

Testimony of  
**The Honorable Sarah V. Hart**

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STATEMENT

OF

SARAH V. HART  
DIRECTOR  
NATIONAL INSTITUTE OF JUSTICE

BEFORE THE

SUBCOMMITTEE ON ADMINISTRATIVE OVERSIGHT AND THE COURTS  
COMMITTEE ON THE JUDICIARY  
UNITED STATES SENATE

REGARDING

DOJ OVERSIGHT: FUNDING FORENSIC SCIENCES - DNA AND BEYOND

ON

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Mr. Chairman and Members of the Subcommittee:

Thank you for the opportunity to inform this Subcommittee concerning the activities of the Administration and the Department of Justice relating to the use of DNA technology, as well as other forensic tools and techniques, to solve crimes and promote public safety.

While all forensic methods have their place in modern law enforcement, the promise and importance of the DNA technology are so great that the President has endorsed a major initiative, totaling more than \$1 billion over five years, to fully realize its potential in the criminal justice process. My testimony today will focus primarily on the proposals in the President's initiative and the Department's significant progress in other areas of forensic science that directly supports

state and local law enforcement. I will also discuss needed DNA-related reforms in Federal law which we have already recommended to Congress in previous testimony and statements.

Before turning to these issues in detail, allow me to summarize our views and proposals:

The President's DNA initiative, which was announced by the Attorney General on March 11 of this year, proposes the commitment of \$232.6 million for DNA-related purposes in FY 2004, and continuation of this level of funding in successive years through FY 2008. The funding will be administered through various components of the Department of Justice including, in FY 2004, \$177 million through the National Institute of Justice, \$13.5 million through existing programs of other Office of Justice Programs components, and \$42.1 million for activities of the FBI. The topical elements of the President's initiative, and their funding allocations for FY 2004, are as follows:

(i) **DNA BACKLOG ELIMINATION** - \$92.9 million to assist in clearing backlogs of unanalyzed crime scene DNA samples (such as rape kits) and offender DNA samples. Nationwide, there is an unacceptably high number of unanalyzed crime scene DNA samples in sexual assault, homicide, and kidnapping cases. If analysis of these backlogged samples results in DNA "hits" in even a fraction of these cases, the result will be the solution of thousands or tens of thousands of the most serious violent crimes. The President's initiative proposes the critical funding needed to clear these backlogs.

(ii) **STRENGTHENING CRIME LABORATORY CAPACITY** - \$90.4 million to increase forensic laboratory capacity at the State and local levels - primarily for DNA analysis, for Federal DNA laboratory programs, and to operate and improve the Combined DNA Index System. The existence of DNA sample backlogs has resulted from the failure of public laboratory capacity for DNA analysis to keep pace with the growth of the DNA identification system. The proposed funding aims to upgrade State and local forensic laboratory capacity so that these laboratories will be able to keep abreast of incoming DNA work in the future - thereby avoiding the development of new DNA backlogs - and will no longer require Federal assistance for this purpose. Additionally, many of these capacity building measures will also benefit the non-DNA forensic work performed by these laboratories.

(iii) **RESEARCH AND DEVELOPMENT** - \$24.8 million for DNA-related research and development. This commitment of funding will result in smaller, faster, and less expensive tools for DNA analysis which will reduce capital investments for crime laboratories while increasing their capacity to process cases.

(iv) **TRAINING** - \$17.5 million for training in the collection, handling, and use of DNA evidence, including training for both law enforcement and medical personnel. Adequate training can greatly increase the number of cases in which usable DNA evidence is obtained, as well as ensuring appropriate sensitivity to and treatment of crime victims in obtaining biological material.

(v) **POST-CONVICTION DNA TESTING** - \$5 million to defray costs of post-conviction DNA testing in the State systems. The recent emergence of the DNA technology means that new evidence may be generated from retained biological material in cases that predate the availability

of DNA testing. Most States have accordingly adopted provisions authorizing post-conviction DNA testing in recent years. The funding proposed in the President's initiative will encourage and support these State efforts.

(vi) MISSING PERSONS IDENTIFICATION - \$2 million to promote the use of the DNA technology to identify missing persons. This funding is needed to realize the full potential of the Missing Persons DNA Database Program, which can provide closure to the families of missing persons by identifying human remains.

In addition to the critical need for adequate funding, which the President's initiative proposes, the efficacy of the DNA system depends on having adequate laws governing the system's operation and related procedural matters. To this end, we have proposed the following Federal law reforms:

(i) ALL-FELONS SAMPLE COLLECTION - The existing categories of convicted Federal offenders from whom the collection of DNA samples is authorized are too narrow, and should be expanded to include all convicted felons. Thirty-one States have already adopted this reform.

(ii) COMPREHENSIVENESS OF THE NATIONAL DNA INDEX - The statute governing the national DNA index should be amended to allow submitting jurisdictions to include the DNA profiles of all persons from whom they lawfully collect DNA samples. Currently, the national index statute only allows the inclusion of DNA profiles from convicted offenders, though many States collect DNA samples from some categories of non-convicts (such as adjudicated delinquents) and include the resulting profiles in their own DNA databases.

(iii) STATUTE OF LIMITATIONS REFORM - Existing time rules can confer effective immunity from prosecution on persons whose identity as the perpetrators of rapes and other serious crimes is conclusively established through DNA matching. Congress should permit the statute of limitations to be tolled where DNA evidence identifies the perpetrator.

(iv) POST-CONVICTION DNA TESTING - While most States have made provision for post-conviction DNA testing in appropriate cases, the Federal government has yet to do so. We look forward to working with Congress to establish post-conviction DNA testing standards and procedures for Federal convicts who could not have obtained such testing at the time of their trials.

Our detailed testimony is as follows:

## I. THE PRESIDENT'S DNA INITIATIVE

The operation of the DNA identification system is similar to that of the fingerprint identification system. For the past century, fingerprint technology has been an important tool in solving crimes. Fingerprints left on objects touched by the perpetrator of a crime may be compared to those of persons who may have committed the crime, thereby inculcating them or excluding them as the guilty party. Moreover, even where there is no known suspect, fingerprints may be instrumental in bringing the guilty to justice. Matching of crime scene prints to fingerprint records which are available in State and national databases - reflecting the routine collection and maintenance of

fingerprints from arrestees and convicts in criminal cases - may identify the perpetrators of crimes which would be unsolvable by other investigative methods.

Beginning in the late 1980s, working groups associated with the FBI laid the groundwork for a comparable system of DNA identification. Around the same time, some States began to collect DNA samples routinely from certain categories of convicted offenders, and Congress subsequently provided the statutory basis for a nationwide DNA identification system through the enactment of the DNA Identification Act of 1994. The standards developed for the system include the convention of using 13 DNA loci which do not designate any overt trait or characteristic of an individual, but which in the aggregate identify him or her uniquely. The effect is to produce, through the analysis of DNA samples taken from crime scenes and offenders, DNA profiles which amount to genetic fingerprints.

Comparing the DNA profile derived from biological material left by the perpetrator at a crime scene - e.g., semen in a sexual assault examination kit - to that of a known suspect may confirm or refute the suspect's identity as the perpetrator. In cases where there are no known suspects, matching of crime scene DNA to DNA profiles of convicted offenders which are maintained in State and national databases can promptly solve crimes that would otherwise be unsolvable. Even where an individual is not specifically identified, common DNA profiles at multiple crime scenes may show a common perpetrator, thereby allowing the pooling of critical investigative information.

Under the current development of the system, all States collect DNA samples from some categories of convicted offenders, and many collect DNA samples from some persons in non-convict categories, such as adjudicated juvenile delinquents. At this point in time, a substantial majority of the States have enacted legislation authorizing the collection of DNA samples from all convicted felons, and the strong trend in State law reform is towards broader sample collection. The States maintain databases which include the profiles derived from the crime scene and offender DNA samples they collect, and the FBI maintains a national DNA identification index which makes the DNA profiles obtained under the State systems available on a nationwide basis for law enforcement identification purposes. The FBI also operates the Combined DNA Index System (CODIS) which links the State and national databases and enables them to communicate with each other.

The results of this system have been remarkable, even though many States are only beginning to use DNA's full crime solving potential, and the nation's DNA databases contain only a fraction of the DNA profiles that they will eventually include as the system develops further. For example:

- In December 1998, a 21-year-old pediatric nursing student was kidnapped, sexually assaulted, and murdered in Broward County, Florida. Three months later a DNA sample from Lucious Boyd was matched to semen found on the victim's body. Boyd was convicted of sexually assaulting and murdering the nursing student and sentenced to death in June 2002.
- In 1983, a boy was raped and murdered in Virginia while walking on a path. Investigators resubmitted the case in 1999 for DNA analysis. In August 1999, they matched the profile to

Willie Butler, who was in the database due to a previous conviction for burglary. Butler was convicted of this crime.

- In 1977, a six-year-old girl disappeared while vacationing with her family in Reno, Nevada. Her remains were found two months later. DNA testing was not available in 1977, and the case remained unsolved for twenty-three years. In 2000, renewed investigative efforts resulted in a DNA test of the victim's clothing and entry of the resulting DNA profile into the Nevada State DNA database. A database search revealed a match to a man who had been on parole since 1976 for a previous sexual assault of a minor. The man pled guilty to the murder in October 2000.

Given the extraordinary potential of the DNA technology, both Congress and the Department of Justice have endeavored for a number of years to further the system's development. For example, in 2000, Congress enacted the DNA Analysis Backlog Elimination Act, which authorized funding assistance to the States to clear DNA backlogs, and provided the initial authorization for the collection of DNA samples from convicted Federal offenders. The Department's activities have included extensive DNA programs of the National Institute of Justice and the FBI. For example, by the end of last year, the National Institute of Justice had disbursed funds supporting the analysis of more than 470,000 DNA samples collected from convicted offenders by the States, and had awarded Federal funds to support the analysis of more than 24,000 crime scene DNA samples in State cases involving no known suspects.

This year, based on the recommendations of a national panel of forensic and criminal justice experts, the President proposed a comprehensive national strategy that addresses a wide range of issues currently impeding the nation's ability to maximize the use of DNA technology. This strategy promises immediate and long term solutions of backlog, delay, and underutilization that now impede the system's operation. As noted, this includes the commitment of over \$1 billion for this purpose over the next five years, the first installment of which is reflected in the President's budget request for FY 2004.

The President's DNA initiative, which the Attorney General announced on March 11, proposes the following measures:

#### A. DNA BACKLOG ELIMINATION (FY 04 amount: \$92.9 million)

The backlogs of DNA samples in the State and Federal systems represent rapes, murders, and other serious crimes which are waiting to be solved, but will not be solved until the needed resources are made available to analyze these samples. The backlog problem has two basic components:

First, there is the backlog of "casework" samples, which consist of DNA samples obtained from crime scenes, victims, and suspects in criminal cases. We estimate that there are hundreds of thousands of casework samples awaiting testing. The President's initiative calls for \$76 million in FY 2004, with continued funding over the five years of the initiative, to help clear this backlog.

Second, there is a backlog of "convicted offender" samples, which consists of DNA samples obtained from convicted offenders who are incarcerated or under supervision. At the time of the announcement of the President's initiative in March, we estimated the number of collected but

untested convicted offender samples at between 200,000 and 300,000. We further estimated that there were between 500,000 and 1,000,000 such samples which were "owed" under State sample collection standards, but not yet collected. The volume of convicted offender samples to be collected and tested will increase as the States continue to enlarge the categories of offenders from whom they collect DNA samples. The President's initiative calls for \$15 million in FY 2004 to help eliminate the convicted offender sample backlog over five years.

In addition to the States' backlog of convicted offender samples, the Federal Bureau of Prisons, the Federal probation offices, and the Court Services and Offender Supervision Agency for the District of Columbia began to collect DNA samples from Federal and District of Columbia offenders following the authorization of such sample collection by the DNA Analysis Backlog Elimination Act of 2000. The FBI's Federal Convicted Offender Program (FCOP) is responsible for processing and analyzing these samples. At the time of the announcement of the President's initiative, approximately 18,000 DNA samples from Federal and D.C. offenders had been collected and submitted to the FBI. The President's initiative calls for \$1.9 million in FY 2004 to fund FCOP, which includes funding for analysis of the collected samples.

#### B. STRENGTHENING CRIME LABORATORY CAPACITY (FY 04 amount: \$90.4 million)

In addition to providing immediate assistance to clear the backlogs of casework and convicted offender samples, the President's initiative seeks to remedy the underlying problem of inadequate public laboratory capacity for the timely analysis of DNA samples. Many laboratories currently have limited equipment resources, outdated information systems, and overwhelming case management demands. The initiative proposes Federal funding to further automate and improve the infrastructure of forensic laboratories so they can process DNA samples efficiently and cost effectively. These improvements will prevent future DNA backlogs, and enable the criminal justice system to realize the full potential of DNA technology on a permanent basis.

\$60 million is budgeted for this purpose in FY 2004. Specific uses of the funding will include providing basic infrastructure support to public crime laboratories for DNA analysis; acquisition of Laboratory Information Management Systems to automate evidence handling and casework management - now available in only an estimated 10% of public DNA laboratories; providing automation tools to streamline aspects of the DNA analysis procedure that are labor and time-intensive, such as robotic DNA extraction units; and providing support for the retention and storage of forensic evidence.

This component of the President's DNA initiative also includes \$20.5 million in funding in FY 2004 for the FBI's laboratory programs. The FBI's Laboratory Division handles the regular DNA casework in Federal criminal cases, and provides support and technical assistance to the DNA programs of State, local, and international law enforcement agencies. This includes the Nuclear DNA Program ("DNA Unit 1"), which handles nuclear DNA analysis, and the Mitochondrial DNA Analysis Program ("DNA Unit 2"), which is responsible for performing mitochondrial DNA analysis of forensic evidence containing small or degraded quantities of DNA. In addition to providing funds to these two existing programs - \$13,902,645 for nuclear DNA and \$6,009,137 for mitochondrial DNA - the initiative budgets \$661,693 in FY 2004 for regional mitochondrial DNA laboratories, to provide an alternative source for mitochondrial DNA

analysis to State and local law enforcement and allow the FBI laboratory to concentrate more of its efforts on Federal cases.

In addition, the FBI administers the Combined DNA Index System (CODIS) which effectively integrates the DNA information obtained under the various State and Federal DNA systems, and makes it available on a nationwide basis for law enforcement identification purposes. The initiative budgets \$9.9 million for the operation and improvement of CODIS in FY 2004. This includes completing a general redesign and upgrade of CODIS, which will increase the system's capacity to 50 million DNA profiles, reduce the search time from hours to microseconds for matching DNA profiles, and enable instant, real-time (as opposed to weekly) searches of the database by participating forensic laboratories.

#### C. RESEARCH AND DEVELOPMENT (FY 04 amount: \$24.8 million)

The President's initiative includes substantial funds for DNA-related research and development including, for FY 2004, \$10 million to be administered by the National Institute of Justice, and \$9.8 million for the FBI's DNA research and development program. Areas of emphasis over the next several years will include, for example, the development of "DNA chip technology" to improve the speed and resolution of DNA analysis - which will reduce analysis time from several hours to several minutes and provide cost-effective miniaturized components - and development of robust methods to enable more crime laboratories to analyze degraded, old, or compromised biological evidence.

Another element in this area is DNA demonstration projects, for which \$4.5 million is budgeted in FY 2004. This will involve the funding of research projects in several jurisdictions to determine the scope of public safety benefits when police are trained to more effectively collect DNA and other forensic evidence, evidence is timely tested, and prosecutors are trained to enhance their ability to present this evidence in court. The information obtained will allow State and local governments to make more informed decisions regarding investment in forensic DNA as a crime-fighting tool.

A final element in this category is \$.5 million in FY 2004 to establish a National Forensic Science Commission. The Commission would both develop recommendations for maximizing the use of current forensic technologies to solve crimes and protect the public, and identify potential scientific breakthroughs that may be used to assist law enforcement.

#### D. TRAINING (FY 04 amount: \$17.5 million)

Adequate training concerning the collection and use of DNA evidence is essential to maximize the benefits of the DNA technology. Police officers and investigators, for example, must have the knowledge to identify biological material at crime scenes that may contain usable DNA evidence, and must know how to collect such evidence properly. Prosecutors and defense attorneys need to know how to introduce DNA evidence and use it successfully in court, and judges must be able to rule correctly on its admissibility. Medical personnel and victim service providers likewise need to understand DNA technology to promote successful evidence collection, and to be fully responsive to the needs of victims. The President's initiative proposes \$17.5 million for these purposes, including training and education for police officers and

investigators, prosecutors, defense attorneys, judges, offender supervision and corrections personnel, forensic scientists, medical personnel, and victim service providers.

#### E. POST-CONVICTION DNA TESTING (FY 04 amount: \$5 million)

The President's initiative proposes \$5 million in FY 2004 to help States defray the costs of post-conviction DNA testing. We believe that this will adequately cover the costs of tests done nationwide under the criteria that the States have established.

The DNA technology has its principal impact at the pretrial investigative stages, both in securing evidence of guilt, and in clearing innocent persons who might otherwise be wrongly suspected, accused, or convicted of crimes. In light of the recent emergence of this technology, however, there is also a need for DNA testing in the post-conviction context. If a person is imprisoned for a rape for which he was convicted in the 1980s, for example, DNA testing could not have been sought by the defendant before trial, because it did not exist at the time. But it may now be possible to determine whether the defendant's DNA matches to that of the apparent perpetrator in a rape kit or other retained evidence. There have in fact been a number of cases in which post-conviction DNA testing has cleared persons convicted for crimes they did not commit, and in some instances, matching of the retained evidence to DNA databases has implicated other persons as the actual perpetrators. For example:

- A Maryland man served 20 years of a 30-year sentence after being convicted of a 1982 home invasion rape of a schoolteacher. Through post-conviction DNA testing, the man was exonerated in 2002. When the crime scene profile was uploaded to CODIS, it was preliminarily linked to a felon whose DNA profile was maintained in the DNA database. This man has subsequently been arrested and charged for the 1982 crime. The original defendant was pardoned in January 2003.

While this experience points to the need for post-conviction DNA testing in appropriate cases, it also underscores the urgent need to bring the nation to a point where DNA analyses can be routinely performed early in the investigation, thus precluding the possibility of an innocent person being convicted in the first instance. No one in 21st Century America should be charged with or imprisoned for a crime he did not commit, and DNA technology is available to help prevent that from occurring.

Further, while post-conviction DNA testing is necessary to correct erroneous convictions imposed prior to the ready availability of DNA technology, experience also points to the need to ensure that post-conviction DNA testing is appropriately designed so as to benefit actually innocent persons, rather than actually guilty criminals who wish to game the system or retaliate against the victims of their crimes. Frequently, the results of post-conviction DNA testing sought by prisoners confirm guilt, rather than establish innocence. In such cases, justice system resources are squandered and the system has been misused to inflict further harm on the crime victim. The recent experience of a local jurisdiction is instructive:

Twice last month, DNA tests at the police crime lab in St. Louis confirmed the guilt of convicted rapists. Two other tests, last year and in 2001, also showed the right men were behind bars for brutal rapes committed a decade or more earlier.



[The St. Louis circuit attorney's] staff spent scores of hours and thousands of dollars on those tests. The staff personally counseled shaking, sobbing victims who were distraught to learn that their traumas were being aired again.

One victim, they said, became suicidal and then vanished; her family has not heard from her for months. Another, a deaf elderly woman, grew so despondent that her son has not been able to tell her the results of the DNA tests. Every time he raises the issue, she squeezes her eyes shut so that she will not be able to read his lips.

"She finally seemed to have some peace about the rape, and now she's gone back to being angry," the woman's son said.

DNA tests confirmed that she was raped by Kenneth Charron in 1985, when she was 59. To get that confirmation, however, investigators had to collect a swab of saliva from her so that they could analyze her DNA. They also had to inquire about her sexual past, so they could be sure the semen found in her home was not that of a consensual partner.

The questioning sent the woman into such depression that she's now on medication. "None of this needed to happen," her son said . . . .

Currently, over 30 States have enacted special statutory provisions for post-conviction DNA testing, and additional States make post-conviction testing available through other procedures. In adopting post-conviction DNA testing procedures, the States have sought to balance these important interests - using post-conviction DNA testing appropriately to clear innocent persons, while maintaining appropriate protections against abuse of the system by criminals. The funding committed for this purpose under the President's initiative will assist and encourage States in these efforts.

#### F. MISSING PERSONS IDENTIFICATION (FY 04 amount: \$2 million)

The FBI's Missing Persons DNA Database makes it possible to determine the fate of missing persons who have died, by comparing DNA profiles contributed by relatives of missing persons with the DNA profiles of unidentified human remains. This database is not being used to its full potential for a number of reasons: States have only recently begun to conduct DNA analysis on human remains and to submit the results to the database; unidentified human remains continue to be disposed of without the collection of DNA samples; and many crime laboratories lack the capacity to conduct timely analysis, especially where the biological sample is old or degraded. In addition, many law enforcement officials and family members lack sufficient information about the existence of the program and how to participate.

A number of elements of the President's DNA initiative discussed above will contribute to the solution of this problem. These include the general strengthening of crime laboratory capacity which will facilitate timely analysis of biological samples from unidentified human remains; assistance in the analysis of degraded and old biological samples through the FBI's Mitochondrial DNA Analysis Program; and research and development of more robust methods for analyzing degraded, old, or compromised biological samples.

In addition, the President's initiative will include: (i) providing outreach and education to medical examiners, coroners, and law enforcement officers about using DNA to identify human remains and aid in missing person cases, (ii) make DNA reference collection kits available to these State and local officials, (iii) support the development of educational materials and outreach programs for families of missing children and adults, (iv) encourage States to collect DNA samples before any unidentified remains are disposed of, and (v) provide technical assistance to State and local crime laboratories and medical examiners on the collection and analysis of degraded remains through the FBI and the National Institute of Justice. The \$2 million budgeted specifically for missing persons identification under the President's initiative will be used for these outreach programs and the development of educational materials and reference collection kits.

## II. FEDERAL LAW REFORMS

Maximizing the use and benefits of the DNA technology requires the right law, as well as the right resources. To this end, we have proposed a number of Federal law reforms affecting the operation of the DNA identification system and the use of DNA evidence:

### A. ALL-FELONS SAMPLE COLLECTION

The efficacy of the DNA identification system depends entirely on the profiles entered into it. Experience demonstrates that broad collection and indexing of DNA samples is critical to the effective use of the DNA technology to solve rapes, murders, and other serious crimes.

The DNA sample that enables law enforcement to identify the perpetrator of a rape, for example, often was not collected in connection with an earlier rape. Rather, in a large proportion of such cases, the sample was taken as a result of the perpetrator's prior conviction for a non-violent crime (such as a burglary, theft, or drug offense).

For example, in Virginia, which has authorized the collection of DNA samples from all felons since 1991, a review of cases in which offenders were linked to sex crimes through DNA matching found that almost 40% of the offenders had no prior convictions for sexual or violent offenses. Most serious offenders do not confine themselves to violent crimes. The experience of States with broad DNA collection regimes demonstrates that DNA databases that include all felons dramatically increase law enforcement's ability to solve serious crimes.

As a result of the proven value and importance of broad DNA sample collection in solving rapes, murders, and other serious crimes, the States have been moving towards the collection of DNA samples from all felons. At this time, at least 31 States have enacted legislation authorizing the collection of DNA samples from all persons convicted of felonies, and the number is increasing rapidly.

However, the specification of sample collection categories for Federal offenders remains narrower than that currently authorized in most State systems. The DNA sample collection categories in the DNA Analysis Backlog Elimination Act of 2000, as originally enacted, were relatively narrow and fragmentary. These categories were recently expanded to include Federal offenders convicted of terrorism offenses and of crimes of violence generally. While this was an

improvement over the original law, the Federal DNA sample collection provisions continue to exclude many Federal offenders whose inclusion in the DNA system would predictably be of significant value in solving rapes, murders, and other crimes.

This omission should be corrected by extending the DNA sample collection categories for Federal offenders to include all felons, as most of the States have already done.

## B. COMPREHENSIVENESS OF THE NATIONAL DNA INDEX

The statute governing the national DNA index currently authorizes inclusion in the index of the DNA profiles of "persons convicted of crimes." 42 U.S.C. 14132(a)(1). This is narrower than the scope of DNA sample collection under existing legal authorities in most United States jurisdictions. For example, most States collect DNA samples from some categories of adjudicated juvenile delinquents, and some States - including Virginia, Louisiana, and Texas - have authorized DNA sample collection from certain arrestees on a categorical basis. The States can collect these samples and include the resulting DNA profiles in their own DNA databases, but cannot enter this information into the national DNA index because of the wording of the Federal database statute.

This limitation undermines the utility of the national index as a means of making nationally available for law enforcement identification purposes the information collected under the State systems, and hence works against the effective solution of rapes, murders, and other crimes through DNA matching. This problem should be corrected by allowing inclusion in the national index of DNA profiles of other persons whose DNA samples are lawfully collected under applicable legal authorities, as well as those of convicted offenders. By way of comparison, the States regularly include fingerprint information for arrestees, as well as convicts, in the national criminal history records system, and are free to include prints for juvenile delinquents as well as adult offenders.

This proposed change is essential to conserve limited law enforcement and laboratory resources. Knowledgeable law enforcement officials are often aware that many States and local jurisdictions maintain DNA profiles (from juveniles and arrestees) that are not uploaded into the national database. As a result, police often use an informal search mechanism that relies on faxed search requests to all jurisdictions to investigate cases. The lawful search mechanism wastes valuable law enforcement resources as each laboratory must input an individualized search and then respond to the requesting jurisdiction. The proposed statutory change would conserve these valuable law enforcement and laboratory resources by permitting a single search of the national database instead of the current individualized fax/search process.

## C. STATUTE OF LIMITATIONS REFORM

A statute of limitations usually reflects a legislative judgment that the burden of prosecuting an old crime may outweigh its benefits. It balances the need to prosecute serious crimes with concerns that a delayed prosecution may be unreliable given the passage of time and faded

memories. A statute of limitations may also encourage law enforcement officials to investigate promptly suspected criminal activity. For serious crimes, such as murder, where the public interest in holding an offender accountable is particularly compelling, there is usually no statute of limitations.

Where, however, a prosecution is supported by DNA evidence, imposing a statute of limitations does not serve these public interests. The dependability of DNA evidence does not diminish over time and it produces reliable verdicts years after the crime was committed. Likewise, the mechanical application of a fixed statute of limitations can bar a trial even where law enforcement officials have promptly investigated the crime and sought to use DNA evidence. For these reasons, we have recommended that the provisions governing the time period for commencing prosecution in Federal cases be amended so as to toll the limitation period for prosecution in felony cases in which the perpetrator is identified through DNA testing. This reform is necessary to realize the full value of the DNA technology in solving crimes and protecting the public from rapists, killers, and other serious offenders.

The DNA identification system solves crimes by collecting DNA samples from offenders and matching the resulting DNA profiles to DNA found in crime scene evidence. However, this process proves to be futile where the sample taken from an offender matches, for example, rape kit DNA from a rape committed some years previously, but prosecution is impossible because it is time-barred. For example, in Federal law, the limitation period for the prosecution of most offenses is five years, see 18 U.S.C. 3282. So if a person who commits a rape avoids identification for five years, he has quite likely acquired permanent immunity from prosecution - even if DNA matching conclusively identifies him as the perpetrator five years and one day after the commission of the crime. Rape cases involving DNA matches which occur after the expiration of a restrictive statute of limitations have already been seen in the current operation of the DNA identification system, and their number will increase as the DNA databases grow and the use of the DNA technology expands.

Nor is the problem confined to the area of sexually violent offenses. For example, consider a case in which a person commits a murder in violation of the interstate domestic violence or interstate stalking provisions of Federal law, 18 U.S.C. 2261 and 2261A. Since these provisions include no death penalty authorizations, the no-limitation rule for capital cases under 18 U.S.C. 3281 is inapplicable, and they must normally be prosecuted within five years under the general limitation rule of 18 U.S.C. 3282. Thus, if the offender is not identified and indicted within five years, prosecution under these provisions is thereafter likely to be impossible, even if DNA matching establishes the identity of the perpetrator following the expiration of the limitation period.

Currently, State systems vary considerably in their statutes of limitations for prosecution. A number of States have no limitation period for the prosecution of felonies generally, or for other broadly defined classes of serious crimes. See, e.g., Ala. Code § 15-3-5 (no limitation period for prosecution of felonies involving violence, drug trafficking, or other specified conduct); Ky. Rev. Stat. § 500.050 (generally no limitation period for prosecution of felonies); Md. Cts. & Jud. Proc. Code § 5-106 (same); N.C. Gen. Stat. § 15-1 (same); Va. Code § 19.2-8 (same); see also Ariz. Rev. Stat. § 13-107(E) (limitation period for prosecution of serious offenses tolled during any time when identity of perpetrator is unknown). Other States have amended their statutes of

limitations in light of the development of the DNA technology and its ability to make conclusive identifications of offenders even after long lapses of time. Common reforms include extending or eliminating the limitation period for prosecution in sexual assault cases or cases that may be solvable through DNA testing. See, e.g., Ark. Code § 5-1-109(b)(1); Del. Code tit. 11 § 205(i); Ga. Code § 17-3-1(b), (c.1); Idaho Code § 19-401; Ind. Code § 35-41-4-2(b); Kan. Stat. § 21-3106(7); La. Crim. Proc. Code art. 571; Mich. Comp. Laws § 767.24(2)(b); Minn. Stat. § 628.26(m); Or. Rev. Stat. § 131.125(8); Tex. Crim. Proc. Code art. 12.01(1)(B).

Federal law, however, has not yet adequately addressed this problem in Federal criminal cases. As noted, we have recommended remedial legislation to provide that, in felony cases in which the defendant is implicated through DNA testing, the statute of limitations does not begin to run until the DNA identification occurs. Even where crime scene DNA evidence is available, unavoidable delay may occur before the offender can be identified through DNA matching, if he is not convicted until years later for some other offense which results in a DNA sample being taken and entry of his DNA profile into CODIS. The proposed tolling provision will help to ensure that prosecution will not be barred by an arbitrary time limit in such cases.

We also recommend that this reform be made retroactively applicable to offenses committed before its enactment, to the full extent permitted by the Constitution. The Supreme Court recently considered this issue in *Stogner v. California*, 2003 WL 21467073, and held that legislation extending a statute of limitations cannot be given fully retroactive effect, to revive prosecutions that were already time-barred when the legislation was enacted. The Court emphasized, however, that this does not impugn the validity of giving such reforms partially retroactive effect, to extend the limitation period for prosecuting an offense that is not yet time-barred when the statute of limitations reform is enacted. See 2003 WL 21467073, at \*4, 7, 16. Affording the statute of limitations reforms we have recommended retroactive effect to the full extent that the Constitution allows will maximize their value in older cases which will be solved through DNA testing, but in which the DNA identification would come too late under the previously applicable limitation rules.

#### D. POST-CONVICTION DNA TESTING

Most of the States have made provision for post-conviction DNA testing, but the Federal government has yet to adopt standards and procedures for the conduct of such testing in Federal cases. We look forward to working with Congress to develop appropriate statutory provisions for this purpose. As in the State systems, the need is to develop procedures which appropriately make post-conviction DNA testing available to convicts whose factual innocence may now be provable by such testing, while maintaining adequate safeguards against abuse of such a remedy and retaliatory traumatization of victims by criminals.

### III. DEPARTMENT OF JUSTICE FUNDING FOR NON-DNA FORENSIC SCIENCE

Mr. Chairman, in addition to discussing the President's DNA Initiative, you also requested that the Department of Justice address its other non-DNA forensic science programs.

Our nation is at a unique moment in time in the area of DNA forensic science. It is consistently proving that the use of DNA technology is revolutionizing the criminal justice system -from solving cold cases, identifying missing persons, to exonerating the innocent. While the President's DNA Initiative focuses on a sweeping approach to building the nation's capacity to use DNA in the criminal justice system, the Department of Justice has also dedicated significant resources to enhance other areas of forensic science such as fingerprint identification and analyzing explosives, drugs, arson, and firearms. The Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF), the Federal Bureau of Investigation (FBI), the U.S. Drug Enforcement Administration (DEA), the National Institute of Justice (NIJ), and the Bureau of Justice Assistance (BJA) have each invested millions of dollars to help equip and train Federal, State and local law enforcement, as well as fund research to develop new forensic technology.

Examples of the nature and extent of programs that support non-DNA forensic science follow:

#### BUREAU OF ALCOHOL, TOBACCO, FIREARMS, AND EXPLOSIVES

##### ATF NATIONAL LABORATORY CENTER

The ATF's new National Laboratory Center is a state-of-the-art facility combining a forensic science laboratory, a fire research lab, and an alcohol and tobacco lab in one location. Much of the work performed at the center benefit state and local law enforcement. Since FY 2001, ATF has spent over \$9 million on its National Laboratory programs. Of the three components:

- ? the Forensic Science Laboratory evaluates evidence obtained in crimes involving firearms, bombings, and suspected arson incidents,
- ? the Fire Research Laboratory is the first facility in the world dedicated to fire scene investigations, including the ability to reconstruct fire scenes to determine how fires begin and spread, and
- ? the Alcohol and Tobacco Laboratory conducts chemical, physical, and instrumental analyses to support illicit alcohol and tobacco trade investigations.

I will discuss the work of the ATF's Forensic Science Laboratory in more detail, however if the Subcommittee would like additional information about the other two components of the National Laboratory Center, I will be more than happy to explain them in more detail after today's hearing.

##### ATF FORENSIC SCIENCE LABORATORY

As mentioned previously, the Forensic Science Laboratory evaluates evidence obtained in crimes involving firearms, bombings, and suspected arson incidents. Specifically,

National Integrated Ballistic Information Network Program:

Vital technology to help State and local agencies solve firearm-related violent crime is available nationwide through the ATF's National Integrated Ballistic Information Network (NIBIN) Program. NIBIN uses the Integrated Ballistics Identification System (IBIS), a computer system combined with microscopy and digital imaging, quickly searches databases for matching

toolmarks left by a firearm on fired bullets and cartridge casings. This search allows trained specialists to associate evidence in crimes committed with firearms in multiple locations throughout a geographical region.

Since Fiscal Year (FY) 2001, ATF has spent \$73.8 million on the NIBIN program and has requested \$27.2 million to continue expansion of the program in FY 2004. A significant portion of this funding is used to supply state and local law enforcement agencies with the equipment necessary to use the NIBIN system.

The NIBIN program is currently in the second year of a multi-year expansion through which 222 state and local law enforcement sites have received IBIS equipment. However, when the deployment is complete in all 16 multi-state regions, IBIS technology will be available at approximately 235 state and local law enforcement sites. When a crime is committed with a firearm, fired bullets and/or cartridge casings are entered into the system and a database search is performed to find any link between this evidence and evidence in other shooting incidents. Once the system identifies a potential match, a firearm and toolmark examiner collects and microscopically compares the actual evidence to verify the match. Since ATF and its partner agencies began using this technology, over 6800 "hits" have been logged, many of them yielding investigative information not obtainable by other means.

Through funding and supporting this program, ATF provides State and local law enforcement agencies with an effective intelligence tool that many could not afford on their own. Having one unified system makes it possible to share intelligence across jurisdictional boundaries, enabling State and local law enforcement agencies to work together to stop violent criminals. For example:

- In June 2003, a cross-jurisdictional link enabled Illinois law enforcement to strengthen evidence against an accused killer. McDonough County, Illinois police investigated a homicide at a residence, in which a guest robbed the resident, then fatally shot him with his own gun. Ballistic evidence from the shooting was collected at the scene. When the suspect was later apprehended, he was driving a car that had belonged to the victim. No weapon was recovered; police believed it had been sold or traded for narcotics. Ten months later, Chicago police stopped a vehicle for traffic violations, and discovered that its driver possessed a firearm. The driver told police that he had purchased the firearm on the street, but didn't remember the name of the seller or when the purchase had taken place. Testfire and NIBIN entry of the firearm revealed that it had been used in the murder ten months before. This discovery enabled prosecutors to use the actual murder weapon as evidence in the case.
- In a June 2003 case, a suspect was arrested two days after a nightclub shooting. Through NIBIN, New Orleans police discovered that one of the guns used in the shooting had also been used in four other crimes. No suspects had been identified in the other crimes, which included a homicide and an aggravated battery. This ballistic link will now help police to investigate the potential links between the suspects and the other crimes.

Other services provided by the ATF National Laboratory and which benefit state and local law enforcement include: firearm and toolmark examinations, explosive examinations, fire debris

analysis, fingerprint examination, questioned document examination, trace evidence comparisons, training, and research. Scientists performing the analyses of crime scene evidence are frequently called on to testify as expert witnesses in state and local courts.

## FEDERAL BUREAU OF INVESTIGATION

The successful investigation and prosecution of crimes requires, in most cases, the collection, preservation, and forensic analysis of evidence, which can be crucial to demonstrations of guilt or innocence. The FBI provides many services to the state and local forensic science community that include analysis, research, training, and technology.

## FBI LABORATORY

As one of the largest and most comprehensive forensic laboratories in the world, the FBI Laboratory provides forensic and technical services to state and local law enforcement agencies at no expense to these agencies. The Lab analyzes physical evidence ranging from blood and other biological materials to explosives, drugs, and firearms and develops new scientific techniques. Laboratory examiners provide expert witness testimony in court cases regarding the results of forensic examinations, and specially-trained teams of special agent and support personnel assist domestic and international law enforcement agencies in large-scale investigations and disasters. More than one million examinations are conducted by the FBI Laboratory each year, and efforts to implement the results of current research in forensic casework are ongoing. Forensic services provided by the FBI Laboratory for evidence examination include: firearms-toolmarks analysis, computer analysis, chemistry analysis, computer analysis and response, DNA analysis, evidence response analysis, explosives analysis, firearms and toolmarks analysis, forensic audio, video, and image analysis, forensic science research, forensic science training, hazardous materials response, investigative and prosecutive graphics analysis, latent prints analysis, materials analysis, questioned documents analysis, racketeering records analysis, special photographic analysis, structural design, and trace evidence analysis.

## INTEGRATED AUTOMATED FINGERPRINTING IDENTIFICATION SYSTEM (IAFIS):

Criminal identification by means of fingerprints is one of the most potent factors in apprehending fugitives who might otherwise escape arrest and continue their criminal activities indefinitely and law enforcement officials to learn the criminal history of a suspect or offender. This tool is perhaps the most commonly used forensics tool, one used every day by state and local law enforcement officers across the nation. The FBI maintains the National Repository of Criminal History Records and Criminal History Data, containing 41 million subjects in the criminal fingerprint file and 40 million subjects in the civil fingerprint file.

After many years of development, in 1997 the FBI Laboratory implemented the Integrated Automated Fingerprint Identification System (IAFIS). Now, instead of using ink and fingerprint cards to take fingerprints of arrested subjects and job applicants, fingerprint images are now recorded digitally and transmitted to the FBI for comparison. By comparing fingerprints at the scene of a crime with fingerprint records of suspected persons, officials can establish absolute



proof of the presence or identity of a person. Fingerprint processing has been reduced from weeks to months to hours and minutes with IAFIS.

To illustrate on one day alone - on July 23, 2003 - IAFIS processed 66,568 sets of fingerprints. Of those, 38,780 were criminal fingerprints and 27,788 were civil fingerprints. (Civil fingerprints are those taken for employment or licensing purposes as required by federal or state law.) The average response time for processing criminal fingerprints was 53 minutes, while the average response time for processing civil fingerprints was 155 minutes since criminal fingerprint checks are given the highest priority. (65.55% of the processed fingerprints were submitted electronically.) From October 1, 2002 to July 15, 2003, IAFIS processed 13,885,367 sets of fingerprints. Of this figure, 7,108,719 fingerprints were submitted by law enforcement agencies as a result of arrest and 6,776,648 fingerprints were submitted for employment or licensing purposes as required by federal or state law. Of the arrest fingerprints submitted, approximately 66% of the criminal fingerprints were identified with current arrest fingerprints on file. Of the civil fingerprints submitted, 12% were identified with previous criminal histories.

IAFIS also has a latent fingerprint capability. During the October to July period discussed above, over 2,101 searches involving 332 cases were conducted. In using the IAFIS latent fingerprint search, identifications were affected in 42 cases leading to the identification of 32 individuals.

Each day approximately 5,000 new individual criminal records are added to the files, totaling approximately 25,000 new criminal records per week. All of these fingerprint identifications were made without benefit of a named suspect and helped solve a variety of crimes, including homicides, rape, bombing matters, organized crime, extortion, drug crimes, and financial institution fraud.

#### THE FBI ACADEMY: FORENSIC SCIENCE RESEARCH AND TRAINING CENTER:

Forensic science research is conducted to develop new and improved methods for the analysis of forensic evidence. The Forensic Science Research and Training Center is a section of the FBI Laboratory Division that supports the FBI Training Division by providing forensic training to state and local law enforcement agencies and crime laboratories. It allows law enforcement agencies and crime laboratory personnel hands-on training to enhance their basic skills and procedures, as well as introduce them to new or more advanced techniques used in the examination of physical evidence.

#### U. S. DRUG ENFORCEMENT ADMINISTRATION

The DEA laboratory system, consisting of seven regional laboratories, a digital evidence laboratory and a Special Testing and Research Laboratory, is the premier drug analytical laboratory system in the world. DEA forensic scientists provide accredited scientific support to federal, state and local law enforcement agencies. In FY 2002, DEA expended in excess of \$3 million analyzing drug evidence and providing expert testimony for the District of Columbia Metropolitan Police Department. In addition, the DEA cleaned up 6,800 state and local clandestine laboratories nationwide in FY 2002 at a cost of approximately \$21 million dollars.

DEA also provided clandestine laboratory certification to 1065 state and local law enforcement personnel in 24 schools last year. Also in FY 2002, DEA filled 894 requests from state and local law enforcement canine handlers for authentic materials for police dog training. Over the past thirty years DEA has trained well over 5,000 state and local chemists in various aspects of drug analysis as well as untold numbers of state and local police officers in the field testing of drugs. Over the past thirty-five years DEA has provided up to date information on drug analysis through its Microgram publication distributed to approximately 2000 subscribers.

The DEA laboratory system experts stand ready to assist state and local agencies upon request. In 2000, DEA laboratory personnel provided emergency analytical support to the State of West Virginia after their drug analytical laboratory was rendered inoperable for a period of several months. Additionally, the North Central Laboratory in Chicago is currently assisting the Kansas Bureau of Investigation by providing drug analytical support to that agency. In 2002, the DEA digital evidence laboratory supported a number of national investigations of internet rogue pharmacies involved in fraudulently prescribing millions of dollars worth of dangerous prescription pain medications. The DEA also assisted the National Forensic Science Technical Center in the development and implementation of an NIJ funded basic training program for state and local forensic drug chemists.

## OFFICE OF JUSTICE PROGRAMS

### NATIONAL INSTITUTE OF JUSTICE

The National Institute of Justice, the research, development, and evaluation agency of the U.S. Department of Justice's Office of Justice Programs, seeks to stimulate research and development of methods, techniques, and technologies that can enhance or increase the discriminatory power, applicability, and/or reliability of forensic analyses used in crime laboratories. Proposals that build or improve upon existing technologies, methods, or approaches as well as proposals based on new or novel technologies, methods, or approaches are funded to meet the goal of maximizing the value of forensic evidence to state and local law enforcement agencies.

As previously discussed, the President's DNA Initiative will also benefit the forensic science community in ways other than simply those involving DNA. The Initiative's funding for laboratory capacity building will provide much needed laboratory information management systems to help officials efficiently track all of the work of their lab, not only that involving DNA, and thereby increase the efficiency of the lab. The use of Initiative funding to increase evidence storage capacity will help to ensure that states and units of local government will be able to adequately maintain all necessary evidence collected from a crime scene, regardless of the type of forensic analysis performed on the evidence, for as long as needed.

Over the last several years, NIJ has provided much needed assistance to the forensic science community in many other ways. NIJ's 1999 publication, *Forensic Sciences: Review of Status and Needs*, provided a needs assessment to the forensic science community that, for the first time, represented the consensus of a group of forensic practitioners, researchers, and administrators representing several State, local, and Federal forensic science organizations. The document has

helped Federal, state and local officials in understanding the needs of this community and planning for future support of this work.

In February 2003, NIJ provided funds to the Institute of Medicine of the National Academy of Sciences to conduct a workshop on identifying the needs of the medical examiner and coroner systems in the United States. The workshop identified issues for further research and suggested additional standards to enhance the level of service provided by these members of the forensic science community.

Over the last several years, NIJ has funded a number of research and development projects involving forensic tools and techniques other than DNA. Since 2001, NIJ has awarded over \$15 million in grants for this work. Some examples include,

? One project makes use of remarkably accurate depth measurements of a bullet's surface to create a three-dimensional (3D) profile of a bullet. These profiles are stored in a database, and through the use of mathematical algorithms, can be compared in a completely objective manner. When a bullet is fired, the gun leaves unique impression marks on the bullet and casing. Current methods look at these marks in two dimensions. This project will permit 2D profiles. Imagine the difference between looking at the Grand Canyon in a 2D overhead picture versus a 3D view from inside it. This research has the potential to greatly enhance the ATF's NIBIN system.

? Another project aims to use advanced technology to rapidly screen for drugs and poisons in postmortem toxicology cases. This procedure will significantly expand the number of drugs and poisons that may be screened for by a toxicology laboratory at a lower cost and make possible the screening of over 100 additional compounds. This project is especially important for detection of emerging drugs of abuse.

? Another project focuses on the elemental analysis of glass and paint materials. Elemental analysis of materials has become an important yet under utilized type of evidence at many crime scenes, including scenes of shootings and bombings. Glass and paint elemental analysis procedures and a database which can be used by state and local crime labs to analyze crime scene evidence will be developed.

? NIJ is currently funding research for two tele-forensics projects. The first project focuses on gunshot residue detection. It will analyze patterns in inorganic ratios specific to gun shot residue using advanced technology to locate exact quantities of inorganic elements, such as lead, antimony, and barium, in gun shot residue from different firearms. Funding will also be used to construct a portable x-ray fluorescence instrument for investigators to map gunshot residue at crime scenes. The second project will develop a mobile tele-forensics command vehicle. It will serve as a technology test bed to provide the following: real time video and audio review of evidence and crime scene tasks by off-site forensic professionals, on-site communications, video evidence collection and cataloguing, and remote crime scene analysis.

? Another project will test the programs used by investigators to examine computers seized for evidence in criminal cases. The testing will help developers improve the software and establish the validity of evidence produced by the software for use in court. NIJ funding also maintains the National Software Reference Library of software commonly found on computers. Law

enforcement investigator currently uses the library to compare common computer programs found on a suspect's computer with the same program in the library. By doing this, investigators are able to determine if the suspect has hidden data, pictures, or other information in the program on his computer.

In addition to providing funding for research and development, NIJ also has also provided over \$94 million since FY 2001 under its Crime Laboratory Improvement Program, designed to establish or improve the capabilities and capacities of state and local crime laboratories to conduct forensic analyses. While much of this funding has been earmarked by Congress, NIJ has worked closely with the recipients of these earmarks by providing advice and technical assistance so as to help ensure that these funds are used in the most effective manner.

## BUREAU OF JUSTICE ASSISTANCE

The Bureau of Justice Assistance (BJA) provides funding, training, and technical assistance to state and local governments to combat violent and drug-related crime and help improve the criminal justice system. BJA administers the Local Law Enforcement Block Grants (LLEBG) Program, which provides funds to units of local government to underwrite projects that reduce crime and improve public safety. One of LLEBG's legislatively mandated purpose areas allows law enforcement agencies to procure equipment, technology, and other items directly related to basic law enforcement functions. Since FY 1999, BJA has awarded 234 LLEBG grants to State and local law enforcement agencies totaling more than \$30.9 million for crime lab improvement, non-DNA forensic technology and equipment, forensic training, and mobile forensic equipment, etc. Additionally, through the Byrne Discretionary and Crime Information Technology Assistance (CITA) programs, eight FY 2003 earmarks totaling over \$6.1 million were awarded to fund state and local criminal justice agencies improvement and expansion of Automated Fingerprint Identification Systems.

## CONCLUSION

The Administration and the Attorney General continue to sponsor programs and research and development of all types of forensic tools and techniques, involving both DNA- and non-DNA forensic technologies. Much of the Department's work over the years has been in creating state and national databases - for fingerprints, ballistic images, and DNA profiles - each of which aid state and local law enforcement agencies every day. Complete, comprehensive, and immediately accessible records are a cornerstone of an effective criminal justice system.

The President's DNA Initiative reflects the Administration's effort to enhance the use of this national database a moment in history where the benefits of DNA to solve the most serious violent crimes is becoming fully known. While the Department has, and will continue to support all areas of forensic science with resources, technical