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Databasing the disappeared and deceased: a review of the resources available in missing and unidentified persons cases

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DATABASING THE DISAPPEARED AND DECEASED: A REVIEW OF THE RESOURCES AVAILABLE IN MISSING AND UNIDENTIFIED PERSONS CASES

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of Theodore Kampf who went missing from my hometown, Oaklyn New Jersey, and was last seen alive in Washington State on his way to Canada in July, 1981. His case remains unsolved. This thesis is dedicated to my dad, to Theodore, and to all of our nation's missing and unidentified persons.

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ABSTRACT

When an individual goes missing or an unidentified body is found, many resources are available to assist in resolving the case. These resources are operated and contributed to by a wide variety of entities including state, county, and local law enforcement agencies, coroners, medical examiners, forensic anthropologists and odontologists, military personnel, nonprofit organizations, volunteers, and concerned citizens among others. Currently, our nation does not have a single, fully operational, centralized database that is solely dedicated to finding missing persons and identifying the bodies of Jane and John Does. The existing resources for missing and unidentified persons cases are almost innumerable and the proliferation of these resources needlessly complicates missing and unidentified persons cases.

The primary goal of the current research was to identify and analyze the many types of resources involved in missing and unidentified persons cases. This was accomplished through an extensive literature review on missing and unidentified persons and on the United States Department of Justice agencies and database that handle such cases. Two survey projects were also undertaken in addition to the literature review. The first survey gave forensic anthropologists an opportunity to voice their concerns over the handling of unidentified persons cases. The second survey was used to categorize and assess the multitude of web-based resources dedicated to both missing and unidentified persons cases. The missing and unidentified person issue is complex and cannot be fully understood without knowledge of the many factors that can act to prevent and complicate the resolution of cases. The current research has attempted to provide information on how each of these resources could be improved in order to approach better handling of missing and unidentified persons cases nationwide.

CHAPTER 1

INTRODUCTION

Currently, the United States has no widely used, centralized database dedicated solely to locating missing persons and identifying the bodies of Jane and John Does. Instead, information on missing and unidentified persons is dispersed across a confusing web of agencies and databases within the United States Department of Justice, state, county and local law enforcement and government agencies, coroners and medical examiners, forensic anthropologists, odontologists and other forensic specialists, military personnel, nonprofit, volunteer, victim's advocacy, and other formal and informal organizations. Many of these agencies, offices, and organizations choose to provide information on the World Wide Web. The scattering of case information across so many fields and in so many places complicates the successful resolution of many missing and unidentified persons cases.

Although information on missing and unidentified persons cases needs to be centralized, simply creating a comprehensive database would do little to solve the underlying problems commonly associated with such cases. Resolution of cases may be hindered by insufficient investigation, poor communication, a lack of standardized reporting procedures, and failure to follow up on cases. Furthermore, few laws require authorities to pass on their missing or unidentified persons information to state or federal agencies for inclusion in the existing national databases, greatly diminishing their potential effectiveness. Increasingly, concerned professional individuals and the families and friends of missing persons are calling attention to the disorganization of the current system and are advocating for changes that will allow cases to be resolved more efficiently. The purpose of the current research is to provide a comprehensive picture of how missing and unidentified persons case information is being handled by the

multitude of agencies, offices, organizations, groups, and individuals, collectively referred to as "resources," that deal with these cases on a regular basis.

Groups Involved in Missing and Unidentified Persons Cases

Missing and unidentified persons cases have wide social impact on a variety of groups. The various types of groups involved in these cases can be divided into three broad categories: official, medicolegal, and public access. Official groups are defined in this paper as those that do not openly share their information with the general public. The information stored by official groups is considered law enforcement sensitive and is not likely to be disclosed fully to members of the general public. Medicolegal professionals comprise another group that regularly deals with missing and unidentified persons cases. Similar to official groups, these authorities are not likely to openly share their information with the general public, but often share information with other official or medicolegal groups and authorities. The final type of group involved will be referred to as public access. Members of the general public are often responsible for creating and contributing to these groups with the intention of helping other individuals like themselves who have suffered the loss or death of a loved one. The information these groups handle is generally more accessible to the public than the information handled by official and medicolegal groups. Table 1 provides a summary of the major groups involved in missing and unidentified persons cases for each of the three above-mentioned categories.

The community most affected by the impact of a disappearance is the missing individual's family and friends. Those closest to the missing person are usually the first to notice their loved one's disappearance and place a missing persons report with law enforcement. After filing the report, however, family members and friends may feel that they are helpless to aid the investigation and ignorant of what law enforcement is obligated to do. With the advent of the Internet, the families and friends of missing persons have been able to coalesce into a large and

Table 1 – Major Groups Involved in Missing and Unidentified Persons Cases

	Official*	Medicolegal*	Public Access*
Definitions applied in this research	The general public does not have the ability to directly access to the majority of the information held by these groups	Similar to official groups, members of the general public are not given full access to the information held by these groups	The general public has the ability to access the majority of information held by these groups. Laypersons may contribute heavily to these groups
Examples	• Federal, state, county, and local government and law enforcement agencies • Military agencies and personnel	• Coroners and medical examiners • Forensic anthropologists, odontologists, and other specialists	• Nonprofit, victim's advocacy, volunteer, and other types of organizations • Families and friends of missing and/or victimized persons • Mass media • Other concerned individuals
Referred to in this research as	"law enforcement" "government" "military" "agency" "agencies" "departments" "offices" "officials" "authorities" "professionals" "specialists"	"offices" "officials" "authorities" "professionals" "specialists"	"organizations" "nonprofessionals" "individuals"

* All may be referred to as "resources" or "groups," all may operate databases, and all may operate online, offline, or both.

vocal virtual community. They have been the creative force behind innumerable websites devoted to providing information, advocacy, education, and support for others dealing with missing and victimized family members and friends

The official and medicolegal communities are other groups who regularly deal with missing and unidentified persons cases. For an individual missing or unidentified person, government or law enforcement agencies may be involved at the local, county, state, and/or federal level, depending on the circumstances. Law enforcement agencies may seek the expertise of other professionals in their handling of unidentified remains. Coroners or medical examiners are often involved; sometimes, a forensic anthropologist or forensic odontologist will also be asked to assist. Unfortunately for the law enforcement and medicolegal communities, limited manpower, monetary resources, and time, and a hesitation to cooperate and/or crosscheck information with other agencies and authorities allows some unidentified and missing persons cases to remain unsolved for decades or longer. Official and medicolegal involvement in missing and unidentified persons cases is also evident in response to natural and man-made disasters. The military, along with disaster response teams, are often dispatched in the wake of hurricanes, bombings, and other disasters that kill, injure, or displace large numbers of individuals. Military involvement in missing and unidentified persons cases also includes POW/MIA investigations.

Yet, other groups involved with missing and unidentified persons cases are nonprofit, victim's advocacy and volunteer organizations, other formal and informal groups, and concerned individuals. These groups and individuals dedicate their time to publicizing missing and unidentified persons cases, supporting the friends and families of missing persons, providing information to the general public, and assisting law enforcement investigations. As among the families and friends of missing persons, these organizations, groups and individuals have taken

advantage of the Internet in their mission to assist in and draw attention to missing and unidentified persons cases. The wide variety of websites that exist speaks to the scope of the missing and unidentified persons issue in our country today.

The primary groups impacted are the missing and unidentified persons themselves. With the wealth of forensic technology available today and the ease of electronic information exchange, it is surprising that many missing and unidentified persons cases remain unresolved and seemingly forgotten. Missing and unidentified people are absent or deceased with no way to advocate for themselves; so, the recognition and resolution of their cases depend on the dedication of the authorities and individuals involved. Although the difficulties associated with missing and unidentified persons cases can be daunting, investigative attention must be given to these cases to bring justice to the missing and deceased and bring closure to their families.

A discussion of missing and unidentified persons resources will be based on an extensive literature review, a survey of forensic anthropologists, and a survey of websites that handle information on missing and/or unidentified persons cases. The information garnered from these undertakings will allow me to fully describe the myriad resources that play a part in missing and unidentified persons cases. I will be capable of providing an assessment and evaluation of these resources in terms of their function and efficacy. Finally, I will make recommendations for how these resources could be improved in order to approach an ideal system for handling missing and unidentified persons cases.

CHAPTER 2

LITERATURE REVIEW

The problems associated with missing and unidentified persons cases have recently become more publicized, yet there remains a considerable shortage of published information on the subject (Bassett and Manhein 2005:335-336, Kristen Hughes pers. comm.). Despite the strong connections between this topic and the work carried out by forensic anthropologists, medical examiners and coroners, little information can be found in anthropological or medical literature. The majority of information on the subject of missing and unidentified persons is found in law journals, in government and law enforcement publications, in the mass media (newspapers and magazines), and on the many websites devoted to their cause. In order to provide a thorough overview of the existing agencies, offices, organizations, groups and individuals involved, primary sources include articles from academic and law journals, law enforcement publications, government publications and press releases, and newspaper articles. Also included are many electronic documents downloaded from a variety of websites devoted to missing and unidentified persons issues. The literature review has been divided into three sections: missing persons, unidentified persons, and the national government resources that handle their cases.

Missing Persons

"The term missing person applies to all disappearances, voluntary and involuntary. Often the distinction between these two terms cannot be made" (Hirschel and Lab 1988:36). In other words, missing persons may be individuals who have gone missing of their own accord, individuals who are victims of foul play, or individuals whose whereabouts are simply unknown. Occasionally, individuals whose whereabouts are known are reported missing out of necessity;

for example, teens that are reported missing even though their caretakers know where they are likely to be found (Lewit and Baker 1998:141). Unfortunately, "persons must be missed before they can be reported missing [and] many individuals who should be, simply are not missed" (Haglund 1993:366). Individuals whose disappearances go unrecognized or unreported by family and friends are, therefore, undocumented by and unknown to the law enforcement community.

Every day in the United States, law enforcement agencies handle approximately 2,300 missing persons reports (Krajicek 2005). In 2006 alone, the National Crime Information Center (NCIC), the Federal Bureau of Investigation's (FBI) index for information on crimes and criminals, handled a total of 836,131 reports of missing persons, with 110,484 records active as of December 31, 2006 (National Crime Information Center 2007). These numbers are deceiving, however, due to the nature of missing persons cases. The majority of individuals who are reported missing to the police are located or contacted shortly after their apparent disappearances. Teenage runaways, adults who planned to be gone temporarily but did not inform anyone of their plans, and children who got lost or were separated from their parents are examples of persons who are likely to be temporarily missing. Accordingly, approximately 75 percent of missing persons cases are resolved within 24 hours of the initial police report being filed (Kamb 2003a). However, as of April 2005, approximately 45 thousand missing persons in NCIC had been out-of-contact for one year or more (Office of Justice Programs 2005).

Because of the quick resolution of most cases, the FBI's statistics on missing persons records have shown that "for every [one] new missing-person case on the books, more than one [case] was resolved" (Kamb 2003a). In other words, the FBI was removing more found missing persons cases from NCIC than it was adding new missing persons cases; in 2006, 836,131 cases were entered, but 851,940 cases were removed from the system (National Crime Information

Center 2007). Although "police departments cite a 75 percent to 99 percent success rate for finding missing persons" the high success rate is misleading "because so many missing persons return voluntarily . . . the cases are 'really resolved without police investigation'" (Robert Keppel quoted in Ragavan et al. 2001:15). The high percentage of short-term missing persons cases has an unexpected negative effect on cases where foul play has taken place but is not suspected. Authorities and family members may expect the missing individual to return and delay placing or taking a missing persons report, unaware that the person was a victim of foul play.

Types of Missing Persons

Of the 110,484 missing persons records in NCIC as of December 31, 2006, "juveniles under the age of 18 account for 58,763 (53.18 %) of the records and 12,657 (11.46 %) [records are] for juveniles between the ages of 18 and 20" (National Crime Information Center 2007). The remaining 39,064 (35.36 %) records are for missing adults age 21 and older. Missing persons in the United States represent people from all walks of life. Based on the 836,131 total case entries to NCIC in 2006, 54 percent were female, 46 percent were male, and six individuals were listed as unknown sex. Whites (including Hispanics) accounted for 528,780 (63.2 %) cases, Blacks for 264,606 (31.6 %) cases, Asians/Pacific Islanders for 14,131 (1.7 %) cases, American Indians/ Alaskan Natives for 10,655 (1.3 %) cases, and individuals of unknown race for 17,959 (2.1 %) cases (National Crime Information Center 2007).

Hirschel and Lab's research into missing persons cases showed that while "missing juveniles come fairly equally from all three SES [socioeconomic status] classes, adults were far more likely to have come from the low SES class" (1988:43). The overall lower socioeconomic status of missing adults is related to other problems that may increase their likelihood of going missing. Namely, missing adults are "more likely to be physically or mentally handicapped, to suffer from alcohol or drug abuse problems, and to not be gainfully occupied [either employed or

in school]" (Hirschel and Lab 1988:41, 43). "Among missing adults, about one-sixth have psychiatric problems. Young men, people with drug or alcohol addictions and elderly citizens suffering from dementia make up other significant subgroups of missing adults" (Krajicek 2005). In order to fully understand this issue, an explanation of the many reasons why people go missing is helpful. This explanation will be based on the categories of missing persons that are recognized by NCIC: Involuntary, Endangered, Disability, Catastrophe Victim, Juvenile, and Other, and will also include information on voluntary missing persons although they are not a recognized NCIC category. Melissa Torpey, Visiting Scientist and Forensic Anthropologist with the FBI Laboratory Services Division's Counterterrorism and Forensic Science Research Unit provided the definitions of the NCIC categories given in Table 2 and on the following pages. In Table 2, the number of records entered in 2006 per NCIC category is also listed.

Voluntarily missing persons are those who made a conscious decision to leave their current situation. Individuals may choose to leave or 'go missing' for any number of voluntary reasons. Research has shown that among teenagers and adults, reasons for leaving are similar: problems at home, problems at work, or the perception that leaving will lead to an improved situation (Hirschel and Lab 1988:38). People who might be considered voluntarily missing would include individuals who left home to avoid abusive situations, those who ran away to be with a boyfriend or girlfriend, those seeking to end a bad relationship, trying to escape arrest, or avoiding paying debts. Other voluntarily missing adults would include homeless individuals who remained out of contact with their families for extended periods of time. Law enforcement may remain uninvolved in disappearances that are suspected to be voluntary and where there are no obvious signs of foul play.

Table 2 – National Crime Information Center (NCIC) Missing Persons Classifications and Voluntary Missing Persons Definition

NCIC Missing Person Categories*	Definitions* and Total Case Entries for 2006**
Involuntary	a person of any age who is missing under circumstances indicating that the disappearance may not have been voluntary, i.e. abduction or kidnapping **Involuntary Entries – 22,915**
Endangered	a person of any age who is missing and under circumstances indicating that his/her physical safety may be in danger **Endangered Entries – 100,451**
Disability	a person of any age who is missing and under proven physical/mental disability or is senile, thereby subjecting himself/herself or others to personal and immediate danger **Disability Entries – 35,382**
Catastrophe Victim	a person of any age who is missing after a catastrophe **Catastrophe Entries - 443**
Juvenile	a person under the age of 21 who is missing and does not meet any of the entry criteria for Disability, Endangered, Involuntary or Catastrophe Victim **Juvenile Entries – 641,983**
Other	a person aged 21 and older not meeting the criteria for entry in any other category who is missing and for whom there is a reasonable concern for his/her safety **Other Entries – 34,957**

Voluntary missing persons - Individuals who consciously and voluntarily leave, but do not notify anyone of their departure. These individuals are not an NCIC-defined category. Authorities assume these individuals do not want to be found and, therefore, do not require law enforcement attention.

* Melissa Torpey pers. comm. ** National Crime Information Center 2007

The NCIC defines an "Involuntary" missing person as "a person of any age who is missing under circumstances indicating that the disappearance may not have been voluntary, i.e. abduction or kidnapping" (Melissa Torpey pers. comm.). This category might include children taken by a parent who does not have legal custody (a noncustodial parent), or individuals who were potentially abducted or disappeared under unknown circumstances. The NCIC defines an "Endangered" missing person as "a person of any age who is missing under circumstances indicating that his/her physical safety may be in danger" (Melissa Torpey pers. comm.). Similar to Involuntary missing persons, Endangered missing persons may also be victims of abduction or kidnapping. Although it seems there is a redundancy between these two categories, a disappearance will likely be categorized as Endangered rather than Involuntary if authorities suspect the disappearance was the result of foul play (Krajicek 2005).

Other types of missing persons are the disabled. The NCIC category for "Disability" states that a disabled missing person is "a person of any age who is missing and under proven physical/mental disability or is senile, thereby subjecting himself/herself or others to personal and immediate danger" (Melissa Torpey pers. comm.). This category might include elderly individuals suffering from Alzheimer's or dementia, amnesiacs, people who are under the influence of drugs or alcohol and not in control their actions, or mentally handicapped persons.

A person who is missing as the result of a natural or man-made disaster would be classified by NCIC as a "Catastrophe Victim": "a person of any age who is missing after a catastrophe" (Melissa Torpey pers. comm.). September 11 in New York City and Hurricane Katrina in New Orleans are two recent examples of catastrophic events that left many individuals unaccounted for (Hammond and Harrison 2006:18). These missing individuals could be deceased, seriously injured, or separated from their loved ones and unable to get in touch. Plane crashes, bombings, and earthquakes are examples of other catastrophes that can result in missing

persons. The final NCIC category is for "Other" missing persons, defined as "persons aged 21 and older not meeting the criteria for entry in any other category who are missing and for whom there is a reasonable concern for their safety" (Melissa Torpey pers. comm.).

Final noteworthy types of missing persons are the military missing. The Joint POW/MIA Accounting Command's Central Identification Laboratory, or JPAC-CIL, "focuses on searching for, recovering, and identifying personnel unaccounted for from hostilities in Southeast Asia, Korea, World War II and the Cold War" (Komar and Buikstra 2008:13). JPAC-CIL reports, "that more than 1,800 persons are still missing from the Vietnam War, 120 from the Cold War, 8,100 from the Korean conflict and more than 78,000 from WWII" (Komar and Buikstra 2008:13). As mentioned previously, response teams may be deployed to assist in the event of natural or man-made disasters. These response teams may operate under law enforcement or military authority, or may consist of volunteer medicolegal specialists that can assist in identifying victims. An example of such an agency is the Disaster Mortuary Operational Response Team, or DMORT. DMORT is a "national organization, under the auspices of the U.S. Department of Homeland Security" designed to assist in the wake of mass disasters by providing planning, personnel and equipment to held identify victims (Byers 2005:104).

Missing Juveniles

The NCIC defines a missing "Juvenile" as "a person under the age of 21 who is missing and does not meet any of the entry criteria" for Disability, Endangered, Involuntary, Catastrophe Victim, or Other (Melissa Torpey pers. comm.). Juveniles comprise the majority of NCIC missing persons entries each year. In 2006, nearly 77 percent of missing person entries were for individuals under the age of 21 (National Crime Information Center 2007). As with missing persons in general, the majority of missing juveniles are only missing for a short time. The seemingly high number of missing juvenile cases can also be justified by recognizing that "the

problems frequently lumped together as 'missing children' [are] 'extremely dissimilar social problems' affecting different children and families" (Finkelhor et al. 1990 as cited in Lewit and Baker 1998:142). A further discussion of missing children's cases will be necessary to fully address this issue.

Surprisingly, missing children have not always been a major topic of concern in the United States. In fact, the term "missing children" only came into use in the early 1980s, "around the time that the U.S. Senate first held hearings on the subject in response to national publicity about a number of kidnapping cases" (Best 1987 as cited in Lewit and Baker 1998:142). The kidnappings mentioned here likely refer to "a rash of child kidnappings that began in 1979 when Etan Patz, 6, disappeared from a New York City school bus stop and continued when Adam Walsh, 6, disappeared from a Florida mall" (Leinwand 2002:3A). The public outcry surrounding these cases was likely bolstered by greatly exaggerated but widely publicized claims by a nonprofit group that "50,000 [children each year] were snatched by strangers" (Ragavan et al. 2001:16). A recent study reported that although approximately 1.3 million children went missing from their caretakers in 1999, only a small percentage of disappearances were the result of kidnappings (Sedlak et al. 2002:5). This study, known as NISMART-2, will be discussed in further detail below.

"Whether a child is 'missing' depends on the knowledge and state of mind of each child's caretaker, rather than the child's actual condition or circumstances" (Sedlak et al. 2002:3). Although many children are reported missing on a daily basis, "missing doesn't necessarily mean kidnapped [and] in many cases the child is lost, not abducted, and is found quickly" (Leinwand 2002:3A). In other words, missing children are not all missing as the result of kidnappings by strangers; many of these missing are runaways, were asked to leave home by a

parent or guardian, or were taken by a parent, perhaps as part of a custody dispute (Leinwand 2002, Lewit and Baker 1998).

The National Incidence Study of Missing, Abducted, Runaway and Thrownaway Children (NISMART) is "the most reliable source of information about all types of missing children" (Lewit and Baker 1998:142). NISMART, by Finkelhor et al., was first completed in 1990 and was recently carried out again by Sedlak et al. and released in 2002; thus this second study is referred to as NISMART-2. This study was undertaken by an agency within the U.S. Department of Justice (DOJ) as mandated by the Missing Children's Assistance Act, passed by Congress in 1984 after Adam Walsh's death (Lewit and Baker 1998:141). NISMART and NISMART-2 provide "national estimates of missing children based on surveys of households, juvenile residential facilities, and law enforcement agencies" (Sedlak et al. 2002:1).

NISMART-2 recognizes five categories and one subcategory of missing children: Family Abduction; Nonfamily Abduction (with a subcategory for Stereotypical Kidnapping); Runaway/ Thrownaway; Missing Involuntary, Lost, or Injured; and Missing Benign Explanation (Sedlak et al. 2002:3). NISMART and NISMART-2 consider missing children to be those under the age of 18, unlike NCIC, which classifies missing juveniles as those under the age of 21 (Sedlak et al. 2002:3). A discussion of the NISMART-2 categories will be beneficial to an understanding of the many issues affecting missing juveniles; these categories have been defined in Table 3.

The first category of missing child listed by NISMART-2 is Family Abduction. Family abductions occur when a child is either taken by a parent who does not have any legal custody of the child, or is not returned to a joint custodial parent after an agreed-upon visit with the other parent (Lewit and Baker 1998:144). Occasionally, a noncustodial parent might attempt to abduct his or her child (or children) after a divorce or custody hearing (Jackson 1995). In the case of a family abduction, the missing child's whereabouts may be vaguely known; for example, the

Table 3 – National Incidence Study of Missing, Abducted, Runaway and Thrownaway Children (NISMART-2) Definition of Missing Children Episode Types According to Sedlak et al. 2002

Family Abduction	A family abduction occurs when, in violation of a custody order, a decree, or other legitimate custodial rights, a member of the child's family, or someone acting on behalf of a family member, takes or fails to return a child, and the child is concealed or transported out of State with the intent to prevent contact or deprive the caretaker of custodial rights indefinitely or permanently. (For a child 15 or older, unless mentally incompetent, there must be evidence that the perpetrator used physical force or threat of bodily harm to take or detain the child.)
Nonfamily Abduction	A nonfamily abduction occurs when a nonfamily perpetrator takes a child by the use of physical force or threat of bodily harm or detains a child for at least 1 hour in an isolated place by the use of physical force or threat of bodily harm without lawful authority or parental permission; or when a child who is younger than 15 years old or is mentally incompetent, without lawful authority or parental permission, is taken or detained by or voluntarily accompanies a nonfamily perpetrator who conceals the child's whereabouts, demands ransom, or expresses the intention to keep the child permanently.
Subcategory: Stereotypical Kidnapping	A stereotypical kidnapping occurs when a stranger or slight acquaintance perpetrates a nonfamily abduction in which the child is detained overnight, transported at least 50 miles, held for ransom, abducted with intent to keep the child permanently, or killed.
Runaway/Thrownaway	A runaway incident occurs when a child leaves home without permission and stays away overnight; or a child 14 years old or younger (or older and mentally incompetent) who is away from home chooses not to return when supposed to and stays away overnight; or a child 15 years old or older who is away from home chooses not to return and stays away two nights. A thrownaway incident occurs when a child is asked or told to leave home by a parent or other household adult, no adequate alternative care is arranged for the child by a household adult, and the child is out of the household overnight; or a child who is away from home is prevented from returning home by a parent or other household adult, no adequate alternative care is arranged for the child by a household adult, and the child is out of the household overnight.
Missing Involuntary, Lost, or Injured	A missing involuntary, lost, or injured episode occurs when a child's whereabouts are unknown to the child's caretaker and this causes the caretaker to be alarmed for at least 1 hour and try to locate the child, under one of two conditions: (1) the child was trying to get home or make contact with the caretaker but was unable to do so because the child was lost, stranded, or injured; or (2) the child was too young to know how to return home or make contact with the caretaker.
Missing Benign Explanation	A missing benign explanation episode occurs when a child's whereabouts are unknown to the child's caretaker and this causes the caretaker to (1) be alarmed, (2) try to locate the child, and (3) contact the police about the episode for any reason, as long as the child was not lost, injured, abducted, victimized, or classified as runaway/thrownaway.

child may be suspected to be living with the noncustodial parent out-of-state. Children involved in family abductions may or may not be at risk for harm. The presumed risk of harm to a child in this situation is likely dependent on whether or not the abducting parent has a history of abuse or violence. Depending on the situation, these children could be classified as either involuntary or endangered missing persons.

The second category of missing child used by NISMART-2 is Nonfamily Abduction. This category also includes a subcategory for Stereotypical Kidnapping. The difference between a nonfamily abduction and a kidnapping can be distinguished by the more serious nature of stranger abductions. These stranger abductions are cases that involve "the coerced and unauthorized taking of a child" (Lewit and Baker 1998:144). Stereotypical kidnappings are potentially the most dangerous for the children involved. "More than a fifth of the children reported to the [National Center for Missing and Exploited Children] in nonfamily abductions are found dead" (Jackson 1995). Even when children abducted by strangers are recovered alive, "a high proportion . . . experienced sexual assault (two-thirds), and about 20 % were known to be injured (with lacerations, broken bones, or internal injuries)" (Finkelhor et al. 1990:170).

Accurate information on the number of stranger abductions is difficult to obtain, in part because the Department of Justice "has violated an act of Congress by refusing to reveal how many lost, runaway and kidnapped children have been reported to the FBI" (Hargrove 2005a). Krajicek (2005) claims, "only about 100 missing-child reports each year fit the profile of a stereotypical abduction by a stranger or vague acquaintance." Kamb (2003a) cites "200 [nonfamily abductions] reported each year, [according to] Wayne Lord of the FBI's Child Abduction Serial Murder Investigative Resource Center." Despite the lack of hard statistics, experts agree that true kidnappings are rare, accounting for only "1.5 % of violent crimes against children reported to police" (Leinwand 2002:3A). In reality, "many more children run away or

are asked to leave their homes than are abducted, and very few children are abducted by strangers" (Lewit and Baker 1998:141).

The third category of missing children listed by NISMART-2 is Runaway/ Thrownaway children. Runaways are "children who left home without permission and stayed away overnight, [or] children who were already away and refused to come home" (Lewit and Baker 1998:144) and are also the largest category of cases dealt with by the NCMEC (Ragavan et al. 2001). "Children with a history of running away, teenagers, and Whites were found to have a higher risk of [running] away for longer periods of time, traveling farther or staying in unsecured quarters" (Finkelhor et al. 1990:201). Despite the risk to which runaways subject themselves, law enforcement officials may devote little investigative effort when a missing teen "is a chronic runaway or has a history of misbehavior" (Olsen and Kamb 2003). Unfortunately, the longer these runaways are gone, "the more likely they are to get raped, commit a crime, break in somewhere, get hurt, or get in some kind of trouble" (Charles Pickett quoted in Jackson 1995).

Thrownaway children are those who were asked to leave their home, were already away and were told not to return home, left home but their caretakers made no effort to recover them and did not care if they returned, or were abandoned (Lewit and Baker 1998:147). Filing of a missing persons report would be unlikely for a thrownaway child; "these children are victims of parental neglect and are not literally missing because their parents apparently do not care where they are" (Lewit and Baker 1998:147). Further information on law enforcement handling of runaway and thrownaway children will be touched on again shortly.

The final NISMART-2 categories for missing children are Missing Involuntary, Lost, or Injured, and Missing Benign Explanation. The whereabouts of these children are unknown, but their disappearances do not fit into any of the previously discussed categories (Sedlak et al. 2002:4). These two categories might include children who were injured and did not arrive at

school or home, children who were lost in the woods or in a mall or airport, and children who are missing "because of miscommunication, unforeseen events or delays" (Lewit and Baker 1998:148).

Law Enforcement Handling of Missing Persons Cases

Some of the major hurdles that may prevent the resolution of missing persons cases stem from problems with law enforcement reporting procedures. Families or friends who wish to report the disappearance of a loved one may be prevented from doing so immediately for two reasons: either because of "police procedures requiring a prescribed relationship with the alleged missing person" or because a specified waiting period has not elapsed (Weinberg 1995:65). "There was an old, traditional belief that if any person was missing, police were supposed to wait . . . some state laws required 24 hours [before taking a missing-person report]" (Hargrove 2005a). Prior to 1990, "some departments even had . . . 72 hour mandatory waits" (Ragavan et al. 2001:16). Applied to cases of missing adults, waiting periods likely stem from the notion of "the legal right of adults to be free in their movements" (Hirschel and Lab 1988:37). Michael Norris, a county coroner in Pennsylvania, explains that when adults go missing, "the feeling is [they] have a right to be missing" (Willing 2005:3A). Law enforcement authorities do not want to violate an individual's privacy if he or she does not wish to be located (Ragavan et al. 2001).

Waiting periods are less likely for cases of missing juveniles. The National Child Search Assistance Act of 1990 ordered "that all children regardless of the reason they are missing must be 'entered immediately' into state and Federal police computer networks" (Hargrove 2005a). According to this law, "local police cannot require a waiting period before taking a missing-juvenile report" (Olsen and Kamb 2003). However, many police departments "as a matter of policy, do not report missing children [to the FBI] if they are runaways" (Hargrove 2005a). For example, in 2004, the Honolulu Police Department "reported only 10 missing children [to the

FBI] . . . even though it arrested more than 2,700 runaway children" each of whom should have been reported to the FBI (Hargrove 2005a). Likewise, "a limited study of [missing] child-reporting rates . . . using 37,665 missing-children cases received by the [NCMEC] from Jan. 1, 2000, through Dec. 31 2004 . . . [found that] about 12 % of all those missing-children cases did not appear to have been reported to the FBI" by the local authorities who took the initial missing persons report (Hargrove 2005a).

If there is any indication that a person is voluntarily missing, the authorities may hold off on investigating the disappearance and take a "wait-and-see" approach (Kamb 2003a). This approach is based on two factors. First, law enforcement officials know from experience that the majority of 'missing' people reappear after a short time gone. If officials delay taking a report on someone they believe to be voluntarily missing, they are spared the trouble of clearing the report when the individual reappears. Secondly, most local law enforcement agencies do not have the resources or manpower to investigate every missing persons report as they receive them (Kamb 2003a). Officials must therefore judge which cases will be investigated; inevitably, some of these decisions will be wrong.

Part of the difficulty associated with law enforcement reporting procedure is the need to classify disappearances as voluntary, involuntary, etc. In some instances, the family and friends of a missing person and the authorities involved in the investigation may be unsure or may disagree about the cause of the person's disappearance. "It may not always be possible to distinguish the type of incident at the outset of an investigation" (Lewit and Baker 1998:142). Even when family and friends are certain that something bad has happened to their loved one, "the absence of an accompanying crime (or suspected illegality) leaves families with little ground for involving the criminal justice system" (Hirschel and Lab 1998:37). Evidence of foul play in a missing persons case might include signs of a struggle, a history of domestic violence,

the discovery of small children unattended, or the abandonment of valuable possessions (Olsen and Kamb 2003).

The choice not to immediately investigate a case where foul play has occurred but is not suspected by the authorities and/or family can have detrimental consequences: missed opportunities to locate the missing person, time for the criminal(s) involved to relocate, injure or kill the missing individual, time for the criminal(s) to escape arrest and potentially commit other crimes, and time for forensic evidence to deteriorate before the missing individual is found either alive or deceased. "Nearly 25 percent of homicides begin with a missing-person complaint"; so, the consequences of holding off on investigations can sometimes be serious (Ragavan et al. 2001:16). Unfortunately, "even immediate top-notch police work in missing and presumed-murdered cases can [sometimes] fail to produce a resolution" (Weinberg 1995:63).

One aspect of missing persons reporting that is out of law enforcement's control is that some people are never reported missing. These individuals are either not missed (e.g., a thrownaway child) or they are not reported missing because a crime has been committed against them. "Delays [in reporting] tend to be especially prevalent when missing-and-presumed-murdered cases involve a once-romantic couple. The remaining partner would be the most likely to miss the disappeared partner. But if the remaining partner is the murderer, a timely call is unlikely- unless the plan is to deflect suspicion" (Weinberg 1995:65). "Often, killers file the [missing persons] report themselves to throw off suspicion" (Olsen and Kamb 2003). This refers back to the issue of law enforcement's policies on who is able to place reports about missing persons. In the above instance, the friends or coworkers of the missing spouse may be prevented from reporting the disappearance because they are not directly related to the missing spouse. Additionally, these friends and coworkers may not seek to file a report themselves because they

are likely to assume that the remaining partner has already reported his or her missing spouse (Weinberg 1995:65). These instances create the opportunity for foul play to go undetected.

All missing persons are potentially vulnerable to harm. As mentioned previously, adult missing persons often have other problems that make them susceptible to harm (drug use or mental illness) and missing persons of any age "may be vulnerable to at least four specific risks: the natural elements; an accident; suicide or self-harm; and serious crime" (Newiss 1999:15). Unfortunately, "police can often be reluctant to take reports about runaways, prostitutes and drug addicts, even though they often are crime victims" (Olsen and Kamb 2003). The most vulnerable types of missing persons seem to have the least attention devoted to them by law enforcement. Criminals may take advantage of this lack of law enforcement consideration. "Prostitutes and people with transient lifestyles are easy to prey on, serial killers know that, and they know that these kinds of victims are a lot harder [for law enforcement] to track" (Wayne Lord quoted in Olsen and Kamb 2003).

Follow-up casework is another area in which missing persons cases can fall through the cracks. When a missing person reappears, it is vital for authorities to make face-to-face contact with the reported missing person. A face-to-face encounter with a returned missing person is necessary to verify the person's identity and ensure that foul play was not a factor in his or her disappearance (Olsen and Kamb 2003). Unfortunately, missing persons cases are sometimes closed after only a phone conversation with the alleged missing person or with one of his or her family members or friends, or by checking credit reports and public records, "without making a single face-to-face confirmation" (Olsen and Kamb 2003). Closing cases without verifying a missing person's return can allow foul play to go undetected by law enforcement, e.g., if someone involved in a missing individual's murder later impersonates the missing person over the phone to police (Todd Mathews pers. comm.).

The opposite problem occurs when cases remain open or active after they should have been closed, for example, when a missing individual has returned safely but law enforcement is unaware because they did not follow up on the case (Olsen and Kamb 2003). Law enforcement agencies may "fail to enter or delete [cases] from state or national databases and may fail to notify other involved agencies when reports are updated or purged" (Kamb 2003c:34). When a case is truly closed, all involved agencies must be notified so the report can be cleared from their records. Failure to delete resolved cases "allows invalid reports to clog databases with information that doesn't belong there" (Olsen and Kamb 2003). Furthermore, records, reports, and evidence on missing persons cases can be lost over time or destroyed, either accidentally or intentionally (Kamb 2003c:35). Bob Keppel, a retired detective in Washington State "recalls the primitive method one Western Washington police agency used in the 1970's: a new missing person report went to the top of the stack and the one at the bottom went in the trash" (Olsen and Kamb 2003). "Lost reports or ones never entered into state or national tracking systems diminish the likelihood that a person disappears in one place and winds up dead in another will ever be identified because police lack access to the records needed to establish a link" (Kamb 2003c:35).

Variations in law enforcement investigative and follow-up procedures are largely due to the different capabilities of individual law enforcement agencies. Many small local departments have limited resources and training and missing persons cases "are so infrequent, there is a general lack of experience and readiness" when cases do arise (Ragavan et al. 2001:16). Departments may have difficulty finding officers with the time available to review missing persons reports. Filing and following up on reports is time consuming, so cases can be shuffled from officer to officer, or ignored altogether. Also, missing persons investigations are often overshadowed by other, more pressing crimes. "In reality, Part 1 crime – your murders, rapes and robberies – that's what's driving police departments and budgets. Missing persons are not a

Part 1 crime" (John Turner quoted in Olsen and Kamb 2003). Required follow-up work on persons missing for extended periods of time may not be completed in a timely manner or completed at all. Unfortunately, "some officers indiscriminately close cases in less than a month to avoid the chore of checking to see whether the person is still missing, filing supplemental reports and tracking down dental records" (Olsen and Kamb 2003).

Law enforcement's failure to consistently use the existing national databases is another problem that plagues missing persons cases. Most law enforcement agencies (local, county or state) are not obligated to report their missing persons to agencies or databases farther up the law enforcement chain of command (Willing 2005:3A). The previously discussed under-reporting of juvenile runaways to NCIC is an example of law enforcement's hesitancy to utilize government databases, even when mandated (Hargrove 2005a). For missing individuals who are not juveniles, the situation is more serious. Virtually no laws exist that force originating agencies to submit their cases to superior agencies, i.e., state government or law enforcement agencies, or the FBI (Sullivan 2006). Gerald Nance, cold-case manager for the NCMEC explains, "most police jurisdictions view reporting to NCIC to be a good business practice, meaning they recommend it but don't require it" (Hargrove 2005b). Although many other databases and systems similar to NCIC are already in place to aid investigators in missing person cases, "information is not always shared across jurisdictions, [so] their usefulness is limited" (Schofield 2006). Cases that do not exist in any database, state or federal, have little hope of resolution.

Unidentified Persons

Unidentified persons are those individuals, living or deceased, whose identities are unknown. Examples of unidentified living individuals would include newborn or infant children, elderly individuals with dementia or Alzheimer's, or other individuals who do not know or cannot express their identities. The majority of unidentified persons, and those who will be

discussed primarily in this paper, are the unknown deceased: the Jane and John Does buried in pauper's graves and stored in our nation's morgues and crime labs (Willing 2005:3A). Unidentified persons cases are often synonymous with missing persons cases, so the term 'missing persons' will occasionally be used to refer to both missing and unidentified individuals (Eisenberg 2006).

The NCIC Unidentified Person File recognizes three types of unidentified persons: Unidentified Deceased Persons (a category which includes information on "body parts when a body has been dismembered"), Unidentified Catastrophe Victims (also including "body parts when a body has been dismembered as the result of a catastrophe"), and Persons Unable to Determine Their Identity (National Crime Information Center 2007). As of September 4, 2007, the NCIC carried information on approximately 6,479 cases of living and deceased unidentified persons (Melissa Torpey pers. comm.). Of the 1,413 cases newly entered into NCIC in 2006, 1,043 (73.81 %) were unidentified bodies, seven (.50 %) were catastrophe victims, and 363 (25.69 %) were "living persons who could not ascertain their identity" (National Crime Information Center 2007). Accurate estimates on the number of unidentified deceased persons nationwide vary widely. Experts agree that the 6,246 cases in NCIC (as of May 8, 2007) account for only a small percentage of the total unidentified deceased persons cases nationwide, so how many of these cases are there really (Ritter 2007:2, Torpey 2008)?

Two recent reports released by the Department of Justice's Bureau of Justice Statistics, or BJS, show approximately 13,500 and 10,300 unidentified human remains cases, respectively, reported by coroners and medical examiners nationwide (Hickman et al. 2007b, Hughes 2007). However, inconsistencies in reporting of unidentified remains by coroners, medical examiners, and law enforcement agencies, variations in how long each agency or office has kept records on unidentified decedents, and other inconsistencies, indicate that these reports are almost certainly

underestimating the number of unidentified dead (Hickman et al. 2007b, Hughes 2007). The estimate most commonly cited for the true number of unidentified remains cases stored nationwide is 40,000, although some estimates reach as high as 60,000 (Eisenberg 2006, Hargrove 2005b, Phillips 2007, Ritter 2007, Schmitt 2006a). Until recently there were little data to support these estimates, but recent research has attempted to explain their origin. Table 4, taken from Torpey (2008), provides estimates of unidentified human remains cases from government and non-government sources. Italicized citations clarify some of Torpey's sources.

Estimates for the number of unidentified bodies found in the United States each year vary depending on the source, but generally fall in the range of 1,000-2,000 bodies per year (Hickman et al. 2007b, Sullivan 2006). Although "a total of about 4,400 unidentified human decedents were reported in an average year . . . after one year, an estimated 1,000 [decedents] remained unidentified and became 'cold cases'" (Hickman et al. 2007b:5). As with missing persons, the majority of unidentified persons are only unidentified for a short amount of time. Most Jane and John Does arrive at the coroner, medical examiner or forensic anthropologist's office with a tentative identification that is later confirmed through comparison of dental or medical records. Unidentified decedents who arrive with no tentative identification may remain unidentified for months, years, or even decades. The identity of some decedents may never be discovered.

Of the 6,246 unidentified deceased persons in NCIC as of May 2007, 72 percent were male, 24 percent were female and four percent were of "undetermined gender" (Melissa Torpey pers. comm.). Broken down by race, 70 percent were White (including Hispanic), 14 percent were Black, two percent were Asian/Pacific Islander, less than one percent were American Indian/Alaskan Native, and 13 percent were of unknown race (Melissa Torpey pers. comm.). An example of an individual lab that curates unidentified persons cases is the Forensic Anthropology and Computer Enhancement Services (FACES) Laboratory at Louisiana State University. That

Table 4 – "Estimating the Numbers of Unidentified Human Remains" From Torpey (2008)

Source	**Estimated Number**
NCIC (9/4/2007)	6479
BJS (ME/C Survey, 2004) (*Hickman et al. 2007b*)	13486/11302*
BJS (NDI, 1980-2004) (*Hughes 2007*)	10328
UDRS/NamUs (2/14/2008)	714
Doe Network (11/6/2007)	1934
Other Websites (10/16/2007)	2638
NIJ Journal, Issue 256 Estimate (*Ritter 2007*)	40000**
Each Year (ME/C Survey, 2004) (*Hickman et al. 2007b)*	1000
Total Maximum Estimate for Each State	13453

[Asterisked remarks below also from Torpey (2008)]
* The BJS Survey concluded that 13,486 unidentified decedents were on record in 2004. However, they later amended this number to 11,302 after the Cleveland, Ohio, county coroner (Cuyahoga County) stated that their original reported number was incorrect; BJS was unable to obtain a new number from them.
** If you use the number that the BJS ME/C Survey of unidentified persons on record that remain unidentified after one year (1,000) and estimate the number of total unidentified human remains there are over the past 40 – 50 years, then you could possibly estimate 40,000 unidentified human remains over that period of time.

lab curates approximately 89 unidentified human remains cases dating back to the early 1980s. Of these 89 cases, 62 percent are male and 38 percent are female; 40 percent are White, 42 percent are Black, six percent are Hispanic, one percent is Asian and ten percent are mixed or unknown race (Mary Manhein pers. comm.). In some regions of the United States, illegal immigrants may account for a large number of unidentified deceased persons cases. These "unidentified border crossers" died while attempting to enter the United States through Mexico; approximately 3,600 such cases were recorded between 1995 and 2005 in southern states (Baker 2007).

Unidentified deceased individuals may have died due to "traffic accidents, drug overdoses, or natural causes such as heart attacks or exposure to severe weather" (Hargrove 2005b). Additional causes of death might include suicides or accidental falls or drowning,

natural disasters, plane crashes, or terrorist attacks. "Of the 2,900 NCIC records that contained data on the manner of death [as of February 2005], 27 % were ruled homicides; 12 % accidental deaths; 7 % natural causes; and 5 % suicides" (Hughes 2007:2). Although only 27 percent of the cases in NCIC are suspected homicides, other sources claim that "slightly more than half [of unidentified deceased persons] are suspected homicides" (Hargrove 2005b). Experts cannot agree on what percentage of unidentified deceased are probable homicide victims. Of the estimated 40,000 unidentified dead in our nation, even if only ten percent are homicide victims it would amount to approximately 4,000 individuals who died as the result of foul play and whose cases cannot be solved until their identities are discovered (Weinberg 1995:63).

Law Enforcement Handling of Unidentified Persons Cases

"Before any true investigation into [an unidentified person's] case can begin, the victim must be identified" (Mack 1995:510). Unfortunately, in many unidentified persons cases the identification process can be quite complicated. In the ideal situation, law enforcement authorities will be able to match an unidentified decedent to a reported missing person. However, it is impossible to know how many of our nation's unidentified decedents were at some time reported to the authorities as missing persons, or how many of their reports are still on record with some agency. Although "a missing-person report is not a crime report," in unidentified persons cases it may act as "a tripwire to alert police of a possible crime . . . a way to reach across time and distance to identify any human remains that might turn up years later, hundreds of miles away" (Olsen and Kamb 2003).

In the absence of a missing person report that matches an unidentified decedent's physical description, the investigation into his or her identity can stall. Failure to match unidentified decedents to known missing persons can occur if the missing persons report was taken but was not passed on to a federal or state agency or entered in a database, if the missing

persons report was never followed-up on and does not include dental, medical or other records to match to the unidentified decedent, if mistakes exist in the information in the report, or if the report falls through one of the many cracks in the system. Similar to missing persons cases, "few states or local governments require that Doe cases be reported to any outside agency" (Hargrove 2005b). Also, as noted previously, not all missing persons are reported either because they are not missed or because they are victims of a crime. If these individuals die during their disappearance, there is no report, no 'tripwire' to alert law enforcement to their identities.

Similar to missing persons cases, law enforcement may give little attention to unidentified persons cases compared to more pressing crimes such as murder or rape. Likewise, "not all unidentified bodies receive the same attention" from law enforcement agencies (Olsen 2003). Unidentified remains that show no obvious evidence of foul play, gunshot wounds, for example, may not be investigated fully. Remains assumed to be those of homeless or transient persons might be subject to similar neglect (Olsen and Kamb 2003). Some experts have argued that the failure to thoroughly analyze and investigate unidentified person cases is a contributing factor to our country's high percentage of unsolved murders. "In 2003, the latest year for which records are available, only 62 percent of homicides were resolved, a 30-year low" (Hargrove 2005b). The inability to identify Jane and John Does and determine the reason for their deaths leaves law enforcement and families without resolution and criminals free to commit further crimes.

When missing people die during their absences, their deaths can occur far from the place they originally went missing. Missing people can move; they may choose to travel or they can be taken to distant locations by their abductors (McLellan et al. 2007). "The high degree of mobility within society is resulting in more individuals who die or are killed away from their home communities, and this can hamper the identification and investigation process being

completed in a timely manner" (Mack 1995:512). Missing persons have the potential to leave the country, just as missing persons from other countries may travel to the United States. "With international travel becoming increasingly common . . . and migration steadily on the rise, we must recognize the potential of missing persons to end up as unidentified deceased persons far from where they originally disappeared" (Desikan 2003:349).

Time can also be a complicating factor in making positive identifications. Unidentified persons found long after their deaths may not be connected to missing persons reports filed years or decades before the discovery of their bodies. Generally speaking, "positive identification of human remains is more frequent when [the remains] are found in the same jurisdiction where the missing person report was taken and when the interval between the date of disappearance and the date of body discovery is short" (Haglund 1993:369). The above-mentioned complicating factors bring to light the necessity of the retention of reports, records and samples from missing persons cases, no matter how old, and the importance of communication and cooperation between local, county, state, and federal law enforcement agencies within the United States, and into Mexico, Canada, and other countries (Baker 2007, McLellan et al. 2007).

Death Investigators

In contrast to most missing persons cases, unidentified persons cases will regularly involve officials outside the realm of law enforcement. Coroners, medical examiners (MEs), forensic anthropologists, forensic odontologists, and other specialists can be integral in Jane and John Doe investigations. The involvement of these medicolegal officials varies widely across localities and states. Coroners, MEs, and forensic anthropologists may first be called upon to assist in the recovery and removal of unidentified bodies; or may assist along with forensic odontologists and other specialists after a body has been recovered. The following discussion of

death investigators will be divided into two sections: 1) coroners and medical examiners, and 2) forensic anthropologists, odontologists, and other specialists.

Coroners and Medical Examiners

The recent BJS survey of coroners and medical examiners considered three major types of death investigation systems: "medical examiner, coroner, or mixed systems [those with coroners and MEs]" (Hickman et al. 2007b:2). However, these three types only summarize a much more confusing array of death investigative systems operating nationwide. The authors of the study note that "the distinction between coroner and medical examiner systems varied by jurisdiction; and the qualifications, skills and activities of medicolegal personnel cannot necessarily be inferred from the title attached to the office" (Hickman et al 2007b:2). Coroners are elected officials; they can be laypersons and may have no medical background. Medical examiners are appointed officials and are usually physicians who may have had special training (Hickman et al 2007b:2). Coroners and medical examiners are therefore likely to "view their roles differently . . . a nonphysician coroner may not place the same emphasis on investigation of sudden unexpected and/or unexplained death as a medical examiner (Caplan and Adeagbo 2007). "Experts have long recognized that coroners often fail to collect and submit necessary information to help identify anonymous remains," so unidentified individuals who are investigated by a medical examiner may have a better chance for identification (Olsen 2003).

The degree to which coroners and MEs within a state coordinate with each other also varies widely. In some states, New Jersey for example, each of the state's medical examiners uses a standardized system to catalog unidentified remains and report them to the state ME. In neighboring Pennsylvania, however, each of the state's 67 counties employs either a coroner or medical examiner. No uniform reporting procedure for unidentified remains exists, nor is information on remains shared or released throughout the state (Sullivan 2006).

Unidentified bodies can present many difficulties to the officials trying to identify them, and coroners and MEs are likely to "make their own judgments about how or whether to pursue John or Jane Doe cases" (Willing 2005:3A). If an unidentified body is in good condition, the coroner or ME has the opportunity to record important observations about the individual. Fingerprints can be taken, the body can be measured for height and weight, age and race can be assessed based on physical appearance, medical conditions can be recorded and photos of the individual can be taken along with photos of clothing, tattoos, jewelry or personal effects. However, "as the postmortem interval becomes longer, most external identification markers with high recognition value, such as fingerprints, scars, tattoos, hair and eye color, are lost" (Haglund 1993:369). Unidentified individuals who are badly decomposed, skeletonized, or incomplete will not exhibit many of the identifying characteristics listed above. Despite the condition of the remains, coroners and MEs can still collect and retain samples for DNA analysis in the form of blood, tissue, hair, bone, or teeth. Unfortunately, many coroners and MEs do not take these samples.

When a coroner or ME is unable to identify a body after a period of weeks or months, he or she may discontinue the inquiry into the body's identity. The decision to stop investigating is usually made at the discretion of the coroner or ME; often he or she is "too busy investigating recent deaths to go back over cold cases with unidentified remains" (Olsen 2003). After the investigation ceases, the coroner or ME may continue to store the remains indefinitely. However, fleshed bodies take up space in morgue freezers and eventually begin to decompose. In order to make room for new cases, long-term unidentified persons may be buried or cremated. According to the recent BJS survey of coroners and medical examiners, "a total of about 600 cold [long-term] cases underwent final disposition (such as burial, cremation or other means of disposition) in 2004" (Hickman et al. 2007b:5). The premature disposal of unidentified bodies

before all efforts to identify them have been exhausted greatly reduces the chance that they might ever be identified.

Fortunately, "legislation requiring DNA to be collected before John or Jane Does are buried has been adopted in five states and has been introduced in seven more and the District of Columbia" (Willing 2007). Legislation in Texas "requires law enforcement agencies, county coroners and medical examiners to retain a [DNA] sample from unidentified remains before burial or cremation" (Hammond and Harrison 2006:19). Medical examiners and coroners in California are required to submit "detailed reports to the state's Department of Justice whenever human remains are recovered . . . the[se] reports include autopsies, fingerprints, dental x-rays, genetic material for DNA testing and other information to assist in identifying the body" (Hammond and Harrison 2006:20). Adherence to these requirements can be maximized if DNA sampling procedures and testing protocols are made, "as easy and painless," as possible for coroners, ME and other authorities. DNA testing should also be provided at "no direct cost to the agency" to encourage widespread use (Eisenberg 2006).

In 2004, the Louisiana State University FACES Lab "began a collaborative effort to address the issue of unresolved [unidentified and missing persons] cases" (Manhein and Mathews 2008:373). "In 2006, a bill was presented to the Louisiana State Legislature that would allow for the establishment of the Louisiana Repository for Unidentified and Missing Persons Information Program to be maintained by the LSU FACES Lab in conjunction with the North Louisiana Criminalistics Laboratory" (Manhein and Mathews 2008:373). The passage of this bill allowed for "the development of a database on all missing persons and unidentified remains cases reported in the state of Louisiana" (Manhein and Mathews 2008:373). It is hoped that this unique system can be used as a model for other states wishing to centralize their missing and unidentified persons information.

Forensic Anthropologists, Odontologists, and Other Specialists

Unlike coroners and medical examiners who usually specialize in the analysis and examination of recently deceased or fleshed bodies, forensic anthropologists are trained to work with the skeletal remains that are left behind after the soft tissues of the body are gone (Grisbaum and Ubelaker 2001:1, 13). Generally, forensic anthropologists are consulted when bodies are severely decomposed, burned, skeletonized, or incomplete, and are unlikely to be "identified through conventional means" (Ritter 2007:2). External indicators of sex and race, along with other defining physical characteristics such as fingerprints and eye or hair color, are likely indiscernible (Haglund 1993:369). In this condition, coroners and MEs cannot complete a traditional examination because the remains are simply too badly decomposed for an autopsy to be performed (Stinebaker 2007). Without being able to complete a traditional autopsy, coroner's and ME's assessments of age, sex, and race may not be as accurate as those made by a forensic anthropologist.

Forensic anthropology is "the scientific discipline that applies the methods of physical anthropology and archaeology to the collection and analysis of legal evidence [and the] description and identification of skeletonized human remains" (Burns 1999:3). The information these scientists collect about unidentified deceased persons is commonly referred to as a biological profile. This profile includes the probable sex, ancestry, age, and stature of the decedent, as well as documentation of any pathology (e.g., arthritis) or traumatic injuries that occurred during the individual's life, or around the time of his or her death (Grisbaum and Ubelaker 2001:13). Forensic anthropologists can assist in suggesting the cause of death (e.g., gunshot wound or stabbing) and manner of death (e.g. murder or suicide) of unidentified decedents (Burns 1999:4). Generally, forensic anthropologists will conduct a full examination of

the unidentified remains, will take x-rays of the decedent's body and teeth, and may take samples from bones or teeth for the purpose of DNA testing.

As noted previously, many Jane and John Does are only considered unidentified for a short period of time because their identity is suspected by the involved authorities. In these cases, the biological profile, x-rays, and DNA samples taken by the forensic anthropologist are compared against the physical description, dental and medical records and/or DNA from the suspected victim. However, if the tentative identification is incorrect, or if there are no clues as to the identity of the decedent whatsoever, the biological profile, x-rays, and DNA information can be compared against information on known missing persons (Grisbaum and Ubelaker 2001:13). If no missing persons reports match the forensic anthropological report, the physical description of the unknown decedent can be publicized in the hopes that a family member or friend will come forward to identify the individual.

The expertise of forensic anthropologists often goes beyond the analysis of remains in a laboratory setting. When forensic anthropologists are called to recover a body or exhume a clandestine burial, they will employ archaeological recovery and removal methods such as applying a grid to the burial area, excavating level by level, documenting with drawings and photos, etc. (Burns 1999:186-194). These procedures ensure that all potential evidence is collected along with the remains. Forensic anthropologists can also assist in providing an estimate of the post mortem interval, or the period of time elapsed between and individual's death and the discovery of his or her remains (Byers 2005:107). Based on the level of decomposition and disarticulation of the skeleton, the condition of the bones, and considering the surrounding environment, forensic anthropologists can also estimate how long the remains have been in a particular place.

The creation of accurate and detailed biological profile for all unidentified decedents is paramount in resolving their cases. Errors in a decedent's profile can doom investigations from the beginning. Failure to determine basic identifying characteristics such as age, race and sex, or making incorrect assessments of these characteristics diminishes the chance that the remains can be identified. Surprisingly, almost 18 percent of the unidentified persons in NCIC are listed with an unknown sex or race (Torpey 2008). Despite the insights they can bring to investigations, forensic anthropologists seem to be under utilized in unidentified human remains cases. As of May 8, 2007, less than one percent of the 6,246 unidentified decedents in NCIC had undergone a forensic anthropological analysis (Torpey 2008).

Forensic odontologists are another group of medicolegal authorities commonly involved in missing and unidentified persons cases. "Forensic odontology is the branch of forensics concerned with identifying individuals based on their dental features (Stimson and Mertz 1997 as cited in Nassar and Ammar 2003:1). "Dental features are considered the best candidates for postmortem identification . . . due to their survivability and diversity" (Fahmy et al. 2004:1). Forensic odontologists can assist law enforcement in obtaining antemortem dental records for missing persons and can create charts and take x-rays of unidentified decedents' dentition. The dental information that forensic odontologists collect from unidentified decedents can be compared to the dental records of known missing persons, helping to identify possible matches between unidentified and missing persons.

Other specialists involved in missing and unidentified persons cases are forensic artists. These artists use various mediums to recreate the living appearance of deceased individuals. Artists may provide two-dimensional likenesses drawn by hand, or may specialize in clay facial reconstructions: three-dimensional models based on the features of a decedent's skull. The purpose of facial reconstruction is to approximate the victim's appearance in life, hopefully

providing a likeness that will spark the recognition of a friend or family member of the unidentified person. Other forensic specialists involved in missing and unidentified persons cases can include crime scene investigators, forensic pathologists, ballistics specialists, forensic entomologists, toxicologists and many others (Burns 1999:139-142).

Despite the time and effort that various death investigators dedicate to unidentified persons cases, many do not have access to the appropriate national databases that can help them identify their unidentified decedents. Many of these coroners, MEs and forensic anthropologists are actually "barred from contributing information . . . [to NCIC] because they are not considered law enforcement agencies" (Willing 2005:3A). In order to use NCIC and other government databases, coroners, MEs, forensic anthropologists and other specialists would need to cooperate with a law enforcement agency or official who could access the database for them. This extra step may act to prevent these qualified professionals from pursuing use of the database.

I have discussed the oversights and inconsistencies occurring at the originating agency level that contribute to the problem of untracked missing persons and unknown decedents. Generally speaking, many of these problems could be alleviated with better training, the adoption of standardized investigative procedures, mandatory reporting of missing persons to state and federal databases when necessary, and better communication within the law enforcement and medicolegal communities. A significant number of missing and unidentified persons cases could be resolved if law enforcement and other agencies would agree to collect, report, and distribute information in a uniform fashion. To ensure that this occurs, responsibility must fall on the federal government. The United States Department of Justice (DOJ) has many agencies, offices, programs, and databases with the potential to assist in resolving missing and unidentified person cases. Unfortunately, many of these resources are not operating to their full potential, leaving many of the cases they handle unsolved. The final section of this literature

review will deal with the resources overseen and/or funded by the DOJ that are relevant to missing and unidentified persons cases.

National Government Resources

Many national government agencies, offices, programs, and databases are available to assist in missing and unidentified person investigations. These resources all operate within the United States Department of Justice (DOJ) under two bureaus: the Federal Bureau of Investigation (FBI) and the Office of Justice Programs (OJP). The resources within these bureaus store information on various aspects of missing and unidentified persons cases such as reports from law enforcement agencies, DNA profiles, or fingerprints. Other resources within the FBI and OJP exist to provide information, support, and training to law enforcement and other professionals that deal with missing and unidentified persons cases. In the following discussion I will identify and describe the resources available through the FBI and OJP, explain how these resources can be utilized in missing and unidentified person cases, and discuss any drawbacks that prevent them from operating to their full potential. Tables 5a and 5b provide flow charts of the resources available through the FBI and OJP, respectively.

Federal Bureau of Investigation

The Federal Bureau of Investigation includes many divisions, but only three of these divisions will be discussed here in reference to missing and unidentified persons cases. These three divisions are the Criminal Justice Information Services Division (CJIS), the Critical Incident Response Group (CIRG), and the Laboratory Services Division. Each of these resources oversees a multitude of programs and databases that may aid law enforcement agencies in resolving their missing and unidentified persons cases.

Table 5a – Federal Bureau of Investigation (FBI) Organizational Flowchart of Missing and Unidentified Persons Resources

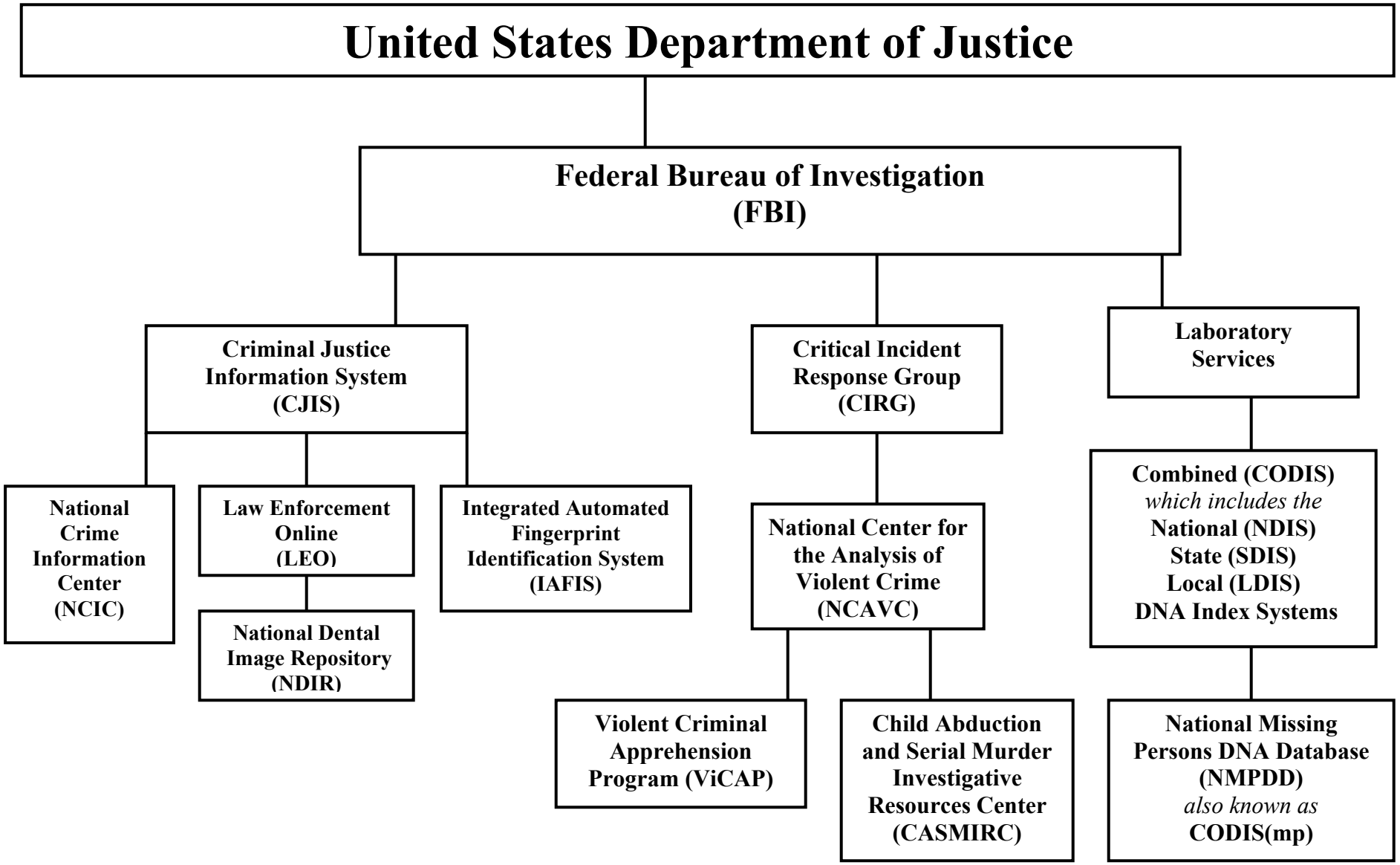
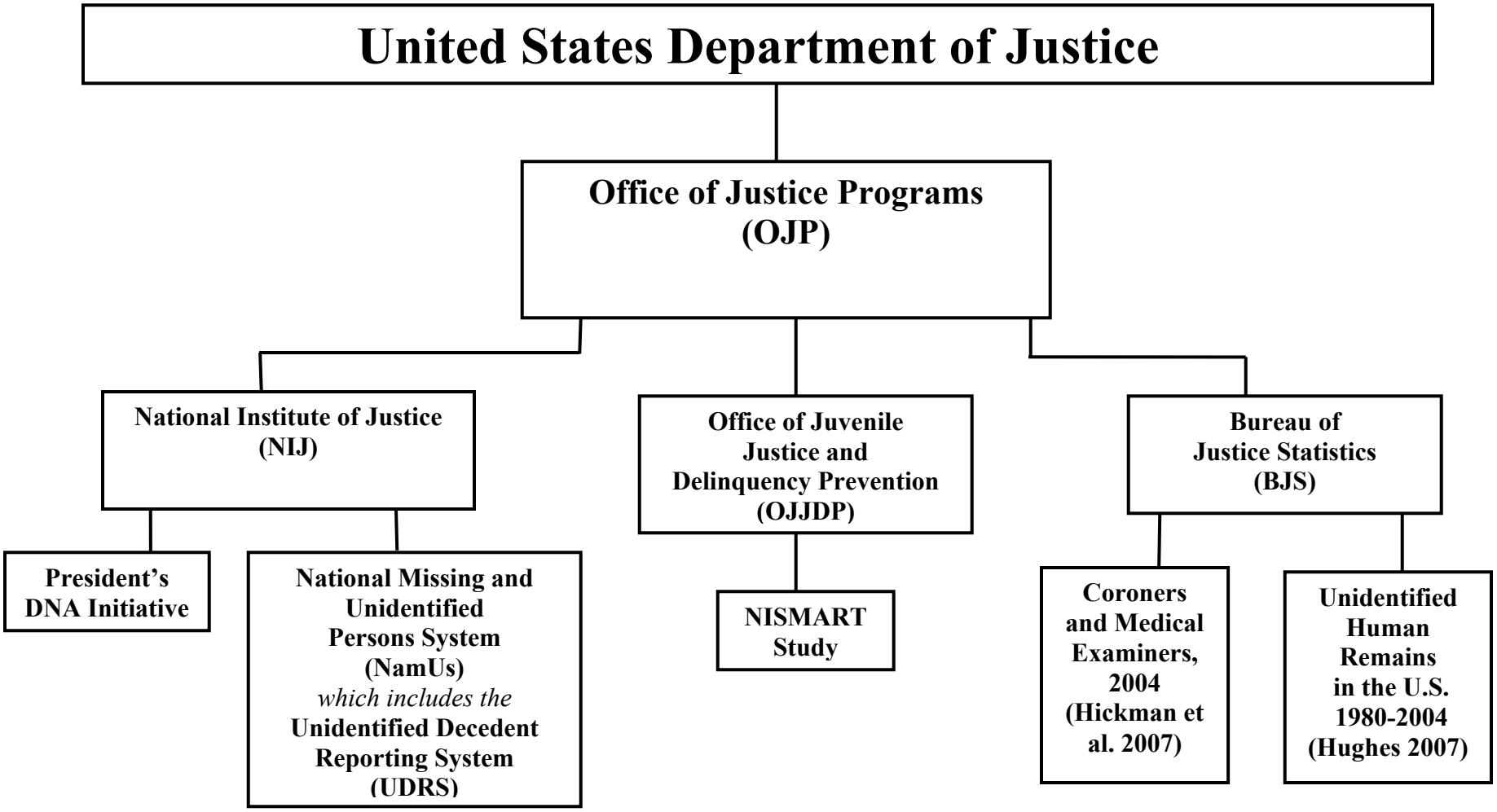


Table 5b – Office of Justice Programs (OJP) Organizational Flowchart of Missing and Unidentified Persons Resources



Criminal Justice Information Services

The Criminal Justice Information Services Division (CJIS), the FBI's largest division, "was established in February 1992 to serve as the focal point and central repository for criminal justice information services in the FBI" (Federal Bureau of Investigation 2008c). CJIS encompasses several programs that potentially can be used in missing and unidentified persons investigations. Two of these programs, NCIC and IAFIS, were consolidated under CJIS in order to "reduce terrorist and criminal activities by providing timely and relevant criminal justice information to the FBI" and other qualified law enforcement agencies (Federal Bureau of Investigation 2008c). Another program that recently became available through CJIS's Law Enforcement Online (LEO) system is the National Dental Image Repository (NDIR). The three above-mentioned resources within the FBI's CJIS Division will each be discussed in further detail below.

National Crime Information Center

The FBI's National Crime Information Center (NCIC) "is an online computer system dedicated to serving law enforcement and criminal justice agencies throughout the United States, the Commonwealth of Puerto Rico, the U.S. Virgin Islands, Mexico, and Canada" (Hitt 2000:12). NCIC is comprised of various databases of information, called files, which have been "compiled during the investigation of crimes" (Hitt 2000:13). The NCIC Missing Person File was implemented in 1975 to provide law enforcement with "a centralized computerized system to help law enforcement agencies locate individuals - including juveniles - who are not 'wanted' on any criminal charges but who are simply 'missing'" (United States Department of Justice 1996). The NCIC Unidentified Person File was implemented in 1983 in order to "provide a way to cross-reference unidentified bodies against records in the Missing Person File" (United States Department of Justice 1996). The Unidentified Person File contains information on

"unidentified deceased persons or on body parts when a body has been dismembered" and information on "living persons of any age who are unable to ascertain their identities" (Gladis 2000:23). Both the Missing Person and Unidentified Person Files include areas for the entry of missing or deceased catastrophe victims (Hitt 2000:23).

NCIC is accessible to tens of thousands of law enforcement officials in the U.S. and select other nations (Fahmy et al. 2004). The popularity of NCIC is evident: "the system processed two million transactions in its entire first year of operation" and averaged approximately 2.5 million transactions per day in 2002 (Olsen and Kamb 2003). The most recent statistics available show that NCIC is handling upwards of 5.5 million transactions per day (Government Technology 2007). Furthermore, "99 percent of all NCIC inquiries come from other federal, state, or local criminal justice agencies" with only one percent of inquiries coming from the FBI (Hitt 2000:12).

Despite the high number of daily transactions and seemingly high rate of use by law enforcement agencies, experts have claimed that NCIC is not being utilized to its full potential in missing and unidentified persons investigations. As discussed previously, one of the major problems affecting NCIC is that it is under-used. The entrance of case information into NCIC is voluntary and virtually no laws require law enforcement or other agencies to enter case information into the database. California is currently the only state that requires originating agencies to report their unidentified persons to NCIC (Torpey 2008). Accordingly, unidentified persons cases in California account for the majority of reports in NCIC's Unidentified Person File. Many other states, however, have unusually low numbers of unidentified persons records in NCIC relative to their state populations, indicating that many cases are not being reported by local and/or state police to NCIC (Hargrove 2005b). As previously discussed, NCIC is also under-used by coroners, medical examiners, and forensic anthropologists, mainly because they

cannot access the system. "Many of the nation's approximately 3,000 coroners and medical examiners do not provide information [to NCIC]," because they are not considered law enforcement agencies (Willing 2005:3A). The recent BJS survey of coroners and medical examiners revealed that 80 percent of coroner's and medical examiner's offices were using NCIC "rarely or never" (Hickman et al 2007b:6).

Another complaint about NCIC is that the system is not exclusively dedicated to missing persons and unidentified persons cases. Officials have argued that the NCIC database, which was created to help law enforcement officials apprehend criminals and track stolen cars, is not effective in missing persons cases (Sullivan 2006). Although many aspects of NCIC were improved with the initiation of NCIC 2000, as of 2003, "the missing-person section remain[ed] largely unchanged, despite widespread knowledge of its failures and limitations" (Olsen and Kamb 2003). One example of the system's limitations is the inadequacy of NCIC's racial categories. The NCIC Unidentified and Missing Person File entries do not offer Hispanic as a choice for race; so Hispanic individuals are listed in NCIC as White or as unknown race. Torpey's review of NCIC as of May 8, 2007, found 358 records for Hispanic individuals in the Unidentified Person File; however, this was only evident from notes made in the entry's "Miscellaneous" field (e.g., "possible Hispanic") (Torpey 2008). Data in the Miscellaneous field, however, "is not compared with anything in a cross-match between Missing and Unidentified files" (Torpey 2008).

Entering cases into NCIC's Missing and Unidentified Person Files is time consuming and often difficult. Although the entry forms for missing and unidentified persons were recently updated (Nawrocki et al. 2008), they are tedious: both forms exceed thirty pages of data entry (Mary Manhein pers. comm.). Also, the information that must be entered in various sections of the form requires specialized knowledge. A law enforcement official alone would probably not

be able to complete the form without the assistance of a coroner or medical examiner, or forensic anthropologist or odontologist. A paper copy of the NCIC entry form can change hands several times before the information it contains is actually entered into NCIC. There is ample opportunity for error to occur in the written completion of the NCIC form and when transferring information from the paper form to the NCIC computer system. Additionally, the NCIC unidentified person entry form requires information on "such things as age, height, and weight – all of which must be estimated for corpses, and which may or may not be accurately described on police reports" (Olsen 2003). "The NCIC database is only as good as the data entered into it . . . [so] errors or misleading information . . . are often the reason why potential matches are missed" (Todd Matthews quoted in Manning 2004).

The procedure the NCIC system uses to make matches between Missing and Unidentified Person Files has also proven unreliable. "A cross search of descriptive information in the Missing Person File with the physical descriptors, dental characteristics, and personal accessories of unidentified deceased individuals [in the Unidentified Person File]" can overlook correct matches, or generate false possible matches (Gladis 1990:22). Although "every [identifying characteristic] entered into the [missing or unidentified person] record is considered when seeking a match . . . the computer considers and weighs each area, establishing a score to select the most likely records for review by investigators" (Gladis 1990:23). This weighting or scoring of characteristics can sometimes cause the system to rule out correct matches. For instance, if a missing persons record in NCIC says an individual was Black, and if the same individual is later entered into NCIC as an unidentified person but is listed incorrectly as Asian, the computer may never connect the two entries, even when other characteristics (perhaps age, sex, and height) are identical, because the computer weighs race more heavily. Melissa Torpey provides an excellent summary of the NCIC scoring procedure in Appendix A. Conversely, NCIC is prone to

generating false matches in its comparison of the Missing and Unidentified Person Files. Originating agencies are notified of possible matches by what is known as a $.M report, sent through the NCIC system (Hampl 2007). Investigating $.M reports is the responsibility of the originating agency that receives them, yet, following up on these reports is time consuming and often proves fruitless because many of the possible matches indicated by NCIC prove false (Hampl 2007).

Perhaps the most problematic aspect of NCIC is the dental entry aspect. For the comparison of missing and unidentified individuals, dental information is "the single most effective method of identification through a cross search between [the NCIC Missing and Unidentified Person] files" (Gladis 1990:23). Unfortunately, "it is clear to many who have experience with NCIC that the dental aspect of this program is not working effectively" (American Board of Forensic Odontology 1997). Similar to other parts of NCIC, experts know that the dental aspect "has been unreliable since its establishment 20 years ago" (Seattle Post-Intelligencer Staff 2003). Landmark studies by Bell (1993) and Haglund (1993) each highlighted problems with the NCIC dental database, namely that individual using the system often were confused by the dental entry form, and that the quality of the dental information in the system was poor overall (Bell 1993:15). The "complexity and the subjective nature of the information that can be entered [on the dental form] can lead to errors or omissions in interpretation, entry, and comparison results" (Bell 1993:15). Bell tested several dentists trained in the completion of the NCIC dental form. After giving each of them the same maxilla and mandible to record, he found that "no two [dentists'] forms had the same information" (Bell 1993:15). Bell's reference to the poor quality of dental information in NCIC had to do with entries for individuals with "impossible dental attributes . . . such as 'missing-healed' teeth" and entries where errors were made on the dental form, or during entry of the record into the computer (1993:15).

Another shortcoming partially beyond the control of NCIC is that many missing persons records do not include any dental information. Unfortunately, dental records, images and x-rays are "frequently unavailable" for missing and unidentified individuals (Gladis 1990:23). The absence of dental records can arise for several reasons: some individuals did not go to the dentist, so no dental records exist for them, other individuals have dental records but they were never collected by law enforcement, sometimes records are collected but are not entered into NCIC (Haglund 1993:368). According to federal law, dental records must be collected for all individuals missing for 60 days or longer for entrance into state and/or federal databases (Kamb 2003c:35). At any given time, nearly 60 percent of the missing persons in NCIC have remained in the system for over 90 days (Fahmy et al. 2004). However, for missing persons cases nationwide, only an average of seven percent have associated dental records in NCIC (Nawrocki et al. 2008). Dental records on unidentified persons are more common, with 35 states entering dental records for 50 percent to 70 percent of their unidentified decedents into NCIC (Nawrocki et al. 2008).

As discussed previously with regard to physical characteristics, the NCIC system also weights dental characteristics as it searches for matches between missing and unidentified persons records. Bell's research showed that this weighting system often acted to prevent correct matches from being made (1993:15). When comparing missing and unidentified persons records, the NCIC system tallies the number of matches, possible matches, and mismatches for each entry field of physical and dental descriptors. In cases where almost every physical descriptor is a match, errors in the dental entry can raise the total number of mismatches between the records, effectively ruling out the correct match (Melissa Torpey pers. comm.)

NCIC is arguably the best approximation of a centralized national database for missing and unidentified persons that is currently operational. "Certainly, the NCIC system provides a

valuable reservoir of information" on both missing and unidentified persons cases (American Board of Forensic Odontology 1997). However, the shortcomings and limitations of the system greatly lessen its potential to solve missing and unidentified persons cases. "Although many improvements are now scheduled, advocates have argued that the national computer should be replaced or upgraded with modern, web-based tools featuring standard reports, photos, dental information and availability of DNA" (Olsen and Kamb 2003).

Law Enforcement Online – National Dental Image Repository

In 1997, a dental task force commissioned by CJIS "to improve the utilization and effectiveness of [NCIC's] Missing and Unidentified Persons files . . . recommended the creation of a Digital Image Repository (DIR) and an Automated Dental Identification System (ADIS)" (Nassar and Ammar 2003:1). The task force's first recommendation has been brought to fruition in the form of the National Dental Image Repository (NDIR), available through Law Enforcement Online (LEO). The NDIR is a repository "for dental images related to Missing, Unidentified, and Wanted persons' records housed in the National Crime Information Center" (GovPro.com 2007). NDIR's availability through LEO allows law enforcement and other authorities to view dental information through a web-based system, or intranet (Schmitt 2006b), eliminating the need "to contact each originating agency to retrieve and review physical copies of [dental] records" (United States Department of Justice 2006). NDIR was not designed to replace the dental fields in NCIC, but its creation was necessary because "the NCIC system does not have sufficient image capability for dental x-rays, radiographs, models, etc., . . . [and the] image retention capability [of NCIC] is limited to small, relatively low resolution images" (United States Department of Justice 2006). Unfortunately, NDIR has been underused since its inception in May 2005 (Melissa Torpey pers. comm.). Nawrocki et al. (2008) found that

although local and state agencies had received information on NDIR, many "had no idea what could be done with it" and were "unaware of the purpose" of the system.

The 1997 CJIS dental task force's second recommendation, the creation of an Automated Dental Identification System, or ADIS, is also being pursued. CJIS is working on developing ADIS, a web-based system that will provide "automated search and matching capabilities for digitized x-ray and photographic images" (Fahmy et al. 2004:1). The ADIS system would search and compare dentals records and images in NDIR and in the NCIC Missing and Unidentified Person Files. CJIS is pursuing the development ADIS, but needs additional funding for the project (Melissa Torpey pers. comm.).

Integrated Automated Fingerprint Identification System

Another major program overseen by CJIS that can be utilized in missing and unidentified person investigations is the Integrated Automated Fingerprint Identification System (IAFIS). IAFIS is the "national fingerprint and criminal history database that provides automated fingerprint search capabilities, latent search capability, electronic image storage, and electronic exchange of fingerprints" (Ritter 2007:3). The IAFIS database contains, "fingerprints acquired after arrest at the city, county, State and Federal levels, and fingerprints acquired through background checks for employment, licensing, and other noncriminal justice purposes, and latent prints found at crime scenes" (Bowen and Schneider 2007:38). Law enforcement agencies can send fingerprints by mail or can submit them electronically to be compared against fingerprint information already in the IAFIS database (Bowen and Schneider 2007:38). IAFIS receives around 51,000 fingerprint submissions each day and is capable of processing up to 62,000 fingerprint searches per day (Johnson 1999).

Use of the IAFIS database can be applicable to missing and unidentified person cases in several ways. If foul play is suspected in a missing person case, fingerprints can be taken from

the missing individual's car or home. These prints can then be compared to prints in the IAFIS database, perhaps leading police to suspects in the disappearance. Fingerprints of missing persons that were taken before they went missing, e.g., for an employment background check, can be used for later comparisons to unidentified persons. Recently deceased unidentified persons can also be fingerprinted and compared to individuals in the IAFIS database. In many cases, however, fingerprinting of unidentified remains is not possible because the body is badly decomposed or skeletonized (Haglund 1993:375). The relevance of IAFIS is also limited because "the database contains the fingerprints of only a small percentage of the population" (Bowen and Schneider 2007:38). IAFIS may be likely to identify deceased individuals who had criminal records, but for those who have no criminal past or were never fingerprinted for another reason, finding a match is unlikely. Disappointingly, as of October 2006, IAFIS held fingerprint information on only 47 missing persons (Schmitt 2006b).

Critical Incident Response Group – National Center for the Analysis of Violent Crime

Apart from the CJIS, another division of the FBI that deals with missing and unidentified persons cases is the Critical Incident Response Group (CIRG). CIRG was created in 1994 with the goal of "facilitating the FBI's rapid response to, and management of, crisis incidents" (Federal Bureau of Investigation, Investigative Programs 2007a). CIRG has three branches, one of which is the National Center for the Analysis of Violent Crime, or NCAVC. The NCAVC's purpose is to "combine investigative and operational support functions, research, and training in order to provide assistance, without charge, to Federal, state, local, and foreign law enforcement agencies investigating unusual or repetitive violent crimes" (Federal Bureau of Investigation, Investigative Programs 2007b). Two of the NCAVC's three branches are relevant to missing and unidentified persons cases: ViCAP and CASMIRC.

Violent Criminal Apprehension Program

The Violent Criminal Apprehension Program (ViCAP) was created in order to "collect, collate, and analyze information on crimes of violence, such as homicides, sexual assaults, kidnappings, and missing persons cases" (Ritter 2007:3). ViCAP's primary goal is to facilitate "efforts to investigate, identify, track, apprehend, and prosecute violent serial offenders" (Federal Bureau of Investigation, Investigative Programs 2007b). ViCAP, therefore, stores information on missing persons cases "where the circumstances indicate a strong possibility of foul play and the victim is still missing" and unidentified persons cases "where the manner of death is known or suspected to be a homicide" (New York State Division of State Police 2008). ViCAP investigators examine missing and unidentified persons cases for similarities that might indicate that crimes are connected, or are being perpetrated by the same individual (New York State Division of State Police 2008).

As mentioned previously, in missing and unidentified person cases evaluating the circumstances surrounding a disappearance or death can be difficult. Foul play can sometimes go undetected: missing people can be abducted but leave no trace of foul play and unidentified decedents can be murdered, yet no evidence of the crime remains on their bodies. The ViCAP database only contains select cases pulled from the NCIC Missing and Unidentified Person Files: cases where foul play was involved or suspected. In other words, the "data entered into NCIC do not automatically populate the ViCAP database" (Ritter 2007:6). The invisibility of foul play in some missing and unidentified persons cases means that the ViCAP system could be overlooking potentially connected crimes. There are surely cases in NCIC that show no outward signs of foul play, yet, if these cases were entered into ViCAP they could be connected to other crimes.

As with many other federal databases, reporting to ViCAP is not mandatory and "many jurisdictions do not choose to use [ViCAP]" (Ritter 2007:6). Similar to NCIC, data entry into

ViCAP can be time consuming and coroners and medical examiners are usually barred from entering information (Ritter 2007:6). CJIS is hoping to lessen the burden of entry by making ViCAP accessible as a website. For law enforcement authorities, coroners, MEs, and others, "instead of having to enter case information via a CD-ROM, which is then mailed to CJIS for uploading, users would need only an Internet connection" and an account with LEO, provided by the FBI, to use the ViCAP system (Ritter 2007:6).

Child Abduction and Serial Murder Investigative Resources Center

The second branch of the NCAVC relevant to missing and unidentified persons cases is the Child Abduction and Serial Murder Investigative Resources Center (CASMIRC). CASMIRC was created "in order to provide investigative support . . . and to assist federal, state, and local authorities in matters involving child abductions, mysterious disappearances of children, child homicide, and serial murder across the country" (Federal Bureau of Investigation, Investigative Programs 2007b). Additionally, CASMIRC has been directed to assist in missing children's cases by "establishing a centralized repository [of] case data reflecting child abductions, mysterious disappearances of children, child homicides, and serial murder" (Federal Bureau of Investigation, Investigative Programs 2007b). CASMIRC also works in coordination with the National Center for Missing and Exploited Children (NCMEC) and the Office of Juvenile Justice and Delinquency Prevention (OJJDP), to provide "appropriate training to federal, state, and local law enforcement in matters regarding" missing children (Federal Bureau of Investigation, Investigative Programs 2007b).

Laboratory Services Division - Combined DNA Index System

The FBI's Laboratory Services Division houses two programs that can assist in missing and unidentified persons investigations. One of these programs, the VICTIMS Identification Program (VIP) will be discussed in the upcoming chapter on web-based resources. The second

program within the Laboratory Division is known as the Combined DNA Index System Program, or CODIS. This program "blends forensic science and computer technology into a tool for solving violent crime" (Bowen and Schneider 2007:38). CODIS allows law enforcement agencies at the federal, state, and local level "to exchange and compare DNA profiles electronically, thereby linking crimes to each other and to convicted offenders" (Bowen and Schneider 2007:38).

The CODIS program is a synthesis of three, tiered databases: the Local DNA Index System (LDIS), State DNA Index System (SDIS), and National DNA Index System (NDIS). DNA profile information is first collected and entered at the local-level through LDIS, and can then be passed on to SDIS. The SDIS system allows crime labs within a particular state (each individually entering data in LDIS) to share DNA profile information with each other (Niezgoda and Brown 1995). Data in SDIS can be passed on to NDIS, which is the "highest level in the CODIS hierarchy, and enables the laboratories participating in the CODIS Program to exchange and compare DNA profiles on a national level" (CODIS Home Page 2008). The CODIS database, however, only holds the limited information necessary to find matches between records in NDIS, SDIS and LDIS (Niezgoda and Brown 1995). CODIS itself is actually the "automated DNA information processing and telecommunication system that supports NDIS" and NDIS is where complete profile information is stored for each entry (Federal Bureau of Investigation 2004).

The CODIS program originally included two indexes: the Forensic Index, which stores DNA profiles from crime scene evidence, and the Convicted Offender Index, which contains DNA profiles on sex offenders and other violent criminals (Bowen and Schneider 2007:38). "Searches are performed [between these two indexes] to find a match between a sample of biologic evidence and an offender profile" (Bowen and Schneider 2007:38). Matches made

between profiles within the Forensic Index "can link crime scenes together; possibly identifying serial offenders" (CODIS Home Page 2008). "Matches made between the Forensic and Offender Indexes [can] provide investigators with the identity of a suspect" (Bowen and Schneider 2007:38). As of October 2007, NDIS retained 194,785 forensic DNA profiles and 5,070,473 convicted offender DNA profiles (Federal Bureau of Investigation 2007).

National Missing Persons DNA Database

In 2001, the FBI initiated the Combined DNA Index System for Missing Persons, or CODIS(mp), "using the National DNA Index System (NDIS) of the Combined DNA Index System (CODIS) (Federal Bureau of Investigation 2008b). This database, also known as the National Missing Persons DNA Database (NMPDD) is "specifically designed to assemble data on missing persons and unidentified human remains cases" (Ritter 2007:3). The DNA profile information in NMPDD is separated into three indexes: unidentified human remains, missing persons, and relatives of missing persons (Federal Bureau of Investigation 2008a).

DNA profiles from unidentified human remains are usually obtained through the collection and analysis of blood, tissue, and bone samples from the decedent (California Department of Justice 2001). As discussed previously, coroners, medical examiners, and other specialists may fail to collect DNA samples from unidentified decedents. The valuable opportunity to collect samples can be missed or lost completely if these individuals are buried or cremated. Fortunately, some jurisdictions have begun to exhume their long-term unidentified decedents in order to collect DNA samples to submit to the NMPDD (Candiotti 2007, Phillips 2007). DNA profiles from missing persons can be obtained in several ways. Most commonly, samples are taken from "a personal item (like a comb or toothbrush) belonging to the missing person" (Schmitt 2006a). Samples may also be obtained from baby teeth and hairs that a missing person's parents have saved as a keepsake (California Department of Justice 2001).

Unfortunately, even when DNA samples are collected from missing and unidentified persons, the samples may not be analyzed or entered into any database until "there is some request to compare [the sample] to particular potential family members" (DNA.gov 2002).

DNA samples obtained from the relatives of missing persons are known as family reference samples. These samples are easy to obtain and are usually taken in the form of an oral/cheek swab from a biological relative (California Department of Justice 2001). "The hope is that a family member might have voluntarily submitted DNA to the [NMPDD], looking for a long lost loved one [whose DNA profile was already in the database]," allowing the NMPDD to generate a match (Phillips 2007). Unfortunately, reference samples from a missing person's next of kin must be voluntarily provided, and some relatives may be unwilling to submit to DNA testing. Individuals may worry about what their DNA information could be used for; so, they must be given the assurance that it will only be used to help locate their lost loved one (DNA.gov 2002). Family members of long-term missing persons may face the prospect that their missing loved one is no longer living; a painful thought to accept. Therefore, family members may also be unwilling to submit DNA knowing that it will be compared against the DNA of unidentified decedents. However, "if families do not [submit] reference or biological samples . . . human remains cannot be identified" (Arthur Eisenberg quoted in Schmitt 2006a).

For missing and unidentified person cases, the use of specific DNA information is sometimes necessary. Therefore, the NMPDD uses both nuclear and mitochondrial DNA in each of its three indexes. Nuclear DNA "is inherited from both parents, half from the mother and half from the father . . . and each person's nuclear DNA is unique [except twins]" (National Institute of Justice 2005a:6). Nuclear DNA profiles can be obtained for missing persons (DNA tests on material from a missing individual's hair or toothbrush) and for recently deceased persons whose bodies are in good condition (DNA tests on tissue or blood samples from the decedent). Nuclear

DNA testing, however, is often not applicable when a decedent's remains have been "degraded by fire, flooding or explosions" or from prolonged exposure to the elements (Willing 2007). When a nuclear DNA profile is not possible, mitochondrial DNA, or mtDNA, can be utilized. This specific type of DNA "can often be found in very small or damaged [human] samples" and can provide a DNA profile from remains that are degraded (National Institute of Justice 2005a:7). The application of mtDNA testing is somewhat limited "because of the way it is inherited, only maternal relatives, such as a brother, sister, or mother, can be used" for comparison to a missing or unidentified person (National Institute of Justice 2005a:7).

Collecting, testing, and analyzing DNA information from missing and unidentified persons can be a time consuming and expensive task. Local authorities may not collect samples, or may fail to submit collected samples for testing or entrance into databases. Even when samples are submitted for testing, "many crime labs are unable to perform a timely DNA analysis," so, authorities may face long waits before the results are available (Schmitt 2006a). The NIJ has worked to ease the burden of DNA testing on crime labs by providing grants through the President's DNA Initiative. The NIJ has also funded three nationwide laboratories that offer "free DNA tests to any coroner, medical examiner law enforcement agency or other public authority that submits unidentified remains, with the results [of the DNA analysis] uploaded" into the NMPDD (Willing 2007). These labs are operated, respectively, by the FBI Crime Laboratory, the California Department of Justice, and the University of North Texas Health Science Center (Schmitt 2006a). The FBI also works in conjunction with four other regional laboratories (in Arizona, Connecticut, Minnesota, and New Jersey) that "augment the nation's capacity to perform mtDNA analysis in forensic [unidentified] and missing-person cases" (Federal Bureau of Investigation 2005).

As with so many previously discussed federal databases, NMPDD shows great promise for assisting in missing and unidentified persons investigations, but it is underused. The database currently stores only 1,500 unidentified deceased persons' DNA profiles and 3,600 family reference samples; a small percentage of the estimated missing and unidentified persons cases nationwide (Phillips 2007). Although the NMPDD has been established for nearly seven years, the FBI acknowledges that there is a lack of knowledge of the program. The FBI hopes to increasingly "reach out to both family members and the local law enforcement community to make them [aware] of the service that's available to them [in NMPDD]" (Phillips 2007). The small number of profiles in NMPDD and the lack of knowledge of the program may explain why the system has only made three positive matches since 2001 (Candiotti 2007, Phillips 2007).

Office of Justice Programs

Within the DOJ, the Office of Justice Programs (OJP) provides, "Federal leadership in developing the nation's capacity to prevent and control crime, improve the criminal and juvenile justice systems, increase knowledge about crime and related issues, and assist crime victims" (Office of Justice Programs 1999). The OJP encompasses seven bureaus but only three will be discussed here in relation to missing and unidentified persons cases: the National Institute of Justice (NIJ), the Office of Juvenile Justice and Delinquency Prevention (OJJDP), and the Bureau of Justice Statistics (BJS).

National Institute of Justice

The National Institute of Justice (NIJ) is "the research, development, and evaluation agency of the United States Department of Justice (National Institute of Justice 2007b). "NIJ provides objective, independent, evidence-based knowledge and tools to meet the challenges of crime and justice, particularly at the State and local levels" (National Institute of Justice 2007b). The NIJ is the DOJ's granting agency, funding "research, development, and evaluation about

criminal justice through competitive solicitations" (National Institute of Justice 2007a). Two relevant programs fall under the NIJ, but only one, the President's DNA Initiative, will be discussed here. The second program, the National Missing and Unidentified Persons System, or NamUs, will be discussed in the upcoming chapter on web-based resources.

President's DNA Initiative

The NIJ currently oversees the President's DNA Initiative - Advancing Justice Through DNA Technology. Announced in March, 2003, this five-year initiative called for "increased funding, training, and assistance to . . . ensure that [DNA] technology reaches its full potential to solve crimes, protect the innocent, and identify missing persons" (DNA.gov 2007). President Bush pledged $232.6 million in funding be dispersed under the Initiative in 2004 and called for "continuing that level of funding for five years – a total commitment of over $1 billion" (United States Department of Justice 2003).

In regard to missing persons cases, the President's Initiative has recognized "the potential for anguish when the remains of a missing person go unidentified" (DNA.gov 2007). The Initiative, therefore, seeks to provide "education and outreach to medical examiners, coroners, law enforcement officers and victim's families on the use of DNA" to help identify missing and unidentified persons (Ashcroft 2003). In April 2005, the President's Initiative published, *Identifying Victims Using DNA: A Guide for Families*, a brochure which provides information on DNA sampling and testing procedures that may be applied in missing and unidentified persons cases (National Institute of Justice 2005a). This brochure was given to family members searching for lost loved ones in the aftermath of Hurricane Katrina. The President's DNA Initiative has also released a comprehensive guide, *Identifying the Missing; Model State Legislation* that outlined effective reporting and investigative procedures aimed at providing the

best chance for making positive identifications of unidentified persons (National Institute of Justice 2005b).

Office of Juvenile Justice and Delinquency Prevention and Bureau of Justice Statistics

Two partners in the President's DNA Initiative also under the OJP are the Office of Juvenile Justice and Delinquency Prevention (OJJDP) and the Bureau of Justice Statistics (BJS). The OJJDP "sponsors research, program, and training initiatives; develops priorities and goals and sets policies to guide federal juvenile justice issues; disseminates information about juvenile justice issues; and awards funds to states to support local programming" (Office of Juvenile Justice and Delinquency Prevention 2008). The OJJDP is responsible for carrying out the National Incidence Studies of Missing Abducted, Runaway and Thrownaway Children or NISMART, as discussed previously. The BJS serves to "collect, analyze, publish, and disseminate information on crime, criminal offenders, victims of crime, and the operation of justice systems at all levels of government" (Bureau of Justice Statistics 2007). The BJS released two important reports in 2007, both mentioned previously: Hickman et al.'s *Medical Examiners and Coroners' Offices, 2004*, and Hughes' *Unidentified Human Remains in the United States, 1980-2004*.

Each of the DOJ divisions, bureaus, agencies, offices, programs, and databases that deal with missing and unidentified persons cases were designed with the goal of improving the storage and sharing of information to aid in resolving cases. However, the specificity of each agency and program's focus makes it easy for information to be inconsistently distributed among them. For example, as of April, 2005, CODIS held DNA profiles for only 33 of the 5,800 unidentified human remains cases in NCIC, and CODIS contained DNA profiles for 244 individuals who had no record in NCIC (Office of Justice Programs 2005). Not only is missing and unidentified persons case information inconsistently distributed, it is spread across so many

databases and agencies that it may be difficult to know which database or agency to turn to during an investigation. This wide dispersion of information further complicates missing and unidentified persons cases. Case information of all types (DNA, forensic profile, related police and coroners reports, etc.) should be consolidated into a central office or database that will deal exclusively with missing and unidentified persons cases. The storage of all relevant information in one place would eliminate the need for agencies to enter data into and/or search within multiple databases and would be more effective, easier to use, and more successful than the various resources that exist today.

CHAPTER 3

MATERIALS AND METHODS

In order to counteract the shortage of academic literature on the topic of missing and unidentified persons and to supplement published information on web-based resources, two surveys projects were devised. The first survey project was aimed at forensic anthropologists who regularly deal with unidentified persons cases. The expertise of forensic anthropologists in these cases appears to have been undervalued historically by the law enforcement and medicolegal communities. The goal of this survey was to gain a forensic anthropological perspective of the difficulties involved in unidentified and missing persons cases, as well as collect information on effective methods for identification, number of cases handled, use of official, medicolegal, or public access resources, and willingness to enter case information into databases. Missing persons and unidentified deceased persons are considered vulnerable populations, so the completion of a consent form was required for all survey participants (Appendix B). The Louisiana State University Institutional Review Board granted approval for the consent form and survey in September 2007.

The survey of forensic anthropologists (Appendix C) was distributed via e-mail in two waves. The first wave was sent to the Society of Forensic Anthropologists (SOFA) Yahoo! group with the permission of Brian Spatola, the group's administrator. The e-mail to SOFA members consisted of a short explanation of the research and instructions for those who wished to participate. It included two attachments: the consent form (three pages in length) and the survey form (two pages in length). Individuals who wished to participate were asked to read and electronically sign the consent form by typing their name in the space provided on the document. The signed consent form was to be returned via e-mail, along with the completed survey form. This survey wave reached approximately 35 individuals. The second survey wave was sent to

individuals listed in the Physical Anthropology Section of the 2007 American Academy of Forensic Sciences (AAFS) directory. These individuals were Associate Members, Members, or Fellows of the Academy whose mailing addresses were within the United States. The text of the e-mail to these individuals was similar to that used for the SOFA mailing. Again, the consent and survey forms were attached for interested individuals to read, complete, and return. This survey wave reached approximately 130 individuals.

The second survey (Appendix D) was aimed at the web-based resources that handle information on missing and unidentified persons cases. These resources include websites operated by federal, state, county, and local law enforcement and government agencies, coroners, medical examiners, forensic anthropologists, nonprofit, volunteer and victim's advocacy organizations, friends and family members of missing persons, and other concerned individuals. Although hundreds of these types of resources exist on the Internet, the information each offers can vary greatly and few have been discussed in the literature. The goal of the web-based resources survey was to uniformly categorize a sampling of the various types of resources and provide information on the characteristics of these websites. The web-based resources survey was applied to a selection of websites that would highlight the variety of Internet resources dealing with missing and unidentified persons case information. Throughout the course of my research, many more sites were encountered than were included in the survey. The websites chosen for inclusion in the survey were those that were well known, those frequently mentioned in the literature, sites that were unique, and sites operated by recognized nonprofit groups, among others.

CHAPTER 4

RESULTS OF FORENSIC ANTHROPOLOGIST SURVEY

Of the 165 individuals who were sent the forensic anthropologist survey, 12 did not receive the survey because of e-mail delivery failures, two were not able to open the attached survey and/or consent form, and three responses were automatic out-of-office replies. This reduced the number of potential participants from 165 to 148 individuals. Of these 148 potential participants, eight individuals responded to the survey e-mail, but did not complete the survey. These individuals reported that the survey was not applicable to them because they did not regularly deal with missing and unidentified persons cases. Nineteen individuals completed and returned the forensic anthropologist survey by e-mail. Respondents who completed the survey or reported that it was not applicable account for approximately 18 percent of the potential survey participants for both survey waves. Eleven of the 19 survey respondents work in an academic setting (as evidenced by an e-mail address ending in ".edu"). Five respondents had e-mail addresses through law enforcement or government agencies, and the remaining 3 respondents had generic e-mail addresses (e.g., name@yahoo.com, name@hotmail.com).

The 19 forensic anthropologists that completed the survey receive a combined total of 850 unidentified decedents per year, for an approximate average of 45 decedents per respondent, per year. These respondents are also currently curating a combined total of 676 unidentified decedents, an approximate average of 36 decedents per respondent. In the last two years, these forensic anthropologists have resolved approximately 657 of the unidentified persons cases they have received. Due to the open-ended nature of some survey questions, providing a simple tally of the respondents' answers was not sufficient to convey the variety of responses received. Therefore, the remainder of the survey results will be presented in question and answer format, providing elaboration and clarification of the forensic anthropologist's answers where necessary.

Survey Questions and Forensic Anthropologists' Responses

What is the biggest obstacle in locating missing persons or identifying Jane/John Does? *

- 9 respondents cited the lack of an accessible, centralized database for unidentified and missing persons information
- 7 respondents complained that there is often no way to tie unidentified remains to a missing person, usually because of poor antemortem and postmortem record-keeping
- 4 respondents cited poor communication and cooperation between involved authorities

* Total responses greater than 19 because some respondents indicated multiple obstacles.

What actions could be taken to overcome these obstacles?

- 9/19 respondents cited the creation of a national database
- Other respondents cited better information sharing between involved authorities (2/19), better storage of antemortem and postmortem records (2/19), and more publicity or public service campaigns for missing and unidentified persons awareness (2/19)

What are the three most useful identifiers that can aid Jane and John Doe investigations?

1 - DNA Information
Dental Records (both chosen by 18/19 respondents)
2 - Forensic Anthropological Profile (11/19 respondents)
3 - Physical Description (hair, tattoos, etc.) (10/19 respondents)
Other useful identifiers chosen by respondents included:
Medical Records (5/19)
Fingerprints (4/19)
Photos (2/19)
Descriptions of Personal Effects and Clothing (2/19)

Which methods are most effective in identifying Jane and John Does? *

- Full cooperation with law enforcement - average ranking of 1.36
- Entering case information into federal or state operated databases - 1.84
- Newspaper or magazine coverage - 2.26
- Television coverage - 2.57
- Posting information on a website - 3.05

* Respondents were asked to rank each method 1-5 in order of effectiveness, rank #1 being most effective, rank #2 second most effective, etc. Rankings were summed for each method then divided by the total number of respondents to get the average ranking for each method.

Which database(s) do you currently enter your case information into? *

- 12 respondents use a federal or state operated crime or DNA database
- 5 respondents use a database they or their agency or office created
- 5 respondents said they do not enter their case information into any database
- 4 respondents use a coroner's or medical examiner's database
- 3 respondents use a nonprofit or volunteer organization's database
- 2 respondents use another forensic anthropologist's or odontologist's database

* Total responses greater than 19 because respondents chose all answers that applied.

Would you be willing to submit your case information to a database established exclusively for information on missing and/or unidentified persons?

- 13/19 respondents would add their information to a new database (as long as the information was properly safeguarded, as long as the database was an improvement over other available databases, with the permission of law enforcement)
- 3/19 said they were unsure, or their decision would depend on the database (because data entry may be too time consuming, or the value of the database may not be clear)
- 3/19 said they would not add their information (because they are already using other databases, or they feel another database is not needed)

The forensic anthropologists surveyed in this research echo the concerns expressed by law enforcement and other authorities over the state of missing and unidentified persons cases in our nation. These forensic anthropologists recognized that the lack of a centralized national database, the inability to connect missing persons to unidentified remains, and the poor communication between authorities and agencies involved in these cases all act in tandem to complicate the resolution of cases. The majority of survey participants believed that the creation of a centralized database could help to alleviate these problems.

Survey respondents confirm the importance of DNA and dental information in missing and unidentified persons cases, ranking these two items as the best identifiers. The next most useful identifiers in such cases were forensic anthropological profiles and physical descriptions. As discussed previously, forensic anthropological profiles are not completed for many unidentified individuals. Less than one percent of the 6,246 unidentified decedents in NCIC

have undergone a forensic anthropological exam (Torpey 2008). It is imperative that forensic anthropologists be consulted more often in unidentified decedent cases in order to provide the most accurate profile information on unidentified decedents. Failure to involve a forensic anthropologist may lead to assessments of a decedent's age, sex, and race that are inaccurate, perhaps preventing resolution of the case.

Forensic anthropologists ranked full cooperation with law enforcement and entering case information into federal or state databases as the most effective methods for identifying Jane and John Does. Accordingly, the majority of survey participants enter their case information into federal or state crime or DNA databases. Most respondents would also be willing to add their case information to a new database for missing and unidentified persons if it were created. Unfortunately, many forensic anthropologists cannot access the appropriate databases that could help them in resolving their cases because they are not considered law enforcement authorities.

Almost one-third (31 percent) of respondents operate their own databases, but these databases are not necessarily web-based. However, nearly one-half (47 percent) of the forensic anthropologists surveyed reported that they use web-based resources. Despite the widespread use of web-based resources among survey participants, it appears that the value of these resources has not been solidified among forensic anthropologists. When asked about the most effective methods for identifying Jane and John Does, posting case information on a website was the lowest ranked method of the five choices offered. In the next chapter, I will discuss websites and web-based resources in detail and explore the apparent contradiction over their usefulness.

CHAPTER 5

RESULTS OF WEB-BASED RESOURCES SURVEY

Increasingly, web-based resources are playing a part in missing and unidentified persons' investigations. An Internet search for "missing persons" or "unidentified remains" will yield a variety of results for web resources that are operated and contributed to by a host of agencies, offices and organizations. Official, medicolegal, and public access groups and individuals make their information available to a wide audience through their websites with the hope of resolving cases. The web resources survey was applied to 55 (17 official, 13 medicolegal, and 25 public access) websites that handled information on missing and/or unidentified persons cases. As mentioned previously, these web-based resources were not randomly sampled. Websites were specifically chosen because of their content or format, were added to the survey after they appeared as the result of a web search, or were listed as a link on another website already being surveyed.

The web-resources survey initially allowed these diverse web-based resources to be grouped into categories. Resources were categorized mainly by similarities in the agencies, offices, organizations, or individuals operating them. One category, Nonprofit Organizations, was divided into two subcategories: one for those that had databases or listings of their missing and/or unidentified persons cases, and one for those that were informational or educational and had no database or listing. The categories and subcategories applied in this research are listed in the left-hand column of Table 6. The right-hand column of the table lists the corresponding web-based resources that were surveyed for each category. As surveying progressed, it became clear that the survey results could not be uniformly quantified. Direct comparison of different websites and web resources was often impossible because the sites and the information they provided varied so greatly. Virtually none of the items from the survey could be compared for

Table 6 – Categories of Web-Based Resources and Listing of Those Surveyed

Official	
Federal Law Enforcement or Government	• National Missing and Unidentified Persons System (NamUs) www.namus.gov • Unidentified Decedent Reporting System (UDRS) www.identifyus.org • FBI VICTIMS Identification Project (VIP) http://victimsproject.guidingbeacon.com
State Law Enforcement or Government	• Alaska State Troopers, Bureau of Investigation, Active Missing Persons Bulletin www.dps.state.ak.us/AST/abi/bulletin.aspx • Iowa Department of Public Safety, Division of Criminal Investigation, Iowa Unidentified Persons/Bodies www.dps.state.ia.us/DCI/Unidentified_Bodies/index.shtml • New Jersey State Police, Unidentified Persons/Bodies www.state.nj.us/njsp/miss/unident.html • Texas Department of Public Safety, Texas Missing Persons Clearinghouse www.txdps.state.tx.us/mpch • Utah Department of Public Safety, Bureau of Criminal Identification, Utah's Missing Persons and Unidentified Dead http://bci.utah.gov/MPC/MPCMissing.html
County Law Enforcement or Government	• Baltimore County, Maryland, Police Department, Unsolved Homicide Cases www.baltimorecountymd.gov/Agencies/police/homicide/unsolved_homicides • Fairfax County (Virginia) Police Unsolved Cases www.fairfaxcounty.gov/police/police11.htm • Pima County (Arizona) Sheriff 's Department, Missing Persons www.pimasheriff.org/MP.htm • Racine County Wisconsin, Sheriff's Department, Crime Bulletins, www.racineco.com/sheriff/crimebulletin.aspx • County Government of Sumter, South Carolina, County Sheriff's Office, Unsolved/Cold Cases www.sumtercountysc.org/sheriff/unsolved.htm
Local Law Enforcement or Government	• Irving (Texas) Police Department, Unsolved Cases http://cityofirving.org/police/unsolved-cases.html • Montgomery (Alabama) Police Department, Missing Persons www.montgomeryal.gov/depts/police/missing-persons.aspx

(table cont'd)

	• Metropolitan Nashville (Tennessee) Police Department, Missing Persons www.police.nashville.org/get_involved/missing/default.htm • Oklahoma City (Oklahoma) Police Department, Missing Persons www.ocpd.com
Medicolegal	
Coroners	• South Carolina Coroner's Association, Unidentified Bodies www.sc-coroners.org/Unidentified_Bodies.htm • Clark County (Nevada) Coroner, Las Vegas Unidentified www.co.clark.nv.us/coroner/unidentified/unid.htm • Do You Know Me? Franklin County (Ohio) Coroner's Office www.coroner.co.franklin.oh.us/CarlT/WANTED.HTM • Virtual Courthouse Larimer County Colorado, Unidentified Deceased www.co.larimer.co.us/coroner/CoronerUDP.htm • Orange County (California) Sheriff's Department, Coroner Division, John and Jane Does www.ocsd.org/coroners
Coroners - Medical Examiners	• Washoe County (Nevada) Medical Examiner – Coroners Office, Unidentified Remains www.co.washoe.nv.us/coroner/unidentifiedremains.htm • Denver (Colorado) Office of the Medical Examiner (Coroner), Unidentified Persons www.denvergov.org/Coroner/UnidentifiedPersons/tabid/382768/Default.aspx
Medical Examiners	• Unidentified Remains.Net, Cases from the Kentucky State Medical Examiner's Office www.unidentifiedremains.net/ • Hamilton County (Tennessee) Medical Examiner, Unidentified Deceased Individuals http://www.hamiltontn.gov/MedicalExaminer/intro.htm • King County (Washington) Medical Examiner's Office www.metrokc.gov/health/examiner/ • Maricopa County (Arizona) Medical Examiner, Unidentified Persons Search www.maricopa.gov/Medex/Unidentified • City of Philadelphia (Pennsylvania), Medical Examiner's Office, Forensic Investigative Unit www.phila.gov/health/units/meo/pdf/missing_persons_032007pdf.pdf
Forensic Anthropologists	• LSU FACES Lab www.lsu.edu/faceslab

(table cont'd)

Public Access	
Nonprofit Organizations With a database or listing of missing and/or unidentified persons cases	• National Center for Missing and Exploited Children (NCMEC) www.missingkids.com • National Center for Missing Adults (NCMA) www.theyaremissed.org/ncma • Carole Sun/Carrington Memorial Reward Foundation www.carolesundfoundation.com • Kristen Foundation www.kristenfoundation.org • Child Find of America www.childfindofamerica.org
Nonprofit Organizations Without a database or listing of missing and/or unidentified persons cases	• Outpost for Hope www.outpostforhope.org • Families and Friends of Violent Crime Victims (FNFVCV) www.fnfvcv.org • Klaaskids Foundation for Children www.klaaskids.org • Child watch of North America www.childwatch.org • The Lost and the Found Global Resource Center www.lfgrc.org
Volunteer Organizations	• Doe Network www.doenetwork.org • Childseek Network www.childseeknetwork.com • North American Missing Persons Network (NAMPN) www.nampn.org • Everyone Deserves a Name (EDAN) www.projectedan.us • Kansas Missing and Unidentified Persons www.kansasmissing.com • Maryland Missing Persons Network www.marylandmissing.com

(table cont'd)

Other Groups, Sites, Blogs, or Message Boards	• Active Most Wanted www.activemostwanted.com/missing.htm • America's Missing and Lost Persons (AMALP) www.amalp.org • Charley Project www.charleyproject.org • Porchlight for the Missing and Unidentified www.porchlightinternationalformissinguid.com
Sites for Individual Missing Persons	• Where Is Ali Gilmore? (Ali I. Grimsley-Gilmore) www.whereisaligilmore.com • BringBriHome.org (Brianna Maitland) www.bringbrihome.org • Where is Ran? (Ran Mesika) www.ranmesika.com • Please Help Find Our Daughter, Kristen (Modafferi) www.modlink.com/kristen/home.htm • Justice4Billy (William "Billy" Smolinski Jr.) www.justice4billy.com
Social Networking or Video Sharing Sites * *not surveyed	• MySpace www.myspace.com Profiles for missing persons, unidentified living and deceased persons http://profile.myspace.com Groups http://groups.myspace.com MySpace TV (videos) http://www.myspacetv.com Forums http://forums.myspace.com Blogs http://blog.myspace.com/ • Facebook www.facebook.com search for missing persons profiles and/or groups • YouTube www.youtube.com search for missing or unidentified persons

all sites and few items could be compared even for web resources in similar categories. Table 7 provides a summary of the diversity of information provided on the official, medicolegal, and public access web-based resources surveyed for this research.

Determining the true number of websites that deal with missing and unidentified persons information is difficult. The web-based resources surveyed for this research represent only a small percentage of the total estimated number of websites in existence. The number of websites and web resources is difficult to estimate primarily because these resources are so varied in nature. As demonstrated in Table 6, web-based resources range from those of well-established nonprofit organizations, to those operated by coroners and medical examiners, to individual pages on MySpace, to single photos or messages on web forums. In my research I have bookmarked, or saved for later viewing, approximately 220 websites, including the 55 I surveyed (Pcmag.com 2008). Table 8 provides an estimate of the number of websites that potentially could deal with missing and unidentified person information.

Official Groups' Web-Based Resources

Websites dealing with missing and unidentified persons information are operated and contributed to by a variety of official agencies and authorities from across the nation. Federal, state, county, and local law enforcement and government agencies comprise a large portion of the officially operated websites available today. Through their websites, official groups and authorities break with tradition by choosing to reveal to the general public some of the sensitive information they handle on missing and unidentified persons cases. However, these agencies and authorities are likely to provide only the information they have deemed acceptable for public viewing; maintaining the integrity of potential future legal proceedings. Of the officially operated web-based resources listed in Table 6, several deserve further explanation.

Table 7 – Diversity of Web-Based Resources

Who is operating the resource and/or what is the resource?	• Federal, state, county, or local law enforcement or government • Coroners, medical examiners, or both • Forensic anthropologists • Nonprofit organizations • Volunteer organizations • Other groups, message boards, blogs • Family or friends of the missing person • Social networking and video sharing sites
What does the resource focus on? *	• Missing persons • Missing adults • Missing children • Unidentified decedents and/or remains
What is the scope of the site?	• Some websites only list a few missing or unidentified persons, other list hundreds or thousands of cases
Does the site provide a database or listing of cases?	• Sites with few cases may simply list each by name and/or photo, others have searchable databases of their cases • Some sites are purely informational and have no database or listing
Is there a search option on the site and/or what are the search criteria? *	• Searchable by first, middle or last name • Searchable by physical descriptors (age, sex, race, height, weight, eye and hair color) • Searchable by location (state, county, region, etc.) • Searchable by involved parties (law enforcement agencies or officers, or suspects in the case) • Searchable by case status/report type (endangered, involuntary) • Searchable by age, date, or location last seen or last known alive • No search option offered
What information is provided about cases? *	• Written descriptions of individuals and/or case information • Names • Photographs of missing persons or unidentified deceased persons • Facial reconstructions of unidentified persons, age progressions on missing persons • Physical descriptions • Dental information • Descriptions/photos of clothing and jewelry, personal effects • Case information/circumstances of disappearance • Some information may be linked to another site

* For these items, several or all of the bulleted points may be present

Table 8 – Estimated Number of Missing and Unidentified Persons Websites

If every state . . . . . 50 county . . . . . 3141* law enforcement agency . . . . . 18,000** coroners and ME's office . . . . . 3200*** in the United States operated a website	~ 24,391 sites
Nonprofit, advocacy, volunteer, and other organizations	~ 200-300 sites
Sites for individual missing persons, personal profiles on social networking websites and uploads to video sharing websites	~2,000 sites
Number of sites I have bookmarked (all types)	~ 220 sites
If every missing person in NCIC had a website devoted to him or her	~ 110,484 sites

* (United States Geological Survey 2008)
** (Sullivan 2006)
*** (Hickman et al. 2007a)

Federal Law Enforcement or Government Websites

In the previous discussion of the resources available through the Department of Justice, I mentioned a web-based resource called NamUs. NamUs, or the National Missing and Unidentified Persons System, was launched in July 2007, by the Office of Justice Programs' (OJP), National Institute of Justice (NIJ). According to the NIJ, the NamUs program "represents the first time that two searchable databases – [a] missing persons database and unidentified decedents database – have been brought together" (National Missing and Unidentified Persons System 2007:19). The unidentified persons aspect of NamUs is currently operational. This database, the Unidentified Decedent Reporting System (UDRS), was originally developed by the National Association for Medical Examiners (NAME) and the International Association of Coroners and Medical Examiners (IACME) for their use (National Missing and Unidentified

Persons System 2008). The UDRS was designed "to complement NCIC and other existing systems, and is not meant to replace them" (National Association of Medical Examiners 2007).

The missing persons aspect of NamUs is still being developed, but currently makes available "information [from] all of the states [regarding their] missing persons clearinghouses, medical examiner and coroner offices, victim assistance resources, and legislation related to missing persons and unidentified decedent investigations" (Hagy 2007). NamUs' database of missing persons information is scheduled to be operable by late 2008 or early 2009. At that time, the NamUs missing persons and unidentified remains databases will begin to "simultaneously search against each other for matches" (Hagy 2007). Both UDRS and NamUs will provide some of the most comprehensive search criteria currently available. Users will be able to search for cases using common descriptors (age, sex, and race) but will also have the option to search chronologically or geographically and can search for specific information such as clothing, jewelry, tattoos, piercings, prior surgeries, and medical implants to name a few.

Another web-based resource mentioned previously under the Department of Justice is the FBI's Victims Information Catalog, Tracking and Image System, also known as the VICTIMS Identification Program, or VIP. Currently being developed by the FBI's Laboratory Division, this program is intended specifically for unidentified persons information. The VICTIMS program aims to "accumulate records from all available sources related to unidentified human remains, and provide orderly access to the records for the purpose of assisting law enforcement, medical examiner and coroner's offices, and the public in the identification of the remains" (VICTIMS Identification Project 2008). The VICTIMS program is actually "a group of research projects and development efforts sponsored by numerous units within the FBI Laboratory" (VICTIMS Identification Project 2008). These research projects focus on developing the Internet applications that will be necessary for gathering data on unidentified persons, creating an

Evidence Processing and Preservation facility for the forensic anthropological examination of remains, and the development of a program that uses CT-scans to generate facial reconstructions of unidentified decedents (VICTIMS Identification Project 2008). Cases entered into VICTIMS will initially be drawn from NCIC and CODIS and will be supplemented with additional items for public viewing, such as facial reconstructions and retouched postmortem photos of unidentified decedents (Melissa Torpey pers. comm.). The VICTIMS database eventually will be offered as a website accessible to anyone; yet, some areas will be accessible only to official and medicolegal authorities and agencies. The VICTIMS website is currently informational in nature and has not yet implemented a searchable database of cases.

No useful quantitative data could be gleaned from the survey of the three above-mentioned web resources in the Federal Law Enforcement or Government category on Table 6. These problems mainly stemmed from the fact that two of the websites surveyed are still being developed and are not yet fully operational. The only data available was the number of unidentified decedent cases posted on UDRS: 1,264 cases as of April 2008. However, these federally operated websites were surveyed because they represent some of the most inclusive efforts to date aimed at helping to alleviate our county's burden of unsolved missing and unidentified persons cases. Historically, the public has not been included in missing and unidentified persons investigations (Melissa Torpey pers. comm.). The NamUs/UDRS and VIP websites will correct this oversight by giving the general public unprecedented input and access to their databases. All relevant parties will have the ability to enter and search for information on these websites. The inclusion of the general public can help to solve one of the largest hurdles NamUs and VIP will encounter: who will enter thousands of missing and unidentified persons cases into these databases and how? The families and friends of missing persons, along with victim's advocates and volunteers, are highly motivated to help solve missing and unidentified

persons cases (Nawrocki et al. 2008). These members of the general public are willing to take on the time consuming task of entering case information into these new databases, helping to ease the burden on the law enforcement and medicolegal communities (Todd Matthews pers. comm.).

State, County, and Local Law Enforcement or Government Websites

Below the federal level, state, county, and local law enforcement and government agencies operate countless websites for missing and unidentified persons information. At the county and local levels, these agencies are most commonly police or sheriff's offices. At the state level, missing and unidentified persons information may be found in a central location, or clearinghouse. These clearinghouses usually fall under the authority of law enforcement; yet, they exist in inconsistent places from state to state and may operate within a state's department of public safety, attorney general's office, or under various criminal or investigative bureaus (Nawrocki et al. 2008). These centralized storehouses for case information may not even include 'clearinghouse' in their name. Furthermore, some state clearinghouses only carry information on certain groups, such as missing children, and may not have a central state repository for missing adults or unidentified remains (Bassett and Manhein 2005:336).

A total of 14 websites were surveyed for the three categories of State, County, and Local Law Enforcement or Government. The websites surveyed for each of these categories, originally listed in Table 6, are repeated in Table 9. Here, these websites are grouped under the type of agency that operates them, and are accompanied by the number of missing and/or unidentified persons cases posted on their sites. Originally, I planned to get an average number of cases posted per website. However, listing the number of cases for each individual website will provide a greater impact by highlighting the variation and inconsistency among websites. For example, some of the web-based resources that are statewide or focused on large cities have

Table 9 – State, County, and Local Law Enforcement or Government Website Information

State Law Enforcement – Government	• **Departments of Public Safety (DPS)** Iowa DPS, Division of Criminal Investigation Missing persons: none Unidentified persons: 6 Texas DPS, Missing Persons Clearinghouse Missing persons: Cannot easily obtain number of cases, cases are listed by last name, no complete listing to view Unidentified persons: 241 Utah DPS, Bureau of Criminal Identification Missing persons: 60 Unidentified persons: 1 • **State Police/Troopers** Alaska State Troopers, Bureau of Investigation Missing persons: 69 Unidentified persons: 1 New Jersey State Police Missing persons: none Unidentified persons: 253 deceased, 5 living
County Law Enforcement - Government	• **Sheriff's Offices** Pima County (Arizona) Sheriff's Department Missing persons: 14 Unidentified persons: 0 Racine County (Wisconsin) Sheriff's Department Missing persons: 0 Unidentified persons: 1 Sumter County (South Carolina) County Sheriff's Office Missing persons: 6 Unidentified persons: 3 • **Police Departments** Baltimore County (Maryland) Police Department Missing persons: 8 Unidentified persons: 2 Fairfax County (Virginia) Police Missing persons: none Unidentified persons: 1
Local Law Enforcement - Government	• **Police Departments** Irving (Texas) Police Department Missing persons: 2 Unidentified persons: 1 Montgomery (Alabama) Police Department Missing persons: 10 Unidentified persons: none Metropolitan Nashville (Tennessee) Police Department Missing persons: 24 Unidentified persons: none Oklahoma City (Oklahoma) Police Department Missing persons: 5 Unidentified persons: none

surprisingly small numbers of cases posted on their sites. For the websites in Table 9, links to missing and unidentified persons information from the agency's home page had the following titles: missing persons, unidentified persons, unidentified bodies, cold cases, unsolved cases, and crime bulletins.

Medicolegal Groups' Web-Based Resources

Medicolegal professionals such as coroners, medical examiners, and forensic anthropologists also operate websites. As discussed previously, coroner and medical examiner systems vary widely. The coroners and medical examiner's offices surveyed for this research were statewide offices, or were specific to a county or locality. Two of the websites surveyed were operated by a combination coroner's and medical examiner's offices. The 12 coroner's and medical examiner's offices surveyed held information on unidentified persons cases only, as they do not normally deal with missing persons cases. The final site surveyed was operated by a forensic anthropologist working in a university setting. Although the results of the survey indicate that forensic anthropologists are using databases and web-based resources, surprisingly few websites appear to be managed by them. It is likely that forensic anthropologists are contributing to websites operated by other agencies and offices and are not necessarily operating websites themselves. The websites operated by coroners, medical examiners, and forensic anthropologists provided links to or listed their missing and unidentified persons information under the following headings and titles: unidentified dead, unidentified persons, unidentified remains, unidentified bodies, unidentified deceased, and John and Jane Does. The thirteen websites surveyed for these four categories, originally listed in Table 6, are repeated in Table 10. Here, these websites are grouped by the regional or other authority under which they operate, and are accompanied by the number of unidentified persons cases posted on each site. Again, the number of cases per site was provided to show the variation between sites.

Table 10 – Coroner, Medical Examiner, and Forensic Anthropologist Website Information

Coroners	• **Counties** Clark County (Nevada) Coroner Unidentified persons: 153 Franklin County (Ohio) Coroner's Office Unidentified persons: 2 Larimer County (Colorado) Coroner Unidentified persons: 3 Orange County (California) Sheriff's Department, Coroner Division Unidentified persons: 50 • **State Association** South Carolina Coroner's Association Unidentified persons: 5
Coroners – Medical Examiners	• **County** Washoe County (Nevada) ME-Coroner's Office Unidentified persons: 43 • **City** Denver (Colorado) office of the ME (Coroner) Unidentified persons: 13
Medical Examiners	• **Counties** Hamilton County (Tennessee) Medical Examiner Unidentified persons: 2 King County (Washington) Medical Examiner's Office Unidentified persons: 4 Maricopa County (Arizona) Medical Examiner Unidentified persons: 223 • **State** Kentucky State Medical Examiner's Office Unidentified persons: 42 • **City** City of Philadelphia Medical Examiner's Office Unidentified persons: 13
Forensic Anthropologists	• **University** Louisiana State University FACES Laboratory Missing persons: 142 Unidentified persons: 89

Public Access Groups' Web-Based Resources

Nonprofit organizations, victim's advocacy and volunteer groups, other formal and informal organizations, family, friends, and concerned members of the general public also operate and contribute to web-based resources devoted to missing and unidentified persons information. The web-based resources operated by these public access groups and individuals often deal with specific types of cases such as missing persons, unidentified persons, or missing children. One of the main functions of these nonprofit and volunteer groups is advocacy. Many focus on providing information, education, and assistance to the families and friends of missing persons, as well as to law enforcement and other agencies. These groups also seek to advocate for the many missing and unidentified persons whose cases have gone cold or have been mishandled by law enforcement. For the purposes of this research, nonprofit organizations are generally synonymous with advocacy groups.

Nonprofit and Volunteer Organizations

A total of 16 Nonprofit and Volunteer Organizations were surveyed as listed in Table 6. The category of Nonprofit Organizations was broken down into two subcategories: nonprofit organizations with a database or listing of missing and/or unidentified persons cases, and nonprofit organizations without such databases or listings. From Table 6, Nonprofit Organizations without databases or listings of cases mainly focus on preventing crimes against children such as kidnapping and exploitation (Klaaskids Foundation for Children and Child Watch of North America). Others provide support, education, and advocacy for crime victims, missing persons, and their families and friends (Outpost for Hope and FNFVCV). The LFGRC website provides information on programs, services, and other web-based resources that can be utilized in missing and unidentified persons cases. Table 11 provides information on the Nonprofit Organizations with a database or listing of missing and/or unidentified persons cases

Table 11 – Nonprofit Organizations With a Database or Listing of Missing and/or Unidentified Persons Cases and Volunteer Organizations Website Information

Nonprofit Organization With a database or listing of missing and/or unidentified persons cases	• **NCMEC** Focus: missing and unidentified children Missing children: 2499 Unidentified deceased children: 32 Unidentified living children: 4 • **NCMA** Focus: missing and unidentified adults Missing adults: 1467 Unidentified adults: 85 • **Carole Sund/Carrington Memorial Reward Foundation** Focus: missing children and adults Missing persons: 109 • **Kristen Foundation** Focus: missing young adults Missing young adults: 46 • **Child Find of America** Focus: missing children Missing children: 36
Volunteer Organizations	• **Doe Network** Focus: missing and unidentified persons worldwide Missing persons: 3423 (in the U.S.) Unidentified persons: 2175 (in the U.S.) • **Childseek Network** Focus: missing persons Cannot easily obtain number of cases, no complete listing of cases, searches only return a maximum of 20 results • **North American Missing Persons Network (NAMPN)** Focus: missing persons Cannot easily obtain number of cases, cases are listed per yearly quarter (e.g. 1995 Jan. - March) • **Kansas Missing and Unidentified Persons** Missing persons: 54 Unidentified persons: 4 • **Maryland Missing Persons Network** Missing persons: 204 Unidentified persons: 61 • **Everyone Deserves a Name (EDAN)** Focus: no-cost forensic artists for missing and unidentified persons cases No cases listed on the website

and Volunteer Organizations originally listed in Table 6. Here, the focus of each of these websites is described, and the number of cases posted on the site is given. As with Tables 9 and 10, information has been provided for each site individually to highlight the variation between them.

One of the most well-known and well-regarded nonprofit organizations that offers a searchable database is the National Center for Missing and Exploited Children (NCMEC). The NCMEC was established by Congress under the Missing Children's Assistance Act of 1984 (Lewit and Baker 1998:141), as the "national clearinghouse for information about missing and exploited children" (Nahirny 2000:20). NCMEC is a "nonprofit agency funded by both government money . . . and private donations" (Jackson 1995). The resources offered by the NCMEC are aimed at "searching parents and law enforcement professionals" (Nahirny 2000:20). These resources include a toll-free hotline for reporting missing children and providing leads on cases, education and training for law enforcement agencies, and "coordination of the public and private programs in the field" (Jackson 1995). The NCMEC recently began to post information on unidentified living and deceased children on their website (Willing 2007).

Nearly two decades after the creation of the NCMEC, Congress provided "1.6 million to help finance an adult resource," equivalent (Kamb 2003b). This nonprofit organization, the National Center for Missing Adults (NCMA) was formally established after Congress' passage of Kristen's Law in October, 2000 (National Center for Missing Adults 2008). Many of the resources offered by the NCMA are similar to those offered by the NCMEC. The NCMA maintains a national database of missing adults determined to be endangered or otherwise at-risk, and provides assistance to law enforcement officials and members of the public dealing with missing adult cases (National Center for Missing Adults 2008). The NCMA has also begun posting information on unidentified adults on their website (Willing 2007). Unfortunately, the

NCMA recently announced that they would be forced to close their primary office and relocate due to federal budget cuts that "severely depleted the [Center's] resources" (National Center for Missing Adults 2006). The NCMA has been seeking renewed federal funding since 2005, and the Center receives very little funding compared to its sister organization the NCMEC ($148,000 per year in 2006 to the NCMEC's $35 million) (National Center for Missing Adults 2006). Currently, the Kristen's Act Reauthorization of 2007 which would provide $4 million in yearly funding to the NCMA and allow it to stay open has been introduced in Congress, but is still pending approval (National Center for Missing Adults 2006, 2008).

One notable volunteer organization surveyed is the Doe Network. The Doe Network is "an international organization devoted to solving cases concerning unexplained disappearances and unidentified victims of crime" (Tayal 2003:348a). Their website "features a searchable database of [missing persons and] unidentified John and Jane Does" and provides images (photos, drawings, and reconstructions), physical descriptions, and other information about cases (Olsen 2003). The Doe Network began as a discussion group on Yahoo.com (Todd Matthews pers. comm.), but quickly grew into "a network of over 200 members, organized into geographical districts coordinated by area directors" (Manning 2004). Today, the Doe Network website is perhaps the most visited (as of April 2008, their website had over 1.8 million visitors), and most comprehensive: handling information on more cases than NCMEC and NCMA combined. The Doe Network has also given rise to the previously mentioned LFGRC websites and to another volunteer organization called Everyone Deserves a Name, or EDAN. EDAN is unique among volunteer organizations because its focus is to provide "free forensic artist services to law enforcement agencies" that cannot afford to hire a forensic artist themselves (Manning 2004).

Other Types of Web-Based Resources

In addition to established nonprofit and volunteer organizations, many other formal and informal groups and individuals operate websites that deal with missing and unidentified persons information. These diverse resources were grouped into three categories as seen on Table 6: Other Groups, Sites, Blogs, or Message Boards; Sites for Individual Missing Persons; and Social Networking and Video Sharing Sites. The final nine websites surveyed come from the first two categories. The web resources in the third category were not included in the survey; this decision will be explained shortly.

Four very diverse websites were categorized as Other Groups, Sites, Blogs, or Message Boards on Table 6. These websites include Active Most Wanted.com, described by its creator as "a compendium of sites all over the Internet where help is being sought in missing and unidentified persons cases". Similarly, the Charley Project offers an online database of missing persons information and provides over 500 links to other missing and unidentified persons-related websites. AMALP does not describe itself as a volunteer organization, but rather as a "Christian Foundation Ministry" dedicated to assisting families and their missing loved ones. Finally, Porchlight for the Missing and Unidentified provides message boards and forums for missing and unidentified persons information and other topics.

Five websites were categorized as Sites for Individual Missing Persons on Table 6. These sites focus on providing information about individual missing persons and are usually operated by a family member or friend of the missing person. These sites often provide photos of the missing person, details about his or her disappearance, information on reward money offered, updates on the case, forums, message boards, and links to other websites. The websites surveyed were for individuals that had been missing for two years or more. The longest-missing person whose website was surveyed was Kristen Modafferi, who was last seen in June, 1997.

Websites like these are the most obvious example of families taking advantage of the Internet in their search for their missing loved ones.

The final category of websites listed in Table 6 is Social Networking and Video Sharing Sites. Social networking websites "provide a virtual community for people interested in a particular subject . . . and the service typically provides a way for members to contact friends of other members" (Pcmag.com 2008). Members of the social networking websites MySpace and Facebook have used the sites to post information and form groups related to missing and unidentified persons issues. As seen on Table 6, MySpace has several features that can be used for this purpose, including personal profiles, groups, and blogs. Most commonly, missing persons information can be found in personal profile form. MySpace and Facebook members are able to "create their own online 'profiles' with biographical data, pictures, likes, dislikes and any other information they choose to post" (Pcmag.com 2008). Family members or friends of missing persons can create such profiles for their missing persons, or can modify a profile that their missing loved one used before his or her disappearance. These personal profiles, along with other MySpace and Facebook features, are all available for viewing by other members of the site. MySpace and Facebook include many profiles and groups for missing persons, as well as profiles for living and deceased unidentified persons. Several of the nonprofit and volunteer organizations surveyed also operate MySpace profiles or groups.

Missing and unidentified persons information can also be found on video sharing websites, which allow, "people to upload and share their video clips to the public at large or to invited guests" (Pcmag.com 2008). The most popular and well-known video sharing site on the internet today is YouTube (Pcmag.com 2008). Videos posted on YouTube and other similar websites help to bring attention to particular missing and unidentified persons cases. These three social networking and video sharing websites alone are comprised of millions of users and these

users act as a built-in audience for family members, friends, organizations, and groups to broadcast and publicize their missing and unidentified persons information.

Final Comments on Web-Based Resources

Before concluding the discussion of web-based resources, the role of the family and friends of missing persons must be discussed. Many of the public access web-based resources surveyed for this research were founded by the families and friends of missing or victimized persons. "Often, those left behind [when a loved-one goes missing] feel compelled to do something . . . to keep the memories of their loved ones alive and help others in their same situation" (Dornin 2001). As the Internet became more popular, these individuals began to realize the potential of this new medium to assist them in their search for missing loved ones (Associated Press 2008). Families and friends of missing persons from across the country were able to contact and work with each other and online communities began to form, laying the groundwork for the nonprofit and volunteer organizations that exist today.

"The impetus to fully use the capabilities of computers and the Internet [in missing and unidentified persons cases] has come from the relatives of missing people, not from law enforcement" (Manning 2004). Countless families have been frustrated by inadequate police response to and/or a lack of media coverage related their missing persons (Krajicek 2005, Memmott 2005). Forming and contributing to websites allowed families and friends of missing persons "to get involved in [their loved one's] case and not wait on a phone call" or action from law enforcement officials (Manning 2004). The Internet strengthens the potential for friends, family members, and other concerned individuals to coalesce into a powerful and vocal collective with first-hand experience and a desire to advocate for the improved handling of their missing and unidentified persons cases.

The web-based resources available today have many positive benefits. These resources offer hope for closure to the families and friends of missing persons and allow them to take action and have a sense of involvement in their loved one's cases. Websites can aid law enforcement and government agencies and nonprofit and volunteer organizations in their missing and unidentified persons investigations by dispersing case information to a wide audience. Information posted on websites can help to generate leads, identify next of kin, and is useful for following up on investigations (Hanzlick 2006:126-127). Nonprofit and volunteer groups offer an important public service to individuals searching for information on missing and unidentified persons and provide much-needed advocacy for missing and unidentified persons and their families. Web-based resources generally help to raise the public's awareness of missing and unidentified persons cases. Table 12 provides general suggestions for web-based resource that can help to maximize their success by presenting their information in the most effective manner.

Use of the Internet has undoubtedly led to an increased level of communication and information sharing throughout the world. Unfortunately, this does not seem to be entirely true for the many types of web-based resources that exist today. Some websites may be reluctant to cooperate with or provide their case information to other sites, and few sites are interconnected (Sullivan 2006). However, collaboration between websites that deal with similar case information can only be beneficial. Cooperative web-resources can act to check each other's information, helping to reduce errors in the information posted on their sites. There is a general need for greater integration, cooperation, and crosschecking among websites, especially those that are operated by federal, state, county and local law enforcement and government agencies. These types of resources should, at the very least, provide links to the other agencies, offices, and resources operating within their same state or region.

Table 12 – Making the Most of Web-Based Resources

Make the website easy to find	Use specific language in the name of the site to ensure it will appear when people search for 'missing children' or 'unidentified persons' etc.
If missing or unidentified persons information is accessed through a link on a home-page	The link must be titled properly so that people know where to look. This information should not be listed under 'most wanted' or 'unsolved crimes'
Identify the agency, office, organization, or individual operating the site	Provide users with information that may be of interest to them, e.g., about the history of the organization, frequently asked questions, contact information, etc.
Loading and viewing the site should be easy	Sites with large images, animations, or music may take too long to load. Over-use of backgrounds, colors, and graphics take away from the information provided on the site
Navigating the site should be easy	Search capabilities must be available for the website as a whole, and for the case information contained in any listings or databases provided on the site
Build a network of other sites	Form relationships of support and cooperation with other websites, especially those that deal with similar case information or others in the same state or region
Verify the information	Have procedures in place for verifying the accuracy of the information posted on the website

Unfortunately, the myriad websites available are complicating the missing and unidentified persons issue by further dispersing information that desperately needs to be centralized. An Internet search regarding a missing person's whereabouts or unknown decedent's identity can lead an individual to such a wide a variety of agencies, organizations, and groups that it may be difficult to know which sites to use. Similar to the proliferation of federal databases, web-based resources are spreading missing and unidentified persons information thinner across more locations, making it difficult to find or identify individuals. Experts have

argued that there should be a single website for families and friends to search, instead of the countless possibilities they currently have (Hanzlick 2006, Sullivan 2006).

CHAPTER 6

DISCUSSION AND CONCLUSION

The current research has attempted to provide a comprehensive review of the scope of involvement in missing and unidentified persons cases by official, medicolegal, and public access groups and resources. Presenting a thorough review of these resources proved to be significantly more complicated and time consuming than imagined at the outset of this research. The amount of information contained herein is a testament to the scope and breadth of the issue. This review aimed to provide readers with the holistic understanding necessary to appreciate the complicated nature of the missing and unidentified persons problem. With over 110,000 missing persons and an estimated 40,000-60,000 unidentified persons cases nationwide, experts have referred to this problem as a "mass disaster over time" (Ritter 2007:2). This mass disaster has arisen from a combination of factors that cannot be attributed to any single agency, group, or resource. Indeed, this is where the heart of the problem lies: missing and unidentified persons cases are complicated by the sheer number and variety of agencies, organizations, offices, groups, and individuals that handle them, both online and offline, and the inconsistencies, oversights, and errors to which each of these resources may be prone.

Within the law enforcement community and among death investigators, missing and unidentified persons cases are often given low priority. Agencies, offices, and authorities often do not have the time, manpower, or financial means necessary to properly investigate and/or follow up on every case they receive. Officers are kept busy with more recent cases and what they perceive to be more serious crimes. Authorities may not be trained or experienced in handling missing and/or unidentified persons cases and, therefore, may not fully exhaust all

means for locating or identifying individuals. Inadequate communication and cooperation between agencies at all levels and resistance to sharing information is evident.

Improving the handling of missing and unidentified persons cases must begin with improvements at the originating agency level. The law enforcement community first must be further educated about the potentially serious nature of missing and unidentified persons cases. Agencies must find the means to dedicate time to such cases and many could benefit from assigning an individual or task force to work exclusively on missing and unidentified persons cases. These task forces could include law enforcement officers and/or volunteers from the general public with training and experience in missing and unidentified persons cases. Ideally, these individuals or groups would be charged with ensuring that reports are completed and are accurate, with following up on cases, and for carrying out tasks that other officers do not have time to complete. Some advocates have argued for the creation of a "first-response missing persons agency that could rush in and use its expertise to ensure that investigations begin properly" (Bruce Maitland quoted in Krajicek 2005). These response groups and task forces could also help to establish cooperative relationships between family members and friends of missing persons and the law enforcement agencies involved in their loved one's cases.

Federal and state government agencies must begin to play a larger role and exercise greater oversight in missing and unidentified persons cases. The most effective way for these groups to regain control over missing and unidentified persons cases is to adopt legislation that will, 1) outline standardized reporting procedures for missing and unidentified persons cases, 2) abolish waiting periods and restrictions on missing persons reports, 3) ensure the preservation of remains and evidence, e.g., mandating the collection of DNA samples and making the cremation of unidentified remains illegal, 4) ensure mandatory reporting of missing and unidentified persons to state and/or federal databases and enforce penalties for agencies that do not comply,

and 5) ensure that forensic anthropologists and odontologists are consulted in unidentified remains cases.

The federal government has been instrumental in creating databases that have great potential to assist in missing and unidentified person cases. Unfortunately, many of their databases are largely ineffective due to under-use and poor or outdated design and function. Databases such as NCIC and CODIS need to be updated and improved to keep pace with current technology and function more efficiently. The federal government has attempted to solve this problem by creating new databases that are designed to supplement and complement the existing databases. Although new databases fill a need for the authorities using them, creating new databases to be used in conjunction with older databases complicates the issue by putting an undue burden on the authorities involved in cases. The process of entering case information will become more confusing and time consuming if authorities are expected to use multiple databases. Many available federal databases are already plagued by under use and new databases are likely to suffer the same fate. Information on missing and unidentified persons is again being spread thinner across these multiple databases, lessening the potential effectiveness of each. Missing and unidentified persons case information must be condensed into one effective, centralized database that authorities can turn to quickly and easily to enter and search for case information.

Web-based resources have added a new dynamic to missing and unidentified persons cases. Law enforcement agencies, coroners, medical examiners, and other authorities post case information on their websites, relinquishing some of their authority by revealing selected case information to the public. The availability and accessibility of the Internet has also allowed family members, friends, volunteers, and concerned members of the general public to become actively involved in missing and unidentified persons cases. These individuals traditionally have

been excluded from participating in investigations because of the exclusive nature of the law enforcement community. The Internet gave these individuals "a form of communication that allowed [them] to take some action" instead of relying solely on the action of law enforcement authorities (Manning 2004). Families were able to advocate for themselves and their loved ones by posting case information on websites and founding nonprofit organizations and support groups.

The primary goal of the web-based resources operated by law enforcement agencies, coroners, medical examiners, forensic anthropologists, nonprofit and volunteer organizations, and friends and family members is the same. Each group and individual uses their website to broadcast missing and unidentified persons information to a wide audience – hopefully helping to resolve cases. Unfortunately, the number of websites that deal with missing and unidentified persons information has become overwhelming. Ideally, all of the many agencies, groups, and individuals that operate websites would agree to add their case information to one websites that would act as a centralized database.

Web-based resources have made clear the potential to create a mutually beneficial synthesis between the official, medicolegal, and public access groups involved in missing and unidentified persons cases. Law enforcement authorities often have little time to devote to such cases, yet this major stumbling block could be eased with the increased inclusion of families, friends, nonprofit employees, and volunteers in investigations. These members of the general public have potentially unlimited time to devote to such cases and are likely to be more aware of and familiar with web-based resources than law enforcement authorities (Todd Matthews pers. comm.). Volunteer members of the public can assist law enforcement agencies by posting case details on websites, searching websites for information on cases, reviewing cold cases, helping to arouse needed manpower, and utilizing online networks in their searches.

Creating a synthesis between official, medicolegal, and public access groups and individuals will require compromise. Unfettered communication is often the key to solving cases, so the best hope for increased success in missing and unidentified persons cases rests on encouraging collaboration between all types of resources, groups, and individuals. Public access groups and individuals must work to build relationships and trust with law enforcement officials in order to gain access to case information and must prove their usefulness to the agencies they assist. Law enforcement officials must be willing to share case information with the public access groups and individuals who they trust and who are making strides toward resolving cases. Public access individuals and groups are not trying to usurp the authority of law enforcement or interfere with investigations: they simply want to assist in any way they can for the sake of helping missing and unidentified persons.

The missing and unidentified persons issue has recently been recognized on a broader scale; yet, greater action must be taken to correct the common problems that prevent cases from being resolved. Unfortunately, the disjoint between official, medicolegal, and public access resources makes the search for missing and unidentified persons tremendously difficult and needlessly complicated. This research has attempted to synthesize the points of view of the many agencies, offices, organizations, and individuals that deal with missing and unidentified persons cases in order to approach a comprehensive understanding of the issue. The most pressing issue for these agencies and groups and for missing and unidentified persons themselves is the creation of a comprehensive national database to handle their cases. As simply stated by Regina Schofield, former Assistant Attorney General of the Office of Justice Programs, "until we have a system that allows data to be fully and uniformly exchanged, [the] ability to solve crimes will be compromised, and families of the missing [and unidentified] will continue to struggle with the pain of uncertainty" (Schofield 2006).

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APPENDIX A

SUMMARY OF NCIC SCORING PROCEDURE PROVIDED BY MELISSA TORPEY

NCIC Entry

1. Estimated Year of Birth (EYB)
    - Field restricted to a range of 20 years.
    - The earliest estimated year of birth followed by a hyphen and the earliest year of birth plus 20 years should be entered in the EYB field.
    - The true range should be entered in the Miscellaneous (MIS) field.

2. Approximate Height (HGT)
    - Field restricted to a range of six inches.
    - If the height range is more than six inches, a height which falls within a range of six inches should be obtained from the medical examiner, coroner, or officer.
    - The new range should be entered in the HGT field.
    - The original height should be entered in the MIS field.

3. Approximate Weight (WGT)
    - Field restricted to a range of 50 pounds.
    - If weight range is more than 50 pounds, a weight which falls within a range of 50 pounds should be obtained from the medical examiner, coroner, or investigating officer.
    - The new range should be entered in the WGT field.
    - The original weight should be entered in the MIS field.

4. Race (RAC)
    - A – Asian or Pacific Islander
    - B – Black
    - I – American Indian/Alaskan Native
    - W – White
    - U – Unknown

NCIC Scoring of Personal Descriptors

1. Race (RAC)
    - Unidentified (U) v. Missing (M)
    - The basis behind the scores for the Race field is unknown.
    - Highest scores are given to matches between:
        - A (U) and A (M)
        - I (U) and I (M)
        - U (U) and U (M)

- Lowest scores are given to matches between:
    - W (U) and B (M)
    - B (U) and W (M)

2. Estimated Year of Birth (EYB)
    - The average age of the unidentified person is computed by subtracting the average year of birth from the current year.
    - The age of the missing person is computed by subtracting the year of birth from the current year.

3. Estimated Date of Death (EDD)
    - If only the estimated year of death is available, it is compared to the year of the date body found.
    - If the years are equal, the date body found is used as the estimated date of death for comparison.
    - If the years are different, then December 31 is used as the month and day along with the estimated year of death for comparison.

4. Eye Color (EYE)
    - The eye color score factor is weighted dependent on the relative frequency that each color occurs in the general population.
    - The eye color of the unidentified person must match that of the missing person.

5. Hair Color (HAI)
    - The hair color score factor is weighted dependent on the relative frequency that each hair color occurs in the general population.
    - The hair color of the unidentified person must match that of the missing person.

6. Blood Type (BLT)
    - The blood type score factor is weighted dependent on the relative frequency that each type occurs in the general population.

The final score for Personal Descriptors is computed by adding the fingerprint score to the product of the other personal descriptor scores.

APPENDIX B

CONSENT FORM

Introduction:
The following consent form applies to research for a Master's thesis that I, Erin McMenamin, am conducting in fulfillment of my degree at Louisiana State University under the advisement of Mrs. Mary Manhein. You have been asked to participate in this study because of your knowledge, association or experience with missing and/or unidentified persons cases. Please make your decision to participate in this research at your leisure and feel free to discuss your possible participation with anyone you see fit. If you have any further questions please do not hesitate to use the contact information below.

Study Title:
Databasing the Disappeared and Deceased: A Review of the Public and Private Resources Available in Missing and Unidentified Persons Cases.

Research Performance Sites:
You will be asked to complete a survey or interview in one of the following ways: in person, over the phone, via email or through the mail.

Researcher Contact Information:

Erin McMenamin	Mary Manhein
Master's student	Director, FACES Lab
E-mail: emcmen1@lsu.edu	E-mail: gaman@lsu.edu
Phone: 609-439-1906	Phone: on request
Available: anytime	Available: on request

Purpose of the Study:

The United States currently has no centralized database that is focused solely on finding missing persons and identifying the bodies of Jane and John Does. The existing resources for missing and unidentified persons cases are a hodgepodge of government run databases, state, county, and local agencies and nonprofit and volunteer organizations. Searches for missing persons and investigations into the identity of unknown decedents are needlessly complicated in part by this proliferation of resources.

The primary goal of this research is to identify and analyze the many entities involved in missing and unidentified persons cases. Examples of these entities include government databases like the National Crime Information Center, state, county and locally operated websites run by coroners, medical examiners and law enforcement agencies, and websites operated by nonprofit or volunteer organizations among others. A complete review of the many facets involved in missing and unidentified persons cases will make targeted suggestions for improvement possible. Improvement to the current system may mean swifter justice for victims of crime and closure for their families, as well as for law enforcement.

Subjects: Up to 500 subjects may take part in this research.

Inclusion criteria: To be included in this research you must be over 18 and have personal experience with missing and/or unidentified persons cases. Individuals consenting to participate in this study must belong to one of the following groups:
Group 1) family members or friends of missing persons that are currently still missing, or were formerly missing but are now confirmed deceased,
Group 2) coroners, medical examiners, forensic anthropologists, odontologists/ forensic dentists, members of law enforcement, or other professional individuals with experience in missing and unidentified persons cases,
Group 3) employees or volunteers of nonprofit organizations, state clearinghouses, departments of public safety or employees/members of other Internet-based groups that house information on missing and unidentified persons.

Exclusion criteria: If you have consented to taking part is this research; the information you provide will not be excluded from the study unless it is by your choosing.

Study Procedures:
As a participant in this study you will be asked to read and sign this consent form. If you wish to consent and/or participate by phone you can choose to have the consent form and/or survey e-mailed or mailed for you to read and sign, or you may choose to be read the consent form over the phone and give the researchers your verbal consent.

You will also complete one of the following:

If you are in Group 1: an interview that can be completed in person or over the phone. This interview will be recorded (written and/or audio) and will take between one and two hours to complete. The interview may be completed in one or several sessions depending on your preference or availability. You are under no obligation to answer questions that you are uncomfortable discussing.

If you are in Group 2 or 3, either:
1) a survey form that can be completed in person, over the phone, through e-mail or through the mail. The survey will take approximately 20 minutes to complete and questions may be left blank if you choose not to answer, or
2) a short interview over the phone or by e-mail about a website operated by your agency/organization. The interview will take 15 minutes or less to complete.

Benefits:
The information you provide in this study will aid the researchers in gaining a first-hand perspective of the problems associated with missing and unidentified persons cases. The data we collect from participants will allow us to suggest techniques that, if implemented, may improve the state of missing and unidentified person investigations. Improved techniques for finding missing persons and identifying unknown decedents may lead to swifter justice for victims and closure for families, more criminals being brought to justice, law enforcement closing more cases, and aid to families that may experience a missing loved one in the future.

Risks/Discomforts:
If you are a member of Group 1, it is possible that recounting the search for your missing or confirmed deceased loved one may have the potential to cause you psychological harm. For this

reason, you will not be asked to discuss any sensitive details relating to a disappearance or death. Interview questions will center around your experience with Internet searches for information on your loved one. No known physical or societal risk is associated with completing the interview. For survey takers and short interviewees (individuals in Groups 2 or 3), there are no known physical, psychological or social risks associated with taking the survey.

Measures taken to reduce risk:
Participation in this study is voluntary. Please agree to take part only if you are willing to discuss potentially sensitive information. Whether you are taking the survey or interview, you have the right to refuse to answer any questions that you are uncomfortable with. You may withdraw from this study at any time. As a participant in this study your information will be kept confidential by means of a coding system that will only be known to the researchers.

If you feel that you have suffered psychological distress after taking part in this study, there are groups that can help. Families and Friends of Violent Crime Victims (FNFVCV) is a support group for victims of crime, missing persons and their loved ones that provides education on victim's rights and services. Please visit their website at www.fnfvcv.org, contact them via e-mail at ContactUs@fnfvcv.org or call their Crisis Line at 1-800-346-7555.

Right to Refuse:
Participation in this study is voluntary. You may choose to withdraw from the study at any time without penalty.

Privacy:
Your confidentiality will be maintained through use of a coding system. The participants name will only appear on a key where it is linked to a number. Only the researchers will have access to the key and it will be destroyed after the study is completed. In all documentation except the key, only your code number will identify you. The key will be kept confidential unless release is legally compelled.

Financial Information:
You will incur no cost for participating in this study and there is no monetary compensation for choosing to participate.

Withdrawal:
If it is your decision to withdraw from this study, please inform the primary researcher (Erin McMenamin) as soon as possible. The researcher will then confirm your decision to withdraw from the study. Upon confirmation, all data you have provided will be destroyed and your name/code number will be removed from any existing documents or records. There is no consequence for your choice to withdraw.

Signature:
The study has been discussed with me and all my questions have been answered. I may direct additional questions regarding study specifics to the researchers. If I have questions about subjects' rights or other concerns, I can contact Robert C. Mathews, Chairman, LSU Institutional Review Board, (225)578-8692. I agree to participate in the study described above and acknowledge the researchers' obligation to provide me with a copy of this consent form if signed by me.

_____

Subject Signature Date

Illiterate subjects:

The study subject has indicated to me that he/she is unable to read. I certify that I have read this consent form to the subject and explained that by completing the signature line above, the subject has agreed to participate.

_____

Signature of Reader Date

APPENDIX C

FORENSIC ANTHROPOLOGIST SURVEY FORM

I have read and understand the attached consent form and I agree to take part in the following survey _____ (*please type name here)*_____

1) What would you say is the biggest obstacle in locating missing persons and/or identifying Jane and John Does? (Please specify in your answer whether you are referring to missing persons, unidentified persons or both)

1a) What actions could be taken to overcome this obstacle?

2) If it were created, would you be willing to release or add your case information to a database established exclusively for information on missing and/or unidentified persons, separate from the databases currently available?

Yes _____

No _____ If no, what would prevent you from doing so? _____

3) Some of the common identifiers included in unidentified persons databases include:

DNA information (from the decedent, from family members of a missing person, etc.)
Dental records
Forensic anthropological profile
Physical description (appearance, tattoos, scars, birthmarks, etc.)
Descriptions of clothing and personal effects
Photographs of unidentified decedents
Facial reconstructions

a) Of these identifiers, which 3 do you think are *the most* useful in making identifications?

b) Are there any other identifiers you think would be useful to include in these databases?

For questions 4 through 8, please use the most recent information you have available. Answers need not be exact, estimations or approximations are acceptable.

4) How many unidentified decedents do you receive per year on average? _____

5) How many unidentified decedents are you currently curating? _____

6) How many of your unidentified decedents have been buried? _____

7) How many of your unidentified decedents have been cremated? _____

8) How many unidentified decedent cases have you resolved in the last two years? _____

9) Which of the following methods have you found most effective in identifying Jane and John Does? (Using the blanks provided, please numerically rank the following methods with rank #1 being the most effective method, #2 being the second most effective, and so on).

_____ Full cooperation with law enforcement
_____ Entering case information into federal or state operated databases
_____ Newspaper or magazine coverage
_____ Television coverage
_____ Posting information on a website
_____ Other(s) (please indicate)_____

10) Which database(s) do you currently enter your case information into (either directly or through a participating agency)? (Please mark all that apply with an X).

_____ A federal or state-operated crime or DNA database (e.g., NCIC, CODIS, state police, etc.)
_____ A database operated by a coroner or medical examiner
_____ A database operated by a nonprofit or volunteer organization
_____ A database operated by another forensic anthropologist or odontologist/forensic dentist
_____ A database you or your agency/office/organization created
_____ Other(s) (please indicate)_____
_____ I don't enter my case information into any database

If your answer to Question 10 *was not* the last choice, please answer the following:

a) How often is the case information,
entered? _____
checked? _____
updated? _____

b) Are you are legally mandated to enter case information into any database(s)?

Yes _____ If yes, which databases? _____

No _____

11) Do you operate your own database?

Yes _____ If yes, what is the name of your database? _____

No _____

12) Do you or your agency use any web-based resources to post case information or search for information on unidentified decedents? (e.g., websites that are state, county or locally operated, those maintained by state clearinghouses, coroner's or medical examiner's offices, nonprofit organizations, etc.)

Yes _____ If yes, which websites do you use? _____

No _____

APPENDIX D

WEB-BASED RESOURCES SURVEY FORM

Name of Website: _____

URL: _____

Website operated by:

State, County, or Local Law Enforcement / Government

Coroner or Medical Examiner

Forensic Anthropologist

Nonprofit Organization, Volunteer Group, Other

Focus of Website: (i.e., missing persons, unidentified remains, missing children, etc.)

Information on how many cases:

Missing persons _____
Unidentified persons _____
Total

Number of cases resolved:

Missing persons located _____
Unidentified persons identified _____
Total _____

Demographics of cases:

Males _____ Females _____
Juveniles _____ Adults _____

Search criteria: (i.e., by age, sex, physical description, geographic area, date missing, date of birth, etc.)

Information offered: (i.e., photos, facial reconstructions, physical descriptions, dental information, descriptions/photos of clothing and jewelry, etc.)

Is there any relationship/partnership with other websites, agencies or organizations that is stated on this website:

Links to other websites:

Number of visitors:

VITA

Erin McMenamin completed her undergraduate studies at Muhlenberg College in Allentown, Pennsylvania. Erin had always been fascinated by human anatomy and by animal and human skeletons, so she began her undergraduate studies as a biology major. In her second year at Muhlenberg, an introductory course in anthropology led her to an interest in the fields of physical and forensic anthropology. She quickly changed her major and plunged headlong into anthropology, graduating from Muhlenberg with a Bachelor of Arts in anthropology in 2003.

Over the next two years, Erin worked for a customs broker, took courses at Temple University, and applied to graduate programs in physical and forensic anthropology. After being accepted by the Louisiana State University, Erin moved to Baton Rouge in August 2005, to begin her graduate studies. While attending LSU, Erin worked as a graduate assistant and was also employed by the FACES Lab as a research and lab assistant. From 2006-2008 she the coordinator of the Lab's community outreach program that provides presentations on forensic anthropology to student groups of all ages.

Following graduation, Erin plans to pursue her interest in missing and unidentified persons cases, perhaps working for a nonprofit organization or with law enforcement.