9				
Private sector		4				
Other		1				

A1.34 Photographer

Individuals	5					
Employment				Gender		
	Paid	5	100%	Female	3	60%
	Unpaid	0	0%	Male	2	40%
	Full-time	3	100%			
	Part-time	0	0%			
				Age		
Salary	Minimum	£18,960		16-19	0	0%
	Average	£25,851		20-24	0	0%
	Maximum	£36,000		25-29	0	0%
				30-34	0	0%
Temporary contract		0	0%	35-39	1	20%
Permanent contract		5	100%	40-44	1	20%
				45-49	0	0%
Length of service > 24m		5	100%	50-54	2	40%
				55-59	1	20%
Establishment funded post		2	67%	60-64	0	0%
Project funded post		1	33%	65+	0	0%
Employer contributes to pension		5	100%			
Location				Qualifications		
English region				Post-doctoral	0	0%
	East of England	0		Doctorate	0	0%
	East Midlands	0		Masters	1	20%
	London	2		First degree	2	40%
	North East	0		Foundation degree	1	20%
	North West	0		A level, Highers	1	20%
	South East	0		GCSE, Standard Grade	0	0%
	South West	1				
	West Midlands	0				
	Yorkshire & the Humber	0				
Scotland		0		Seniority		
Wales		0		Senior	0	0%
Northern Ireland		2		Middle	4	80%
Channel Islands		0		Junior	1	20%
Isle of Man		0				
Post role						
Field investigation and research services		5				
Historic environment advice and information services		0				
Museum and visitor / user services		0				
Educational and academic research services		0				
Archaeological management		0				
Administrative support		0				
Organisation role						
National government or agency		2				
Local government		0				
University		0				
Private sector		1				
Other		2				

A1.35 Planning Archaeologist

Individuals	40		
Employment			
	Paid	40	100%
	Unpaid	0	0%
	Full-time	34	83%
	Part-time	7	17%
Salary			
	Minimum	£15,353	
	Average	£27,885	
	Maximum	£41,046	
	Temporary contract	1	3%
	Permanent contract	39	98%
	Length of service > 24m	34	87%
	Establishment funded post	28	71%
	Project funded post	12	29%
	Employer contributes to pension	37	90%
Location			
	English region		
	East of England	1	
	East Midlands	2	
	London	4	
	North East	1	
	North West	4	
	South East	5	
	South West	9	
	West Midlands	2	
	Yorkshire & the Humber	4	
	Scotland	0	
	Wales	8	
	Northern Ireland	0	
	Channel Islands	0	
	Isle of Man	0	
Post role			
	Field investigation and research services	1	
	Historic environment advice and information services	39	
	Museum and visitor / user services	0	
	Educational and academic research services	0	
	Archaeological management	0	
	Administrative support	0	
Organisation role			
	National government or agency	5	
	Local government	25	
	University	0	
	Private sector	9	
	Other	1	
Gender			
	Female	12	32%
	Male	26	68%
Age			
	16-19	0	0%
	20-24	0	0%
	25-29	3	8%
	30-34	6	16%
	35-39	10	26%
	40-44	4	11%
	45-49	7	18%
	50-54	5	13%
	55-59	2	5%
	60-64	1	3%
	65+	0	0%
Qualifications			
	Post-doctoral	0	0%
	Doctorate	1	3%
	Masters	15	38%
	First degree	23	59%
	Foundation degree	0	0%
	A level, Highers	0	0%
	GCSE, Standard Grade	0	0%
Seniority			
	Senior	14	38%
	Middle	19	51%
	Junior	4	11%

A1.36 Project Assistant

Individuals	148					
Employment				Gender		
	Paid	148	100%	Female	57	39%
	Unpaid	0	0%	Male	89	61%
	Full-time	147	99%			
	Part-time	1	1%			
Salary	Minimum	£14,492		Age		
	Average	£16,001		16-19	3	2%
	Maximum	£21,000		20-24	43	29%
				25-29	43	29%
				30-34	12	8%
Temporary contract		89	60%	35-39	25	17%
Permanent contract		33	22%	40-44	7	5%
				45-49	7	5%
Length of service > 24m		13	9%	50-54	3	2%
				55-59	3	2%
Establishment funded post		65	53%	60-64	0	0%
Project funded post		57	47%	65+	0	0%
Employer contributes to pension		53	36%			
Location				Qualifications		
English region				Post-doctoral	0	0%
	East of England	28		Doctorate	2	2%
	East Midlands	19		Masters	8	7%
	London	5		First degree	90	80%
	North East	0		Foundation degree	0	0%
	North West	0		A level, Highers	3	3%
	South East	26		GCSE, Standard Grade	9	8%
	South West	55				
	West Midlands	0				
	Yorkshire & the Humber	14				
Scotland		0		Seniority		
Wales		0		Senior	21	14%
Northern Ireland		0		Middle	23	16%
Channel Islands		0		Junior	104	70%
Isle of Man		0				
Post role						
Field investigation and research services			139			
Historic environment advice and information services			7			
Museum and visitor / user services			0			
Educational and academic research services			0			
Archaeological management			2			
Administrative support			0			
Organisation role						
National government or agency			3			
Local government			30			
University			18			
Private sector			83			
Other			14			

A1.37 Project Manager

Individuals	143					
Employment				Gender		
	Paid	143	100%	Female	38	27%
	Unpaid	0	0%	Male	105	73%
	Full-time	140	98%			
	Part-time	3	2%			
Salary	Minimum	£19,500		Age		
	Average	£28,316		16-19	0	0%
	Maximum	£45,397		20-24	0	0%
Temporary contract		9	6%	25-29	4	3%
Permanent contract		133	94%	30-34	17	12%
Length of service > 24m		132	92%	35-39	35	24%
Establishment funded post		26	18%	40-44	32	22%
Project funded post		114	82%	45-49	34	24%
Employer contributes to pension		114	83%	50-54	15	10%
				55-59	5	3%
				60-64	1	1%
				65+	0	0%
Location				Qualifications		
English region				Post-doctoral	1	1%
East of England	7			Doctorate	14	11%
East Midlands	10			Masters	35	26%
London	6			First degree	78	59%
North East	2			Foundation degree	4	3%
North West	12			A level, Highers	1	1%
South East	41			GCSE, Standard Grade	0	0%
South West	29					
West Midlands	17					
Yorkshire & the Humber	1					
Scotland	14			Seniority		
Wales	4			Senior	111	78%
Northern Ireland	0			Middle	31	22%
Channel Islands	0			Junior	1	1%
Isle of Man	0					
Post role						
Field investigation and research services			139			
Historic environment advice and information services			1			
Museum and visitor / user services			0			
Educational and academic research services			2			
Archaeological management			0			
Administrative support			1			
Organisation role						
National government or agency			1			
Local government			8			
University			18			
Private sector			110			
Other			6			

A1.38 Project Officer

Individuals	235					
Employment				Gender		
	Paid	235	100%	Female	75	32%
	Unpaid	0	0%	Male	160	68%
	Full-time	224	95%			
	Part-time	11	5%			
Salary				Age		
	Minimum	£8,000		16-19	0	0%
	Average	£20,809		20-24	5	2%
	Maximum	£30,420		25-29	40	17%
	Temporary contract	15	6%	30-34	69	29%
	Permanent contract	220	94%	35-39	47	20%
	Length of service > 24m	188	80%	40-44	31	13%
	Establishment funded post	44	20%	45-49	29	12%
	Project funded post	179	80%	50-54	8	3%
	Employer contributes to pension	154	66%	55-59	4	2%
				60-64	2	1%
				65+	0	0%
Location				Qualifications		
	English region			Post-doctoral	1	0%
	East of England	21		Doctorate	12	6%
	East Midlands	25		Masters	68	32%
	London	8		First degree	120	57%
	North East	0		Foundation degree	2	1%
	North West	14		A level, Highers	6	3%
	South East	51		GCSE, Standard Grade	2	1%
	South West	56				
	West Midlands	19				
	Yorkshire & the Humber	0				
	Scotland	32				
	Wales	8				
	Northern Ireland	0				
	Channel Islands	0				
	Isle of Man	0				
Post role				Seniority		
	Field investigation and research services		232	Senior	9	4%
	Historic environment advice and information services		1	Middle	199	85%
	Museum and visitor / user services		0	Junior	26	11%
	Educational and academic research services		2			
	Archaeological management		0			
	Administrative support		0			
Organisation role						
	National government or agency		0			
	Local government		26			
	University		13			
	Private sector		180			
	Other		16			

A1.39 Researcher

Individuals	45					
Employment				Gender		
	Paid	45	100%	Female	22	63%
	Unpaid	0	0%	Male	13	37%
	Full-time	37	88%			
	Part-time	5	12%			
Salary	Minimum	£14,200		Age		
	Average	£23,660		16-19	0	0%
	Maximum	£52,882		20-24	2	6%
Temporary contract		14	39%	25-29	17	49%
Permanent contract		21	58%	30-34	7	20%
Length of service > 24m		9	23%	35-39	3	9%
Establishment funded post		0	0%	40-44	1	3%
Project funded post		42	100%	45-49	2	6%
Employer contributes to pension		36	82%	50-54	0	0%
				55-59	1	3%
				60-64	2	6%
				65+	0	0%
Location				Qualifications		
English region				Post-doctoral	0	0%
East of England	1			Doctorate	15	35%
East Midlands	1			Masters	20	47%
London	3			First degree	8	19%
North East	0			Foundation degree	0	0%
North West	1			A level, Highers	0	0%
South East	2			GCSE, Standard Grade	0	0%
South West	12					
West Midlands	6			Seniority		
Yorkshire & the Humber	6			Senior	6	14%
Scotland	0			Middle	18	41%
Wales	0			Junior	20	45%
Northern Ireland	9					
Channel Islands	0					
Isle of Man	2					
Post role						
Field investigation and research services			12			
Historic environment advice and information services			4			
Museum and visitor / user services			0			
Educational and academic research services			29			
Archaeological management			0			
Administrative support			0			
Organisation role						
National government or agency			2			
Local government			3			
University			35			
Private sector			5			
Other			0			

A1.40 Rural Advice

Individuals	17					
Employment				Gender		
	Paid	17	100%	Female	9	56%
	Unpaid	0	0%	Male	7	44%
	Full-time	15	88%			
	Part-time	2	12%			
Salary	Minimum	£23,749		Age		
	Average	£25,729		16-19	0	0%
	Maximum	£38,078		20-24	0	0%
Temporary contract		0	0%	25-29	1	6%
Permanent contract		17	100%	30-34	3	19%
Length of service > 24m		15	88%	35-39	5	31%
Establishment funded post		14	82%	40-44	3	19%
Project funded post		3	18%	45-49	1	6%
Employer contributes to pension		16	94%	50-54	1	6%
				55-59	1	6%
				60-64	1	6%
				65+	0	0%
Location				Qualifications		
English region				Post-doctoral	0	0%
East of England	1			Doctorate	1	14%
East Midlands	1			Masters	2	29%
London	0			First degree	4	57%
North East	1			Foundation degree	0	0%
North West	2			A level, Highers	0	0%
South East	2			GCSE, Standard Grade	0	0%
South West	4					
West Midlands	2					
Yorkshire & the Humber	2					
Scotland	0			Seniority		
Wales	2			Senior	2	12%
Northern Ireland	0			Middle	13	76%
Channel Islands	0			Junior	2	12%
Isle of Man	0					
Post role						
Field investigation and research services		0				
Historic environment advice and information services		17				
Museum and visitor / user services		0				
Educational and academic research services		0				
Archaeological management		0				
Administrative support		0				
Organisation role						
National government or agency		12				
Local government		3				
University		0				
Private sector		2				
Other		0				

A1.41 Senior Archaeologist

Individuals	85					
Employment				Gender		
	Paid	85	100%	Female	34	41%
	Unpaid	0	0%	Male	48	59%
	Full-time	38	81%			
	Part-time	9	19%			
Salary	Minimum	£18,476		Age		
	Average	£25,404		16-19	0	0%
	Maximum	£41,046		20-24	0	0%
Temporary contract		13	15%	25-29	10	12%
Permanent contract		72	85%	30-34	13	16%
Length of service > 24m		64	79%	35-39	15	18%
Establishment funded post		6	8%	40-44	18	22%
Project funded post		73	92%	45-49	17	21%
Employer contributes to pension		74	87%	50-54	3	4%
				55-59	6	7%
				60-64	0	0%
				65+	0	0%
Location				Qualifications		
English region				Post-doctoral	1	1%
East of England	3			Doctorate	2	3%
East Midlands	1			Masters	25	31%
London	46			First degree	48	60%
North East	1			Foundation degree	1	1%
North West	2			A level, Highers	3	4%
South East	17			GCSE, Standard Grade	0	0%
South West	10					
West Midlands	2					
Yorkshire & the Humber	1					
Scotland	0			Seniority		
Wales	0			Senior	5	6%
Northern Ireland	0			Middle	33	40%
Channel Islands	0			Junior	45	54%
Isle of Man	0					
Post role						
Field investigation and research services			79			
Historic environment advice and information services			6			
Museum and visitor / user services			0			
Educational and academic research services			0			
Archaeological management			0			
Administrative support			0			
Organisation role						
National government or agency			4			
Local government			13			
University			15			
Private sector			8			
Other			45			

A1.42 Senior posts

Individuals	90					
Employment				Gender		
	Paid	90	100%	Female	24	29%
	Unpaid	0	0%	Male	60	71%
	Full-time	84	93%			
	Part-time	6	7%			
Salary				Age		
	Minimum	£7,000		16-19	0	0%
	Average	£34,522		20-24	2	2%
	Maximum	£60,000		25-29	4	5%
				30-34	4	5%
	Temporary contract	1	1%	35-39	17	20%
	Permanent contract	88	98%	40-44	13	15%
				45-49	21	25%
	Length of service > 24m	71	84%	50-54	15	18%
				55-59	5	6%
	Establishment funded post	44	52%	60-64	2	2%
	Project funded post	40	48%	65+	1	1%
	Employer contributes to pension	83	94%			
Location				Qualifications		
	English region			Post-doctoral	0	0%
	East of England	3		Doctorate	13	15%
	East Midlands	4		Masters	30	35%
	London	7		First degree	41	48%
	North East	7		Foundation degree	1	1%
	North West	6		A level, Highers	0	0%
	South East	13		GCSE, Standard Grade	0	0%
	South West	12				
	West Midlands	9				
	Yorkshire & the Humber	20				
	Scotland	4				
	Wales	4				
	Northern Ireland	0				
	Channel Islands	0				
	Isle of Man	0				
Post role				Seniority		
	Field investigation and research services		39	Senior	75	85%
	Historic environment advice and information services		31	Middle	12	14%
	Museum and visitor / user services		1	Junior	1	1%
	Educational and academic research services		0			
	Archaeological management		18			
	Administrative support		1			
Organisation role						
	National government or agency		10			
	Local government		6			
	University		5			
	Private sector		46			
	Other		22			

A1.43 Supervisor

Individuals	190					
Employment				Gender		
	Paid	190	100%	Female	69	36%
	Unpaid	0	0%	Male	122	64%
	Full-time	190	99%			
	Part-time	1	1%			
Salary				Age		
	Minimum	£14,500		16-19	0	0%
	Average	£17,361		20-24	16	8%
	Maximum	£23,000		25-29	68	36%
				30-34	61	32%
	Temporary contract	34	20%	35-39	18	9%
	Permanent contract	117	70%	40-44	10	5%
				45-49	8	4%
	Length of service > 24m	89	49%	50-54	7	4%
				55-59	1	1%
	Establishment funded post	21	15%	60-64	2	1%
	Project funded post	118	85%	65+	0	0%
	Employer contributes to pension	42	24%			
Location				Qualifications		
	English region			Post-doctoral	0	0%
	East of England	1		Doctorate	3	2%
	East Midlands	31		Masters	37	27%
	London	16		First degree	97	70%
	North East	7		Foundation degree	0	0%
	North West	13		A level, Highers	1	1%
	South East	40		GCSE, Standard Grade	1	1%
	South West	46				
	West Midlands	8				
	Yorkshire & the Humber	0				
	Scotland	28		Seniority		
	Wales	0		Senior	19	10%
	Northern Ireland	0		Middle	116	61%
	Channel Islands	0		Junior	55	29%
	Isle of Man	0				
Post role						
	Field investigation and research services		190			
	Historic environment advice and information services		0			
	Museum and visitor / user services		0			
	Educational and academic research services		0			
	Archaeological management		0			
	Administrative support		0			
Organisation role						
	National government or agency		6			
	Local government		11			
	University		17			
	Private sector		153			
	Other		3			

A1.44 Surveyor

Individuals	76				
Employment				Gender	
	Paid	76	100%	Female	29 43%
	Unpaid	0	0%	Male	39 57%
	Full-time	70	93%		
	Part-time	5	7%		
Salary				Age	
	Minimum	£15,090		16-19	0 0%
	Average	£24,856		20-24	4 6%
	Maximum	£52,882		25-29	11 16%
	Temporary contract	13	17%	30-34	10 15%
	Permanent contract	63	83%	35-39	7 10%
	Length of service > 24m	54	78%	40-44	10 15%
	Establishment funded post	48	70%	45-49	11 16%
	Project funded post	21	30%	50-54	9 13%
	Employer contributes to pension	74	99%	55-59	5 7%
				60-64	1 1%
				65+	0 0%
Location				Qualifications	
	English region			Post-doctoral	0 0%
	East of England	1		Doctorate	5 7%
	East Midlands	1		Masters	16 24%
	London	4		First degree	46 68%
	North East	1		Foundation degree	1 1%
	North West	1		A level, Highers	0 0%
	South East	1		GCSE, Standard Grade	0 0%
	South West	8			
	West Midlands	6			
	Yorkshire & the Humber	1			
	Scotland	54			
	Wales	0			
	Northern Ireland	1			
	Channel Islands	0			
	Isle of Man	0			
Post role				Seniority	
	Field investigation and research services		76	Senior	12 15%
	Historic environment advice and information services		0	Middle	34 43%
	Museum and visitor / user services		0	Junior	33 42%
	Educational and academic research services		0		
	Archaeological management		0		
	Administrative support		0		
Organisation role					
	National government or agency		57		
	Local government		0		
	University		4		
	Private sector		12		
	Other		3		

A1.45 Warden

Individuals	21				
Employment				Gender	
	Paid	21	100%	Female	15 71%
	Unpaid	0	0%	Male	6 29%
	Full-time	1	5%		
	Part-time	20	95%		
Salary				Age	
	Minimum	£19,148		16-19	0 0%
	Average	£22,713		20-24	0 0%
	Maximum	£26,278		25-29	0 0%
	Temporary contract	0	0%	30-34	2 10%
	Permanent contract	21	100%	35-39	4 19%
	Length of service > 24m	10	71%	40-44	5 24%
	Establishment funded post	17	100%	45-49	2 10%
	Project funded post	0	0%	50-54	3 14%
	Employer contributes to pension	17	81%	55-59	4 19%
				60-64	1 5%
				65+	0 0%
Location				Qualifications	
	English region			Post-doctoral	0 0%
	East of England	0		Doctorate	1 5%
	East Midlands	0		Masters	4 19%
	London	0		First degree	15 71%
	North East	0		Foundation degree	0 0%
	North West	0		A level, Highers	1 5%
	South East	0		GCSE, Standard Grade	0 0%
	South West	0			
	West Midlands	0			
	Yorkshire & the Humber	0			
	Scotland	10		Seniority	
	Wales	7		Senior	0 0%
	Northern Ireland	4		Middle	4 19%
	Channel Islands	0		Junior	17 81%
	Isle of Man	0			
Post role					
	Field investigation and research services		4		
	Historic environment advice and information services		17		
	Museum and visitor / user services		0		
	Educational and academic research services		0		
	Archaeological management		0		
	Administrative support		0		
Organisation role					
	National government or agency		21		
	Local government		0		
	University		0		
	Private sector		0		
	Other		0		

A1.46 List of post titles and Post profile groups

Post title	Individuals	Post profile
(Human) Osteologist	3	Archaeological Scientist
[placename omitted] Archaeological Interpretation Project Officer	1	Education and Outreach posts
[placename omitted] Archaeologist	2	County or Regional Archaeologist
[project name] Early Stage Researcher	5	Researcher
[project name] Research Fellow	2	Academic Staff
Academic	15	Academic Staff
Academic teaching staff	13	Academic Staff
Admin / Logistics	5	Administrator
Admin Support Officer	1	Administrator
Administration and Logistical Support posts	12	Administrator
Administration Assistant	3	Administrator
Administration Officer	1	Administrator
Administrative / Finance Assistant	2	Administrator
Administrative Assistant	18	Administrator
Administrative Officer	1	Administrator
Administrator	18	Administrator
Archaeobotanist	3	Archaeological Scientist
Archaeological and Heritage Consultant	1	Consultant
Archaeological Archivist	1	Archives Officer
Archaeological Assistant	63	Archaeological Assistant
Archaeological Conservation Officer	1	Conservation Archaeologist
Archaeological Conservator	2	Conservator
Archaeological Consultant	33	Consultant
Archaeological Consultant (Freelance Samian Specialist)	1	Finds Officer
Archaeological Consultant (sole operator)	1	Consultant
Archaeological Education Officer	1	Education and Outreach posts
Archaeological Illustrator	26	Illustrator
Archaeological Illustrator / Author	1	Illustrator
Archaeological Officer	5	Archaeological Officer
Archaeological Officer (Design and Special Projects)	1	Illustrator
Archaeological Officer (Planning)	2	Planning Archaeologist
Archaeological Officer (Projects and Operations)	1	Archaeological Officer
Archaeological Planning Manager	1	Planning Archaeologist
Archaeological Planning Officer	2	Planning Archaeologist
Archaeological Project Assistant	1	Project Assistant
Archaeological Project Manager	3	Project Manager
Archaeological Project Manager (Outreach)	1	Education and Outreach posts
Archaeological Researcher	3	Researcher
Archaeological Science Interns	2	Archaeological Scientist
Archaeological Service Manager	1	Director or Manager
Archaeological Site Technician	3	Junior posts
Archaeological Technician	3	Junior posts
Archaeologist	232	Archaeologist
Archaeologist - Heritage Management (agri-environment scheme)	1	Rural Advice
Archaeologist (1 HER, 1 DC)	2	Planning Archaeologist
Archaeologist (Casual)	4	Archaeologist
Archaeologist (Finds)	2	Finds Officer
Archaeologist (self-employed)	1	Archaeologist
Archaeology Access Officer	1	Education and Outreach posts

Post title	Individuals	Post profile
Archaeology Adviser	4	Planning Archaeologist
Archaeology Assistant	1	Archaeological Assistant
Archaeology Museum Attendant	7	Museum Archaeologist
Archaeology Officer	10	Archaeological Officer
Archaeology Operations Manager	1	Director or Manager
Archaeopetrographer	1	Archaeological Scientist
Archaeozoologist	3	Archaeological Scientist
Archive Assistant	5	Archives Officer
Archive Curator	1	Archives Officer
Archive Manager	1	Archives Officer
Archivist	3	Archives Officer
Assessment Team Manager	1	Director or Manager
Assistant Archaeological Consultant	6	Consultant
Assistant Archaeological Officer	2	Archaeological Officer
Assistant Archaeologist	25	Project Assistant
Assistant Archaeologist (SMR)	1	Historic Environment Record Officer
Assistant Archaeology Officer	2	Archaeological Officer
Assistant Consultant	1	Consultant
Assistant Curator	1	Museum Archaeologist
Assistant Curator (Collections Manager)	1	Museum Archaeologist
Assistant Curator of Archaeology	3	Museum Archaeologist
Assistant Director	2	Senior posts
Assistant Field Manager	1	Senior posts
Assistant Historic Environment Record Officer	2	Historic Environment Record Officer
Assistant Inspector of Ancient Monuments	3	Inspector
Assistant Keeper Field Archaeology	7	Museum Archaeologist
Assistant Librarian	1	Other support posts
Assistant Museum Curator	1	Museum Archaeologist
Assistant Officer / Administrative Support	7	Administrator
Assistant Project Officer	12	Project Officer
Assistant Scientific Dating Co-ordinator	2	Archaeological Scientist
Assistant Supervisor	21	Supervisor
Assistant Treasurer	1	Financial posts
Associate	5	Senior posts
Associate (Archaeologist)	2	Senior posts
Associate Director	2	Director or Manager
Associate Professor of Archaeology and Medieval History	1	Academic Staff
Building Administration Officer	1	Administrator
Building Support Officer	1	Other support posts
Buildings Archaeologist	1	Buildings Archaeologist
Buildings Historian	1	Buildings Archaeologist
Buildings Supervisor	1	Other support posts
Business Support Assistant	1	Other support posts
CAD / Graphics / Photography	7	Illustrator
CAD Technician	1	Illustrator
Case Worker	1	Junior posts
Casual Finds Supervisor	1	Finds Officer
Cathedral Archaeologist	1	Archaeological Officer
Ceramics Specialist	1	Finds Officer
Characterisation Inspector	7	Characterisation posts
Chief Executive	3	Senior posts

Post title	Individuals	Post profile
Chief Executive's Personal Assistant	1	Administrator
Chief Inspector	1	Inspector
City Archaeologist	2	County or Regional Archaeologist
Clerical Assistant	1	Administrator
Co Director	2	Director or Manager
Coastal Strategy Officer	1	Other posts
Collections / Information Systems Head of Department	2	Computing Officer
Collections / Information Systems Manager	9	Computing Officer
Collections / Information Systems Officers	12	Computing Officer
Collections / Information Systems Operational Manager	2	Computing Officer
Collections and Heritage Manager	1	Museum Archaeologist
Collections Assistant	1	Museum Archaeologist
Collections Development Manager	2	Museum Archaeologist
Collections Management Officer	1	Museum Archaeologist
Collections Officer	1	Museum Archaeologist
Collections Services Manager	1	Museum Archaeologist
Community Archaeologist	1	Education and Outreach posts
Community Archaeologist / Finds Liaison Officer	1	Education and Outreach posts
Community Archaeology Project Worker	1	Education and Outreach posts
Community Heritage Officer	1	Education and Outreach posts
Company Director	6	Director or Manager
Computing Manager	1	Computing Officer
Computing Officer	1	Computing Officer
Conservation Support Officer	1	Conservation Archaeologist
Conservation Team Manager	1	Conservation Archaeologist
Conservator	6	Conservator
Conservator (Archaeology)	1	Conservator
Consolidation and Post-Excavation Manager	1	Director or Manager
Consultant	9	Consultant
Consultant / Contractor (self-employed)	1	Consultant
Consultant Archaeologist	1	Consultant
Consultant Archaeologist - sole trader	1	Consultant
Consultant Archaeozoologist	1	Archaeological Scientist
Contract Archaeologist	17	Archaeologist
Contracts Manager	7	Director or Manager
Corporate Affairs Administrator	6	Administrator
Corporate Affairs Officer	2	Other support posts
Corporate Affairs Operational Manager	1	Director or Manager
Corporate Affairs Project Manager	1	Project Manager
County Archaeological Officer	1	County or Regional Archaeologist
County Archaeologist	6	County or Regional Archaeologist
County Archaeology Officer	1	County or Regional Archaeologist
County Industrial Archaeologist	1	County or Regional Archaeologist
Credit Controller	1	Financial posts
Cultural Resource Manager	1	Director or Manager
Curator	3	Museum Archaeologist
Curator (Archaeology)	1	Museum Archaeologist
Curator Military History and Archaeology	1	Museum Archaeologist
Curator of Archaeology	3	Museum Archaeologist
Curator of Archaeology and World Cultures	1	Museum Archaeologist
Curator of Historic Buildings	5	Buildings Archaeologist
Curator of Local History and Archaeology	1	Museum Archaeologist

Post title	Individuals	Post profile
Curatorial Archaeologist	2	Planning Archaeologist
Curatorial Assistant	1	Museum Archaeologist
Curatorial Officer	6	Archives Officer
Departmental Administrator	2	Administrator
Deputy Director	1	Senior posts
Design and Technical Officer	1	Illustrator
Designer - Illustrator	5	Illustrator
Development Control Archaeologist	0	Planning Archaeologist
Development Control Officer	1	Planning Archaeologist
Digital Illustrator	1	Illustrator
Director	23	Director or Manager
Director / Chief Executive	1	Director or Manager
Director / Project Manager	9	Project Manager
Director of Archaeology	1	Director or Manager
Director Post Excavation Projects	1	Senior posts
District Archaeologist	1	County or Regional Archaeologist
Documentation Assistant	1	Museum Archaeologist
Draughtsman	1	Illustrator
Editor	3	Editor
Education and Access Officer / Development Officer	3	Education and Outreach posts
Education and Outreach Coordinator	1	Education and Outreach posts
Education and Outreach Manager	6	Education and Outreach posts
Education and Outreach Officer	10	Education and Outreach posts
Education and Outreach Operational Manager	1	Education and Outreach posts
Education Manager	1	Education and Outreach posts
Education Officer	4	Education and Outreach posts
Environmental Archaeologist	4	Archaeological Scientist
Environmental Archaeology Manager	1	Archaeological Scientist
Environmental Consultant - Archaeologist	1	Consultant
Environmental Officer	1	Archaeological Scientist
Environmental Processor	3	Archaeological Scientist
Environmental Specialist (Botany, Animal Bone)	4	Archaeological Scientist
Estimator	1	Other posts
Excavation Assistant	10	Project Assistant
Excavation Supervisor	1	Supervisor
Excavator	20	Excavator or Site Assistant
Executive	2	Senior posts
Exhibition Staff	3	Museum Archaeologist
Exhibitions Officer	1	Museum Archaeologist
Experimental Officer	1	Other posts
Exploring [county]'s Past Project Officer	1	Education and Outreach posts
Facilities and Logistics Manager	1	Director or Manager
Facilities Assistant	1	Other support posts
Facilities Manager	1	Director or Manager
Field Archaeologist	62	Archaeologist
Field Monument Warden	7	Warden
Field Officer	25	Field Officer
Field Supervisor	3	Supervisor
Field Team Manager	1	Director or Manager
Field Warden	4	Warden
Fieldwork Assistant	2	Project Assistant
Finance and Administrative Assistant	1	Administrator
Finance Assistant	3	Financial posts

Post title	Individuals	Post profile
Finance Director	1	Financial posts
Finance Manager	1	Financial posts
Finance Officer	3	Financial posts
Financial Controller	1	Financial posts
Finds Adviser	6	Finds Officer
Finds and Archives Coordinator	1	Finds Officer
Finds Archaeologist	3	Finds Officer
Finds Archiving and Processing	7	Finds Officer
Finds Liaison Officer	5	Finds Officer
Finds Liaison Officer (Portable Antiquities Scheme)	1	Finds Officer
Finds Officer	5	Finds Officer
Finds Processing Manager	1	Finds Officer
Finds Processor	1	Finds Officer
Finds Recording Officer	3	Finds Officer
Finds Specialist	16	Finds Officer
Finds Supervisor	3	Finds Officer
Freelance Archaeological Illustrator and small finds expert	1	Finds Officer
Freelance Archaeologist	2	Other posts
Freelance Illustrator and author	1	Illustrator
Funding Regeneration Consultant	1	Consultant
Geoarchaeologist	2	Archaeological Scientist
Geoarchaeologist (ALSF)	1	Archaeological Scientist
Geomatician	1	Surveyor
Geomatics Manager	1	Computing Officer
Geophysicist	3	Surveyor
Geophysicist / Geoarchaeologist	4	Surveyor
Graduate Archaeological Consultant	4	Consultant
Graduate Archaeologist	0	Junior posts
Graphics and Production Manager	1	Illustrator
Graphics Contractor	2	Illustrator
Graphics Officer	3	Illustrator
Graphics Team Leader	1	Illustrator
Head of Administration	1	Administrator
Head of Aerial Survey and Investigation	1	Surveyor
Head of Archaeological Archives	1	Archives Officer
Head of Archaeological Projects	1	Senior posts
Head of Archaeological Science	1	Archaeological Scientist
Head of Archaeological Survey and Investigation	1	Surveyor
Head of Archaeology	3	Senior posts
Head of Archaeology Conservation	1	Conservation Archaeologist
Head of Characterisation	1	Characterisation posts
Head of Corporate Affairs	1	Senior posts
Head of Curatorial Services	1	Planning Archaeologist
Head of Department	1	Senior posts
Head of Education and Outreach	1	Education and Outreach posts
Head of Environmental Studies	1	Archaeological Scientist
Head of Field Services	1	Senior posts
Head of Fieldwork	1	Senior posts
Head of Finds and Conservation	1	Finds Officer
Head of Geoarchaeology and Environment	1	Archaeological Scientist
Head of Geophysics	1	Surveyor
Head of Graphics and Publication	1	Editor

Post title	Individuals	Post profile
Head of Heritage	1	Senior posts
Head of Heritage - Associate Director	1	Director or Manager
Head of Historic Interiors Research and Conservation	1	Senior posts
Head of Industrial Archaeology	1	Senior posts
Head of Maritime Archaeology	1	Senior posts
Head of Osteology	1	Archaeological Scientist
Head of Photography	1	Photographer
Head of Professional Development	1	Senior posts
Head of Research Policy (Prehistory)	1	Researcher
Head of Research Policy (Roman Archaeology)	1	Researcher
Head of Scientific Dating	1	Archaeological Scientist
Head of Survey and Recording and Policy Makers	3	Surveyor
Head of Technology	1	Senior posts
Heritage Assets Officer	1	Other posts
Heritage Conservation Team Manager	1	County or Regional Archaeologist
Heritage Consultant	6	Consultant
Heritage Development Officer	1	Other posts
Heritage Enterprise Manager	1	Director or Manager
Heritage Interpreter (<i>sic</i>)	1	Education and Outreach posts
Heritage Management Archaeologist	3	Junior posts
Heritage Management Assistant	1	Junior posts
Heritage Manager	2	Director or Manager
Heritage Officer	2	Other posts
Heritage Officer (Early History)	1	Other posts
Heritage Open Days Coordinator	1	Education and Outreach posts
Heritage Team Leader	1	Senior posts
Historic Buildings Archaeologist	1	Buildings Archaeologist
Historic Buildings Manager	1	Buildings Archaeologist
Historic Buildings Officer (Planning)	1	Planning Archaeologist
Historic Environment Adviser (Regional)	11	Rural Advice
Historic Environment Characterisation Officer	2	Characterisation posts
Historic Environment Characterisation Project Officer	2	Characterisation posts
Historic Environment Countryside Advisor	1	Rural Advice
Historic Environment Countryside Officer	1	Rural Advice
Historic Environment Development Control Officer	1	Planning Archaeologist
Historic Environment Information Officer	1	Historic Environment Record Officer
Historic Environment Landscape Characterisation Officer	1	Characterisation posts
Historic Environment Manager	1	Planning Archaeologist
Historic Environment Manager - Advice, Information, Projects	3	Historic Environment Record Officer
Historic Environment Manager - County Archaeologist	1	County or Regional Archaeologist
Historic Environment Officer	4	Planning Archaeologist
Historic Environment Planning Advisor	1	Planning Archaeologist
Historic Environment Record and Archaeological Field Officer	1	Historic Environment Record Officer
Historic Environment Record Assistant	1	Historic Environment Record Officer
Historic Environment Record Manager	2	Historic Environment Record Officer
Historic Environment Record Officer	11	Historic Environment Record Officer
Historic Environment Record Volunteer	1	Historic Environment Record Officer

Post title	Individuals	Post profile
Historic Environment Records Manager	1	Historic Environment Record Officer
Historic Environment Team Leader	1	Planning Archaeologist
Historic Environment Team Manager	1	Planning Archaeologist
Historic Landscape Characterisation Officer	1	Characterisation posts
Historic Landscape Characterisation Project Officer	1	Characterisation posts
Historic Landscape Surveyor	2	Surveyor
Human Resources Officer	1	Other support posts
Human Skeletal Biologist	1	Archaeological Scientist
Illustrator	14	Illustrator
Inspector	24	Inspector
Inspector (Grade E)	4	Inspector
Inspector of Ancient Monuments	27	Inspector
Internship	1	Junior posts
Investigator - Aerial Survey	11	Investigator
Investigator - Archaeological Survey	7	Investigator
IT Officer	1	Computing Officer
IT posts	7	Computing Officer
IT Technician	1	Computing Officer
Jobs Information Service Coordinator	1	Other posts
Keeper Archaeology and Local History	1	Museum Archaeologist
Keeper of Archaeology	4	Museum Archaeologist
Keeper of Archaeology / Field Archaeology	4	Museum Archaeologist
Keeper of Collections Management (Archaeology)	1	Museum Archaeologist
Landscape Archaeologist	3	Other posts
Lecturer	32	Academic Staff
Lecturer in Archaeology	3	Academic Staff
Lecturer in Historic Archaeology	1	Academic Staff
Lecturer in Prehistoric Archaeology	1	Academic Staff
Lithics Analyst / Freelance Field Archaeologist	1	Finds Officer
Manager	12	Director or Manager
Manager History and Archaeology Team	1	Director or Manager
Managing Director	5	Director or Manager
Managing Director / Historic Buildings Consultant	1	Buildings Archaeologist
Managing Editor	2	Editor
Managing Editor and Sales Manager	1	Editor
Mapping Project Officer	1	Project Officer
Marine Planner	1	Planning Archaeologist
Maritime Archaeologist	1	Junior posts
Medieval Pot Specialist	1	Finds Officer
Membership Administrator	1	Administrator
Monument Warden	10	Warden
Multi Media Developer	1	Computing Officer
Museum Archaeology Officer	1	Museum Archaeologist
Museum Assistant	5	Museum Archaeologist
Museum Attendant / Assistant	17	Museum Archaeologist
Museum Officer (Archaeology)	1	Museum Archaeologist
Museum Officer, Archaeology	1	Museum Archaeologist
National Park Archaeologist	2	County or Regional Archaeologist
Network Administrator	1	Computing Officer
Office Assistant	1	Administrator
Office Manager	4	Administrator
Officer	9	Senior posts

Post title	Individuals	Post profile
Operational Manager Survey and Recording	5	Surveyor
Operations Director	1	Director or Manager
Osteologist	2	Archaeological Scientist
Outreach Officer	1	Education and Outreach posts
Palynologist	1	Archaeological Scientist
Partner	2	Senior posts
Photographer	3	Photographer
Placement Student	1	Junior posts
Planning and Conservation Archaeologist	1	Planning Archaeologist
Planning Archaeologist	3	Planning Archaeologist
Planning Officer (Archaeology)	1	Planning Archaeologist
Planning Officer (Historic Environment Record)	1	Planning Archaeologist
Portable Antiquities Scheme Finds Liaison Officer	1	Finds Officer
Post-doctoral Research Assistant	1	Researcher
Post-Excavation Manager	3	Director or Manager
Principal	2	Senior posts
Principal (Archaeologist)	1	Senior posts
Principal Archaeologist	8	Senior posts
Principal Archaeologist - Heritage Management	1	Senior posts
Principal Consultant	1	Consultant
Principal Field Archaeologist	2	Senior posts
Principal Heritage Consultant, Principal Conservation Architect	4	Consultant
Principal Historic Environment Officer	3	Planning Archaeologist
Principal Inspector	6	Inspector
Principal Inspector (Assistant Director)	2	Inspector
Principal Keeper of Archaeology	1	Museum Archaeologist
Professional Placement	9	Other posts
Professor	11	Academic Staff
Project Archaeologist	24	Archaeologist
Project Assistant	99	Project Assistant
Project Coordinator	1	Senior posts
Project Director	1	Senior posts
Project Manager	66	Project Manager
Project Manager (agri-environment scheme)	1	Rural Advice
Project Officer	184	Project Officer
Project Officer, Senior Project Officer	16	Project Officer
Project Scotland Volunteer	2	Other support posts
Project staff	13	Other posts
Project Supervisor	65	Supervisor
Property Archaeologist	1	Junior posts
Publication Officer: [placename omitted] Expansion Projects	1	Editor
Publication Officer: Backlog Projects	4	Editor
Publications Officer	1	Editor
Reader	3	Academic Staff
Reader in Archaeology	1	Academic Staff
Receptionist	1	Administrator
Record Assistant	1	Historic Environment Record Officer
Records Officer	4	Historic Environment Record Officer
Recruitment and Marketing Coordinator	1	Other posts
Regional Archaeologist	13	County or Regional Archaeologist

Post title	Individuals	Post profile
Research Assistant	14	Researcher
Research Consultant - Historic Buildings	1	Buildings Archaeologist
Research Fellow	8	Academic Staff
Research Manager	1	Director or Manager
Research Manager (Human History)	1	Director or Manager
Research staff	9	Researcher
Researcher	10	Researcher
Resource Assistant	1	Financial posts
Resources Director	1	Financial posts
Rural Archaeologist	1	Rural Advice
Secretarial	2	Administrator
Secretary	2	Administrator
Secretary / Administrator	1	Administrator
Section Head	7	Senior posts
Section Resources Assistant	1	Other support posts
Section Resources Manager	1	Director or Manager
Self-employed	3	Other posts
Self-employed Consultant	1	Consultant
Self-employed Director	2	Director or Manager
Self-employed Leader	1	Other posts
Self-employed part time archaeological illustrator / fieldwork training supervisor	1	Illustrator
Senior (Archaeologist)	1	Senior posts
Senior Admin Officer	1	Administrator
Senior Archaeological Conservation Officer	1	Conservation Archaeologist
Senior Archaeological Consultant	15	Consultant
Senior Archaeological Field Technician	2	Junior posts
Senior Archaeological Officer	4	Archaeological Officer
Senior Archaeological Project Assistant	1	Project Assistant
Senior Archaeologist	79	Senior Archaeologist
Senior Archaeologist - Advice and Information	7	Historic Environment Record Officer
Senior Archaeologist - Built Environment	2	Senior Archaeologist
Senior Archaeologist (Assessment) Trainee	1	Senior Archaeologist
Senior Archaeologist (Assessments)	3	Senior Archaeologist
Senior Archaeologist (Development Control)	3	Planning Archaeologist
Senior Archaeology and Historic Environment Officer	1	Planning Archaeologist
Senior Associate Director	2	Director or Manager
Senior Conservation Archaeologist	2	Conservation Archaeologist
Senior Consultant	6	Consultant
Senior Contracts Manager	3	Director or Manager
Senior Curator	7	Museum Archaeologist
Senior Curator / Curator / Assistant Curator	6	Museum Archaeologist
Senior Curator History	1	Museum Archaeologist
Senior Curator of Archaeology	1	Museum Archaeologist
Senior Designer	1	Illustrator
Senior Geoarchaeologist	4	Archaeological Scientist
Senior Geomatician	2	Surveyor
Senior Graphics Officer	3	Illustrator
Senior Graphics Technician	1	Illustrator
Senior Heritage Consultant	16	Consultant
Senior Heritage Planner	1	Planning Archaeologist
Senior Historic Buildings Officer	1	Buildings Archaeologist
Senior Historic Environment Adviser (National)	1	Rural Advice

Post title	Individuals	Post profile
Senior Inspector	6	Inspector
Senior Inspector (Grade D)	6	Inspector
Senior Investigator - Aerial Survey	6	Investigator
Senior Investigator - Archaeological Survey	6	Investigator
Senior Keeper	1	Museum Archaeologist
Senior Keeper (Collections)	1	Museum Archaeologist
Senior Keeper Field Archaeology	1	Museum Archaeologist
Senior Keeper of Archaeology	1	Museum Archaeologist
Senior Lecturer	20	Academic Staff
Senior lecturer in Archaeology and Heritage	1	Academic Staff
Senior Management Team posts	9	Senior posts
Senior Manager (Head of Archaeology)	1	Director or Manager
Senior Officer	5	Senior posts
Senior Photographer	1	Photographer
Senior Post-excavation Manager	1	Director or Manager
Senior Project Archaeologist	3	Archaeologist
Senior Project Assistant	10	Project Assistant
Senior Project Environmental Coordinator	3	Senior posts
Senior Project Manager	64	Project Manager
Senior Project Officer	22	Project Officer
Senior Research Fellow	1	Academic Staff
Site Assistant	31	Excavator or Site Assistant
Site Supervisor	11	Supervisor
Sites and Monuments Record Officer	1	Historic Environment Record Officer
SMR Manager	1	Historic Environment Record Officer
SMR Officer	1	Historic Environment Record Officer
SMR Officer / Assistant	2	Historic Environment Record Officer
Sole Trader	1	Other posts
Sole Trader / Researcher	1	Researcher
Specialist (Finds and Environmental)	8	Finds Officer
Specialist Advisor (Archaeology)	1	Senior posts
Specialist in Archaeological Glass	1	Finds Officer
Supervisor	89	Supervisor
Support Assistant	3	Other support posts
Support Officer	2	Other support posts
Support staff	5	Other support posts
Support staff - technical	4	Other support posts
Survey and Graphics	4	Surveyor
Survey and Recording Officer	21	Surveyor
Survey and Recording Projects Manager	21	Surveyor
Survey Assistant	5	Surveyor
Survey Officer	1	Surveyor
Surveyor	1	Surveyor
Systems Development	1	Computing Officer
Systems Development Officer	2	Computing Officer
Systems Manager	1	Computing Officer
Teaching Assistant	3	Education and Outreach posts
Team Leader	4	Senior posts
Team Leader Finds and Environmental	1	Finds Officer
Technical Director	2	Director or Manager

Post title	Individuals	Post profile
Technical Officer	1	Junior posts
Technical staff	5	Other posts
Technical Support Officer	1	Other posts
Technician	1	Junior posts
Territory Archaeologist	3	County or Regional Archaeologist
Tools and Equipment Officer	1	Other support posts
Training and Standards Coordinator	1	Senior posts
UAD / Monument Management Officer	1	Historic Environment Record Officer
Unit Manager	2	Director or Manager
User Services Manager	1	Director or Manager
Volunteer	25	Junior posts

Appendix 2 Further comments

Replicated below are the full and unedited comments received from respondents, with any identifying data removed. They do not necessarily represent the views of the authors, project board or project sponsors.

The pay and conditions of most archaeology staff are appallingly poor. We pay on university scales, which makes us much more expensive than our fully private competitors; taken with the benefits of shorter working week, more holidays, a contributory pension scheme (final salary) and all the health benefits, it makes economic survival very difficult. The fact that we do survive shows how much small numbers of company directors must be benefiting from keeping their staff under pitiful pay and conditions. There is something far wrong when university pay is seen as too high! Time for archaeologists to refuse to accept the status quo and insist on better pay and conditions.

The UK university system does not prepare students for any type of professional archaeological work in the UK. Courses are rarely directed towards the British Archaeological Resource, and there is extremely little attention paid to the structure of the profession. There are a very few junior practitioners who have the ability to think beyond the feature they are working on at the time and this is a shame because archaeology is so much more than sections of pits and ditches. These are personal views but I am sure that they are shared by my colleagues in the Archaeology Section.

This questionnaire is largely irrelevant to the issues facing the nascent 'profession', and reflects an institutional outlook when we should be developing professionalism, I think.

Not enough of us understand how to make money out of PPG16. Until we do, we will never afford the training we need and the intellectual indulgence we crave. Personally, I find it extremely rewarding, if exhausting at times.

Regarding post profiles:

I also employ a floating number of self-employed Associates who work with me as and when they choose to. It is unlikely that they have received this questionnaire as some are not IFA members.

They determine their own charge rates, allowing for holidays, sickness, training, overheads etc, which I accept. They also determine the sort of work they are prepared to do with me and the basis of payment (day rate, lump sum, measured).

As they work with me intermittently, spending the rest of their time working for others in same capacity or by themselves, I am unable to tell you what they are paid. All are content.

Two are female, one is male, all are ethnically European British Citizens; none are disabled; one is a parent.

Very little training or guidance in archaeological curation and management of HE.

Most contractors have little knowledge of planning context within which PPG16 work and statutory undertaken development work sits.

[No post profiles filled in – ‘No time to do this’.]

You may find that archaeology curators in museums regard themselves as members of the Museums Association, rather than the ‘Archaeology’ profession. The Society of Museum Archaeologists supports and provides training for curators. From what I know of the IFA (and I may be ignorant here) it is more geared towards archaeologists in the field rather than curators of archaeology. That is why I feel that much of this questionnaire was not relevant to me as a curator.

We are a small consultancy of two so a lot of questions are not applicable. Please don't underestimate the value of learning on the job. You shouldn't need a bursary to learn basic finds processing.

[NB this respondent did not tick ‘informal in-job training’.]

As I am self-employed and work alone, many of the questions above are hardly relevant unless I consider myself to be the staff of the organisation in question. Given that I am the organisation and it has no existence outside myself, this seems to me to be a questionable position to take. I sub-contract certain work to other self-employed people (scientific analysis of ceramics, conservation or reports on material that is outside my areas of competence for example) but apart from this I work alone and intend to continue doing so for as long as possible, given the way the discipline is currently structured. The majority of my work comes from the commercial sector but HLF and other externally funded community groups are also amongst my clients.

I have, for the purposes of this exercise, assumed that attending conferences, subscribing to relevant societies and journals and trying (often in vain) to keep up with developments in real (i.e. academic) archaeology can count as training and professional development. I see little point in participating in the various preposterous exercises that constitute ‘management training’ or ‘business skills’. Such nonsense costs an absurd amount of money, takes up valuable time and does nothing whatsoever to advance archaeology as a discipline although it may flatter the vanity of some individuals who value the empty rhetoric of management over the tangible benefits of learning about archaeology and its many allied disciplines.

The principal practical impediment to me expanding my business (including taking on a trainee) is the malign influence of the consultancy sector whose principal aim seems to be to restrict the possibilities for innovative and interesting work within the commercial sector (i.e. conducting research within a rescue context). This has the effect of reducing pottery analysis to the mere compilation of data catalogues and lists of spot dates. Hence there is a very real reluctance on the part of new graduates to want to enter a field which is (rightly in many respects) regarded as tedious in the extreme. Secondly, it is the influence of consultants and their avowed aim of minimising the financial responsibilities of their commercial clients towards archaeology that drives down wages and incomes and also precludes the provision of a training budget for smaller organisations such as mine (and, from what I am told, larger ones as well). No one can pay proper wages or provide training if income and profit margins are subject to consistent erosion in order that consultants can maintain favourable relationships with their clients. Until we see a general recognition that archaeology is not merely part of the building industry but a

research-driven and investigative endeavour, I see no prospect for us being able to move beyond the current abysmal situation in which our incomes are under constant attack and the scope of archaeological investigations are continually reduced in favour of 'preservation in situ'. The 'preservation in situ' ethos is generally no more than a thinly veiled attempt to allow developers to evade their responsibilities to the society of which they are a part and upon which they depend, in favour of the generation of increased profits for a few and share dividends for even fewer. We need to continue to press Government for increased funding to allow SMRs/HERS to carry out effective monitoring of projects (rather than allowing ill-informed or openly hostile consultants to undertake this vital task) and to produce a statutory alternative to PPGs 15 and 16 which will place research at the core of archaeology rather than the current system in which 'mitigation' is deployed as an alternative for investigation in the utopian hope that at some time in the unspecified future we shall be able to return to sites and investigate them properly. This will never happen. The time to carry out archaeological research is now and we must continue to argue for the resources and time which will allow us to do this.

NB This is for a curatorial department at a major museum, many skills provided by in-house conservation, archaeological archive, and archaeology unit.

I've only been in the job a week and a bit, so I am a bit hazy about salary levels.

I do not present a typical case. My research is into sites and buildings but is not concerned to report on below-ground archaeology.

I am constantly discovering cases where archaeologists have undertaken building assessment / recording without taking on board someone with the necessary architectural / historical experience, so the building's recording is not properly interpreted. This has dangerous implications; if conservation plans are to be based on an assessment of the significance of parts of a building, they will make poor judgements if they do not recognise historic fixtures and fittings, materials and plan forms, setting them in local and national contexts. An archaeologist would not normally have the experience to comment on a rococo plaster ceiling, for example.

Unfortunately as I am the only archaeological curator here in this Museum I do not have the luxury of staff. We use two 'Collection Assistants' between five curators to undertake tasks and although one has a strong archaeological interest, all our training is towards the museum fields rather than archaeology or historic environment. Although all us curators would like assistants we do not view it as a priority in the organisation and hold out no hope of them. As a result many questions are un-answerable given our current parameters of work; or simply do not apply.

Please note the following reservations:

a. This is answered on behalf of the large majority of our archaeological staff, but there is a group of 6 staff not included, who work for another section of the organisation. Nonetheless, I feel the answers here are representative of their situation too.

b. I have not included all staff covered by the definition given at question 3, but only those who are in my view archaeological. Thus I have excluded professional groups normally thought of as being 'built heritage professionals', eg architectural historians, conservation architects, etc. To be blunt, I have included only those who might

consider attending an IFA conference – those who would prefer an IHBC conference are not included! If you wish to expand the results to cover this group too, add on about 40% to all the answers except form xxx-2 and xxx-6, in terms of staff numbers, with a broadly similar age/sex/seniority profile.

c. Ages: based on a sample and some estimating – age data is not widely shared here, as it is regarded as irrelevant.

d. Salary: range and averages are based on published scales, not actual individual earnings.

We are a small local authority museum with a curator and several front-of-house staff, all part time.

The context within which I am completing this form is as an archaeological documentation officer doing 1 day per week on short term contracts after the Keeper of Archaeology died and his post was cut. The local authority has its own systems, little of which are relevant to me or filter down to me.

Despite being the Borough Council for an important historic town, the local authority has little interest in Historic Environment issues

I have only been in post for 3 months.

The structure and provision of archaeological work and advice within the authority (xx National Park) changed with my appointment. My predecessor was based at the xx education centre; I am based in the Planning Department at the Park's HQ.

This does not really apply to sole traders.

Archaeological employment in fieldwork is largely dependent on the commercial market, which is in many important respects unregulated. Until all archaeological contracting organisations are required to meet minimum standards of employment conditions, competence and professional accountability (eg through Registration and IFA), it will be impossible to offer all employees secure posts with a reasonable pay structure. This is particularly important for regions in the UK where the market for archaeological work is limited, and capacity matches or exceeds demand (eg Northern England, SW England, etc).

No archaeologists as such. Three academic staff dealing with historic buildings and historic environment.

Our primary business is as a museum and visitor attraction. Our manager happens to be a qualified archaeologist and we have a small amount of archaeological material in the collection.

There is one appointed manager of collections – the curator. Other staff are trained in these areas as appropriate. Archaeology is not our main interest area.

Need for a more formal system of CPD.

IFA membership is patchy and often non-existent amongst many smaller and

medium sized archaeological outfits, and RAO membership even more so. IFA needs to make a big and continuing effort to bring these into the fold, otherwise will be very difficult to improve pay and conditions in the profession, and enable standards to be upheld and improved. It would make the 'curator's' job somewhat easier – you cannot prevent a developer from using a small outfit with no IFA membership as you cannot prevent them using a less than ideal architect.

On Vocational qualifications:

'Not applicable, but council would give support if relevant and useful.'

On currently available courses:

'Not aware of any which are particularly relevant to the duties of my post.'

We are currently without an Archaeological Officer, the Collections Assistant has an archaeology degree and provides collections input for archaeological items.

As a comment to Q13, it is worth noting that there remains a continuing shortage of training in artefacts for professional archaeologists.

University degrees are poorly matched to the specialist requirements of the archaeological jobs market. New entrants have little practical experience and only a hazy understanding of the UK archaeological profession.

Earning experience is the key to finding a job. We have been able to find money to offer a job to someone who worked for us for nothing for a couple of months – obviously this option is not open to everyone.

Most of these sections relevant to contractors not curators, hence left blank.

As an employee of a large organisation (a local authority) it was very difficult to answer some of the questions above as they were not directly relevant.

As an HER / local government service, we are significantly understaffed and under-resourced for the work demands. Only one member of staff is permanent, all others are project based. The future of the service is dependant on the outcome of an ongoing service review.

In recent years, whilst running a Young Archaeology Club I am very aware that routes into archaeology are elitist – graduate entry. Some youngsters will not achieve this, but are nevertheless bright and very able.

Universities do not appear to offer any practical training to archaeology students. The level of practical archaeological knowledge of new graduates is appalling. That old archaeological chestnut of 'experience needed / can't get experience' just gets worse.

If Universities can't teach field archaeology they should buy in field training from commercial archaeological organisations. Personally, I find it incredible that people can have a BA or MA or BSc / MSc in Archaeology and never have dug a feature or drawn a section.

For information, we undertake non-archaeological work which comprises over 50%

of our turnover.

I am pleased to be included in this survey this time – I was not last time.

When I started working as a freelance specialist I was interested in joining the IFA, but it did not really include finds specialism on its own. I am really pleased that it does now, and has an active Finds group, but since I am working part-time at present with child-care commitments it is impossible to pursue my application. I intend to in the future.

On current courses:

They match the requirements of the profession very well academically, but I feel there is no support / advice from a business point of view for freelancers.

Respondent apologised that there was no time or staff available to complete relevant Post Profile forms for this organisation.

As a consultant either commissioning or recommending contractors, we are well-placed to make a positive impact and have an important role in setting the bar with respect to employers' standards. In practical terms, this involves us evaluating contractors and sub-consultants, and project partners, during the tender process by applying more rigorous criteria than, for example, those applied for IFA RAO accreditation (which we use as a minimal entry requirement).

Criteria might include graduate wages, investment in systems development and associated training (e.g. provision of mechanisms for developing post-excavation / reporting skills among site staff), investment and promotion of training generally, support for conference attendance for the range of grades, investment in building in-house specialist teams and transmitting specialist expertise out into project teams, paid sickness absence, annual leave entitlement etc, duration of contracts overall (statistics by grade), working away from home subsistence, policies on provision of site welfare facilities, etc etc.

We are exploring ways for measuring contractors / consultants explicitly against our own corporate core values. Being on the same wavelength at this level can only strengthen the operational relationship between organisations and would have a strong effect upon project delivery and hence upon reputation.

Employee benefits:

Two company preferential holidays, IFA applications and subscriptions, compassionate leave (3 days), healthcare (only managers), car allowance (2 senior managers, 0.40 mileage all staff including travel to site outside normal workplace (NA temp staff at site locations), home working option.

Please note gross salaries in these returns include employer's pension and costs and variable employers NICS depending on [illeg] not status.

This is a single-person RAO. My needs vary with each assignment but the cut off (specific) date of 13 August does not always apply.

More Benchmarking with other professions is needed to raise our expectations and see parity – this can be sold to clients as they already pay higher levels for other

professions, but we have for too long allowed cheapness / low pay to be delivered as part of competitive tendering / market forces.

Field workers in particular are regarded as manual workers and seem to receive a lower pay than office based staff - a perception rife in business world, but also enhanced by many archaeologists themselves. The skills needed for excavating, recording, interpreting, prioritising, surveying etc on site in often atrocious conditions are hugely undervalued – and undersold.

Terminology is part to blame 'excavators' 'diggers' etc. These are (generally) fully qualified professionals whose work happens to be in the field rather than office. Compare to Geotechnical Engineers, Ground Contamination / Land Quality Scientists, Acoustic Engineers, Waste Management and Landfill Gas Monitoring Engineers etc!

In financial year 2006/07, 43% income was from 'commercial' work for developers (both to inform the planning process through DBAs, evaluation, CMPs &c, and to mitigate impacts – excavation, building recording &c). 13.5% income was from advice and information services relating to development, largely fees for services provided to local planning authorities, also charges for provision of HER data to consultants. 14% income was grant-funding for strategic projects to inform development & planning (NMP, HLC, ALSF-funded assessments). Only 15.5% was not directly related to development; this included an outreach project which included the objective of enabling people to engage with aspects of the planning process, so even this was to some degree development related. (These figures refer to external funding, and do not include the County Council's core budget, which is equivalent to 18.5% of external funding and is almost entirely devoted to supporting the HER manager post and the County Archaeologist).

Q10 Skill shortages. Short-listing for recruitment is done against criteria of the person specification for the post, so those who start should have essential skills, whilst in some instances we may need to train to provide desirable skills. The issue of course is the skill-level, and the expectation that skill levels will build post-entry.

Q13 Vocational qualifications. This is something which I would support in principle, although I think it may be some while before the NVQ scheme gains general acceptance, especially in an organisation where most staff are 'old lags'.

All posts apart from County Archaeologist and HER manager are externally funded.

All pay rates shown are at 2006/07 rates as 2007/08 rates not yet determined.

All paid posts are superannuable under local government scheme; some employees opt out.

I do not feel that, as a consultancy, many of these issues are directly relevant, we do find that Oxford University CE provide useful courses where we need to go out of house and also have access to a range of suppliers of other business training.

We are a very large museum service, formerly local authority and now part of a charity. At present Registration is a) irrelevant and b) difficult to maintain within our management structure. If RAO status for museums were made dependent on adherence to archaeological archiving standards, and the senior museum

professional could subscribe to this without being a member of IFA as long as a member had responsibility for that area of the collection, we could subscribe. Following published standards for archaeological archiving is a condition of the MLA's Accreditation Scheme, but more honoured in the breach than the observance.

This organisation is winding down to closure over the next 12-18 months.

Vocational qualifications not relevant to staff, as they are already qualified.

Currently available courses do not match requirements well for curators.

On RAO:

Much IFA effort seems directed towards units and local government, it would be very useful to see some elements of the Code of Conduct or ethical guidelines that deal specifically with standalone consultancy (excluding links with a consultancy wing and therefore vested interests).

On courses matching requirements of the profession:

Courses seem to be aimed at either

- (a) very basic (first 6 months) site assistant skills, which should be learnt by apprenticeship / mentoring rather than formal training – they are *practical* skills.
- (b) are quite abstract transferable skills, generally of a managerial bent.

I feel it would be useful if IFA could impose certain conditions on RAOs, eg
– all recently graduated staff (<6 months fieldwork) to be *formally* mentored, trained up along IIP CPD lines
– encourage mentoring in finds departments, not just short-term academic studies, but daily intensive contact with assemblages
– assert the moral right and *responsibility* of the excavation fieldwork director to write up their own sites both for grey reports and publications. The resulting peer scrutiny might improve standards of analytical thought and written work. I know some units do do this, but others fail to, resulting in frustrated directors, a brain drain and second or third hand reporting.

Make SCAUM work – training, standards and salaries must be very hard to set with only the IFA and the curious – where is SCAUM? Have they made any commitment to listening, or to wages, or to a standardised price-book in 20+ years?

I have included our large volunteer contingent, but not broken them down, they carry out portions of roles and are all part time, often less than a day a week, and difficult to pigeon hole in the part 2.

General observation:

The majority of graduates entering the archaeological job market follow traditional routes via archaeological units or museum-based teams, which offers useful opportunities to develop experience, in many cases offering routes into Local Authority or regulatory organisations.

As is much debated this particular sector tends to be poorly paid, resulting in a significant number of people leaving the profession.

However there is a significant demand for appropriately experienced candidates for

careers in commercial consultancy, where the rewards are far better. Nevertheless perceptions of working in a consultancy role distract individuals from the real opportunity to establish long-term employment opportunities. Popular misconceptions of polarised positions occupied by curators/contractors and the consultancy sector are denying individuals rewarding careers – this drain is something the profession can ill afford.

Q13. Vocational qualifications seen as not applicable to graduate or post-graduate staff.

Most of this not really relevant to a self-employed consultant!

Heritage / archaeological service-provision with the organisation is now based within three different areas.

1. Contracting / fieldwork team (not covered in this document)
 2. Heritage team (covered by this document) – HER, PAS, Guardianship sites – now part of the Archives Service.
 3. Archaeological Planning Advisor is based within the Growth Management Team, dealing with those schemes for which the organisation accepts responsibility (not covered in this document).
-

Staff leaving university are poorly prepared for field archaeology. I see little point in vocational qualifications if the individuals have just spent 3 years – paid for by themselves – to be taught skills that are not ‘front line’.

We are talking about:

1) Understanding soils – archaeologists deal with sediments for between 1-3 years at least on commencing professional field archaeology. Most can't tell if a feature is deliberately backfilled or silted, and don't understand the differences / or can't recognise post depositional change and depositional event, etc

2) Survey

3) Sampling – in all uses in field archaeology, eg trenching strategy, finds collection, soil collection.

4) The broad nature of materials recovered.

5) Basic excavation approaches to different types of feature / and dates of feature!

On pensions:

NB The company has a contribution matching scheme – but staff haven't taken this up.

Our organisation employs archaeologists or other heritage professionals when funding for particular project arises. For example in the last two years we have hosted one full time post on an 18 month contract funded by English Heritage and commissioned a self-employed heritage professional to undertake survey work for us

funded internally. The historic environment forms one element of the landscape which we aim to conserve and enhance, but we only have sporadic opportunities to employ heritage professionals. The questionnaire was slightly tricky to fill in from this perspective, but we hope the information provided will be of some use.

We have 3 historic environment professionals, working nationally, and who are part of an Environmental Assessment team as Senior Environmental Co-ordinators; total national team of about 50 staff incl. EIA/SEA specialists and landscape architects. Each of us have over 10yrs broad experience in contracting and curatorial 'archaeology'. Training is targeted to fill local skills gaps, and local project needs. Training to conduct or contribute is not always relevant as our substantive role is to be influential, develop best practice, assess, advise and manage the risk in flood relief management schemes, and develop national policy and processes relating to the historic environment for the xxx Agency.

Services are brought in either by the Agency or most commonly through Consultants, the majority of these services relate to delivering surveys particularly fieldwork (intrusive and non-invasive). Our role is to co-ordinate and manage these resource inputs and product outputs to ensure wider environmental decisions can be made.

Most of form does not reflect what I do. I am sole trader. Work on my own, odd days in the year, around full time job.

As an AONB partnership or Joint Advisory Committee there is much scope for the inclusion of an archaeologist within the team. However, owing to the role of AONBs and the lack of a clear statutory function, in spite of the CROW Act 2000, there is little support for this. It would be useful if the Institute could make its position with regard to AONBs clear.

Too early to access the relevance of the NVQ in Archaeological Practice.

Q13(b) Not able to argue how well available courses match the requirements of the profession as work is needed to determine the requirements. Once these are determined would be in a better position to assess available courses.

Q3 Unpaid staff are Charity Trustees.

Q10 This question is misleading. New entrants to our firm can have up to 20 years experience. Are you asking whether new graduates lack these skills or are there genuine absences of staff with these skills or we have them all?

And no-one knows how to administer ICE/IFA contracts unless they have an ICE qualified member assisting them.

Q12 Services bought in. As an archaeological / heritage consultancy in an engineering firm we 'buy' archaeological contractors all the time.

Q13 Not sure what Vocational qualifications alluded to. Masters at York? Or CPD etc at OU? If courses are relevant we support staff on them.

ICE The IFA really must run courses on the administering of this contract! The implications of untrained / unexperienced people making mistakes are serious. Lack

of professional support is negligent. If there are courses advertise them better.

Please note that this organisation rarely excavates. I 'employ' one self-employed osteoarchaeologist almost full time and work part time.

This document has been filled out as though there were multiple people in my organisation. I am a sole-trader, but I notice gaps in knowledge and expertise amongst myself and some of the staff i occasionally work alongside. The organisations that i sub-contract off hire in the external specialists at my request, so if this confuses the issue please ignore some of the above boxes!

None of these questionnaires relates to our business (two self-employed directors) so you had better leave us out of the survey!

[Respondent had not understood that the survey did include self-employed individuals. Basic numbers were included from this organisation.]

I am intimately involved in training – former member of ATF, member of PTC, dealing with international aspects of training and qualifications.

As you may have surmised from the above, I am semi-retired and taking on bits of contract work as and when suitable things come along. Most of my time is spent undertaking voluntary work of various types within the sector.

I have not filled in Part 2 of this survey as it is really not applicable.

I work as a very part-time consultant.

[Respondent considered many of the questions to be not applicable.]

Much of this form is not relevant to me as a part-time, self-employed specialist – sorry!

Only one member of staff (teaching and research in heritage management).

This questionnaire is a bit unsuited to my 'organisation' as it is currently a single focus organisation researching artefacts for other organisations and currently has only one senior employee.

Most of this is not relevant to a self-employed individual.

As I teach for approx 60% of my time my self employed business makes up only around 40% of my time.

Even though you ask for 'even self employed' once again most of the questions are irrelevant or badly worded for one person working from home in a specific speciality.

My organisation relies on time-served craftsmen who have a wide variety of archaeological and inter-personal skills. The aim is to provide an elite service, where wages are well above the norm for field staff and in return we provide a fast and efficient service for our client and cutting out any time-wasters or time servers.

As a sole trader and field archaeologist of 17 years experience I have yet to be convinced that vocational qualifications have anything to offer me at this moment in time! I am prepared to be convinced!

What really seems to be missing is apprentice-style training in artefact specialisms. Many specialists are reaching retirement age and soon their knowledge will be lost... Truly, a wasting resource.

Apologies! As an archaeological illustrator working alone, very little of this questionnaire applies.

Most of this does not apply to a freelance individual, apologies.

General comments:

Archaeology is a difficult discipline in which to develop a career structure, but it's easier now than when I started.

Things would improve considerably if archaeologists stopped competing with each other in trying to do archaeology as cheaply as possible. It would help if society in general was prepared to credit the study of the past with the importance it deserves.

Having been employed in archaeology since 1990 for the last 5 years I have made my own work. My dedication to the subject over 35 years has brought little reward and investment in me as a person by employers.

I have never been offered training, and was fobbed off when I asked for it. Units do not invest in diggers as they have to leave when they wish to buy a house, have a family and try to live like other graduates with their earning potential. We have no structured training programme in units.

I had to learn all the skills on the job. This is amateurish. Training should be open to everyone who wishes to try to increase skill levels and learn new ones. Supervisors are promoted with no training in how to handle the logistics of running a site and staff management – madness. Specific areas of archaeology, outside of digging, are closed shops and discrimination is endemic in relation to age, class and gender.

In relation to other professionals (construction) we are amateurs. They laugh in our faces when they know our pay, how long we study, the conditions we work in, the skills we need. Construction managers run rings around our so-called managers. These people are highly trained, experienced, tough and they know their job and are hugely rewarded. Lambs to the slaughter. They do not respect us because we do not deserve to be respected. They see us as decontaminators to be paid as little as possible and to be got rid of quickly.

Archaeology is young. We must stop muddling through, grow up, stop exploiting those at the bottom, contractors exploiting us, invest in the people from top to bottom using the money that we should be paid for the job we have to do under the law. We should all be highly trained, motivated, professional and justly rewarded for the dedication we have for the job and the community we serve.

I'm a single self-employed archaeological consultant – my answers relate to that.

As a sole trader much of this is not terribly relevant eg training budgets – if I need something I find the cash and do it! Ditto holidays, unions liP etc (though I think Unions should be recognised in the workplace).

Because we are a very small business and staff are highly qualified and experienced, I am less supportive of them gaining additional qualifications. They don't need them. However CPD is very important and that is where I would prefer to spend limited funds.

Re RAOs. Still thinking about. Still not sure of the need if 100% of staff are MIFA.

Respondent noted on Director Post Profile 'I chose not to draw down dividends in order to invest in the business – hence low Director's salary.'

This form is generally irrelevant to any firm that is not a traditional archaeological organisation. Get real and realise there is a lot more to archaeology than that. The first question relates to the historic environment and then ignores it for the remainder of the form. As heritage management consultancy it does not relate to us in any way and I suspect [illeg] for similar forms.

Your survey has an interesting approach to archaeologists working in museums. It is possible to select museum services as a principal role and registered museum as a quality standard, but the list of skills which form the basis of Q10-12 does not include any museum-based curatorial skills such as collection management and interpretation. This reflects the failure of all those working in the fieldwork explosion generated by PPG16 to appreciate the importance of the long term care of the archives which the fieldwork generates. Fieldwork archives nearly all end up in museums, and, despite the efforts of museums to establish standards in this area, many arrive incomplete, disorganised, and unusable without a lot of further work by museum staff. Preservation by record does not work if the record generated is inadequate. This is clearly an area where there is a serious skills shortage.

Questions 10-12 are biased towards field skills, which are not applicable to a curatorial, advisory organisation, such as ours. We do more than just maintain an HER (such as rural archaeology, development control, etc).

From email, 12/11/07: Part 2 forms attached for full time staff. The salaries are under review at the minute as they all got downgraded as a result of Job Evaluation.

This questionnaire really didn't suit me very well!! I'm a retired Headteacher running a reconstructed BA Village on xxx and leading archaeological walks. I work on demand and very part time, mainly with KS2 children.

This response is based only on the Archaeological staff within the [academic department] at [name omitted] and does not include staff employed in other disciplines.

[No post profiles completed. Form returned, marked 'Data not available'.]

Working conditions and employment conditions for junior staff in trusts and commercial organisations are appalling. The IFA is not a Trade Union and has failed utterly to address this issue to any effect. I would advise any young archaeologist to

join Unison or the GMB rather than the IFA.

Difficult to answer as main business a museum which only stores and interprets archaeological material and data.

Re: support for staff working towards vocational qualifications – there is too big a difference between little and considerable amount. Some support would be given but not necessarily a considerable amount.

It is hard to find experienced digging staff. Without the input of Eastern Europeans we would be stuffed as a profession.

Much of this questionnaire irrelevant to my organisation of a university department.

Due to numerous restructures my role in the curation of the Historic Environment (beyond normal museum involvement) is specific to myself. Once I leave or retire the role of 'Museum Officer, Archaeology' will almost certainly be redefined.

As a museum service we do not conduct archaeological investigations but do accept finds from archaeological excavations from a large district.

I have tried to complete as much of the questionnaire as possible. This includes in the training section in Part 1 (sections 10 and 11) – these I have not been able to complete fully, particularly for 'new entrants' and for training priorities for staff in the next 12-18 months as I am only contracted till March.

My only comments are that archaeological illustration does not pay perhaps as well as it should and finding work as a freelancer is not particularly easy – though I suppose that's the same for any freelancer.

[Respondent found it difficult to fill in the form, and considered most of it to be irrelevant.]

Self-employed sole trader working in cooperation / on behalf of xxx, County Councils, Museum Services and private developers. Primary work in recording monuments, advising (on site) contractors involved in conservation. Also finds illustration and reconstruction artwork.

I believe it is high time that archaeological employment is reviewed in this country.

As a lecturer in the context and study of archaeological illustration I may have been able to contribute more fully to this study. I am currently working on some freelance written work in the same field whilst at home with small children. With no publishing contract negotiated there is little I can contribute, other than to say archaeology has many niche areas and it would be interesting to see if parity of pay scale may be worked on (eg various areas, pay based on qualification, professional accreditation and experience). In my own experience archaeological illustrators can be individuals with several qualifications often attaining 1st degree some with post graduate experience, they often come with a wealth of knowledge from illustrative backgrounds and sometimes from archaeological backgrounds too. Yet at each AAIS conference people talk of leaving the field because they cannot make ends meet.

I am sure this is similar across the whole of archaeology.

This questionnaire is pretty irrelevant to a single self-employed practitioner – sorry if it skews your results.

This questionnaire is not really geared towards us as providers of archaeological holidays.

However, there are 4 PhDs and 2 BAs in archaeology working in-house and we employ around 40 archaeologists as guides on an ad-hoc basis, so feel we qualify for inclusion.

Perhaps you should widen your appreciation of the *breadth* of application of archaeology in the world?

The direct answer to all Section 9 questions would be No, mainly because I am a solo operator therefore do not determine my choices against a structured plan. However I do pursue my own ad hoc activities to maintain profile, broaden contacts, experience, knowledge and sector awareness, which is a personal equivalent within my needs.

As a self-employed archaeologist, not many of the categories laid out above apply to me.

I am a fairly recent PhD. graduate moonlighting in the commercial sphere. I currently work primarily as a self-employed digger (with the majority of the work I undertake coming from one 'employer'), but I also work within the archaeology department of the local university (undertaking illustration, GIS, surveying and some paid research on behalf of some of the lecturers). I also have a part-time retail job, which my colleagues only half-jokingly suggest allows me to pursue my career in archaeology!

Income from all these sources over the last year came to around £13,500, working perhaps 75% of a full 250 day year. This reflects the intermittent nature of the digging circuit. While this is not ideal, it does allow me a certain flexibility of working practice I enjoy, and (hypothetically) gives me more time to work on the academic publications I will need to get anywhere in academia. I do acknowledge, however, that this flexibility translates into a distinct liability should I become ill, be injured, or accrue any dependants who would be relying on my income!

I don't believe I need repeat the arguments frequently offered elsewhere regarding poor conditions on the commercial circuit (though I doubt that they have improved since the last Profile, and I would be very interested to see if wages had continued to fall relative to the national average – perhaps it would be appropriate to look at particular sectors of the archaeological workplace rather than archaeology as a whole in this respect?). Fortunately, as a self-employed individual, and one with one finger still in academia, I see rather more variety of work than I would if I only dug.

A few observations:

1. I have become increasingly conscious of the problematical 'piggy-in-the-middle' position of commercial units, stuck between the Powers That Be and the building companies etc. who actually employ them. It certainly does not make for an easy

relationship, and serves only to make everyone's role more difficult (especially if one or other of the parties involved have unrealistic expectations).

2. Health and safety is generally good (though more because of awareness in the construction industry, one feels) BUT some survey of digger health would be desirable. We've all *know* digging, if pursued long-term, has a significant impact on the bodies of those doing the work, but I think it is important to quantify that impact. Secondly, few trades are now so intimately involved with actual dirt/filth, and I believe the impact of soil contaminants on digger health is not treated as seriously enough.

3. The lack of connection between the academic and commercial spheres is almost embarrassing. To stand a chance of a university position you need to maintain a certain academic momentum that seems to actively ignore if not revile the value of any work undertaken in commercial archaeology. As a result, few academics can give their students an accurate idea about what to expect in commercial archaeology, and their own level of technical accomplishment is also stymied as a result. In addition, the disingenuous way academics are 'rated' according to their national or international standing seems to foster this division – with academics doing research abroad, and commercial companies doing digging at home.

4. In terms of the academic career, I firmly believe academic positions are about as inaccessible as they have ever been. The goalposts have changed so rapidly in the last 10-15 years that I would hazard that established academics have little idea of the problems encountered by the aspirant lecturer. I have come to believe that this is because PhDs have become devalued by the departmental push for accolade and funding through (over)recruitment, the corollary being a pronounced lack of interest in individuals.

Appendix 3 Project questionnaire



Archaeology Labour Market Intelligence: Profiling the Profession 2007–08

14 September 2007

Dear Colleague,

Archaeology Labour Market Intelligence: Profiling the Profession 2007–08 is a project designed to gather information about everyone currently working in archaeology and the historic environment.

Every organisation that employs or commissions archaeologists and others who work with the historic environment in the UK is invited to contribute to this project, including those who are self-employed. We enclose a two-part questionnaire, with a postage-paid reply envelope, for your response.

The results will contribute to the personal development of individuals, and will assist organisations and the profession as a whole in developing and planning for the future. Similar archaeological labour market intelligence has been analysed twice before, in 1997–98 and 2002–03, and the resulting data have been extensively used by the sector. The results of both surveys are available online at <http://www.archaeologists.net>, following the menu link to 'The Profession'.

The Institute of Field Archaeologists is funded to undertake this project by the European Commission's Leonardo da Vinci II fund, English Heritage, Historic Scotland, Cadw: Welsh Historic Monuments and the Environment and Heritage Service (DoE Northern Ireland).

Profiling the Profession 2007–08 is part of a wider project, *Discovering the Archaeologists of Europe*, which is collecting data on archaeological employment in ten European countries, with funding from the Leonardo da Vinci II fund. The European project will contrast employment in the different countries and examine the opportunities for and obstacles to individual archaeologists' employment in countries other than their own.

The results of the survey will be launched at the IFA *Annual Conference for Archaeologists*, in Swansea, 18–20 March 2008. A report on the project will be published conventionally and in electronic form, and summaries will be presented in other relevant publications.

With many thanks in advance,

yours faithfully,

Kenneth Aitchison, IFA Head of Professional Development

Rachel Edwards, Project Consultant, Arboretum Archaeological Consultancy



Archaeology Labour Market Intelligence: Profiling the Profession 2007–08

How to fill in the questionnaire

We enclose a copy of the two-part questionnaire and a postage-paid reply envelope.

Part one: the Organisation asks for information about your organisation (which may be large or small – we want to include self-employed archaeologists as well as employers with many staff).

Part two: Post Profiles asks for information about each post within the organisation, and we ask you to make a separate copy for each post, which may refer to one or more individuals.

If you would prefer to complete the questionnaire digitally, an electronic version of the questionnaire in Microsoft Word is accessible online through <http://www.archaeologists.net> for you to download. This may be printed out and returned by mail, or returned as email attachments. Please ensure you include the organisation ID number. This is printed on the envelope sent to you, on the reply envelope, and is also stamped on the paper questionnaire.

This questionnaire is designed to obtain information relating to people working in archaeology and the historic environment at present. Please complete the questionnaire using information that applied to your organisation on **13 August 2007**. If this survey is not relevant to any employees of your organisation, please return the questionnaire with a note to this effect.

We acknowledge that the questionnaire seeks detailed information and that it may be time-consuming to complete. The cooperation of hundreds of organisations in the past two surveys has demonstrated the value of this level of detail, allowing a full picture to be built up which has benefited all who work in the profession.

If you require further assistance or advice in completing the questionnaire, please do not hesitate to contact Imi@archaeologists.net or telephone Rachel Edwards on 01905 26448 (ten-digit number is correct).

If you work for an organisation with more than one UK office, we would be grateful if you could liaise with colleagues to avoid either double-counting or omission of any employees.

Although this survey focuses on archaeologists in employment, we ask you to include any unpaid volunteers who work alongside paid staff. If your organisation is exclusively staffed by volunteers, however, we regret that we cannot include it in the present survey. We would, however, request that you return the questionnaire with a note to let us know.

You will notice that questionnaire responses are anonymous, and only identified by the organisation ID number. Specific organisations will not be identifiable in any publication of the project results. A full archive of all the information received and a full copy of the database used will be deposited with the Archaeology Data Service, but the entries in the archive and any published information will only be identified by the region of the UK where the organisation providing the data is based and by the type of organisation it is. It will be impossible to connect the data to the organisation that provided them.

Paper questionnaires should be returned by **26 October 2007**, but we will be able to receive electronic versions until **9 November 2007**.

The maximum weight for the pre-paid envelope is 100g, so if you need to send multiple copies of Part two, you may prefer to send it in digital format. If you wish to send the questionnaire through your own mailing system, the postal address for returns is:

Profiling the Profession 2007, PO Box 715, Worcester WR1 1WL

Many thanks for your time and for your invaluable contribution to the project.

Organisation ID

**Archaeology Labour Market Intelligence:
Profiling the Profession 2007-08**

Please refer to *How to fill in the questionnaire*. If you have any further queries about how to complete your return, please email Imi@archaeologists.net.

Please complete the questionnaire using information that applied to your organisation on **13 August 2007**, and return it in the envelope provided by **26 October 2007**, together with a copy of *Part two: Post Profiles* for each post in your organisation.

An electronic version of the questionnaire is available to download from <http://www.archaeologists.net>.

Part one: the Organisation

1 Organisational basis and role

Please indicate your organisation's basis and principal role in the tables below. If your organisation is a registered charity, please show this separately as indicated. If you are self-employed, please tick the relevant box below, as well as indicating the main role and basis of your business.

Principal role	Select one	Or indicate broad %
Field investigation and research services	<input type="checkbox"/>	
Historic environment advice and information services	<input type="checkbox"/>	
Museum and visitor / user services	<input type="checkbox"/>	
Educational and academic research services	<input type="checkbox"/>	

Organisational basis	Select one
National government or agency	<input type="checkbox"/>
Local government	<input type="checkbox"/>
University	<input type="checkbox"/>
Private sector	<input type="checkbox"/>
Other (please specify)	<input type="checkbox"/>

Registered charity	<input type="checkbox"/>
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Self-employed	<input type="checkbox"/>
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What percentage of your organisation's income is generated by work related to development or the planning process?

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2 Geographical location

Please tick one box to indicate where the organisation that you are providing data for is based. If based in more than one location, please indicate the % of staff in each location.

England (government office region)		<i>North West</i>	<input type="checkbox"/>		Scotland	<input type="checkbox"/>
<i>East of England</i>	<input type="checkbox"/>	<i>South East</i>	<input type="checkbox"/>		Wales	<input type="checkbox"/>
<i>East Midlands</i>	<input type="checkbox"/>	<i>South West</i>	<input type="checkbox"/>		Northern Ireland	<input type="checkbox"/>
<i>London</i>	<input type="checkbox"/>	<i>West Midlands</i>	<input type="checkbox"/>		Channel Islands	<input type="checkbox"/>
<i>North East</i>	<input type="checkbox"/>	<i>Yorkshire & the Humber</i>	<input type="checkbox"/>		Isle of Man	<input type="checkbox"/>

3 Number of staff

Please indicate how many members of staff, paid and unpaid, were working for your organisation on 13 August 2007. When completing this question, please consider that 'archaeological staff' should be interpreted broadly as anyone using their professional expertise and capabilities to work directly or indirectly (such as in a managerial, commissioning or curatorial position) with the investigation, conservation or interpretation of the historic environment.

Please ensure that all staff, including those on short-term, temporary or 'casual' (eg zero hours) contracts who were working for the organisation on 13 August 2007 are included.

	Paid	Unpaid
Archaeological staff		
Non-archaeological support staff		
Total staff		

Have these numbers varied in the course of the past year?

Yes No Don't know

If so, please indicate the minimum and maximum numbers of staff, paid and unpaid, working for your organisation at any given time in the course of the past year.

	Paid		Unpaid	
	Minimum	Maximum	Minimum	Maximum
Archaeological staff				
Non-archaeological support staff				
Total staff				

4 Employee rights and benefits

Which of the following rights and benefits are provided to employees? If you are self-employed, please answer as well as you are able.

	Yes	No	Don't know or not applicable
20 or more days paid holiday leave per annum	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Occupational sick pay (paid sickness leave over and above Statutory Sick Pay)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paid maternity leave over and above Statutory Maternity Pay	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The opportunity to take unpaid maternity leave	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paid paternity leave over and above Statutory Paternity Pay	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The opportunity to take unpaid paternity leave	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The opportunity to jobshare or use other flexible working arrangements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Subsidised accommodation or subsistence allowance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please give details of any other employee benefits which the organisation provides (eg reimbursement of IFA subscriptions)

5 Salary scales

Are salaries within the organisation tied to any scale system?

Yes No Don't know

If yes, then please indicate the type of scale system in use:

Civil service	<input type="checkbox"/>
Local authority	<input type="checkbox"/>
University	<input type="checkbox"/>
Locally-defined or own scale	<input type="checkbox"/>
Other (please specify)	

6 Trade unions

Are there any recognised trade unions in the organisation's workplace?

Yes No Don't know

If yes, which unions are these? (tick all that apply).

Prospect	<input type="checkbox"/>
UCU (University and College Union)	<input type="checkbox"/>
Unison	<input type="checkbox"/>
Unite	<input type="checkbox"/>
Other (please specify)	

7 Past and future staff numbers

Please indicate how the numbers of members of staff have changed over the last few years and how you anticipate staff numbers to change in the near future.

Please ensure that all staff, including those on short-term or temporary contracts are included.

	Last year		3 years ago		5 years ago	
	Paid staff	Unpaid staff	Paid staff	Unpaid staff	Paid staff	Unpaid staff
More than now	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The same as now	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fewer than now	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Don't know	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Not trading	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How do you expect staff numbers to change in future years?

	Next year		In 3 years' time	
	Paid staff	Unpaid staff	Paid staff	Unpaid staff
More than now	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The same as now	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fewer than now	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Don't know	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Will not be trading	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8 Investors in People and other quality standards

Do you employ a quality system?

Yes No Don't know

If yes, please tick all the quality systems that apply.

Investors in People	<input type="checkbox"/>	Registered Museum	<input type="checkbox"/>
IFA Registered Archaeological Organisation	<input type="checkbox"/>	ISO 9000	<input type="checkbox"/>
Other (please specify)			

Relating to Investors in People (IiP), is your organisation

Recognised IiP	<input type="checkbox"/>	Considered and rejected	<input type="checkbox"/>
Committed to IiP	<input type="checkbox"/>	Not considered	<input type="checkbox"/>
Considered not yet working towards it	<input type="checkbox"/>	Don't know	<input type="checkbox"/>

If your organisation has not committed to liP, which of the following is the main reason?

Too much paperwork	<input type="checkbox"/>	Seemed irrelevant	<input type="checkbox"/>
Time not available	<input type="checkbox"/>	No LSC/LEC funding	<input type="checkbox"/>
Benefits not clear	<input type="checkbox"/>	Other (please specify)	

Relating to IFA RAO (Registered Archaeological Organisation) status, is your organisation:

Registered Archaeological Organisation	<input type="checkbox"/>	Working towards Registration	<input type="checkbox"/>
Considered not yet working towards it	<input type="checkbox"/>	Considered and rejected	<input type="checkbox"/>
Not considered	<input type="checkbox"/>	Don't know	<input type="checkbox"/>

If your organisation has not committed to IFA Registration, which of the following is the main reason?

Too much paperwork	<input type="checkbox"/>	Seemed irrelevant	<input type="checkbox"/>
Time not available	<input type="checkbox"/>	Part of a larger organisation that will not commit	<input type="checkbox"/>
Benefits not clear	<input type="checkbox"/>	Other (please specify)	

9 Staff training and development

	Yes	No	Don't know
Do you identify training needs for individuals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you identify training needs for the organisation as a whole?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you provide training or other development opportunities for paid staff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you provide training or other development opportunities for unpaid staff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If yes to either of the final two questions above, how do you develop your staff? Please tick all that apply.	Paid staff	Unpaid staff
Formal off-job training (eg outside training course)	<input type="checkbox"/>	<input type="checkbox"/>
Formal in-job training (eg in-house training course)	<input type="checkbox"/>	<input type="checkbox"/>
Informal off-job training (eg supported individual research and learning)	<input type="checkbox"/>	<input type="checkbox"/>
Informal in-job training (eg mentoring)	<input type="checkbox"/>	<input type="checkbox"/>

	Yes	No	Don't know
Does your organisation have a formal training plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your organisation have a training budget?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is your training budget under your organisation's direct control?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you record how much time employees spend training?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you formally evaluate the impact of training on individuals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you formally evaluate the impact of training on the organisation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your organisation operate a performance appraisal scheme?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your organisation encourage individuals to engage in continuing professional development (CPD)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10 Skills gaps and shortages

Which of the following skills, both archaeological and general do you find that new entrants or existing staff lack, as relevant to their job roles?

Skills gaps and shortages	New entrants	Existing staff
Archaeological skills		
Conducting (leading or directing) intrusive investigations (evaluation, excavation)	<input type="checkbox"/>	<input type="checkbox"/>
Contributing to intrusive investigations (evaluation, excavation) as team members or diggers	<input type="checkbox"/>	<input type="checkbox"/>
Conducting (leading or directing) survey and interpretation of historic buildings	<input type="checkbox"/>	<input type="checkbox"/>
Contributing to survey and interpretation of historic buildings as team members	<input type="checkbox"/>	<input type="checkbox"/>
Conducting (leading or directing) non-intrusive investigations (geophysical survey)	<input type="checkbox"/>	<input type="checkbox"/>
Contributing to non-intrusive investigations (geophysical survey) as team members	<input type="checkbox"/>	<input type="checkbox"/>
Conducting (leading or directing) other non-intrusive investigations	<input type="checkbox"/>	<input type="checkbox"/>
Contributing to other non-intrusive investigations as team members	<input type="checkbox"/>	<input type="checkbox"/>
Desk-based historic environment research including desk-based assessment	<input type="checkbox"/>	<input type="checkbox"/>
Creating, managing and maintaining Historic Environment Records	<input type="checkbox"/>	<input type="checkbox"/>
Historic environment characterisation	<input type="checkbox"/>	<input type="checkbox"/>
Providing information and advice on the conservation and management of the historic environment	<input type="checkbox"/>	<input type="checkbox"/>
Conservation of artefacts or ecofacts	<input type="checkbox"/>	<input type="checkbox"/>
Artefact research	<input type="checkbox"/>	<input type="checkbox"/>
Ecofact research	<input type="checkbox"/>	<input type="checkbox"/>
Other archaeological skills (please specify)	<input type="checkbox"/>	<input type="checkbox"/>
Non-archaeological skills		
Leadership	<input type="checkbox"/>	<input type="checkbox"/>
Business skills	<input type="checkbox"/>	<input type="checkbox"/>
Advocacy / influencing others	<input type="checkbox"/>	<input type="checkbox"/>
People management	<input type="checkbox"/>	<input type="checkbox"/>
Project management	<input type="checkbox"/>	<input type="checkbox"/>
Information technology	<input type="checkbox"/>	<input type="checkbox"/>
Education / training	<input type="checkbox"/>	<input type="checkbox"/>
Marketing / sales	<input type="checkbox"/>	<input type="checkbox"/>
Customer care	<input type="checkbox"/>	<input type="checkbox"/>
Administrative skills	<input type="checkbox"/>	<input type="checkbox"/>
Non-English language	<input type="checkbox"/>	<input type="checkbox"/>
Other non-archaeological skills (please specify)	<input type="checkbox"/>	<input type="checkbox"/>

11 Training

Please can you indicate what archaeological and non-archaeological training your organisation has provided or bought in for staff in the past 12 to 18 months.

Please indicate what areas are priorities for staff training in the next 12 to 18 months.

Training	Past 12–18 months	Next 12–18 months
Archaeological skills		
Conducting (leading or directing) intrusive investigations (evaluation, excavation)	<input type="checkbox"/>	<input type="checkbox"/>
Contributing to intrusive investigations (evaluation, excavation) as team members or diggers	<input type="checkbox"/>	<input type="checkbox"/>
Conducting (leading or directing) survey and interpretation of historic buildings	<input type="checkbox"/>	<input type="checkbox"/>
Contributing to survey and interpretation of historic buildings as team members	<input type="checkbox"/>	<input type="checkbox"/>
Conducting (leading or directing) non-intrusive investigations (geophysical survey)	<input type="checkbox"/>	<input type="checkbox"/>
Contributing to non-intrusive investigations (geophysical survey) as team members	<input type="checkbox"/>	<input type="checkbox"/>
Conducting (leading or directing) other non-intrusive investigations	<input type="checkbox"/>	<input type="checkbox"/>
Contributing to other non-intrusive investigations as team members	<input type="checkbox"/>	<input type="checkbox"/>
Desk-based historic environment research including desk-based assessment	<input type="checkbox"/>	<input type="checkbox"/>
Creating, managing and maintaining Historic Environment Records	<input type="checkbox"/>	<input type="checkbox"/>
Historic environment characterisation	<input type="checkbox"/>	<input type="checkbox"/>
Providing information and advice on the conservation and management of the historic environment	<input type="checkbox"/>	<input type="checkbox"/>
Conservation of artefacts or ecofacts	<input type="checkbox"/>	<input type="checkbox"/>
Artefact research	<input type="checkbox"/>	<input type="checkbox"/>
Ecofact research	<input type="checkbox"/>	<input type="checkbox"/>
Other archaeological skills (please specify)	<input type="checkbox"/>	<input type="checkbox"/>
Non-archaeological skills		
Leadership	<input type="checkbox"/>	<input type="checkbox"/>
Business skills	<input type="checkbox"/>	<input type="checkbox"/>
Advocacy / influencing others	<input type="checkbox"/>	<input type="checkbox"/>
People management	<input type="checkbox"/>	<input type="checkbox"/>
Project management	<input type="checkbox"/>	<input type="checkbox"/>
Information technology	<input type="checkbox"/>	<input type="checkbox"/>
Education / training	<input type="checkbox"/>	<input type="checkbox"/>
Marketing / sales	<input type="checkbox"/>	<input type="checkbox"/>
Customer care	<input type="checkbox"/>	<input type="checkbox"/>
Administrative skills	<input type="checkbox"/>	<input type="checkbox"/>
Non-English language	<input type="checkbox"/>	<input type="checkbox"/>
Other non-archaeological skills (please specify)	<input type="checkbox"/>	<input type="checkbox"/>

12 Services bought in

Please could you identify what services your organisation has bought in over the last 12 to 18 months, and indicate which services you found difficult to obtain.

Services bought in	Services bought in	Services difficult to buy in
Archaeological skills		
Conducting (leading or directing) intrusive investigations (evaluation, excavation)	<input type="checkbox"/>	<input type="checkbox"/>
Contributing to intrusive investigations (evaluation, excavation) as team members or diggers	<input type="checkbox"/>	<input type="checkbox"/>
Conducting (leading or directing) survey and interpretation of historic buildings	<input type="checkbox"/>	<input type="checkbox"/>
Contributing to survey and interpretation of historic buildings as team members	<input type="checkbox"/>	<input type="checkbox"/>
Conducting (leading or directing) non-intrusive investigations (geophysical survey)	<input type="checkbox"/>	<input type="checkbox"/>
Contributing to non-intrusive investigations (geophysical survey) as team members	<input type="checkbox"/>	<input type="checkbox"/>
Conducting (leading or directing) other non-intrusive investigations	<input type="checkbox"/>	<input type="checkbox"/>
Contributing to other non-intrusive investigations as team members	<input type="checkbox"/>	<input type="checkbox"/>
Desk-based historic environment research including desk-based assessment	<input type="checkbox"/>	<input type="checkbox"/>
Creating, managing and maintaining Historic Environment Records	<input type="checkbox"/>	<input type="checkbox"/>
Historic environment characterisation	<input type="checkbox"/>	<input type="checkbox"/>
Providing information and advice on the conservation and management of the historic environment	<input type="checkbox"/>	<input type="checkbox"/>
Conservation of artefacts or ecofacts	<input type="checkbox"/>	<input type="checkbox"/>
Artefact research	<input type="checkbox"/>	<input type="checkbox"/>
Ecofact research	<input type="checkbox"/>	<input type="checkbox"/>
Other archaeological skills (please specify)	<input type="checkbox"/>	<input type="checkbox"/>
Non-archaeological skills		
Leadership	<input type="checkbox"/>	<input type="checkbox"/>
Business skills	<input type="checkbox"/>	<input type="checkbox"/>
Advocacy / influencing others	<input type="checkbox"/>	<input type="checkbox"/>
People management	<input type="checkbox"/>	<input type="checkbox"/>
Project management	<input type="checkbox"/>	<input type="checkbox"/>
Information technology	<input type="checkbox"/>	<input type="checkbox"/>
Education / training	<input type="checkbox"/>	<input type="checkbox"/>
Marketing / sales	<input type="checkbox"/>	<input type="checkbox"/>
Customer care	<input type="checkbox"/>	<input type="checkbox"/>
Administrative skills	<input type="checkbox"/>	<input type="checkbox"/>
Non-English language	<input type="checkbox"/>	<input type="checkbox"/>
Other non-archaeological skills (please specify)	<input type="checkbox"/>	<input type="checkbox"/>

13 Vocational qualifications

Are you aware of vocational qualifications in archaeological practice?

Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Not sure	<input type="checkbox"/>
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How much support would you give staff to work towards such qualifications?

Very little	Little	Considerable amount	Very considerable amount
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How well do currently available courses match the requirements of the profession?

Very poorly	Poorly	Well	Very well	Don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

14 Further comments

If you have any further comments about any aspect of archaeological employment in the UK, please make them here, or email them to lmi@archaeologists.net

Please now complete a copy of Part two: Post Profiles for each post in your organisation.

Organisation ID

**Archaeology Labour Market Intelligence:
Profiling the Profession 2007-08**

Part two: Post Profiles

Please complete a copy of this part for **each** post title within the organisation, including archaeological staff and any dedicated support staff who work with archaeologists. Note that while each copy relates to a single post, this may well relate to a number of individuals. Please complete this for yourself if you are self-employed.

Please make a separate copy of all **three** sides of Part two for each post in your organisation.

Post title	
Number of paid individuals employed in this post	
Number of individuals working in this post on an unpaid basis	

Level of seniority: how many of these individuals are:

Senior		Middle		Junior	
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Please indicate the principal role of the individuals working in this post (select one only)

Field investigation and research services	<input type="checkbox"/>
Historic environment advice and information services	<input type="checkbox"/>
Museum and visitor / user services	<input type="checkbox"/>
Educational and academic research services	<input type="checkbox"/>
Administrative support	<input type="checkbox"/>

Please indicate the number of individuals working in this post by age and gender.

	Paid staff			Unpaid staff	
	Male	Female		Male	Female
Aged 16-19			Aged 16-19		
Aged 20-24			Aged 20-24		
Aged 25-29			Aged 25-29		
Aged 30-34			Aged 30-34		
Aged 35-39			Aged 35-39		
Aged 40-44			Aged 40-44		
Aged 45-49			Aged 45-49		
Aged 50-54			Aged 50-54		
Aged 55-59			Aged 55-59		
Aged 60-64			Aged 60-64		
Aged 65 and over			Aged 65 and over		

Gross salary*	Minimum		Does this include any weighting allowance?	Yes	<input type="checkbox"/>	How much?	Minimum	
	Maximum			No	<input type="checkbox"/>		Maximum	
	Average						Average	

*If you are self-employed, please enter your taxable income, ie your annual turnover less all business expenses

Does your organisation operate a performance-related pay scheme?

Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Don't know	<input type="checkbox"/>
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Working hours per week (please complete in terms of numbers of individuals):

Paid staff		Unpaid staff	
Part time (<30h per week)		Part time (<30h per week)	
Full time (>=30h per week)		Full time (>=30h per week)	

Length of contract for paid staff (please complete in terms of numbers of individuals):

Up to 3 months		>24 months	
3–6 months		Permanent / open-ended	
6–12 months		Other (please specify)	
12–24 months			

Length of employment to date for paid staff (please complete in terms of numbers of individuals):

Up to 3 months		2–5 years	
3–6 months		5–10 years	
6–12 months		10–20 years	
12–24 months		>20 years	

Length of time working with organisation for unpaid staff (please complete in terms of numbers of individuals):

Up to 3 months		2–5 years	
3–6 months		5–10 years	
6–12 months		10–20 years	
12–24 months		>20 years	

How many of the paid posts are funded by establishment income or by project grants / contracting income (please complete in terms of numbers of individuals)?

Establishment income	
Project or contracting income	

Does the organisation contribute to the pension of individuals working in this post (please complete in terms of numbers of individuals)?

Yes	
No	
Don't know	

In the past year, have there been vacancies for this post which have been difficult to fill (eg post had to be re-advertised)?

Yes	
No	
Don't know	

Please indicate the highest qualification obtained by individuals working in this post, and specify whether this was in archaeology or in another subject. Please also indicate where qualifications were obtained (please complete in terms of numbers of individuals).

	Archaeology	Other subject	In UK	In EU	Elsewhere
Post-doctoral qualification					
Doctorate (PhD or DPhil)					
Postgraduate (Masters)					
First degree					
Foundation degree or HND					
A level, Highers					
GCSE, Standard Grade					

What are the ethnic origins of the people working in this post (please complete in terms of numbers of individuals)?

	Paid staff	Unpaid staff		Paid staff	Unpaid staff
White			Asian or Asian British		
Mixed			Chinese		
Black or Black British			Other ethnic group		

Please specify the country of origin of any individuals not from the UK (please complete in terms of numbers of individuals).

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What is the disability status of the people working in this post?

Disability Discrimination Act (DDA) disabled includes those who have a long-term physical or mental disability which substantially limits their day-to-day activities.

Work-limiting disabled includes those who have a long-term disability which affects the kind or amount of work they might do.

	Paid staff	Unpaid staff
Both DDA and work limiting disabled		
DDA disabled only		
Work-limiting disabled only		
Not disabled		

Thank you for your time and for your contribution to the project.

Please return by **26 October 2007** in the reply envelope (noting the 100g maximum weight).

or post to: Profiling the Profession 2007, PO Box 715, WORCESTER WR1 1WL

Appendix 4 National Statistics classification

Below are the details of the group of occupations into which archaeologists are classified by National Statistics.

MINOR GROUP 232

RESEARCH PROFESSIONALS

Research professionals are responsible for planning, directing and undertaking scientific, quantitative and qualitative research through the application of theoretical principles and practical techniques in order to address a research objective.

Occupations in this minor group are classified into the following unit groups:

2321 SCIENTIFIC RESEARCHERS

2322 SOCIAL SCIENCE RESEARCHERS

2329 RESEARCHERS NEC

2322 SOCIAL SCIENCE RESEARCHERS

Social science researchers study the origin, structure and characteristics of language, analyse the behaviour of human beings, organise the collection of information for social surveys and independent research, and undertake subsequent analysis.

TYPICAL ENTRY ROUTES AND ASSOCIATED QUALIFICATIONS

Entry is most common with a degree or equivalent qualification but is possible with other academic qualifications and/or relevant experience.

TASKS

- traces the evolution of word and language forms, compares grammatical structures and analyses the relationships between ancient parent and modern languages;
- compiles and analyses economic, demographic, legal, political, social and other data to address research objective;
- administers questionnaires, carries out interviews, organises focus groups and implements other social research tools;
- undertakes analysis of data, presents results of research to sponsors, the media and other interested organisations, addresses conferences and publishes articles outlining the methodology and results of research undertaken.

RELATED JOB TITLES

Anthropologist
Archaeologist
Geographer
Historian
Philologist
Sociologist

Appendix 5 National Qualifications Framework and Framework for Higher Education Qualifications

National Qualifications Framework (NQF)		Framework for Higher Education Qualifications (FHEQ)
Previous levels(Examples)	Current levels(Examples)	Levels (Examples)
Level 5 Level 5 NVQ in Construction Level 5 Diploma in Translation	Level 8 Specialist awards Level 7 Level 7 Diploma in Translation	D (doctoral) Doctorates M (masters) Masters degrees, postgraduate certificates and diplomas
LEVEL 4 Level 4 National Diploma in Professional Production Skills Level 4 BTEC Higher National Diploma in 3D Design Level 4 Certificate in Early Years Practice	Level 6 Level 6 National Diploma in Professional Production Skills Level 5 Level 5 BTEC Higher National Diploma in 3D Design Level 4 Level 4 Certificate in Early Years Practice	H (honours) Bachelor degrees, graduate certificates and diplomas I (intermediate) Diplomas of higher education and further education, foundation degrees and higher national diplomas C (certificate) Certificates of higher education
Level 3 Level 3 Certificate in Small Animal Care Level 3 NVQ in Aeronautical Engineering A levels		
Level 2 Level 2 Diploma for Beauty Specialists Level 2 NVQ in Agricultural Crop Production GCSEs Grades A*-C		
Level 1 Level 1 Certificate in Motor Vehicle Studies Level 1 NVQ in Bakery GCSEs Grades D-G		
Entry level Entry Level Certificate in Adult Literacy		

*Revised levels are not currently being implemented for NVQs and a small number of related qualifications. For current information please refer to *NDAQ*.

First published March 2006.

Taken from <http://www.qca.org.uk/libraryAssets/media/qca-06-2298-ngf-web.pdf>

