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RESEARCH ARTICLE

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## Does police size matter? A review of the evidence regarding restructuring police organisations

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### ABSTRACT

Restructuring and merging public sector organisations is often seen as a way to enhance efficiency and efficacy. There is ongoing debate about the impact of police force sizes, structures and mergers as police organisations attempt to adapt to reductions in their budgets and changes in patterns of criminality. The article reviews the evidence regarding key aspects of police reform: finding mixed evidence regarding the links between size and performance, while noting risks that mergers may impair local policing. The article discusses the impact of mergers on protective services, governance and accountability, while also discussing potential risks and opportunities associated with the merger process itself. The review finds significant gaps in the available evidence, and significant opportunities to expand the evidence base on this topic. Given current gaps in the evidence regarding size, efficacy and efficiency, it is important to give due consideration to symbolic and rhetorical aspects of mergers.

### KEYWORDS

Mergers; reform; restructuring; Scotland

### Introduction

In a major 2013 review of policing in England and Wales, the issue of structure loomed large (Independent Police Commission, 2013). The authors of the Stephen's Report noted that 'next to no-one supported the current structure' of 43 forces and that it was therefore 'time to act on structures'.<sup>1</sup> However, the report was unable to come to a clear conclusion on what a better structure would look like. Instead, it sketched out three options: locally negotiated mergers, coordinated amalgamation to create 10 regional forces, and a national police service for England and Wales. This uncertainty regarding what an optimal structure for police forces within a jurisdiction might look like is nothing new. In the 1980s researchers recognised that compelling arguments could be made for both 'small is beautiful' (in terms of an emphasis on local priorities and close oversight by elected officials) and for 'consolidation' (in terms of achieving greater efficiency, the availability of resources to deal with major challenges, and the capability to deal with more complex issues) (see Whitaker, Mastrofski, Ostrom, Parks, & Percy, 1982). This conclusion that there is no 'one size fits all' answer to the question of what

size a police force should be was clearly echoed in the Stevens Report (Independent Police Commission, 2013). The report (p. 149) notes that ‘in answering the question [what is the best structure for policing in England and Wales?], each of our witnesses emphasised different and competing criteria including efficiency, democratic oversight, local responsiveness and inter-operability. Each of these, accorded primacy, will lead in a different direction’.

Given this lack of agreement about police force size, there is a need for consideration of what the available evidence can tell us about the benefits and dis-benefits of different police service structures. Indeed, given that several jurisdictions in northern and western Europe have recently embarked on significant reforms to the structure and organisation of their police forces through the merger of police districts to create large territorial units or, as in the Netherlands and Scotland, the merger of regional police forces to create a national police organizations (see Fyfe, Terpstra, & Tops, 2013), it is timely to reflect on the available evidence about the impacts and implications of such mergers. However, due to the lack of clarity surrounding the generalisability of evidence on police reform from diverse jurisdictions, we are not able to offer a robust quantification of particular costs or benefits in specific contexts. Rather the contribution of this review to policy debates on reform will focus on the identification and likely impact of risks and lessons learned with respect to the following key areas:

- The relationships between size, structure and performance.
- The delivery of local policing.
- The provision of protective services.
- Police roles, careers and skills.
- Governance and accountability.
- Costs and disruptive aspects of mergers.

It is important at the outset to emphasise that the available evidence with regard to all these areas varies considerably in terms of both quantity and quality. With limited exceptions (such as in Denmark), there have been few systematic evaluations of the impact of mergers on police activity and much of the evidence is quite equivocal; one can to make a number of plausible arguments both in favour of and against force mergers. Rarely is the evidence of sufficient quality to provide a clear and robust answer to the important questions which force mergers raise; instead, political and symbolic aspects of mergers remain important.

An earlier version of this paper formed part of the Scottish Institute for Policing Research’s contribution to policy discussions about whether and how to merge Scottish police services. It is therefore presented as both a contribution to our understanding of such mergers and an example of how policy-relevant research can function: with academic input to review significant amounts of material with limited resources and within a tight timeframe. The paper therefore contributes to two highly topical research agendas: the effects of police reform in Scotland and beyond, and the ‘impact’ of UK academic research.

## **Methodology and criteria for classification of evidence**

This review draws on several database searches including: a search for information, over the last 10 years, on police force restructuring using keywords ‘Police force’, ‘Police service’, ‘Merge’, ‘consolidation’, ‘regionalisation’ and ‘Amalgamation’<sup>2</sup>; an EBSCO host search on police restructuring; and searches of the British Library Integrated Catalogue for further relevant material. In order for this work to be completed within the time and resource constraints which allowed it to be an active part of the policy process, a pragmatic approach was taken. The accessibility of material (online, in the British Library, via the Scottish Police College Library or through appropriate experts) was one significant factor in its inclusion in the review and – due to time and resource constraints – it was only possible to include English-language material. The following criteria also informed the inclusion of sources:

- A context-based assessment of the likely quality/impact of the sources (for example, publication outlet or citations in other prominent places).
- Expert recommendations – the sources that academic and policy experts view as important.<sup>3</sup>
- An assessment of the robustness and usefulness of the source itself.

The great majority of the sources used came through the literature searches described above and (to a lesser extent) from citations in these sources. Recommendations from experts led us towards a small number of additional helpful sources but, more often, pointed towards sources we had already included: providing some reassurance regarding the scope of our literature searches.

On the basis of the above, it is possible that the findings and conclusions of this review may be biased to some extent by the necessarily pragmatic methodology employed. However, we feel that it is useful to present the research's findings here, in order to inform future research agendas and policy discussions.

### Size, structure and performance

Central to many debates surrounding police force restructuring are the complex relationships between force size, structure and performance. Evidence of robust causal relationships in this field is hard to find. However, there is some strong UK evidence from economic modelling that particular sizes of force may offer greater efficiencies of a certain type.

The size that an agency should be and how it should be structured is one of the most important questions for police administrators (Wood, 2007). However, any discussion relating to an agency's size 'can lead to an either/or dichotomy that suggests policing should either be organized locally or regionally' (Wood, 2007, p. 283). This phenomenon is similar to that found in the United Kingdom where 'the professional solution to new challenges always appeared to be based on ever larger units of policing' (Loveday, 2008, p. 139).

The major problem in the size of the police agency debate is that there is 'little evidence of any assessment of costs/benefit analysis' or 'statistical evidence presented in support of mergers' or non-support of mergers (Loveday, 2008, p. 139). Recommendations for merging police agencies are usually based on 'three underlying and little-examined assertions':

- (1) specialization and professionalization are necessary requisites for effective urban law enforcement;
- (2) large sized agencies are necessary for specialization and professionalization; and
- (3) large-scale police agencies are thought to be more efficient in that they are able to produce the same or higher levels of output at lower costs than small sized departments (adapted from Ostrom, Parks, & Whitaker, 1973, p. 423).

These assertions form the basis of an argument where proponents of police agency mergers claim that:

- (1) small sized departments cannot provide the level and type of service needed in complex urban areas; and
- (2) small sized departments cannot produce services at costs as low as large sized departments (adapted from Ostrom et al., 1973, p. 423).

The assertions and the claims mentioned above are intertwined with the economic theory of organizational economies of scale. Smaller sized police agencies 'with lower per capita expenditure levels than larger departments are automatically assumed to be providing inferior services' (Ostrom et al., 1973, p. 423). However, police managers must be careful in assuming that improvements in service delivery effectiveness are 'possible merely by increasing the size of the organisation' (O'Byrne, 2001, p. 128).

Using a range of input data for each police force in England and Wales (covering employment costs, premises-related expenses, transport-related expenses and capital/other costs) and output measures

(clear-up rates and the total number of traffic offences that the police and contracted civilian staff such as traffic wardens deal with in a year), Drake and Simper (2000) found that intermediate-sized forces in England and Wales tended to be more efficient (when one considers scale efficiency) than the largest or smallest forces, concluding that there was 'evidence of significant increasing and decreasing returns ... at the extremes of the size spectrum, ... supportive of a 'saucer-shaped' average cost curve in policing' (p. 72). This finding is supported by earlier US research. Douglas and Tweeten (1971), found a U-shaped cost curve with the lowest point being with municipalities with populations between 250,000 and 500,000, while Beaton (1974), found economies of size only for very small sized cities with populations of less than 2000 (see also Southwick Jr 2005: 462).

Drake and Simper (2000) also acknowledged that, in terms of pure technical efficiency, it was the smallest and largest forces that tended to do better, and Simper and Weyman-Jones (2008) also argue that 'English and Welsh police force mergers could lead to increases in police staff resource efficiencies between 10 and 70%' (p. 1).<sup>4</sup> The efficiency of medium-sized agencies was supported by Krimmel's (1997) evaluation of the merger of eight police agencies in Pennsylvania. Kimmel found that the merged police force had 28% less total costs and 25% less cost per officer than the same non-merged agencies.

Policing is extremely labour-intensive and increasing the size of an agency may not, by itself, improve the effectiveness and the efficiency of the agency or reduce costs. McLaughlin, Atherton, and Morrison (2009) found that US municipalities with between 25,000 and 250,000 were more efficient than smaller and larger sized municipalities, but the relationship did not hold for the provision of all police services.

A different perspective on the UK context is offered by Loveday who argues that there is no robust evidence that large forces outperform smaller forces. 'There is no evidence', Loveday (2006) contends, 'that big forces perform better than small ones. Though force performance varies widely, even amongst those covering socio-economically similar areas, this does not correlate to force size' (p. 9). While this is, in itself, not incompatible with Drake and Simper's argument that intermediate-sized forces are more efficient in some sense, Loveday (2007) opposes mergers in England and Wales and highlights how inefficiencies can be linked to centralisation.

The issue of whether or not a police force should consider merging with another force highlights the question as to whether there is a correct size for particular agencies. According to McLaughlin et al. (2009), considerable savings can be achieved by 'right-sizing' an agency or its individual services (p. 6). In the McLaughlin et al. (2009) context, right-sizing is defined as including 'the facilitation of boundary changes and of cost-sharing through the formation of regional forces or inter-municipal agreements' (p. 1). However, the major issue with right-sizing and amalgamations is whether the introduction of such strategies reduce costs in the long term.

However, according to Loveday (2006), neither right-sizing nor amalgamations reduce costs. 'It is not currently possible ... to show that the size of a force affects its cost efficiency, spending or performance to any significant degree. There is no clear evidence that police forces' performance in crime reduction, detections or public perception relate to their size or number of police officers. Some small sized police forces perform extremely well and some large sized police forces badly (Harrad, 2006, p. 26)' (Thames Valley Police analysis quoted in Loveday, 2006, p. 18). If Loveday (2006) is correct, amalgamations would not lead to large savings unless they result in reduced staff numbers.

This point is taken up in a Canadian context by McDavie (2002), who argues (while noting limitations to the available data) that:

Research on the impacts of amalgamating police departments tends to support the conclusion that costs increase, and, where they do not, service levels are reduced as the number of sworn officers are reduced ... There do not appear to be any substantial economies of scale in the production of police services overall. There may well be scale economies in the production of support services like communications, records, identification and crime lab functions but these are more than offset by the substantial labour cost increases that are usually associated with amalgamations. Where costs have decreased, there have been corresponding decreases in service levels. In some cases, post-amalgamation cost-increases have also been accompanied by service decreases. (pp. 542–544)

In making this argument, the examples McDavid draws on are mainly from the US and Canada and there are therefore questions regarding to what extent this can be generalised to the UK. It should also be noted that it is hard to distinguish between the effects of force size and the effects of processes of amalgamation itself: it is not implausible that, for example, disruption caused by reform could outweigh modest gains from the move to a more optimal force size.

By contrast, and writing from a practitioner perspective, Scobbie (2010) relays a more positive case for amalgamation by using the example of the Garda as a national, unitary force. A Garda representative quoted by Scobbie argues that:

There is enormous advantage in being a unitary force ... we need only one ... HR department, one IT section, one change management section, one policy section, one security section, one national traffic unit etc. The cooperation and coordination benefits are enormous and the reduction in resource waste is very significant. (p. 6)

Despite the focus on merging forces, however, a merger is not the only way of bringing many of the benefits which come with size; it is plausible that some other options for police reform may bring greater savings or better performance than mergers. Loveday (2006, 2007) for example, while noting that there is a need for police reform, argues for voluntary federation instead of amalgamation and for focussing reform efforts on workforce modernisation. The current gaps in the evidence mean that there is a need for further research to investigate both links between force size and efficiency and the overall significance of this relationship (compared to other factors).

## Local policing

Perhaps one of the most emotive and politically sensitive issues surrounding police reform is the effect that mergers might have on local policing. Within the literature, however, there is a lack of consensus among contributors to the debate on what the nature of the effects might be. Several contributors raise concerns that merging forces will impair performance in local policing. Loveday (2006), for example, argues that merging forces can be seen as a way to 'further remove policing from the community' (p. 31), and a former Chief Constable argues that previous UK mergers did cause problems in the relationship between forces and their communities (Brain, 2010). These problems raise broader questions about policing strategy: for example, could mergers carried out as part of a particularly well-designed strategy avoid some of these problems?

There are also concerns that merging forces might reduce police responsiveness to communities due to distancing communities from the forces, and that these changes might undermine a neighbourhood policing strategy (Loveday, 2006). Moreover, if specialist units achieve an increasing prominence (as may be the case in large forces) it may become harder for officers to achieve promotion without serving in such units (Loveday, 2005). This could incentivise career-minded officers to move away from local policing.

Notwithstanding different circumstances in that there was already a national police force in place, the evaluation of Danish police reform also offers support for concerns regarding the effects of mergers on local policing.<sup>5</sup> While Denmark had a background of proximity policing, merging policing districts (from 54 to 12 districts) led to citizens viewing police as less visible and to a drop over time in citizens' belief that police were effective and available locally (Holmberg, 2010). It was also argued that 'Large districts mean large distances, both in the physical and the mental sense' (Holmberg, 2010, p. 9). Furthermore, partner agencies thought that reform:

- failed to bring the expected professionalization of policing;
- reduced local police presence and knowledge; and
- produced a more hierarchical and centralised police service.

On the other hand, other contributors to this debate suggest that this does not mean that these threats will always be realised and that reform will inevitably damage local policing. Her Majesty's Inspectorate of Constabulary (HMIC) in England and Wales thus argue that

[t]here is ... nothing incompatible between a move towards a more strategic organisation and a concentration on delivering more responsive neighbourhood policing. Strong neighbourhood policing is essential to connect with the public and inform the work of protective services. A force which is big enough to deliver protection, but still small enough to identify with local communities, is an attractive one. (HMIC, 2005, p. 77)

Along related lines Gatfield-McGloin (2006) notes that there is a long history of unfounded concerns about police reform damaging local policing. There are examples of national police services that have implemented merging of districts and that have been able to maintain community-level outcomes and relationships, and implement neighbourhood policing strategies. For example the New Zealand Police, which is a national police force comprising of approximately 9000 officers and responsible for full range of law enforcement services and investigations from traffic to serious fraud and organised crime is structured into 12 districts or 37 Areas and delivers services through 380 stations (New Zealand Police Service, 2014).

Gatfield-McGloin and HMIC therefore both argue that moving to larger forces will not necessarily lead to a decline in local policing; there is no inherent characteristic of large police forces which rules out using them for effective neighbourhood policing. Also, manipulation of other variables (e.g. high funding and staffing levels) might allow good neighbourhood policing performance to sit alongside a wide variety of force structures. In addition to this, one could plausibly argue that if a merger allows cuts to back office functions then this might free additional resources for front line work (Sprinks, 2005).

We find the argument that larger police forces will not *inevitably* lead to poor or poorer local policing convincing: clearly, it is not a logical certainty that one will follow from the other and it seems likely that a force with ample numbers of well-resourced, highly-skilled, highly-capable and well-managed local officers could offer a good service even if it covers a large area. There is some empirical support for this in the way that various problems related to reform have caused the quality of local policing in Denmark to decline, despite the state having a national force throughout. However, in the current policy context it is unlikely that any likely near-future government will leave Scottish policing awash with resources. Therefore, a key question in Scotland is how merging forces in a time of austerity will affect (positively or negatively) local policing; while the currently available evidence does not provide a clear answer, SIPR will contribute to the evidence-base in this area through a forthcoming research project on local policing in transition.

## Protective services

International evidence indicates that merging forces may – in some circumstances – allow more unified procedures for dealing with major incidents such as terrorist attacks (Griffiths & Easton, 2008). Arguments for using such mergers to increase capacity to provide such services are perhaps strongest when one is considering very small forces (for example, independent small town forces in the US). Here, Koepsell and Girrard (1979) argue that consolidation is often used to provide more services or to fix issues around overlap. Johnson (2000) offers more recent examples of successful small town consolidations. However, it is unclear to what extent the merger of such small forces is relevant with regards to significantly larger forces (such as those in the UK) which already have greater capacity.

Perhaps the most notable UK claim that capacity to provide protective services increases alongside force size is from HMIC (2005); they have argued that there is a statistically significant correlation between force size in England and Wales and their capacity to offer protective services. However, this has been heavily criticised; Lawrance (2006) summarises concerns about these statistics by arguing that

The quality of the statistical information gathered for the report is questionable ... The statistical treatment of the data collected is largely unjustified and appears open to criticism in its combinations of scores ... The graphical presentation of the data is poor and trend lines could be misleading. (p. 82)

Importantly, HMIC's figures do not show variability decreasing as force size increases; as Lawrance notes, 'the contrary appears to be the case' (Lawrance, 2006, p. 82). Lawrance (2006, p. 82) therefore argues that HMIC's work leaves open the possibility that 'enlarging the forces would still leave considerable variability and some unacceptably low performances'. Loveday (2005) finds that the HMIC

report also failed to appropriately incorporate discussion of collaboration and ‘workforce modernisation’, two factors which could very plausibly impact upon capacity.

In 2007, Simper and Weyman-Jones, found that there was a range of 2–10% improvement in the technical efficiency of merged police agencies in the United Kingdom (Simper & Weyman-Jones, 2008). However, the researchers stressed that this range of percentage improvement was only analysed over the short-term and that further long term improvements may be possible (Simper & Weyman-Jones, 2008). Simper and Weyman-Jones (2008), also noted that their research not only identified the relative efficiency of a police agency, but that there were also ‘possible efficiency savings associated with staff resources [of] between 10 and 70% after agencies merged’ (p. 21). However, the researchers also stressed that efficiency gains ‘are independent of the size’ of the merged agency and that agency ‘size itself offers no potential efficiency gains’ (Simper & Weyman-Jones, 2008, p. 20).

A further argument against calls for very specific optimal force sizes and structures is that there are significant international differences in possible force structures, ranging from centralised national forces to what has been described in Finland as ‘policing through networks’ (Virta, 2002).<sup>6</sup> Different countries and regions offer very different cultural, political and legal contexts for policing, which may be significant in generating diverse police service strategies and structures; this interplay between context, strategy and structure can generate very different outcomes. Awareness of this international context highlights how a wide variety of structures can provide protective services, assuming that other factors are in place to enable provision. International examples indicate how even very diffuse force structures can deal with serious issues of crime and security: for example, there are strikingly complex relationships between Israel’s different security agencies but they still deal with major concerns around terrorism and security (Kahana, 2002).

## Police roles, careers and skills

Restructuring can have significant impacts on police roles, careers and skills. If staff leave or are required to occupy new positions in new locations as a result of larger-scale reforms, this can lead to major risks. Holmberg (2010, p. 15) argues that, in Denmark, ‘Restructuring led to a serious loss of competence on almost all levels’, partly because some officers and police staff were not prepared to travel the extra distance to take up posts in new headquarters and partly because officers who moved to new areas within the larger police districts often had little local knowledge. Broader cultural issues are also significant. Stinchcomb and Ordaz (2007) argue that organisational cultures are important when considering police mergers and that that mergers can disrupt the organisation-individual fit. Drawing on a US example of merging police and fire-rescue services, they noted significant implications for career expectations:

strategies pursued to maintain a secure person–environment fit included efforts to familiarize employees with the culture of the new work setting, address their uncertainties, respond to their concerns, and integrate them into a collaborative transition process. (p. 158)

Force mergers, it is argued, could also be significant with regards to senior UK staff in terms of bringing major changes to the opportunities available for officers at and near the rank of Chief Constable (Pertile, 2006). A reduction in the number of top-level positions could also limit intra-national opportunities for progression of other relatively high-ranking officers and senior civilian staff. It has also been argued that the saleable skills of senior civilian staff means that they may be especially likely to be lost to the private sector (Pertile, 2006).

Recruiting staff with the appropriate skills and experience for senior roles in a single large force may also be an issue. As reported by Pertile (2006), Colin Cramphorn (then Chief Constable of West Yorkshire Police) argued that only relatively few individuals would have the skills needed for top-level posts in very large forces:

you need individuals who have experience of running organisations of that sort of scale ... The only way you can really get experience of running an organisation of that size within a period of intense change is either by



working in Northern Ireland or the Met ... I think there is actually a much narrower field of candidates for jobs in the larger, strategic forces. (Pertile, 2006, p. 20)

According to some commentators on this issue, overspecialisation can be an additional staffing issue where services are centralised (e.g. Collantes Celador, 2009). As noted above under Local Policing, if a larger force leads to increased resourcing and prioritising of specialist units then there is the risk that opportunities for career progression will be more limited for those working in neighbourhood policing (Loveday, 2005). Risks relating to police staff and the ability to recruit and retain career-minded staff into certain roles are thus potentially significant.

A worst-case scenario would see a large-scale loss of competence, officers incentivised to neglect local policing, reduced opportunities for senior staff and officers (pushing some into private sector work) and a paucity of appropriately qualified candidates for the new type of senior roles which become available with the creation of a much larger force. However, there is a lack of evidence regarding what is likely to happen in the type of reforms which have taken place in Scotland; there is therefore a need for research to monitor the effects of changes on Scottish police roles and careers.

## Governance and accountability

The way in which centralisation can distance many communities from the main seat of a force's governance creates additional challenges for restructuring, but it could also create new opportunities to reform what may be viewed as flawed governance arrangements. From a review of the available literature, there is not robust evidence with which one can predict whether larger forces will impair or enhance governance, and other variables (from broader political changes to the funding situation) could also have a significant impact.

Loveday (2006, p. 9) argues that in England and Wales '[a]lmgamation would reduce police accountability and responsiveness by distancing force HQs from the communities they serve'. However, Gatfield-McGloin (2006) point out that this may not *necessarily* be the case and that a range of other variables (e.g. the nature of the local governance which is put in place) are also significant.<sup>7</sup> It is also interesting to note, in relation to the experience in England, that plans to establish a North West England police force came after this region had rejected a move to regional governance.

Concerns are frequently expressed that the creation of national agencies will inevitably lead to stronger government control and influence but the experience from Sweden indicates this is not necessarily the case. Sweden created national agencies (so called 'mono-agencies') from what were previously local and regional agencies in areas like prisons, probation and prosecution, and it is argued that these new agencies have in fact

enjoyed a high degree of freedom to shape their own organisation and activities as they see fit. This represents a change in relation to the previous multi-agencies, whose organisation was largely determined by the Government in its official instructions. As a result of this new-found freedom, the mono-agencies apply various principles to their internal organisation, depending on what has been considered effective for their activities. (Statskontoret, 2010)

The conclusion from an evaluation of several of these mono-agencies is that 'the Government's control of this major structural change in terms of administrative procedure has generally been weak' (Statskontoret, 2010). Nevertheless, the same study also highlights governance difficulties associated with the way in which within mono-agencies there is increased distance between 'top management and the operative level' and that this has 'affected the scope for achieving efficient management and governance of the agencies' entire activities'.

While broad political issues of Scottish devolution and independence exceed the scope of this paper, it is worth noting that for a single service to be directly controlled by what could eventually become an independent Scottish government may bring additional risks and benefits. The move to a single Scottish police service may influence practices and perceptions of Scottish governance and nationhood.

## Costs and disruptive aspects of mergers

As is the case with organisational change in general, there are numerous examples of the disruption associated with police reform. This can impair performance if the reforms are mishandled or under-resourced. In a UK context, Brain (2010) notes that previous force amalgamations had some significant impacts on the forces involved; traditions of forces were seen to be lost, there were tensions, and communities sometimes felt that the new forces were out of touch or were subsidising other areas. This is supported by den Heyer's (2016) research into the establishment of Police Scotland. den Heyer found that 50% of those interviewed for the research stated that the biggest challenge in implementing the merger was the different cultures of the previous eight forces. Brain argues that, when the Westminster government was seeking police mergers in the mid-1990s, it 'seem[ed] incredible' that the government would put so much time and effort into this idea mergers, and have police do the same, 'without fully understanding the financial requirements and difficulties' (p. 373). Brain is critical of the idea – advanced in the mid-2000s – that one could simply rely on 'efficiencies' to fund mergers rather than supplying additional resources.

In Sweden, the evaluation of the impact of creating national agencies also emphasises that 'Major organisational reforms are costly, especially in the initial stages' (Statskontoret, 2010) and that there were often shortcomings when it comes to estimating the costs of these reforms. Specific areas highlighted where costs arise include:

- restructuring costs for staff;
- costs of recruitment and skills development;
- introduction of new IT systems;
- costs of new premises when activities are relocated or new offices opened; and
- losses in terms of work efficiency during a transitional period when new units or concentrated activities are established.

In the case of Finland, Virta (2002, p. 194) argues that reforms around community policing in some areas ran into problems because police were given a new task without new resources and because staff needed to reorient without enough training and education. Mishandling reform can cause significant additional disruption. In Denmark there is a widespread view that lack of resources was key to many of the problems associated with the merger of 54 police districts into 12 (Holmberg, 2010). Holmberg argues that Denmark: overestimated the capacity of the police to adapt; found technical problems harder than expected; had to deal with senior management who were too slow to acknowledge problems; and had problems caused by a lack of pre-implementation preparation. Holmberg also argues that Danish reform was accompanied by too much focus on monitoring/reporting and therefore too many demands for this type of activity; this pushed police to do ineffective things. Problems in Denmark were also caused because those working on restructuring failed to take enough account of experiences elsewhere (such as in Norway) (Holmberg, 2010).

## Conclusions

This review has focused on some of the impacts and implications of the restructuring of police forces via mergers and amalgamations and has drawn on a wide range of UK and international evidence. It is clear that there is not compelling and unambiguous evidence of any simple cause and effect relationships between increasing force size and specific outcomes: whether these relate to greater efficiency, local policing, the provision of protective services, or police governance. There is clearly a need for further research to address these questions, in order to inform future decisions regarding police structures. The recent (2013) merger of regional police forces to create national police organisations in the Netherlands and in Scotland offers a valuable opportunity for such research (see Terpstra & Fyfe, 2014; Terpstra & Fyfe, 2015). However, it is important not to underestimate the significant methodological and practical challenges of evaluating the impacts of these structural changes (Terpstra & Fyfe, 2013).

As this review has shown, changes to police structures often have multiple and interconnected objectives, ranging from financial savings and efficiency, effectiveness and improved performance, through to visions of greater engagement with communities and enhanced levels of accountability. A second challenge concerns the difficulties of establishing a robust research design for any evaluation of police force mergers. Some forms of evaluation, such as those that resemble a randomised clinical trial with 'control' and 'experimental groups' are unlikely to be feasible with these types of reform. Even a more straightforward before-and-after study is highly problematic: it requires reliable empirical data on which the reform is going to be judged before reform happens and equally reliable data after the reform has been implemented. A third challenge is ensuring that the research agenda around the evaluation of police force mergers is sufficiently broad to capture intended and unintended consequences and the substantive and symbolic aspects of the changes. Where there have been attempts to evaluating the merger of police districts in a systematic way (as in Denmark and Finland) these tend to be quite pragmatic in character, using conventional tools like cost-benefit analysis, quasi experiments and bench marking. However, such approaches often overlook the symbolic and rhetorical significance of mergers. It might be that for some politicians, for example, it is the symbolic dimensions of restructuring which are of key importance in terms of reconfiguring the distribution of power between police and elected representatives. Given the lack of evidence for that any single force structure is most efficient or most effective, it would be reasonable to give serious attention to some of these political and symbolic issues.

With this in mind, while mergers are often advocated in the hope of improving efficiency and efficacy, it is also important that one also considers the political dimension. Policymakers may, quite sensibly, argue for or oppose a position for political reasons – for example, because of a particular conception of city, nation or state. As well as 'technical' questions of efficiency and efficacy, it is also important to remain aware of the political dimension of mergers.

Whatever the challenges around evaluating the impact of police mergers, there is relatively strong evidence to suggest there are a range of risks involved in police restructuring which need to be carefully managed if the benefits of reform are to be realised. These include, in particular: the risk of loss of skills and competence; the risk of disruption to employer-employee relationships; risks relating to underestimating the cost of change; and risks of problems being exacerbated by inadequate planning and management. It is important to be aware of this body of evidence and these risks as this will usefully inform policy in this arena over the coming years.

## Notes

1. The Stevens commission was organised by the UK's Labour Party and designed to mimic a Royal Commission. This had a clear political element – it was intended to inform Labour policy – but also involved extensive collaboration with the academic community who provided over 30 position papers to underpin the work of the commission. Since Labour's failure in the recent UK general election, the policy findings and recommendations of the commission have had little impact or influence; however, the academic content of the report does remain of interest.
2. Including the following databases:  
 EBSCOhost Research Databases: Academic Search Premier, SocINDEX, Criminal Justice Abstracts, International Bibliography of Social Sciences.  
 CSA Collections. Includes: ASSIA, Econlit, National Criminal Justice Reference Service Abstracts, Social Services Abstracts, Sociological Abstracts, PAIS International.  
 OCLC: Ebooks, ECO, ArticleFirst, WilsonSelectPlus, WorldCat, IDOX, IngentaConnect, Urbanline, Scirus, Ebsco, Cross-search.
3. Experts were found from within the Scottish Institute for Policing Research's network of academic and policy contacts, and from the Scottish Government. We acknowledge that this approach was not neutral – for example, people in particular policy roles will have been more likely to have input. However, it did provide some additional useful material and, given the timescale for this work, a more complete consultation was not possible. Also, given that relatively few new sources came from expert recommendations (as opposed to our literature searches) and even fewer came only from a single expert, the risk of this biasing the overall review is low.
4. Simper and Weyman-Jones (2008) took a cost approach to modelling efficiency which 'relates inputs/costs to possible outputs/outcomes'.

5. Interestingly, these declines in certain metrics coincided with apparent benefits in others. For example, according to police performance data, management time was trimmed by the mergers and average response time to emergency calls improved (Cupples & Watson, 2010, pp. 4–7).
6. Virta argues that community policing in Finland has led to a move to networks of diverse interest groups (Virta, 2002, p. 190).
7. It may be that Scotland's geography provides a significant point of difference from England and Wales here: pre-reform force areas covered 'a unique mix of urban and rural communities with very different policing needs' and the notably different policing needs of these diverse areas may impact in different ways within various governance structures (HMICS, 2009, p. 8). Stephen Curran, convenor of Strathclyde Joint Police Authority, noted the different areas which could be contained within pre-reform force areas in order to argue that 'Strathclyde covers 44% of the Scottish population in an area running from Tiree to Ballantrae, so we know all about preserving local accountability ... If it can be done within Strathclyde, it can be done within Scotland.' (Dinwoodie, 2010).

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