



**NIJ**



**NATIONAL INSTITUTE OF JUSTICE**

'04

To the President, the Attorney General, and the Congress:

It is my honor to transmit the National Institute of Justice's annual report on research, development, and evaluation for fiscal year 2004, pursuant to the Omnibus Crime Control and Safe Streets Act (as amended) and the 1988 Anti-Drug Abuse Act.

Respectfully submitted,



Sarah V. Hart  
Director, National Institute of Justice  
Washington, D.C.



Annual Report

NATIONAL INSTITUTE OF JUSTICE

**U.S. Department of Justice  
Office of Justice Programs**

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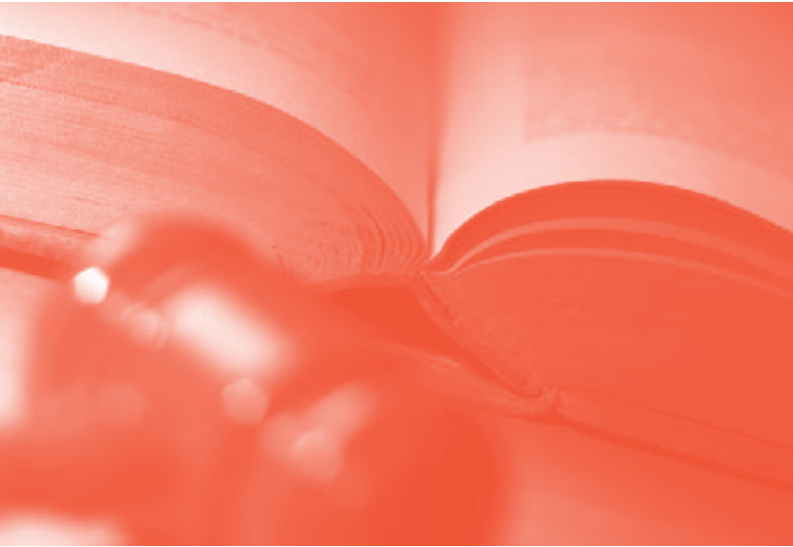
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Timeline **1968–2003**



1968

Congress passes the Omnibus Crime Control and Safe Streets Act, which creates NIJ (then called the National Institute of Law Enforcement and Criminal Justice), to monitor and support Federally funded criminal justice research intended to help State and local governments improve police, courts, and corrections.

1969

With 35 employees and a budget of \$2.5 million, NIJ begins operations. Awards during the first year encompass several key areas: law enforcement communications systems, crime prevention and rehabilitation, technology, and management and organization of the criminal justice system.

1970

NIJ evaluates methadone maintenance as a means of dealing with drug abuse and related crime.

1971

NIJ establishes the Law Enforcement Standards Laboratory under the auspices of the National Bureau of Standards to begin filling a long-standing need for scientifically based standards for criminal justice equipment.

1972

NIJ begins to fund development of soft body armor for police, an initiative destined to save thousands of officers from serious injury and death in subsequent years.

NIJ-funded research on "defensible space" links the physical design of buildings to neighborhoods' vulnerability and leads to models of crime prevention through urban design.

NIJ launches the National Criminal Justice Reference Service.

With NIJ funding, Marvin Wolfgang's study on delinquency in a birth cohort finds that a small proportion of criminals commit most crime.

1973

Research on jury management shows ways to make trials more efficient, less costly, and less time-consuming for those who serve.

U.S. Parole Commission adopts research-based guidelines for parole decisions; several States follow.

1974

NIJ publishes findings from the Kansas City (Missouri) Preventive Patrol Experiment, which tested the then-common assumption that by driving more or less randomly in a given area, officers in patrol cars prevented crime, made the public feel more secure, and increased the chances of arresting suspects. Study results indicated that preventive patrol did not necessarily prevent crime or reassure the public. Subsequently, many police departments began issuing officers specific proactive assignments.

1975

An NIJ-funded study reveals the difficulties victims face in the criminal justice system; recommended reforms lead to the creation of victim assistance programs nationwide.

1976

Research finds that the time it takes to report a crime—not the speed of the police response—is the major factor influencing the likelihood of arrest.





1977

Research on criminal investigation concludes that the probability of an arrest is largely determined by information obtained by officers first on the crime scene. If specific types of information are not collected at this time, the chances of solving a case remain low, regardless of the intensity of a followup investigation. These findings lead to the identification of "solvability factors," which become guides for prioritizing followup investigations.

NIJ initiates the crime laboratory proficiency testing program to measure the analytical accuracy of evidence analysis nationwide.

NIJ launches research on alternatives to traditional parole.

1978

NIJ examines new techniques for detecting and identifying explosives.

Under an NIJ grant, more than 300 forensic laboratory specialists are taught how to analyze types of evidence posing the greatest difficulties for forensic examination.

1979

NIJ launches *Crime and Justice*, a scholarly series edited by Michael Tonry and published by the University of Chicago Press.

1980

NIJ funds an experiment in Minneapolis, Minnesota, to explore options for police responses to domestic violence calls.

NIJ publishes findings of research exploring why career criminals so often "beat the system," prompting the emergence of career criminal prosecution programs.

1981

Results of the NIJ-sponsored Newark, New Jersey, Foot Patrol Experiment are released. This and subsequent experiments focusing on problem-oriented policing tested whether various forms of foot patrol, door-to-door contact, and other positive contacts between police and the community could reduce fear of crime and improve neighborhood life. This research foreshadowed the development of community policing.

1982

"Broken Windows," by James Q. Wilson and George L. Kelling, appears in the *Atlantic Monthly*.

Research shows a link between drug use and crime. The findings set the stage for the 1987 launch of Federal-local partnerships to collect data and measure drug use among arrestees.

1983

Research on pretrial release is published and suggests that an objective method exists to identify which defendants are most likely to appear for trial. Courts begin implementing formal pretrial release guidelines modeled after the original research.

1984

Research finds that the best predictor of success of drug treatment is the length of time one stays in treatment.

Minneapolis experiment indicates that spending the night in jail appears to significantly cut the risk of repeat violence against the same victim, a finding that motivates many police departments to require an arrest in domestic violence situations.

1985

Research on probation in California finds that routine probation provides insufficient punishment for offenders and inadequate protection for the community. This finding helps spur interest in intermediate sanctions (e.g., boot camps, house arrest, intensive supervision, and electronic monitoring).



1986

NIJ begins support for the development of DNA technology applicable to criminal justice.

1987

NIJ initiates the analysis of drug use by arrestees through its Drug Use Forecasting program (renamed the Arrestee Drug Abuse Monitoring program in 1998).

1988

NIJ designates white-collar crime as a priority research area. Subsequently, the Institute funds major studies on savings and loan fraud, insurance and securities fraud, money laundering, computer crime, telemarketing fraud, environmental crime, and public corruption.

1989

First drug court is established (in Miami, Florida). NIJ begins an evaluation that eventually shows that drug courts hold promise for reducing drug-related recidivism.

1990

NIJ initiates several efforts to improve DNA testing.  
NIJ and the John D. and Catherine T. MacArthur Foundation join to establish the Project on Human Development in Chicago Neighborhoods, which begins examining the social development of 7,000 individuals from birth to age 24 and gauging influences on delinquency and crime.

1991

NIJ provides technical assistance to expand private sector involvement in prison industries programs.

1992

Research confirms a "cycle of violence," in which abused, neglected children are more likely to become involved in later criminal behavior.

1993

The first "Three Strikes" laws are enacted.  
*Understanding and Preventing Violence* is released. This report from the National Academy of Sciences lays the groundwork for the next decade of research at NIJ on violence and victimization.

1994

NIJ creates a system of regional technology centers (the National Law Enforcement and Corrections Technology Centers) to respond to the need for technology information and assistance.  
Congress passes the Violent Crime Control and Law Enforcement Act.



## 1995

NIJ initiates major research and evaluation efforts in program areas included in the 1994 Crime Act—community policing, violence against women, sentencing and corrections, and drug courts.

## 1996

NIJ awards funds to enhance State and local DNA laboratory processing capabilities, publishes a report documenting case studies in which DNA evidence presented after trial led to the release of inmates convicted of violent felonies, and sponsors a national conference on the future of DNA evidence.

NIJ issues the first annual report to Congress on stalking and domestic violence.

## 1997

NIJ establishes the Crime Mapping Research Center and the International Center.

NIJ publishes *Preventing Crime: What Works, What Doesn't, What's Promising*.

*Science* magazine publishes findings on the influence of neighborhoods based on research from the Project on Human Development in Chicago Neighborhoods.

## 1998

At the request of the Attorney General, NIJ forms the National Commission on the Future of DNA Evidence, leading to a series of recommendations on the use of DNA in the criminal justice system.

## 1999

In collaboration with other agencies, NIJ works with policymakers, judges, and correctional officials to address challenges posed by the reentry of large numbers of prisoners into communities.

NIJ prepares guidelines on crime scene investigation, death investigation, and eyewitness evidence using expert panels to identify best practices.

## 2000

NIJ publishes the 4-volume series *Criminal Justice 2000*, essays on current and emerging trends in criminal justice.

The National Commission on the Future of DNA Evidence produces a pocket guide on collecting DNA evidence at crime scenes. Copies are printed for every sworn law enforcement officer in the Nation.

Results from the National Violence Against Women Survey, co-sponsored by NIJ and the Centers for Disease Control and Prevention, show that more than half of surveyed women reported being physically assaulted at some point in their lives, and nearly two-thirds of women who reported being raped, assaulted, or stalked were victimized by intimate partners.

## 2001

NIJ responds to the 9-11 attacks with onsite assistance, including search and rescue tools and technology and protective gear. NIJ speeds up production of equipment guides for first responders.

NIJ develops a technique to distinguish between crack and powder cocaine use in test subjects.

## 2002

Six cities are found to have reduced firearms violence through action research initiated by NIJ.

Ground-breaking research provides the first comprehensive national look at rape and sexual assault on college campuses.

NIJ reports to Congress on the viability of using various less-lethal weapons aboard commercial aircraft as a means of thwarting an onboard attack.

## 2003

NIJ completes a comprehensive report to the Attorney General on the extent and causes of delays in analyzing DNA evidence. Six report recommendations become the foundation of "Advancing Justice Through DNA Technology," the President's DNA initiative.

NIJ sponsors the development of biometrics as a tool for security and criminal justice. Face and iris recognition technologies are tested in prisons and schools.

A trainer's manual on eyewitness evidence is released. The manual presents effective techniques for interviewing witnesses and conducting lineups.



# 2004

## Highlights of the Year

In 2003, crime victimizations in the United States approached 24 million—about 5.4 million were violent crimes, and more than 18 million were property crimes.<sup>1</sup> In addition to the emotional and mental losses for victims, crime exacts an enormous financial toll, with gross annual losses of nearly \$16 billion.<sup>2</sup>

The primary challenge for criminal justice professionals today is not from the number of crimes, however, but from the changing nature of the crime landscape. Although traditional criminal activities such as juvenile delinquency, gangs, burglary, and violent crimes remain problems for many communities, law enforcement agencies now face such new threats as the evolving globalization of crime, possible terrorism, and cybercrime.

At the same time, advances in technology—such as lower costs for the analysis of DNA samples—are changing how evidence is collected and crimes are investigated, as well as how judges and attorneys handle court cases.

The National Institute of Justice (NIJ) is the research, development, and evaluation agency of the U.S. Department of Justice and is dedicated to researching crime control and justice issues. NIJ provides objective, independent, evidence-based knowledge and tools to meet the challenges of crime and justice, particularly at the State and local levels. The agency often forms partnerships with other Federal agencies, scientific and academic institutions and experts, law enforcement and corrections agencies, and professional organizations. Such joint ventures bring together the best minds, experience, and resources to explore emerging technologies, evaluate programs, develop standards, facilitate research, disseminate findings, and tackle pressing issues involving public safety, justice, law enforcement, and corrections.

<sup>1</sup> Catalano, S.M., *Criminal Victimization, 2003*, Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics, September 2004 (NCJ 205455), available at <http://www.ojp.usdoj.gov/bjs/pub/pdf/cv03.pdf>.

<sup>2</sup> From the National Crime Victimization Survey of 2002, published on the World Wide Web in *Criminal Victimization in the United States—Statistical Tables*, December 2003 (NCJ 200561): Table B2, “Personal and property crimes, 2002,” available at <http://www.ojp.usdoj.gov/bjs/pub/pdf/cvus/current/cv0282.pdf>.

NIJ is committed to making DNA analysis a routine and affordable tool for State and local law enforcement.

### The changing landscape of crime and justice

Addressing new types of crime as well as new versions of old patterns of crime requires innovative approaches. NIJ has always been at the forefront of innovation and change. For example, during the 1970's the agency pioneered development of bullet-resistant vests for police and during the 1980's sponsored research that led to new practices for prosecuting career criminals. By the turn of the century, remarkable advances in forensics began changing how crimes are investigated and criminals are prosecuted.

The most prominent of these advances is the collection and analysis of DNA evidence. Today NIJ is supporting development of cheaper, faster ways to use DNA samples as forensic evidence in all types of crimes, not just homicide and sexual assault. For example, police have discovered that biological evidence collected from a burglary crime scene can lead to arrest and conviction of career criminals capable of more serious offenses.

**Science and the law.** NIJ is committed to making DNA analysis a routine and affordable tool for State and local law enforcement. In 2003, the President announced the "Advancing Justice Through DNA Technology" initiative to provide \$1 billion over 5 years to use DNA identification to solve crimes, to improve crime labs and train investigators, and to stimulate research and development. Congress passed this legislation in 2004, and NIJ launched an interagency partnership and a Web site about the initiative—<http://www.DNA.gov>.

As more offender DNA samples are collected and law enforcement becomes better trained and equipped to collect DNA samples at crime scenes, the backlog of samples awaiting testing throughout the criminal justice system has increased to more than 542,000. In response, NIJ awarded \$66.5 million in grants to reduce the DNA testing backlog and build crime lab capacity.

**Globalization.** Another factor that contributes to the changing landscape of crime is globalization. Business and commerce see the impact of globalization

every day. Its impact on crime may not be as readily visible, but the effect is just as dramatic. Human trafficking, for example, involves an estimated 700,000 people each year, most of them women and children taken from their homes and forced into labor and/or prostitution under the pretense of legitimate employment.<sup>3</sup> Since 1998, NIJ has participated in and funded a range of research projects and related initiatives to understand and stop human trafficking; a new research solicitation was posted in January 2005.

Most people think of human trafficking in terms of people being smuggled into the United States. But not all cases involve victims from other countries. One-third of the victims involved in a 2003–2004 NIJ-sponsored study of 12 cases in various U.S. locations were recruited *within* the United States.<sup>4</sup> The researchers examined workers in several fields, including prostitution, domestic service, entertainment, agriculture, factories, and restaurants. They found that success in combating this problem depends on close collaboration among Federal authorities, local government agencies, nongovernmental organizations, and service providers and that the special inspection powers and experience of U.S. Department of Labor investigators are a valuable and underutilized resource for gathering evidence on trafficking and forced labor cases.

On a more positive side, globalization has also opened up countries formerly within the Soviet orbit to democracy, permitting them to seek help from other nations. For example, Ukraine received guidance and research assistance from NIJ to find ways to reform its criminal justice system and eliminate entrenched corruption. Working with the U.S. State Department, NIJ launched a series of projects that prompted Ukraine to begin reforming its penal code and take steps to enact legislation on intellectual property crime and the global problems of Internet piracy and trafficking.<sup>5</sup>

Research on organized crime in Asia and intellectual property theft around the world was conducted for NIJ during 2004; findings are expected to be published in 2005.

<sup>3</sup> Albanese, J., "Commercial Sexual Exploitation of Children: Assessing What We Know and Its Implications for Research and Practice," *International Journal of Comparative Criminology*, 4(1) (2004): 24–47.

<sup>4</sup> Bales, K., and S. Lize, "Human Trafficking in the United States," final report to the National Institute of Justice, February 2005, available at <http://www.ncjrs.org>.

<sup>5</sup> See *The Prediction and Control of Organized Crime: The Experience of Post-Soviet Ukraine*, Finckenauer, J.O., and J.L. Schrock, eds., Somerset, NJ: Transaction Publishers, 2004.

### In this report

Helping the justice system adapt to the changing landscape of crime, prosecution, corrections, and public safety requires strategic thinking about how to apply limited resources. New and stable strategies and resources are needed not only for the day-to-day work of enforcement, prevention, adjudication, and incarceration, but also for forward-looking research and development.

Most State and local governments, however, cannot devote funds to criminal justice research and development. The majority of the country's 16,000 law enforcement agencies, for example, have very small staffs and limited resources that must be directed toward local crime problems. As a Federal partner, NIJ is poised to continue its role as a major source of criminal justice research and development funding for State and local agencies, as well as a source of the latest information about what works.

The *2004 Annual Report* demonstrates how NIJ is making a difference in five broad areas—solving crimes, improving law enforcement, ensuring justice, improving corrections, and increasing community safety. The timeline (see page v) places these activities within four decades of historical context. The appendixes provide detailed breakdowns of the year's financial operations, research and development grants, and public information dissemination through printed publications and the Internet.



## Solving Crimes

Forensic science, especially the analysis of DNA, is radically changing how crimes are investigated. Using the smallest remnants of evidence, forensic scientists can hasten arrests, prevent further crime, and exonerate the innocent. NIJ supports a number of projects that advance forensic science. DNA analysis is the best known, but progress continues to be made in other areas such as digital evidence, handwriting analysis, and ballistic signature analysis.

### DNA analysis

Although the cost of analyzing DNA is decreasing, most U.S. law enforcement agencies still do not routinely collect DNA evidence, especially “invisible evidence” such as the sweat in the lining of a suspect’s baseball cap.

NIJ is working in partnership with the President’s DNA Initiative (discussed on page 2) to build the Nation’s capacity to:

- Use DNA as a routine law enforcement tool.
- Eliminate current backlogs of convicted offender and casework DNA samples.
- Use DNA to identify missing persons and provide closure to families.
- Benefit from future developments in DNA technology.

A major part of NIJ’s portfolio focuses on using DNA to solve crimes that have reached a dead end. DNA technology and databases with DNA profiles of convicted offenders are inspiring law enforcement agencies to reevaluate their cold cases. For example, in 1990, in Goldsboro, North Carolina, a man broke into several homes, raped three elderly women, and murdered two of the women and one of their husbands. This “Night Stalker” case had no suspects, though the intruder’s DNA was entered into a database. More than 10 years later, the intruder’s DNA matched with that of an offender whose DNA was entered into the database after he was convicted of a shooting. The match solved the Goldsboro “Night Stalker” case.

Justice professionals face two significant hurdles in analyzing DNA: a backlog of samples from convicted offenders and a backlog of forensic samples from cases. The convicted-offender backlog includes as many as 300,000 unanalyzed DNA samples from offenders convicted of crimes, with more than 500,000 samples yet to be taken. According to the best estimates, the forensic casework backlog includes approximately 52,000 homicide cases, 169,000 sexual assault cases, and 264,000 property crime cases.

Lack of funding is frequently cited as the reason why law enforcement agencies do not make greater use of DNA analysis. To help with the financial strain, NIJ awarded \$39.7 million to 39 States in 2003 to analyze DNA from crime scene evidence and improve the capacity of crime labs. In 2004, NIJ awarded \$66.5 million to State and local crime labs to help reduce the estimated 543,000 criminal cases with biological evidence waiting for DNA testing and to enhance the capacity of DNA laboratories.<sup>6</sup>

Ongoing NIJ research is helping police chiefs understand how DNA evidence from property crime offenders can solve more serious personal crimes. Police departments in Miami-Dade County (Florida), New York (New York), and Palm Beach (Florida) are achieving dramatic results by analyzing biological evidence collected from property crime scenes. In New York, one DNA profile uncovered a five-burglary serial offender. Many profiles from burglaries link to serious violent crimes such as sexual assault and robbery.

The cost of DNA testing depends on the number of samples tested, the type of DNA testing needed, and the costs involved for police to collect biological evidence at property crime scenes and pursue investigative leads generated by DNA. But these costs must be weighed against the losses incurred by the public from crime and the cost for investigators to follow clues the traditional way.

NIJ's forensics research and development portfolio is designed to create innovative tools and technologies crime lab personnel can use to reduce costs while increasing efficiency and accuracy. In 2004, NIJ awarded funds for a variety of research projects to develop or explore:

<sup>6</sup> Awards totaling \$38.1 million are for reducing backlogged DNA casework; awards totaling \$28.4 million are for laboratory enhancement.

*Topics from NIJ research that appeared in peer-reviewed journals in 2004 include: mitochondrial DNA; mini-STR's; characterization of DNA damage in bloodstains; Y-chromosome studies for use in investigations of crimes involving males; a microdevice system for forensic DNA analysis; and insect DNA studies, which are useful in homicide investigations for determining the time since death.*

- Better ways to identify and separate male and female DNA in sexual assault cases.
- New DNA markers to help pinpoint the source of DNA evidence.
- Methods to determine the tissue origin of biological evidence.
- Miniaturized forensic DNA testing devices with potential field use.
- Improved methods for examining nonhuman DNA, which is often associated with crime scene evidence and may play a key role in an investigation.

NIJ disseminates research findings through several mechanisms, including traditional peer-reviewed scientific literature and sharing information about products developed through NIJ research. For example, in 2004, a rapid method for testing mitochondrial DNA was commercialized. The method, called the Linear Array Assay, was previously used to examine skeletal remains recovered from mass graves in Croatia.

Technology transfer activities familiarize practitioners with newly developed methods. In 2004, an NIJ grantee conducted a workshop that provided hands-on training in methods developed by the grantee to analyze plant DNA.

#### **For more information**

- The President's initiative, *Advancing Justice Through DNA Technology*, is described in detail on <http://www.DNA.gov>.
- *DNA in "Minor" Crimes Yields Major Benefits in Public Safety, In Short—Toward Criminal Justice Solutions*, Washington, DC: U.S. Department of Justice, National Institute of Justice, November 2004 (NCJ 207203), available at <http://www.ncjrs.org/pdffiles1/nij/207203.pdf>.
- *Using DNA to Solve Cold Cases*, Special Report, Washington, DC: U.S. Department of Justice, National Institute of Justice, July 2002 (NCJ 194197), available at <http://www.ncjrs.org/pdffiles1/nij/194197.pdf>.

*A “questioned” document is any signature, handwriting, typewriting, or other mark whose source or authenticity is doubtful or in dispute. Letters, checks, driver’s licenses, contracts, wills, voter registrations, passports, petitions, threatening letters, suicide notes, and lottery tickets are the most commonly questioned documents.*

<sup>7</sup> Noting that the “general acceptance” test established in *Frye v. United States*, 293 F. 1013, 1014 (D.C. Cir. 1923), was superseded by the adoption of the Federal Rules of Evidence, the Court held that “nothing in the text of ... [Federal Rule of Evidence 702] establishes ‘general acceptance’ as an absolute prerequisite to admissibility.” *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 588, 113 S.Ct. 2786, 2794 (1993).

### Other forensics

NIJ’s portfolio of projects related to forensic evidence includes studies to interpret handwriting and collect and process digital evidence.

**Questioned documents.** Questioned document examination is concerned with handwriting analysis and technical aspects of document writing. In a 1993 landmark case, *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, the U.S. Supreme Court found that the forensic techniques on which experts testify should be based on rigorous scientific procedures (such as peer reviews and replicated findings) rather than on what the Court called “generally accepted” practices.<sup>7</sup> For many years handwriting analysis determined the authenticity of questioned documents, but until *Daubert*, the forensic methods for analyzing questioned documents had not been rigorously tested. After *Daubert*, NIJ became interested in work being done for the U.S. Postal Service by scientists at the State University of New York at Buffalo (SUNY). Using a computer algorithm, their system was able to read handwritten addresses on envelopes.

Through NIJ funding, SUNY researchers have developed a software system called CEDAR-FOX to perform tasks normally done by forensic document examiners. In early demonstrations, CEDAR-FOX correctly identified the writer in 96 percent of the samples tested. In 2004, NIJ funded further development and refinement of CEDAR-FOX to increase its capability as an operational tool for questioned document specialists.

**Digital evidence and electronic crime.** Hacking and disruption due to “phishing” (e-mail spoofs, fraudulent Web sites), child pornography, and any number of other crimes committed using computers and the Internet have led businesses and law enforcement agencies to invest in computer forensics.

In 2004, NIJ released the second in its series of guides for investigating electronic crime (see “For more information,” below) and continued testing the accuracy of various forensic tools to investigate and solve electronic crimes. One notable result in 2004: NIJ, through funding to the National Institute of Standards and Technology, Office of Law Enforcement Standards, released test results of software write block tools and disk imaging tools. The latter were used in the proceedings against suspected 9-11 terrorist Zacharias Moussaoui.

With its partners in the Critical Incident Technology Initiative (the Federal Bureau of Investigation [FBI], the U.S. Customs and Border Protection Service, and the U.S. Department of Defense), NIJ developed a system in which software from various data sources is compiled into a data set—the National Software Reference Library. Investigators can compare digital evidence from the hard drive of a computer seized as evidence with software in the reference library data set, which reduces investigative time. The current version (2.4) was released in 2004.

#### **For more information**

- *Test Results for Disk Imaging Tools: dd Provided with FreeBSD 4.4*, Special Report, Washington, DC: U.S. Department of Justice, National Institute of Justice, January 2004 (NCJ 203095), available at <http://www.ncjrs.org/pdffiles1/nij/203095.pdf>; and *Test Results for Software Write Block Tools: RCMP HDL VO.8*, Special Report, Washington, DC: U.S. Department of Justice, National Institute of Justice, February 2004 (NCJ 203196), available at <http://www.ncjrs.org/pdffiles1/nij/203196.pdf>.
- *Forensic Examination of Digital Evidence: A Guide for Law Enforcement*, Special Report, Washington, DC: U.S. Department of Justice, National Institute of Justice, April 2004 (NCJ 199408), available at <http://www.ncjrs.org/pdffiles1/nij/199408.pdf>.

**Ballistic analysis.** Through NIJ funding, researchers at Intelligent Automation, Inc., have developed a 3-dimensional (3-D) imaging system for examining the markings that are imprinted on a bullet as it travels through the barrel of a gun. This system can automatically obtain 3-D data from bullets, store the information in a database, extract a “signature” associated with the data, and evaluate the degree of similarity between signatures. Forensic Technology, Inc., commercialized the system in 2004 and currently is moving the new 3-D-based technology from the research stage to the marketplace for law enforcement and forensic use.

### Training crime scene investigators

Securing a crime scene and collecting evidence have always formed the backbone of successful investigation and prosecution. These skills are arguably even more critical in the changed landscape of 2004, where rapid technological advances have greatly expanded the amount of information that can be obtained from physical evidence.

NIJ formed the Technical Working Group on Crime Scene Investigation to compile comprehensive technical training manuals for crime scene investigation. These manuals continue to be NIJ “best sellers.” In June 2004, NIJ released the latest manual: *Crime Scene Investigation: A Reference for Law Enforcement Training*.<sup>8</sup>

<sup>8</sup> *Crime Scene Investigation: A Reference for Law Enforcement Training*, Special Report, Washington, DC: U.S. Department of Justice, National Institute of Justice, June 2004 (NCJ 200160), available at <http://www.ncjrs.org/pdffiles1/200160.pdf>.

## Improving Law Enforcement

Of all the research NIJ has added to its portfolio over the years, the body of work on policing may be the largest. Community-oriented policing. Use of force. Pursuit management. Less-lethal technology. Police use of discretion. NIJ-sponsored research and development have contributed to a better understanding of these and other topics.

During 2004, NIJ expanded two areas of study that directly affect the quality of law enforcement: interoperability (interagency communications) and the impact of human factors on policing.

Another important area of NIJ research involves protecting the safety of law enforcement personnel through development of lighter, more comfortable body armor and standards for its performance. Bullet-resistant vests have saved more than 2,800 officers' lives over the past 30 years.

### Interoperability

One of NIJ's most prominent research missions involves finding ways for multiple public safety agencies to communicate with one another during a critical incident, such as a high-speed pursuit, natural disaster, or terrorist attack. Police, fire, medical, and other personnel at the scene and across jurisdictions often cannot talk to all parties because their radios are incompatible. First responders must share information instantly and effortlessly or lives can be lost. They need interoperability.

Before interoperability was recognized at the national level as a critical public safety concern, NIJ's AGILE program already had laid the foundation for developing interoperability policy and standards through its support for technology research that is now universally recognized.<sup>9</sup> With this foundation in place, the agency's interoperability activities have moved into the realm of practice—identifying, adopting, and developing practical communications solutions that include open architecture standards for voice, data, image, and video systems.

<sup>9</sup> Founded by NIJ in 1998, AGILE stands for Advanced Generation of Interoperability for Law Enforcement.

In 2004, the U.S. Department of Homeland Security reenergized the SAFECOM program to become the primary coordinator for all of the Federal Government's interoperability programs.<sup>10</sup> As a result, NIJ shifted to a primary focus on interoperability for law enforcement and renamed AGILE "CommTech." CommTech will continue to sponsor interoperability research and evaluation, standards development, and outreach to help policymakers and public safety leaders make informed, cost-effective decisions.<sup>11</sup>

In September 2004, NIJ's Office of Science and Technology (OST) and the U.S. Department of Homeland Security's Science and Technology Directorate sponsored their first annual joint conference, "Technologies for Public Safety in Critical Incident Response," held in New Orleans, Louisiana. The conference allowed first responders, industry leaders, academicians, and elected Federal, State, and local officials to exchange ideas concerning common critical incident technology needs. The 2005 conference is scheduled for October 31–November 2, 2005, in San Diego, California.

OST also cosponsors the Capital Wireless Integrated Network (CapWIN), the first integrated, multi-State public safety wireless network in the Nation. CapWIN connects public safety personnel from more than 35 agencies in the Washington, DC, metropolitan area through a messaging switch located in Alexandria, Virginia. System testing and expansion to laptops and PDA's are ongoing.

#### For more information

- NIJ's National Law Enforcement and Corrections Technology Center (NLECTC) provides CommTech and other interoperability support and information. See the CommTech Web site at <http://www.nlectc.org/agile/justnet.html>.
- "'Why Can't We Talk?' When Lives are at Stake," fact sheet and video available online at <http://www.justnet.org/assistance/interopfactsheet.html>.
- "A CapWIN-Win Solution," *TechBeat*, Winter 2004, available at <http://www.justnet.org/techbeat/winter2004/CapWinWint04.pdf>.

<sup>10</sup> SAFECOM is the Federal umbrella program that helps local, tribal, State, and Federal public safety agencies improve public safety response through interoperable wireless communications. Prior to 2004, NIJ's AGILE program had played a primary role in coordinating the public safety community's interoperability policies. For more information, see <http://www.safecomprogram.gov>.

<sup>11</sup> NIJ's Office of Law Enforcement Standards formed partnerships in 2004 with several agencies and organizations to develop open architecture standards for public safety communication systems. See [http://www.eeel.nist.gov/oles/public\\_safety.html](http://www.eeel.nist.gov/oles/public_safety.html) for more information.



Darrel W. Stephens  
Chief of Police,  
Charlotte-Mecklenburg,  
North Carolina

“The art and science of policing has improved enormously over the past 35 years because of the research the National Institute of Justice has encouraged and supported. The result is a safer America.”

### Human factors

NIJ’s research on police behavior over the past several decades includes examinations of how officers use discretion and force, how they work with the community to solve entrenched crime problems, and how they and their families handle the stress of police work. In 2004, NIJ expanded this research base to include the impact of fatigue on human performance and the role of intuitive behaviors or “gut responses.”

**Fatigue.** It is well-established that long work hours have negative effects on a person’s general health, the tendency to have a driving accident or an on-the-job injury, and cognitive performance. Many workers whose activities affect public safety—for example, airline pilots, truck drivers, and nurses—must abide by working hour standards and restrictions designed to prevent excess fatigue. Police officers do not.

The research is a long way from fully explaining how officer fatigue affects police work, but it is clear that law enforcement suffers when officers are fatigued due to overtime, shift work, court appearances, and the emotional and physical demands of the job. About a third of police officers work 20 or more hours of overtime per month and more than half “moonlight” at other jobs.<sup>12</sup>

**Intuition.** Experienced officers sometimes intuitively react to danger signals before they are consciously aware of them. Police intuition also plays an important role in directing suspicion, guiding investigations, and interrogating. Intuitive judgments are made more quickly than formal decisionmaking and are influenced by social context, expectations, and attitudes.

NIJ is forming a research agenda to explore police decisionmaking and how it can be improved. In 2004, the agency put together a multidisciplinary collaboration with the FBI, the American Psychological Association, the Affect and Biobehavioral Regulation Program at the National Institute of Mental Health, and the National Institute for Occupational Safety and Health at the Centers for Disease Control and Prevention. A conference on police intuition was held in June.

<sup>12</sup> Vila, B., and D.J. Kenny, *Tired Cops: The Importance of Managing Police Fatigue*, Flemington, NJ: Police Executive Research Forum, 2000.

*The U.S. Department of Justice sponsored a 1-day national summit on body armor in March 2004. Attendees included representatives from Federal, State, tribal, and local law enforcement; law enforcement associations; manufacturers of bullet-resistant fabric and equipment; and standards and testing organizations. Participants discussed the NIJ testing and standards program—whether it should remain voluntary, the ongoing testing of Zylon®-based vests, and other matters.*

#### For more information

- Vila, B., and D.J. Kenney, "Tired Cops: The Prevalence and Potential Consequences of Police Fatigue," *NIJ Journal* 248 (March 2002): 16–21, available at <http://www.ncjrs.org/pdffiles1/jr000248d.pdf>.
- "The Nature and Influence of Intuition in Law Enforcement: Integration of Theory and Practice," conference sponsored by NIJ and the FBI Training Academy in Arlington, Virginia, June 2004. The agenda and readings are available from the American Psychological Association Web site at <http://www.apa.org/ppo/issues/intuition.html>.

#### Protecting law enforcement personnel

NIJ has sponsored several initiatives in recent years supporting technology and training to improve the safety and survivability of law enforcement personnel.

**Body armor.** More than 2,800 police officers' lives have been saved by body armor since the mid-1970's, when NIJ began testing and developing performance standards for ballistic- and stab-resistant body armor. Most police departments only purchase vests that are certified as meeting NIJ standards.

After a reported failure of an NIJ-compliant vest in 2003, the U.S. Department of Justice launched an initiative to assess body armor reliability and certification. NIJ was tasked to evaluate Zylon®-based bullet-resistant vests and released a report in March 2004 and a supplemental report in December.<sup>13</sup> Although the cause of the vest failure remains undetermined, testing is still ongoing. Preliminary findings from the second phase of testing are anticipated in 2005.<sup>14</sup>

**Training manuals and equipment guides.** NIJ supports research into law enforcement equipment and technology and develops training manuals and guides to ensure public and officer safety. After 9-11, the agency published several guides for the selection of personal protective and other equipment for emergency first responders.<sup>15</sup>

<sup>13</sup> *Status Report to the Attorney General on Body Armor Safety Initiative Testing and Activities*, Washington, DC: U.S. Department of Justice, National Institute of Justice, March 11, 2004 (NCJ 204534), and Supplement I to the report, December 27, 2004 (NCJ 207605). Both are available at <http://www.ojp.usdoj.gov/nij/pubs-sum/207605.htm>.

<sup>14</sup> The first phase of testing revealed promising data about ballistic-resistant materials' degradation over time that could lead to improved performance testing methodology.

<sup>15</sup> These guides can be downloaded from [http://nij.ncjrs.org/publications/pubs\\_db.asp](http://nij.ncjrs.org/publications/pubs_db.asp). Click on "Search NIJ Publications" and select "Officer Protection" for a complete listing.

In 2004, NIJ released a report on impact munitions—less-lethal devices used to subdue potentially dangerous individuals and to disperse unruly crowds. Impact munitions can help law enforcement officers resolve potentially violent encounters without using deadly force. These devices can compromise officer or public safety, however, if they are not applied properly. NIJ researchers surveyed 106 agencies about 373 incidents in which 969 projectiles were fired. More than 90 percent of the incidents were resolved without lethal force.

Another report released in 2004, *Department of Defense Nonlethal Weapons and Equipment Review: A Research Guide for Civil Law Enforcement and Corrections*, provides a detailed equipment review of the department's nonlethal weapons program and currently used nonlethal technologies. Five categories of nonlethal technologies are reviewed: chemicals, electrical devices, blunt impact munitions, directed energy, and miscellaneous or hybrid systems.

**Defeating bomb threats.** Current methods to confirm or deny the presence of a bomb or "improvised explosive device" (IED) place officers or bomb-disposal technicians at risk and are expensive and cumbersome to deploy. Since 1999, NIJ has supported research into the use of robot technology to disarm explosive devices. The agency recently published a summary evaluation comparing the Vanguard Robot's performance to that of other bomb-disposal robots. The Vanguard has many features required by law enforcement (such as affordability) and has performed better than comparable systems on tasks commonly encountered by technicians. However, it did not satisfy the requirements for speed and mission duration. Evaluators suggested enhancements that would increase Vanguard's benefits to practitioners, and the manufacturer modified it accordingly. NIJ is funding an evaluation of the new model.

In October 2004, NIJ formally solicited concept papers for developing new tools and technologies that law enforcement personnel could use to defeat an IED threat, specifically in three areas of concern: confirming the presence of a vehicle bomb, neutralizing a vehicle bomb, and disposing of a bomb. For example,

law enforcement needs cost-effective, portable means to confirm or deny that a bomb is inside a vehicle without endangering officers, such as a handheld device that can detect an IED from 300 meters away or that is conveyed by a small robot. The solicitation closed in December 2004, and the agency is reviewing proposed concepts.<sup>16</sup>

#### For more information

- Information on body armor testing and evaluation is available from NLECTC at <http://www.justnet.org/testing/justnet.html>. The U.S. Department of Justice's Body Armor Safety Initiative is described at <http://vests.ojp.gov/index.jsp>.
- Hubbs, K., and D. Klinger, *Impact Munitions Use: Types, Targets, Effects, Research for Practice*, Washington, DC: U.S. Department of Justice, National Institute of Justice, October 2004 (NCJ 206089), available at <http://www.ncjrs.org/pdffiles1/nij/206089.pdf>.<sup>17</sup>
- *Department of Defense Nonlethal Weapons and Equipment Review: A Research Guide for Civil Law Enforcement and Corrections*, Special Report, Washington, DC: U.S. Department of Justice, National Institute of Justice, October 2004 (NCJ 205293), available at <http://www.ncjrs.org/pdffiles1/nij/205293.pdf>.
- *Vanguard Robot Assessment, In Short—Toward Criminal Justice Solutions*, Washington, DC: U.S. Department of Justice, National Institute of Justice, July 2004 (NCJ 204637), available at <http://www.ncjrs.org/pdffiles1/nij/204637.pdf>.

<sup>16</sup> The solicitation is posted at <http://www.ncjrs.org/pdffiles1/nij/s1000680.pdf>.

<sup>17</sup> The full grant report, "Impact Munitions Data Base of Use and Effects," February 2004 (NCJ 204433), is available at <http://www.ncjrs.org/pdffiles1/nij/grants/204433.pdf>.

## Ensuring Justice

NIJ has supported several key innovations that have improved court procedures while protecting the public and ensuring justice. The projects were designed to stop the revolving door through which criminals come into court, are sentenced and serve or receive probation, return to the community, commit new crimes, and come back to court. They were also intended to break the cycles of drugs and domestic violence and to make courts more responsive to the needs of their communities.

The Nation's first community court, the Midtown Community Court in Manhattan, New York, is an example of a court that focuses on relatively low-level crimes that lower the morale of the community. The Miami-Dade County drug court, pioneered in the 1990's, continues to be an example of an effective alternative court for dealing with drug offenders. NIJ-funded evaluations of both of these court programs found them to have promise.<sup>18</sup>

### Courts that help stop drug abuse

Since 1989, more than 1,500 courts have implemented or are planning to implement a drug court.<sup>19</sup> In these settings, officers of the court (judges, prosecutors, defense counsel) combine their influence with substance abuse treatment specialists, probation officers, educational and vocational experts, and community leaders to pressure offenders to face their drug problems.

Acceptance into a drug court program varies by court, but most drug courts require that the charge before the court involve a nonviolent offense and that the offender has no previous record of violence, is not mentally ill or suicidal, and has a substance abuse problem.

Offenders who enter drug court typically must follow strict rules. For example, they may be required to live at home, submit to weekly drug screenings, report to court four times a week for counseling and therapy, get and keep gainful employment, and agree to unannounced "knock and talk" visits from a police officer or an officer of the court.

<sup>18</sup> Sviridoff, M., D.B. Rottman, R. Weidner, F. Cheesman, R. Curtis, R. Hansen, and B.J. Ostrom, "Dispensing Justice Locally: The Impact, Costs, and Benefits of the Midtown Community Court," final report to the National Institute of Justice, 2002 (NCJ 196397), available at <http://www.ncjrs.org/pdffiles1/nij/grants/196397.pdf>; Anderson, D., "In New York City, a 'Community Court' and a New Legal Culture," final report to the National Institute of Justice, 1996 (NCJ 158613), available at <http://www.ncjrs.org/pdffiles/commcrt.pdf>; and Goldkamp, J.S., and D. Weiland, "Assessing the Impact of Dade County's Felony Drug Court," final report to the National Institute of Justice, 1993 (NCJ 145302). The Law Offices of the Public Defender for the Eleventh Judicial Circuit of Florida maintains a Web page about the Miami-Dade Drug Court at [http://www.pdmiami.com/drug\\_court.htm](http://www.pdmiami.com/drug_court.htm). Also see Rothman, D.B., "Community Courts: Prospects and Limits," *NIJ Journal* 231 (August 1996): 46-51, available at <http://ncjrs.org/pdffiles/nijcomm.pdf>.

<sup>19</sup> Bureau of Justice Assistance, "Drug Court Discretionary Grant Program: FY 2005 Resource Guide for Drug Court Applicants," U.S. Department of Justice, Bureau of Justice Assistance, retrieved March 17, 2005, from the World Wide Web at <http://www.ojp.usdoj.gov/BJA/grant/05DrugCtResGuide.pdf>.

Dyer County, Tennessee,  
General Sessions Judge  
Charles V. Moore, Jr.  
quoted in the *Dyersburg State Gazette*,  
July 26, 2003

“I’ve sent a lot of people to rehab, and if they successfully complete it, I see very few of them back.”

The drug court judge can adjust rewards and punishments in accordance with how well an offender abides by the rules of the court and participates in the rehab program. For example, if an offender continues to test negative on urine tests, the court may relax the terms of his or her probation.

One NIJ study of 38 drug courts found that out of 17,000 graduates nationwide, 16 percent had been rearrested and charged with a felony 1 year after they graduated from drug court and 28 percent 2 years later.<sup>20</sup> By contrast, a Bureau of Justice Statistics study that tracked more than a quarter million released prisoners for 3 years found a recidivism rate for released drug offenders of 67 percent.<sup>21</sup>

In 2004, to obtain more indepth understanding about the effectiveness of drug courts, NIJ launched a multisite, longitudinal study of their impact.<sup>22</sup> What precisely makes drug courts successful? Is it the type of offender accepted into the program or the type of treatment offered? What role does the judge’s personality play? What are the costs and benefits? NIJ hopes to answer these and other questions as the research unfolds. Preliminary findings are anticipated in 2007.

### Science in the courtroom

Scientific advances are changing the landscape of courtrooms. How prosecutors and defense attorneys use expert testimony and forensic evidence has changed dramatically during the last 10 years. Television shows that glamorize forensic investigation are highly popular (despite their inaccuracies in depicting how science helps solve crimes). Increasingly, court participants—judges, jurors, and attorneys alike—need to understand complex scientific evidence. But do recent advances in forensic science also advance justice?

As in other research areas, NIJ seeks solutions to these issues by drawing upon the expertise of scientists in relevant fields (e.g., forensic medicine) and by enhancing cooperation among these scientists and criminal justice professionals. Such cross-disciplinary cooperation helps NIJ identify pressing needs and develop more targeted research agendas.

<sup>20</sup> Roman, J., W. Townsend, and A. Singh Bhati, “Recidivism Rates for Drug Court Graduates: Nationally Based Estimates,” final report to the National Institute of Justice, Washington, DC: The Urban Institute, July 2003 (NCJ 201229), available at <http://www.ncjrs.org/pdffiles1/201229.pdf>.

<sup>21</sup> Langan, P.A., and D.J. Levin, *Recidivism of Prisoners Released in 1994*, Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics, June 2002 (NCJ 193427), available at <http://www.ojp.usdoj.gov/bjs/pub/pdf/rpr94.pdf>.

<sup>22</sup> The impact evaluation under way includes 29 drug court sites and 5 comparison sites. Interviews of more than 2,000 offenders will be conducted as they enter the court process (baseline), then again at 6 and 18 months. Recidivism will be examined 24 months after baseline. Researchers will evaluate the impact of various drug court strategies and conduct a cost-benefit analysis.

Of course, scientific tools cannot solve everything. That is why NIJ has brought together interagency working groups to examine how forensic science and technology can identify new ways to solve crime and ensure justice.

One technical working group is developing a guide to understanding how digital evidence must be presented in court.<sup>23</sup> Guides to investigating electronic crime scenes and forensic examination of digital evidence were published in 2001 and 2004, respectively (see “For more information,” below).

NIJ plans and hosts national conferences and workshops with other forensic science, law enforcement, and criminal justice agencies and organizations. These Science and the Law conferences help practitioners understand the principles underlying scientific evidence.

In May 2004, NIJ hosted a summit attended by members of the American Academy of Forensic Sciences, the American Society of Crime Laboratory Directors, the International Association for Identification, and the National Association of Medical Examiners. The high-level discussion about policies and practices resulted in a report to Congress on the needs of forensic science service providers.<sup>24</sup>

#### For more information

- *Science and the Law: 2001 and 2002 National Conferences, Special Report*, Washington, DC: U.S. Department of Justice, National Institute of Justice, May 2004 (NCJ 202955), available at <http://www.ncjrs.org/pdffiles1/nij/202955.pdf>.
- *Forensic Examination of Digital Evidence: A Guide for Law Enforcement, Special Report*, Washington, DC: U.S. Department of Justice, National Institute of Justice, April 2004 (NCJ 199408), available at <http://www.ncjrs.org/pdffiles1/nij/199408.pdf>.
- *Electronic Crime Scene Investigation: A Guide for First Responders, NIJ Guide*, Washington, DC: U.S. Department of Justice, National Institute of Justice, July 2001 (NCJ 187736), available at <http://www.ncjrs.org/pdffiles1/nij/187736.pdf>.

<sup>23</sup> *Digital Evidence in the Courtroom: A Guide for Law Enforcement and State and Local Prosecutors* is pending publication; three other guides related to electronic crime are in development.

<sup>24</sup> The “180-Day Study Report: Status and Needs of United States Crime Laboratories,” May 28, 2004, was prepared for the U.S. Senate Appropriations Committee by the American Society of Crime Laboratory Directors in collaboration with NIJ’s Office of Science and Technology, the American Academy of Forensic Sciences, the International Association for Identification, and the National Association of Medical Examiners.

<sup>25</sup> Fromm, S., "Total Estimated Cost of Child Abuse and Neglect in the United States," *Cost-of-Injury Analysis*, National Clearinghouse on Child Abuse and Neglect Information, Administration for Children and Families, U.S. Department of Health and Human Services. Retrieved from the World Wide Web on January 27, 2005, <http://nccanach.acf.hhs.gov/topics/prevention/develop/making/injury.cfm>.

<sup>26</sup> Widom, C.S., and M.G. Maxfield, *An Update on the "Cycle of Violence,"* Research in Brief, Washington, DC: U.S. Department of Justice, National Institute of Justice, February 2001 (NCJ 184894), available at <http://www.ncjrs.org/pdffiles1/nij/184894.pdf>.

<sup>27</sup> *Violence Against Women: Identifying Risk Factors*, Research in Brief, Washington, DC: U.S. Department of Justice, National Institute of Justice, November 2004 (NCJ 197019), available at <http://www.ncjrs.org/pdffiles1/nij/197019.pdf>.

<sup>28</sup> Finkelhor, D., and R. Ormrod, "Child Abuse Reported to the Police," *Juvenile Justice Bulletin*, Washington, DC: U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention, May 2001 (NCJ 187238), available at <http://www.ncjrs.org/pdffiles1/ojdp/187238.pdf>. See also Snyder, H.N., "Sexual Assault of Young Children as Reported to Law Enforcement: Victim, Incident, and Offender Characteristics," Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics, July 2000 (NCJ 182990), available at <http://www.ojp.usdoj.gov/bjs/pub/pdf/saycrle.pdf>.

<sup>29</sup> Kilpatrick, D.G., B.E. Saunders, and D.W. Smith, *Youth Victimization: Prevalence and Implications*, Research in Brief, Washington, DC: U.S. Department of Justice, National Institute of Justice, April 2003 (NCJ 194972), available at <http://www.ncjrs.org/pdffiles1/nij/194972.pdf>.

<sup>30</sup> The success of child advocacy centers has not been empirically tested. A formal interview of child advocacy center directors and an extensive literature search found only one published outcome evaluation [Jenson, J.M., M. Jacobson, Y. Unrau, and R.L. Robinson, "Intervention for Victims of Child Sexual Abuse: An Evaluation of the Children's Advocacy Model," *Child and Adolescent Social Work Journal* 13(2) (1996):139–156]. The Office of Juvenile Justice and Delinquency Prevention is sponsoring a national evaluation of child advocacy centers, under way at the Crimes Against Children Research Center, University of New Hampshire.

## Protecting child victims

Arguably the most vulnerable of all victims are children who have been abused or maltreated. The human pain and loss from child abuse and neglect are incalculable, but an analysis of the financial cost is estimated conservatively at \$94 billion annually.<sup>25</sup> The long-range impact for criminal justice is striking: Children who have been abused and neglected are more likely than those who were not to become involved in criminal behavior later in life.<sup>26</sup> They are also more likely to be victimized as adults.<sup>27</sup>

From police records of child abuse, research indicates that family members and caretakers are responsible for 27 percent of the abuse, noncaretaker acquaintances are responsible for 63 percent, and strangers for 10 percent.<sup>28</sup> Research also confirms that for adolescents, much of the violence they experience is perpetrated by peers or someone they know well, and most of the sexual assaults (86 percent) and physical assaults (65 percent) they experience go unreported.<sup>29</sup>

During 2004, NIJ published a manual to help administrators of child advocacy centers evaluate the effects of their programs. Child advocacy centers serve abused children through a comprehensive approach to services for victims and their families. They stress coordination of investigation and intervention services by bringing together professionals and agencies in multidisciplinary teams. The goal is to ensure that children are not revictimized by the very system designed to protect them.<sup>30</sup>

The manual gives child advocacy center administrators the tools and knowledge they need to evaluate whether their center is achieving the standards established by the National Children's Alliance (NCA)—a child-friendly facility, a multidisciplinary team, child investigative interviews, a medical examination, mental health services, victim advocacy, and case review. To reduce the system-induced trauma children experience as a result of an investigation, NCA recommends limiting the number of interviews to which children are exposed.



**For more information**

- Jackson, S.L., *A Resource for Evaluating Child Advocacy Centers*, Special Report, Washington, DC: U.S. Department of Justice, National Institute of Justice, July 2004 (NCJ 192825), available at <http://www.ncjrs.org/pdffiles1/nij/192825.pdf>.
- Kilpatrick, D.G., B.E. Saunders, and D.W. Smith, *Youth Victimization: Prevalence and Implications*, Research in Brief, Washington, DC: U.S. Department of Justice, National Institute of Justice, April 2003 (NCJ 194972), available at <http://www.ncjrs.org/pdffiles1/nij/194972.pdf>.

## Improving Corrections

As part of its mission to make prisons safer, NIJ sponsors research, development, and evaluation initiatives designed to anticipate and preempt, as well as mitigate, problems faced by corrections officers and administrators. Three of these initiatives are described here.

### Keeping correctional officers safe

NIJ supports the development of performance standards for traditional law enforcement and corrections equipment, such as handcuffs, body armor, and metal detectors. One example of NIJ's work in this area was an assessment of personal alarm systems for correctional officers to use in an emergency. The study was conducted as a joint venture with the U.S. Department of Defense—specifically, the Information Technology Center of the U.S. Navy's Space and Naval Warfare Systems Command (SPAWAR).

Personal alarm systems rapidly distribute an alert from one correctional officer to another or to the facility's central command. Vendors are working on new systems using emerging technologies such as global positioning systems, biometrics, ultra wideband transmissions, and implanted microchips. SPAWAR produced a comprehensive guide to officer duress systems to help administrators identify their needs, select the appropriate system, and deploy it effectively. The guide also provides a scheme for classifying officer duress systems, a simplified duress system model, basic issues to consider during the selection process, a preview of current and emerging technologies, and an overview of products currently available.

### For more information

- *Duress Systems in Corrections Facilities, In Short—Toward Criminal Justice Solutions*, Washington, DC: U.S. Department of Justice, National Institute of Justice, September 2004 (NCJ 205836), is available at <http://www.ncjrs.org/pdffiles1/nij/205836.pdf>. A highly detailed guide is the *Correctional Officer Duress Systems: Selection Guide*, Charleston, SC: SPAWAR Systems Charleston, October 2003 (NCJ 202947), available at <http://www.ncjrs.org/pdffiles1/nij/grants/202947.pdf>.

### Understanding and reducing sexual assault in prisons

Sexual assault among prisoners is not well understood. The Prison Rape Elimination Act of 2003 calls for: (1) establishing national standards to detect and prevent sexual violence in prisons; (2) increasing the availability of data and related information in order to improve the management and administration of correctional facilities; and (3) increasing accountability for prisoner protection.

NIJ's immediate research agenda is to build knowledge about the incidence and prevalence of prison sexual violence, the investigation and prosecution of perpetrators, and the impact of sexual victimization in prison, including prevalence of sexually transmitted diseases among prison populations.

NIJ is currently leading a national qualitative study of sexual violence and prison culture that will be completed in late 2005. In 2004, NIJ made several awards related to prison sexual violence. Two studies are focusing on the development of risk assessment instruments to assist corrections practitioners in identifying likely victims and offenders. Two other NIJ grantees are conducting surveys to identify and characterize existing programs or practices designed to prevent sexual assault in adult and juvenile correctional facilities. The studies are mainly for information gathering, but researchers will make some preliminary assessments concerning promising programs or practices.

NIJ plans to award grants in 2005 for research on the impact of sexual violence on corrections and on the investigation and prosecution of sexual assault cases.

#### For more information

- *Data Collections for the Prison Rape Elimination Act of 2003*, Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics, June 30, 2004 (NCJ 206109), available at <http://www.ojp.usdoj.gov/bjs/pub/pdf/dcprea03.pdf>.

**A testimonial**

*Officers Chris Athen, Mike Bashor, Jeremy Branham, and Kevin Johnson of the Nevada Department of Corrections Special Response Team participated in two scenarios at last year's event. Last year the team drove all the way to Moundsville, but this year, most were able to fly.*

*"We got a grant to buy our plane tickets and raised money to pay for the rest of the trip," Branham said, adding that the team washed cars—and even dogs—to raise the money. "If it was dirty, we washed it," he said. Meanwhile, two team members drove their equipment more than 40 hours to be a part of the program. Johnson said the team was so impressed with the event last year that they knew they had to return.*

**Mock Prison Riot™**

Every year NIJ's Office of Science and Technology's National Law Enforcement and Corrections Technology Center (NLECTC) and the Office of Law Enforcement Technology Commercialization (OLETC) sponsor a 4-day Mock Prison Riot™ at a former penitentiary in Moundsville, West Virginia. Police cadets and students play the role of prisoners staging an uprising so that law enforcement and corrections officers can train in realistic scenarios and test new less-lethal tools for controlling unruly crowds.

The event also allows administrators to consider the vulnerability of their facilities and assess such equipment as communication systems and drug detection devices. Vendors showcase their newest technology advances. Medical, fire, and emergency response personnel play support roles treating and evacuating staged injuries. Also present are many observers from Federal, State, and international corrections and law enforcement agencies; public and private organizations; and the media.

The Mock Prison Riot™ is in its seventh year, and its popularity continues to grow. The first year had 70 attendees. In May 2004, more than 1,300 persons attended from 41 States, Canada, Germany, Israel, and the United Kingdom. Riot scenarios included hostage situations, a hazardous materials spill, cell extractions, large-scale disturbances in the prison yard, possession of home-made weapons, and escape attempts.

**For more information**

- OLETC maintains a Mock Prison Riot™ Web site at <http://www.oletc.org/riot>; or contact the Office of Law Enforcement Technology Commercialization, 2001 Main Street, Wheeling, WV 26003; 888-306-5382 (toll-free).

## Increasing Community Safety

Put in the simplest terms, all of NIJ's research programs and projects are geared to making lives safer and communities better places to live. For example, NIJ's support for studies to better understand criminal behavior led to groundbreaking strategies for prosecuting career criminals and guidelines for making pretrial release decisions that are modeled after research.

In 2004, NIJ supported research that directly or indirectly improves safety for citizens and law enforcement personnel—from risk assessments for battered women to police interventions that address gang and gun violence, from cutting-edge scanners for screening at schools and other public places to body armor standards. Some of these programs are described below.

### Saving women's lives

Between 40 and 51 percent of women who are murdered in the United States are murdered by their husband or intimate partner.<sup>31</sup> In contrast, approximately 6 percent of men murdered are killed by their intimate partners.<sup>32</sup>

In the mid-1990's, NIJ began building a portfolio of research on violence against women designed to save women's lives by increasing knowledge and understanding of intimate partner homicide. Much of this research was conducted in conjunction with the U.S. Department of Justice's Office on Violence Against Women.

In November 2003, a special issue of the *NIJ Journal* was devoted exclusively to studies on this subject (see "For more information," page 26). That issue became one of the most frequently requested NIJ publications in 2004. Articles include descriptions of NIJ-funded research that found that women are most vulnerable immediately after they leave a relationship and are more likely to be murdered if they have been severely attacked by their intimate partner, especially if the attacks have escalated in severity. The research also shows that men who murder their intimate partners are more likely to use alcohol heavily and to use drugs. Gun ownership is also a risk factor.

<sup>31</sup> Brock, K., "When Men Murder Women: An Analysis of 2002 Homicide Data," Washington, DC: Violence Policy Center, September 2004, available at <http://www.vpc.org/studies/wmmw2004.pdf>.

<sup>32</sup> Fox, J.A., and M.W. Zawitz, *Homicide Trends in the U.S., "Trends by Gender,"* see statistical table, "Victim-Offender Relationship by Victim Gender, 1976–2002," Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics, updated September 2004, available at <http://www.ojp.usdoj.gov/bjs/homicide/gender.htm>.

Most women who are murdered by their intimate partners have experienced one or more of several risk factors, such as being choked. Identifying which battering cases are most likely to lead to further injury could help women, their advocates, and the courts take protective action. Many criminal justice agencies use formal mechanisms such as checklists and assessment questionnaires to identify these high-risk cases. But how accurate are the assessment instruments? Can they really predict future harm?

To evaluate the accuracy of risk assessment tools, in 2000 NIJ initiated a study of four commonly used assessment instruments. Researchers at Johns Hopkins University completed the study in 2004. One instrument, the Danger Assessment Scale, appeared to be the most accurate.<sup>33</sup>

About half the time, abused women's perceptions that they are at high risk for additional violence are accurate. The rest of the time, they underestimate the threat of lethality or diminish the severity of the violence being perpetrated against them.<sup>34</sup> Thus, the researchers concluded that although victims' perceptions were important predictors of risk of reassault, they were not good enough to rely upon. Systematic risk assessment proved more reliable.

The women in the study told the researchers that the process of completing the risk assessment was "an eye-opening experience," leading them to take action to protect themselves from further abuse. This suggests the need for future research on whether risk assessments increase victims' self-protective actions.

#### For more information

- Campbell, J.C., D. Webster, J. Koziol-McLain, C.R. Block, D.W. Campbell, F. Gary, J.M. McFarlane, C.J. Sachs, P.W. Sharps, Y. Ulrich, S.A. Wilt, J. Manganello, X. Xu, J. Schollenberger, and V. Frye, "Assessing Risk Factors for Intimate Partner Homicide," *NIJ Journal* 250 (November 2003): 14–19, available at <http://www.ncjrs.org/pdffiles1/jr000250e.pdf>.

<sup>33</sup> Researchers assessed the accuracy of four instruments by administering them randomly to 1,307 battered women who sought help against a violent partner in various ways—calling 911, filing for a protective order, going to a shelter or hospital emergency room, or seeking domestic violence services at New York's Safe Horizon community offices. Six months later, participants were queried about all forms of abuse and violations of court orders since the risk assessment. They were also asked about protective measures and offender sanctions. Criminal records were checked 1 year after the baseline interview. The researchers' final report to the National Institute of Justice will be released through the National Criminal Justice Reference Service in 2005.

<sup>34</sup> Campbell, J.C., D. Webster, J. Koziol-McLain, C.R. Block, D.W. Campbell, F. Gary, J.M. McFarlane, C.J. Sachs, P.W. Sharps, Y. Ulrich, S.A. Wilt, J. Manganello, X. Xu, J. Schollenberger, and V. Frye, "Assessing Risk Factors for Intimate Partner Homicide," *NIJ Journal* 250 (November 2003): 16.

### **What is action research?**

*Action research occurs when researchers and their practitioner partners use data to develop strategies to solve local crime problems. To address an urgent problem—such as gang violence within a particular neighborhood—the researchers take a lead role in collecting and analyzing data to understand the patterns of the crime problem and potential sources. They remain actively involved during program implementation, provide feedback to implementers to refine and improve interventions, and ultimately determine how well the program achieved its goals.*

<sup>35</sup> For information about a prominent source that assembles research evidence, see Petrosino, A., D.P. Farrington, and L. Sherman, "The Campbell Collaboration: Helping to Understand 'What Works,'" *NIJ Journal* 251 (July 2004): 14–17, available at <http://ncjrs.org/pdffiles1/jr000251d.pdf>.

<sup>36</sup> A rigorous evaluation found that the Boston project was associated with a 63-percent decrease in youth homicides per month, a 32-percent decrease in shots-fired calls for service per month, a 25-percent decrease in gun assaults per month, and a 44-percent decrease in the number of youth gun assaults per month in the highest risk district (Roxbury). See Kennedy, D.M., A.A. Braga, A.M. Piehl, and E.J. Waring, *Reducing Gun Violence: The Boston Gun Project's Operation Ceasefire*, Research Report, Washington, DC: U.S. Department of Justice, National Institute of Justice, September 2001 (NCJ 188741), available at <http://www.ncjrs.org/pdffiles1/nij/188741.pdf>.

<sup>37</sup> *Ibid.*, see exhibit 2–2, p. 58.

- Campbell, J.C., D. Webster, J. Koziol-McLain, C.R. Block, D.W. Campbell, M.A. Curry, F. Gary, J.M. McFarlane, C.J. Sachs, P.W. Sharps, Y. Ulrich, S.A. Wilt, J. Manganello, X. Xu, J. Schollenberger, V. Frye, and K. Laughon, "Risk Factors for Femicide in Abusive Relationships: Results From a Multisite Case Control Study," *American Journal of Public Health*, 93(7) (2003): 1089–1097.

### **Making neighborhoods safer**

After several decades of helping law enforcement agencies develop better community crime prevention, NIJ is now leading the way toward evidence-based policies and practices.<sup>35</sup> The agency is reaching out to help cities develop focused problem-solving strategies based on best practices identified by research. This promotes researcher-practitioner partnerships to address problems at the local level.

Project Safe Neighborhoods, a national initiative involving NIJ and other U.S. Department of Justice agencies, builds on findings from action research that NIJ has been conducting since the mid-1990's. Projects in NIJ's action-research portfolio used data to pinpoint the exact nature of the problem, developed a strategic plan to address the problem, implemented the strategic plan, and then adjusted the strategy as needed.

**Action research to reduce gun violence.** One of NIJ's most successful action-research projects took place in Boston, Massachusetts, between 1995 and 1998. Called Operation Ceasefire, the Boston project dramatically reduced juvenile and youth homicides—by 63 percent overall.<sup>36</sup> For several months during the 2-year period of the study, youth homicides in Boston fell to zero.<sup>37</sup>

Other problem-solving projects sponsored by NIJ have experimented with approaches to reducing gun violence. In Indianapolis, Indiana, for example, researchers compared two strategies: (1) police stopping cars at random and confiscating illegal guns, and (2) police stopping only suspicious cars. The first strategy resulted in a higher number of confiscated guns, but the second strategy resulted in much lower gun crime. Even though police confiscated fewer guns during the second strategy, gun crime went down. The lesson from

Edmund F. McGarrell  
Director, School of Criminal Justice,  
Michigan State University

“[A]ction-research partnerships linking practitioners and researchers in problem-solving efforts ... are changing practice and making communities safer, while at the same time generating a new understanding of crime and criminal justice. NIJ deserves much credit as the catalyst for these partnerships.”

Indianapolis: Police can reduce gun crime when they take away guns from the “right” people—potential criminals—and deter them from carrying guns.

Another problem-solving initiative sponsored by NIJ was the St. Louis (Missouri) Consent-to-Search Program, whereby police sought parental permission to search and seize guns from juveniles in their homes. The impact on gun crime was not as clear cut as the Indianapolis experience due to changes in the police department and resulting changes in program implementation. But one of the main lessons from St. Louis is that novel problem-solving approaches (police asking parents to allow the police to search their child’s room) can work.

**Project Safe Neighborhoods.** Launched in 2001, Project Safe Neighborhoods (PSN) addresses gun violence by forming or strengthening strategic partnerships among Federal, State, and local agencies, under the auspices of the local United States Attorney. The five core elements of PSN are:

- Partnerships that include local, tribal, State, and Federal law enforcement; local, State, and Federal prosecutors; probation and parole officials; researchers; and community groups, such as faith-based organizations.
- Strategic planning through collection and analysis of data to identify the precise nature of the gun crime problem.
- Training for all participants.
- Outreach to involve the community and to let potential offenders know that they will “do hard time for gun crime.”
- Accountability that defines success through actual outcome data.

Because each jurisdiction is unique, PSN partners tailor these elements to suit the particular needs in their district.

In 2004, NIJ staff and grantees provided technical assistance and research support to all 94 Project Safe Neighborhood sites. Training was designed to



help PSN partners develop strategic problem-solving approaches to address endemic local gun crime problems. In addition, the NIJ-funded research grantees will conduct case studies of promising intervention strategies and comprehensive case studies assessing the implementation and impacts of PSN in selected sites.

#### For more information

- Kennedy, D.M., A.A. Braga, A.M. Piehl, and E.J. Waring, *Reducing Gun Violence: The Boston Gun Project's Operation Ceasefire*, Research Report, Washington, DC: U.S. Department of Justice, National Institute of Justice, September 2001 (NCJ 188741), available at <http://www.ncjrs.org/pdffiles1/nij/188741.pdf>.
- McGarrell, E.F., S. Chermak, and A. Weiss, *Reducing Gun Violence: Evaluation of the Indianapolis Police Department's Directed Patrol Project*, Research Report, Washington, DC: U.S. Department of Justice, National Institute of Justice, November 2002 (NCJ 188740), available at <http://www.ncjrs.org/pdffiles1/nij/188740.pdf>.
- Decker, S., and R. Rosenfeld, *Reducing Gun Violence: The St. Louis Consent-to-Search Program*, Research Report, Washington, DC: U.S. Department of Justice, National Institute of Justice, November 2004 (NCJ 191332), available at <http://www.ncjrs.org/pdffiles1/nij/191332.pdf>.
- Project Safe Neighborhoods Web site at <http://www.psn.gov>.

#### Technology testing and evaluation

NIJ's Office of Science and Technology oversees research and development of new technology and technical standards to improve the safety of citizens, communities, and law enforcement personnel. Several projects in 2004 showed significant promise for easier, more effective detection of illegal weapons or entry.

**Making schools safer.** As part of NIJ's research and development agenda to make schools safer, NIJ worked with the New York City Police Department's

School Safety Division to test a walk-through weapons detection portal in a Manhattan high school. The portal, called "Secure Scan 2000," uses new magnetometer technology to "see" very small metal objects (such as razor blades, which were being used in gang-based slashings at the school).<sup>38</sup> In 2004, demonstration of an improved version of the portal at a Bronx, New York, high school reduced the level of false or nuisance alarms by 30 percent and the number of slashings by half. The research, development, and testing of this new portal for schools could lead to major improvements in the metal detector portals currently used in most airports and courthouses.

Other technology tested as part of NIJ's safe schools initiative is also expected to have wider application. In three New Jersey schools, for example, NIJ installed and evaluated a system that has improved the school's ability to ensure that the person picking up a student is authorized to do so. The system uses the iris of a person's eye for identification. During 9,400 iris scannings at the schools, there were no known false positives or other misidentifications. The system made accurate identifications and unlocked the door 78 percent of the time. Failures that occurred were due to problems with lighting (especially on sunny days), with someone improperly lining up with the scanner (16 percent of failures), or with persons who were not enrolled in the program using the scanner (6 percent of failures).

**Making lives safer with biometrics.** For several years, NIJ has been expanding understanding of biometric technology and exploring how to use it to improve public safety. Biometric technologies that scan or measure unique physical characteristics (such as the iris scan experiment) are more reliable than traditional identifiers such as drivers' licenses and identification or swipe cards. Because the systems are computer-based, they can provide records that other methods cannot. But more importantly, biometrics requires no user name, password, or series of numbers to confirm identity.

<sup>38</sup> Secure Scan 2000 was developed by the U.S. Department of Energy's Idaho National Engineering and Environmental Laboratory, with funding provided by NIJ.

NIJ also plays a lead role in research and development concerning finger imaging and face recognition technology. In 2004, for example, NIJ evaluated 13 fingerprint identification algorithms in response to a requirement of the Patriot Act to evaluate the FBI's Integrated Automated Fingerprint Identification System (IAFIS), which contains fingerprint records for more than 47 million subjects.

NIJ participates in several joint biometric efforts, including the U.S. Department of Justice's Biometrics Cooperative and the government-wide International Committee for Information Technology Standards, which has issued three biometrics standards: iris image, finger image, and face recognition formats for data interchange.

**For more information**

- "Cause for Alarm," *TechBeat*, Winter 2003: 2-3, available at <http://www.nlectc.org/techbeat/winter2003/SafeSchWint03.pdf>.
- Biometrics catalog at <http://www.biometricscatalog.org>.
- On the Integrated Automated Fingerprint Identification System, see <http://www.fbi.gov/hq/cjisd/iafis.htm>.



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## Appendix A

### Financial Data

Exhibit 1: Trends in NIJ's Research and Development Portfolio, FY 1995–2004

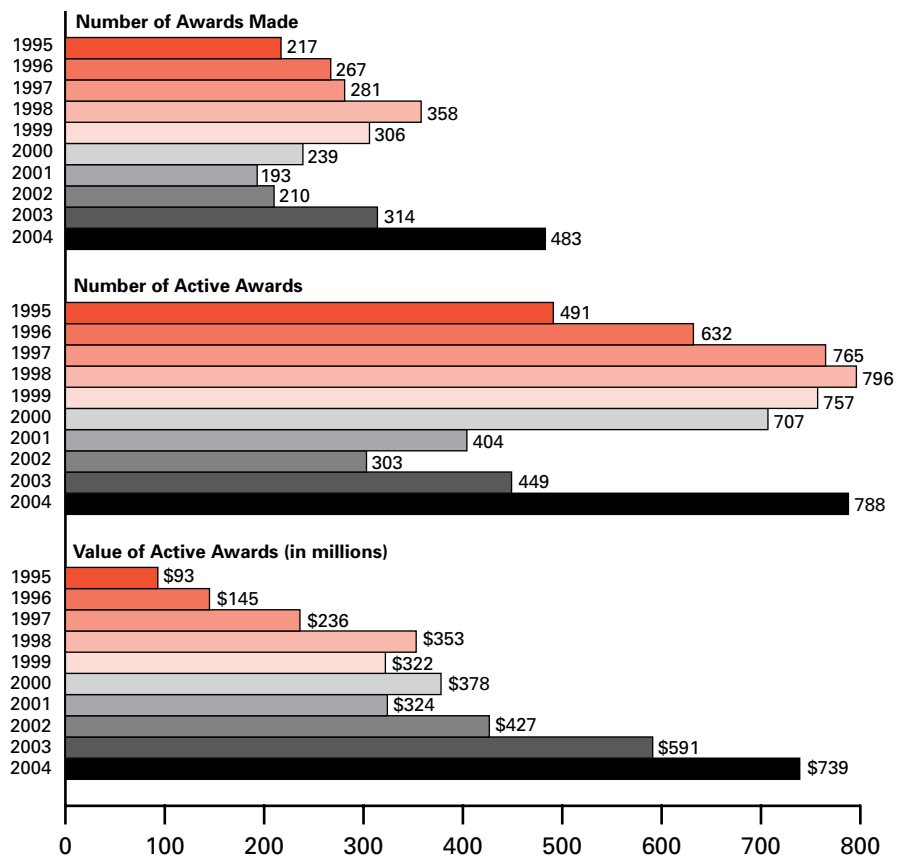


Exhibit 2: Sources of NIJ Funds, in Millions, FY 1995–2004

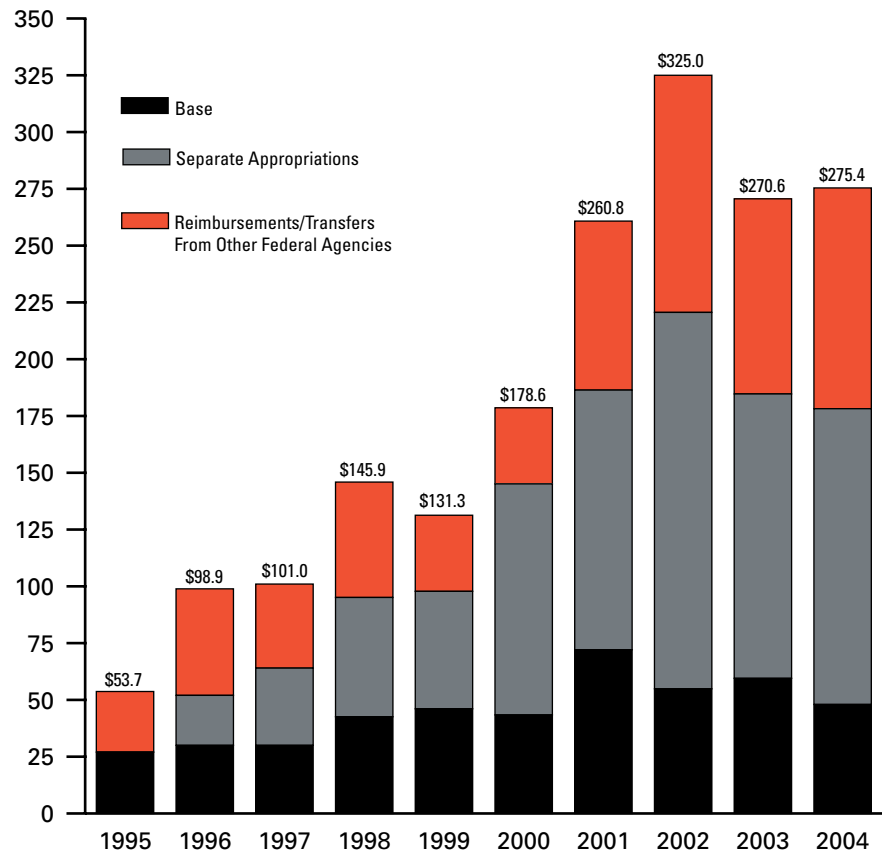


Exhibit 3: Allocation of NIJ Funds as a Percentage of Total Expenditures,\*  
FY 2004

<b>Social Science</b>	<b>Research</b>	11%
	Evaluation	4%
<b>Science and Technology</b>	Capacity Building**	45%
	Research and Development	18%
	Technology Assistance	11%
	Standards	4%
<b>Program Support</b>		3%
<b>Dissemination</b>		2%
<b>Other</b>		2%

\*Total expenditures of \$275.4 million include NIJ's base appropriation of \$48 million plus separate appropriations and funds transferred from other agencies.

\*\*Grants to improve and enhance crime labs.

## Appendix B

NIJ Awards in FY 2004 (includes first-time awards and supplements to previous awards)

### ADMINISTRATIVE SUPPORT

#### Audit Services for U.S. Crime Laboratories

##### Performing DNA Analysis

National Forensic Science Technology Center  
2004-DN-BX-0079  
\$1,000,000

#### Meeting and Editorial Support

Aspen Systems Corporation  
1996-MU-MU-K011  
\$61,000

#### NIJ Surplus Property Program

Ultimate Enterprises, Ltd.  
1996-LB-VX-K002  
\$123,000

### COMMUNICATION AND INFORMATION TECHNOLOGIES

#### Advanced Development and Testing of the Voice Response Translator

Integrated Wave Technologies  
2004-IJ-CX-K042  
\$99,983

#### California Integrated Laboratory Information Management System

California Department of Justice  
2004-LP-CX-0010  
\$1,987,000

#### Capital Wireless Integrated Network

University of Maryland  
2001-RB-CX-K001  
\$223,891

#### Center for Criminal Justice Technology Information Systems Integration Projects

Mitretek Systems, Inc.  
2001-LT-BX-K002  
\$3,268,432

#### CommTech Program Support: Kansas City Regional Crime Analysis

University of Denver  
2001-RD-CX-K001  
\$49,637

#### Comprehensive Suite of New Technology Standards for Interoperable Communications Networks for Land Mobile Communications

APCO Automated Frequency Coordination  
1997-LB-VX-K002  
\$200,000

#### Criminal Justice Information System, 2004

South Carolina Law Enforcement Division  
2004-RG-CX-K009  
\$1,484,216

#### Development of a Law Enforcement Technology Wireless Data/Communication Infrastructure

Center for Rural Development  
2003-RD-CX-K010  
\$1,978,955

#### Development of a Speech-to-Forms Translator for Border Agencies

Language Systems, Inc.  
2004-IJ-CX-K053  
\$49,908

#### Impact of Information Security in Academic Institutions on Safety and Security

Columbia University Teachers College  
2004-IJ-CX-0045  
\$205,876

#### Implementation of Accelerated Information Sharing for Law Enforcement

National Law Enforcement Telecommunication System, Inc.  
2002-MU-MU-K005  
\$844,855

#### Interoperable Voice Communication and Information Sharing: Research and Development

Aerospace Corporation  
2004-IJ-CX-K028  
\$135,000

#### Interoperable Voice Communication and Information Sharing: Research and Development

Center for Advanced Public Safety Information Technologies  
2004-IJ-CX-K029  
\$518,093

#### Interoperable Voice Communication and Information Sharing: Research and Development

State University of New York  
2004-LT-BX-K027  
\$161,716

#### Interoperable Voice Communication and Information Sharing: Research and Development

University of Central Florida  
2004-IJ-CX-K030  
\$293,768

#### Lowcountry Information Technology Improvement Project, Phase III

South Carolina Research Authority  
2002-MU-MU-K011  
\$2,473,694



**National Criminal Intelligence Information Sharing**

Automated Regional Justice Information System  
2004-RG-CX-K018  
\$375,000

**Public Safety Interoperability Communications Resource, Phase II: Evaluation and Assessment Guidance for Law Enforcement and Security Technology Supplement**

Eastern Kentucky University  
2003-IJ-CX-K102  
\$1,150,000

**Redesign of Alaska Public Safety Information Network**

Alaska Department of Public Safety  
2004-RG-CX-K007  
\$2,473,694

**Responsive Efforts to Ensure Integral Needs in Staffing**

Association of Public Safety Communications Officials, Inc.  
2003-MU-MU-K103  
\$200,000

**Software-Defined Radio Project, Phase II**

South Carolina Research Authority  
2002-MU-MU-K011  
\$2,253,040

**State Communications Initiative, Phase IV**

South Carolina Research Authority  
2002-MU-MU-K011  
\$989,450

**State Leadership in Public Safety Wireless Interoperability**

National Governors Association, Center for Best Practices  
2002-RG-CX-K001  
\$50,000

**Support Services for NIJ's Interoperability/AGILE Program**

Center for Technology Commercialization  
2001-LT-BX-K011  
\$99,943

**Technological Interoperability**

Albany, City of  
2004-LT-BX-K005  
\$395,791

**Wireless Accelerated Response Network: Wireless Broadband Citywide Network for First Responders**

District of Columbia  
2004-MU-MU-K096  
\$398,200

**XML Standards for Integrated Justice**

Georgia Tech Applied Research Corporation  
2003-IJ-CX-K030  
\$400,000

**COMMUNITY JUSTICE****Community Organizations and Crime: Examining the Social-Institutional Processes of Neighborhoods**

Urban Institute  
2004-IJ-CX-0049  
\$198,757

**Graduate Research Fellowship: Contextual Effects on Juvenile Delinquency—Modeling Differential Effects of School and Neighborhood Social Organization**

University of Chicago  
2004-IJ-CX-0012  
\$20,000

**COMPUTER CRIME****Chicago Internet Experiment**

University of Illinois  
2004-IJ-CX-0021  
\$298,644

**College-Level Academic Program for Electronic Crime and Digital Forensics at Champlain College**

Champlain College, Inc.  
2004-MU-MU-K001  
\$185,000

**Consensus Gathering for Certification for Digital Evidence Professionals**

University of Central Florida  
1998-IJ-CX-K003  
\$79,997

**Support Services for NIJ's Electronic Crime Program**

Center for Technology Commercialization  
2001-LT-BX-K011  
\$25,000

**CORRECTIONS****Addressing Prison Sexual Violence**

Urban Institute  
2004-RP-BX-0001  
\$400,000

**Aftercare Services for Juvenile Parolees with Mental Disorders**

Children's Research Institute  
2004-IJ-CX-0084  
\$299,652

**Assessment of Risk Factors Associated With Sexual Violence in the Texas Prison System**

The Institute  
2004-RP-BX-0003  
\$183,378

**Correctional Industries Preparing  
Inmates for Reentry: Recidivism and  
Postrelease Employment Evaluation**

University of Baltimore  
2004-DD-BX-1001  
\$200,000

**Intersection of Prisons and Child Welfare:  
Findings From a Multi-State Collaboration**

University of California  
2004-IJ-CX-0036  
\$100,000

**Pennsylvania Task Force on  
Prison Overcrowding**

County Commissioners Association of  
Pennsylvania  
2004-IJ-CX-0007  
\$347,725

**Prison Population Computer  
Simulation Model Project**

Alabama Sentencing Commission  
2004-DD-BX-1014  
\$98,948

**Recidivism Among Female Prisoners**

California State University—Fresno  
2004-IJ-CX-0038  
\$35,000

**Research on Prison Sexual Violence**

Colorado Division of Criminal Justice  
2004-RP-BX-0095  
\$451,251

**Risk Markers for Sexual Vulnerability and  
Violence in Prison: Development of a Risk  
Classification System for Inmates**

University of Virginia  
2004-RP-BX-0004  
\$397,647

**Working With Technology in Corrections**

American Correctional Association  
1996-LB-VX-K004  
\$199,836

**COURTS**

**Courtroom of the 21<sup>st</sup> Century**

College of William and Mary  
2004-DD-BX-K011  
\$494,739

**Development of Alternative Modalities for  
Providing DNA Training for the Nation's  
Prosecutors**

American Prosecutors Research Institute  
2004-DN-BX-K017  
\$400,000

**Drug Court Evaluation Plan Review and  
Technical Assistance Initiative**

National Association of Drug  
Court Professionals  
2004-DC-BX-K005  
\$195,727

**Feasibility and Efficacy of Performance  
Measures in Prosecution and Their  
Application to Community Prosecution**

American Prosecutors Research Institute  
2004-PP-CX-0002  
\$385,000

**John Doe Indictment Project**

New York, City of  
2004-RC-CX-K014  
\$347,725

**Visiting Fellowship Program:  
Multi-State Analysis of Time  
Consumption in Capital Appeals**

City University of New York  
2004-IJ-CX-0005  
\$85,530

**CRIME LAB IMPROVEMENT**

**Crime Laboratory Improvement Program**

Allegheny County Forensic Lab,  
Division of the Coroner's Office  
2004-LP-CX-K015  
\$248,375

**Crime Laboratory Improvement Program**

Baltimore, City of  
2004-LP-CX-K033  
\$993,005

**Crime Laboratory Improvement Program**

King County Sheriff's Office  
2004-RG-CX-K011  
\$248,375

**Crime Laboratory Improvement Program**

Maryland State Police  
2004-LP-CX-K032  
\$820,273

**Crime Laboratory Improvement Program**

New Jersey Department of  
Law and Public Safety  
2004-LP-CX-K020  
\$1,987,000

**Crime Laboratory Improvement Program**

Northern Illinois Police Crime Laboratory  
2004-LP-CX-K010  
\$496,750

**Crime Laboratory Improvement Program**

Williamson, County of  
2004-RC-CX-K021  
\$29,805

**DNA Equipment Project**

Indiana State Police  
2004-LP-CX-K006  
\$496,750

**DNA Improvement**

Indiana State Police  
2004-LP-CX-K097  
\$1,490,250

**Equipment Purchase for DNA Automation**

Washoe County Sheriff's Office  
2004-LT-BX-K009  
\$247,357

**Establishment of a Forensic DNA Analysis Laboratory at North Dakota State University**

North Dakota State University  
2004-RG-CX-K001  
\$989,477

**Expansion and Enhancement of the Southeast Missouri Regional Crime Lab**

Southeast Missouri State University  
2004-LP-CX-K049  
\$963,695

**Forensic Crime Lab Improvement Program, 2003**

South Carolina Law Enforcement Division  
2004-LP-CX-K001  
\$2,483,750

**Forensic DNA Analysis Capability—Crime Lab Improvement**

Colorado Springs, City of  
2004-RC-CX-K019  
\$496,750

**Forensic Laboratory Improvement, 2004**

South Carolina Law Enforcement Division  
2003-IJ-CX-K022  
\$1,484,216

**High-Tech Crime Lab System Improvement**

South Carolina Law Enforcement Division  
2003-IJ-CX-K022  
\$989,477

**Indian Country Crime Lab Services in New Mexico**

Albuquerque, City of  
2004-RC-CX-K075  
\$1,308,755

**Laboratory Enhancement**

New York, City of  
2004-LT-BX-K013  
\$993,500

**Phoenix Police Department Crime Lab Improvement Program**

Phoenix, City of  
2004-LP-CX-0016  
\$993,500

**Upgrade of Bureau of Criminal Identification and Investigation Laboratory Analytical Capabilities and Efficiency**

Ohio Office of the Attorney General  
2002-LP-CX-K007  
\$789,707

**Virginia Forensic Laboratory Improvement Program, 2004**

Virginia, Commonwealth of  
2004-LP-CX-0001  
\$1,490,250

**CRIME PREVENTION****Catching Stolen Vehicles: Additional Capabilities for a Mobile License Plate Reading System**

Critical Response Manufacturing  
2004-IJ-CX-K016  
\$198,226

**Data Sharing and Geographic Information Technology: Implementation, Coordination, and Support for the East Valley Community's Mapping, Planning, and Analysis for Safety Strategies**

Redlands, City of  
2004-DD-BX-1190  
\$494,739

**Graduate Fellowship: Deterrent Effect of Curfew Enforcement—Operation Night Watch in St. Louis**

University of Missouri—St. Louis  
2004-IJ-CX-0008  
\$20,000

**Handheld Metal Detector Testing**

Aspen Systems Corporation  
1996-MU-MU-K011  
\$150,000

**Multidimensional Treatment Foster Care with New York Girls: Outcomes and Transportability**

Center for Research to Practice  
2004-IJ-CX-0094  
\$100,000

**Precision Indoor-Outdoor Personnel Location System II**

Worcester Polytechnic Institute  
2003-IJ-CX-K025  
\$148,422

**Security Industry Scope and Emerging Trends**

ASIS Foundation, Inc.  
2004-IJ-CX-0033  
\$97,420

**CRIMINAL JUSTICE RESEARCH****Breaking the Cycle of Behavioral Health Problems and Crime**

University of Connecticut Health Center  
2004-DD-BX-1025  
\$940,000

**Campbell Collaboration Crime and Justice Group Expedited Review Project**

University of Pennsylvania  
2004-DD-BX-0003  
\$132,945

**Center on Law and Security**

New York University  
2004-DD-BX-1012  
\$1,484,216

**Committee on Law and Justice**

National Academy of Sciences  
2001-MU-MU-0007  
\$250,000

**Creation of a Uniform Crime Reports Utility**

Ohio State University  
2004-IJ-CX-0083  
\$122,890

**Graduate Research Fellowship: Comparison of Imputation Methodologies in the Offenses-Known Uniform Crime Reports**

University of Illinois  
2004-IJ-CX-0006  
\$19,997

**National Clearinghouse for Science, Technology, and the Law**

Stetson University, Inc.  
2003-IJ-CX-K024  
\$2,968,432

**W.E.B. DuBois Fellowship: Exploring the Factors Influencing Family Members' Connections to Incarcerated Individuals**

Rutgers—State University of New Jersey  
2004-IJ-CX-0043  
\$78,767

**DRUGS AND CRIME****Chinese Connection: Changing Patterns of Drug Trafficking in the Golden Triangle**

Rutgers—State University of New Jersey  
2004-IJ-CX-0023  
\$199,995

**Context of Drug Markets: The Direct and Indirect Influence of Gender in Drug Market Activities**

Arizona State University  
2004-IJ-CX-0014  
\$34,946

**Exploring the Drugs/Crime Connection Within the Electronic Dance and Hip-Hop Nightclub Scenes**

University of Delaware  
2004-IJ-CX-0040  
\$283,563

**EDUCATION AND TRAINING****Advanced Distance Learning to Enhance the Gathering, Preservation, and Use of DNA Evidence**

Dartmouth College  
2004-IJ-CX-K041  
\$1,697,343

**DNA Academies and Officers of the Court CD-ROM Project Funding**

National Forensic Science Technology Center  
2000-RC-CX-K001  
\$2,000,000

**Forensic Hair Examination Workshop and Atlas Under the President's DNA Initiative Funding**

West Virginia University  
2001-RC-CX-K003  
\$340,000

**Marshall University Forensic Science Center DNA Training**

Marshall University Research Corporation  
2001-RC-CX-K002  
\$520,000

**New Hampshire Distance Learning Project**

New Hampshire Department of Justice  
2004-DD-BX-K023  
\$989,477

**Scientific Working Group for Digital Evidence and FBI ACES Forensic Computer Training: Ongoing Support**

University of Central Florida  
1998-IJ-CX-K003  
\$595,768

**Testing and Evaluation of Technology-Based Delivery of Model Training Programs in DNA Continuing Education**  
National Forensic Science Technology Center  
2000-RC-CX-K001  
\$1,978,955

**Western Forensic and Law Enforcement Training Center**  
Western Forensic Law Enforcement Training Center at Colorado State University—Pueblo  
2003-DD-BX-K013  
\$989,477

## EVALUATION

**Evaluation and Assessment Guidance for Law Enforcement and Security Technology Supplement**  
Eastern Kentucky University  
2003-IJ-CX-K102  
\$424,628

**Evaluation of a Comprehensive Approach to Reducing Gun Violence in Detroit**  
Michigan State University  
2004-IJ-CX-0022  
\$243,461

**Evaluation of Father Flanagan's Boys' Home (Girls and Boys Town)**  
Development Services Group, Inc.  
2004-IJ-CX-0029  
\$559,998

**Evaluations of Byrne Funded Projects, FY 2004**  
Abt Associates, Inc.  
2004-DD-BX-1467  
\$671,092

**Evaluations of Byrne Funded Projects, FY 2004**  
Institute for Law and Justice  
2004-DD-BX-1466  
\$350,379

**Multisite Evaluation of the Serious and Violent Offender Reentry Initiative, Phase II**  
RTI International  
2004-RE-CX-0002  
\$10,127,061

## FORENSICS, GENERAL

**American Academy of Applied Forensics**  
Central Piedmont Community College  
2001-RC-CX-K009  
\$794,800

**Forensic Science Initiative**  
West Virginia University  
2001-RC-CX-K003  
\$741,075

**Marshall University Forensic Science Center and Forensic Resource Network Initiatives to Improve Forensic Crime Laboratories**  
Marshall University Research Corporation  
2001-RC-CX-K002  
\$3,265,276

**Northeast Regional Forensics Institute**  
State University of New York  
2004-LP-CX-K025  
\$1,490,250

**Status and Needs of the Forensic Digital Audio-Video Communities**  
University of Central Florida  
1998-IJ-CX-K003  
\$67,616

**Streamlining Physical Evidence Collection and Forensic Analysis**  
Florida Gulf Coast University  
2004-LP-CX-K048  
\$1,241,875

**West Virginia University Forensic Science Initiative, FY 2003**  
West Virginia University  
2003-RC-CX-K001  
\$3,974,000

**West Virginia University Forensic Science Initiative, FY 2004**  
West Virginia University  
2001-RC-CX-K003  
\$3,957,910

**Wildlife DNA Profiling and Forensics**  
East Stroudsburg University of Pennsylvania  
2004-LP-CX-K012  
\$397,400

## FORENSICS, RESEARCH AND DEVELOPMENT

**Application of Laser-Induced Breakdown Spectroscopy to Forensic Science: Analysis of Glass Samples**  
University of Central Florida  
2004-IJ-CX-K031  
\$210,728

**Development of Microfluidic Devices for the Rapid Isolation and Detection of Drugs of Abuse**  
Florida International University  
2004-WG-BX-K077  
\$499,865

**Evaluation and Application of Polynomial Texture Mapping for Footwear and Tire Impression Evidence Comparisons**

California Department of Justice  
2004-IJ-CX-K008  
\$128,802

**Forensic Glass Analysis by Laser Ablation Inductively Coupled Plasma Mass Spectrometry: Assessing the Feasibility of Correlating Windshield Composition and Supplier**

Sacramento, County of  
2004-IJ-CX-K007  
\$36,053

**Internet Forensic Toolkit for Law Enforcement**

University of California—San Diego  
2004-MU-MU-K002  
\$180,000

**Quantitative Assessment of the Discriminative Power of Handwriting**

State University of New York  
2004-IJ-CX-K050  
\$490,700

**Statistical Methods for Estimating a Minimum Postmortem Interval: Evaluation Using Insect Growth Data**

West Virginia University  
2002-LT-BX-4001  
\$101,467

**FORENSICS AND INVESTIGATIVE SCIENCES**

***DNA Capacity Enhancement Program Formula Grants***

Alabama Department of Forensic Sciences  
2004-DN-BX-K066  
\$404,856

Alameda, County of  
2004-DN-BX-K068  
\$123,815

Alaska Department of Public Safety  
2004-DN-BX-K063  
\$73,675

Albuquerque, City of  
2004-DN-BX-K203  
\$168,485

Allegheny, County of  
2004-DN-BX-K091  
\$84,594

Anne Arundel, County of  
2004-DN-BX-K126  
\$72,224

Arizona Criminal Justice Commission  
2004-DN-BX-K067  
\$376,622

Arizona Department of Public Safety  
2004-DN-BX-K262  
\$236,238

Arkansas State Crime Laboratory  
2004-DN-BX-K064  
\$233,618

Austin, City of  
2004-DN-BX-K186  
\$121,866

Baltimore, City of  
2004-DN-BX-K143  
\$180,218

Baltimore, County of  
2004-DN-BX-K132  
\$135,092

Bexar, County of  
2004-DN-BX-K191  
\$217,319

Boston, City of  
2004-DN-BX-K127  
\$24,520

Broward Sheriff's Office  
2004-DN-BX-K101  
\$199,539

California Department of Justice  
2004-DN-BX-K065  
\$1,318,613

Charlotte, City of  
2004-DN-BX-K188  
\$57,776

Colorado Department of Public Safety  
2004-DN-BX-K100  
\$259,506

Columbus, City of  
2004-DN-BX-K208  
\$150,542

Connecticut Department of Public Safety  
2004-DN-BX-K104  
\$218,709

Contra Costa, County of  
2004-DN-BX-K071  
\$139,068

Cuyahoga County Coroners Office  
2004-DN-BX-K195  
\$62,322

Dallas, County of  
2004-DN-BX-K187  
\$479,806

Delaware Health and Social Services 2004-DN-BX-K099 \$98,233	Houston, City of 2004-DN-BX-K193 \$487,014	Los Angeles, City of 2004-DN-BX-K078 \$527,799
Denver, City and County of 2004-DN-BX-K103 \$63,103	Idaho State Police 2004-DN-BX-K106 \$71,286	Los Angeles, County of 2004-DN-BX-K073 \$562,217
Detroit Police Department 2004-DN-BX-K148 \$419,825	Illinois State Police 2004-DN-BX-K115 \$1,529,577	Louisiana State Police 2004-DN-BX-K124 \$603,089
District of Columbia Metropolitan Police Department 2004-DN-BX-K102 \$189,357	Indiana State Police 2004-DN-BX-K123 \$446,904	Maine Department of Public Safety 2004-DN-BX-K146 \$71,286
DuPage County Office of the Sheriff 2004-DN-BX-K122 \$36,384	Iowa, State of 2004-DN-BX-K110 \$170,384	Mansfield, City of 2004-DN-BX-K209 \$49,610
Erie, County of 2004-DN-BX-K196 \$126,521	Kansas Bureau of Investigation 2004-DN-BX-K116 \$123,038	Maryland State Police 2004-DN-BX-K145 \$181,847
Florida Department of Law Enforcement 2004-DN-BX-K107 \$1,697,495	Kansas City Board of Police Commissioners 2004-DN-BX-K173 \$149,439	Massachusetts State Police 2004-DN-BX-K128 \$607,962
Fresno County Sheriff's Department 2004-DN-BX-K079 \$139,584	Kentucky, Commonwealth of 2004-DN-BX-K125 \$231,932	Miami-Dade, County of 2004-DN-BX-K108 \$535,895
Georgia Bureau of Investigation 2004-DN-BX-K109 \$797,707	Kern, County of 2004-DN-BX-K076 \$81,445	Michigan, State of 2004-DN-BX-K165 \$683,286
Harris, County of 2004-DN-BX-K199 \$195,799	Lake, County of 2004-DN-BX-K211 \$61,603	Minnesota, State of 2004-DN-BX-K166 \$272,761
Honolulu, City and County of 2004-DN-BX-K111 \$71,286	Las Vegas Metropolitan Police Department 2004-DN-BX-K204 \$281,455	Mississippi Department of Public Safety 2004-DN-BX-K185 \$200,244

Missouri Southern State University 2004-DN-BX-K178 \$44,448	North Carolina Department of Crime Control and Public Safety 2004-DN-BX-K168 \$736,823	Prince George's, County of 2004-DN-BX-K144 \$185,189
Missouri State Highway Patrol 2004-DN-BX-K181 \$161,577	North Dakota, State of 2004-DN-BX-K169 \$71,286	Rhode Island Department of Health, Division of Laboratories 2004-DN-BX-K190 \$71,286
Montana Department of Justice 2004-DN-BX-K176 \$71,286	Northern Illinois Police Crime Laboratory 2004-DN-BX-K120 \$22,790	Richland County Government 2004-DN-BX-K192 \$71,129
Montgomery, County of 2004-DN-BX-K142 \$98,875	Oakland, City of 2004-DN-BX-K077 \$82,727	Sacramento, County of 2004-DN-BX-K082 \$191,474
Montgomery, County of 2004-DN-BX-K206 \$219,333	Ohio Office of the Attorney General 2004-DN-BX-K202 \$271,705	San Bernardino, County of 2004-DN-BX-K080 \$201,238
Nebraska State Patrol 2004-DN-BX-K194 \$110,258	Oklahoma State Bureau of Investigation 2004-DN-BX-K183 \$357,242	San Diego, City of 2004-DN-BX-K081 \$137,581
New Hampshire Department of Safety, Division of Motor Vehicles 2004-DN-BX-K207 \$71,286	Orange, County of 2004-DN-BX-K069 \$226,674	San Diego, County of 2004-DN-BX-K070 \$151,953
New Jersey Department of Law and Public Safety 2004-DN-BX-K225 \$495,973	Oregon State Police 2004-DN-BX-K189 \$209,182	San Francisco, City and County of 2004-DN-BX-K072 \$120,285
New Mexico, State of 2004-DN-BX-K205 \$110,187	Palm Beach County Sheriff's Office 2004-DN-BX-K105 \$181,765	San Mateo, County of 2004-DN-BX-K075 \$52,372
New York State Division of Criminal Justice Services 2004-DN-BX-K210 \$1,803,811	Pennsylvania State Police 2004-DN-BX-K097 \$593,165	Santa Clara, County of 2004-DN-BX-K083 \$127,316
	Philadelphia, City of 2004-DN-BX-K094 \$329,313	Sedgwick, County of 2004-DN-BX-K117 \$84,742



South Carolina Law Enforcement Division  
2004-DN-BX-K250  
\$614,654

South Dakota Office of the Attorney General  
2004-DN-BX-K184  
\$71,286

Southeast Missouri State University  
2004-DN-BX-K177  
\$34,151

St. Charles, County of  
2004-DN-BX-K179  
\$44,505

St. Louis County Police  
2004-DN-BX-K182  
\$95,641

St. Louis Metropolitan Police Department  
2004-DN-BX-K180  
\$90,940

Tarrant, County of  
2004-DN-BX-K201  
\$64,803

Texas, State of  
2004-DN-BX-K198  
\$787,606

Union, County of  
2004-DN-BX-0224  
\$157,451

University of North Texas Health  
Science Center—Fort Worth  
2004-DN-BX-K197  
\$205,575

Utah Department of Public Safety  
2004-DN-BX-K200  
\$111,477

Ventura, County of  
2004-DN-BX-K074  
\$48,798

Vermont Department of Public Safety  
2004-DN-BX-K174  
\$71,286

Virginia, Commonwealth of  
2004-DN-BX-K167  
\$431,770

Washington State Patrol  
2004-DN-BX-K170  
\$425,839

West Virginia State Police  
2004-DN-BX-K172  
\$85,741

Wisconsin Department of Justice  
2004-DN-BX-K175  
\$248,589

Wyoming Office of the Attorney General  
2004-DN-BX-K171  
\$71,286

#### *DNA, Missing Persons*

##### **DNA Testing of Unidentified Remains**

University of North Texas Health  
Science Center—Fort Worth  
2004-DN-BX-K212  
\$750,000

##### **Field Test of Current Technology Used to Identify Human Remains**

University of North Texas Health  
Science Center—Fort Worth  
2004-DN-BX-K214  
\$249,902

##### **Focus Group: Using Technology to Assist in the Identification of Human Remains**

University of Central Florida  
1998-IJ-CX-K003  
\$186,892

##### **Standardized Sample Collection Kit for Unidentified Remains and Relatives of Missing Persons**

University of North Texas Health  
Science Center—Fort Worth  
2004-DN-BX-K213  
\$415,493

#### *DNA, Research and Development*

##### **Development and Validation of a Standardized Canine STR Panel for Use in Forensic Casework**

University of California  
2004-DN-BX-K007  
\$310,798

##### **Development of an Automated System to Detect Spermatozoa on Laboratory Slides**

Vermont Department of Public Safety  
2004-DN-BX-K003  
\$214,629

##### **Forensic Stain Identification by RT-PCR Analysis**

Vermont Department of Public Safety  
2004-DN-BX-K002  
\$240,404

##### **Generating More Precise Postmortem Interval Estimates With Entomological Evidence**

Michigan State University  
2004-DN-BX-K005  
\$185,001

**Graduate Research Fellowship: Bayesian Networks in Forensic Science**

North Carolina State University  
2004-DN-BX-K006  
\$20,000

**A Hand-Held DNA-Based Forensic Tool**

Cornell University  
2004-DN-BX-K001  
\$644,251

**Laser Microdissection Separation of Pure Spermatozoa Populations From Mixed Cell Samples for Forensic DNA Analysis**

Rosalind Franklin University of Medicine and Science  
2004-DN-BX-K215  
\$449,829

**Microfabricated Capillary Array Electrophoresis Genetic Analyzers for Forensic Short Tandem Repeat DNA Profiling**

University of California  
2004-DN-BX-K216  
\$821,623

**mtDNA Reference Database for Domestic Dogs**

George Washington University  
2004-DN-BX-K004  
\$243,144

**Nanotechnology DNA Sequencing: Improving DNA Processing Technologies**

Brown University  
2004-LT-BX-K001  
\$445,265

**Palm Beach County, Florida, Continuation of DNA Program, FY 2004**

Palm Beach County Sheriff's Office  
2003-DN-BX-4035  
\$674,414

**Population Genetics of Single Nucleotide Polymorphisms for Forensic Purposes**

Yale University  
2004-DN-BX-K025  
\$824,540

**SpermPaint Optimization and Validation**

University of Virginia  
2000-IJ-CX-K013  
\$339,059

**Validation of Y Chromosome STR Multiplexes for Operational Use**

University of Central Florida  
1998-IJ-CX-K003  
\$519,964

**Forensic Casework DNA Backlog Reduction Program Formula Grants**

Alabama Department of Forensic Sciences  
2004-DN-BX-K149  
\$703,708

Alameda, County of  
2004-DN-BX-K157  
\$147,357

Alaska Department of Public Safety  
2004-DN-BX-K136  
\$194,620

Albuquerque, City of  
2004-DN-BX-K098  
\$421,795

Allegheny, County of  
2004-DN-BX-K085  
\$266,917

Anne Arundel, County of  
2004-DN-BX-K156  
\$61,994

Arizona Criminal Justice Commission  
2004-DN-BX-K040  
\$430,047

Arizona Department of Public Safety  
2004-DN-BX-K062  
\$283,678

Arkansas State Crime Laboratory  
2004-DN-BX-K159  
\$320,550

Baltimore, City of  
2004-DN-BX-K059  
\$239,695

Bexar, County of  
2004-DN-BX-K058  
\$146,725

Boston, City of  
2004-DN-BX-K129  
\$33,784

Broward Sheriff's Office  
2004-DN-BX-K029  
\$195,023

California Department of Justice  
2004-DN-BX-K061  
\$1,065,583

Colorado Department of Public Safety  
2004-DN-BX-K121  
\$401,291

Connecticut Department of Public Safety  
2004-DN-BX-K087  
\$289,783

Contra Costa, County of  
2004-DN-BX-K164  
\$165,510

Cuyahoga County Coroners Office 2004-DN-BX-K131 \$52,879	Instituto De Ciencias Forenses 2004-DN-BX-K135 \$363,123	Maryland State Police 2004-DN-BX-K033 \$273,346
Denver, City and County of 2004-DN-BX-K162 \$401,873	Kansas Bureau of Investigation 2004-DN-BX-K139 \$398,183	Massachusetts State Police 2004-DN-BX-K086 \$663,842
District of Columbia Metropolitan Police Department 2004-DN-BX-K163 \$188,180	Kansas City Board of Police Commissioners 2004-DN-BX-K043 \$216,412	Miami-Dade, County of 2004-DN-BX-K060 \$410,841
DuPage County Office of the Sheriff 2004-DN-BX-K096 \$61,852	Kentucky, Commonwealth of 2004-DN-BX-K130 \$455,067	Michigan, State of 2004-DN-BX-K161 \$2,161,567
Erie, County of 2004-DN-BX-K137 \$131,327	Kern, County of 2004-DN-BX-K044 \$96,929	Minnesota, State of 2004-DN-BX-K028 \$853,250
Florida Department of Law Enforcement 2004-DN-BX-K119 \$1,944,178	Las Vegas Metropolitan Police Department 2004-DN-BX-K053 \$396,752	Mississippi Department of Public Safety 2004-DN-BX-K032 \$497,640
Fresno County Sheriff's Department 2004-DN-BX-K041 \$166,125	Los Angeles, City of 2004-DN-BX-K226 \$669,707	Missouri State Highway Patrol 2004-DN-BX-K054 \$236,981
Georgia Bureau of Investigation 2004-DN-BX-K112 \$970,952	Los Angeles, County of 2004-DN-BX-K084 \$710,669	Montana Department of Justice 2004-DN-BX-K154 \$90,513
Houston, City of 2004-DN-BX-K114 \$509,479	Louisiana State Police 2004-DN-BX-K153 \$759,160	Montgomery, County of 2004-DN-BX-K046 \$573,273
Illinois State Police 2004-DN-BX-K133 \$1,753,447	Maine Department of Public Safety 2004-DN-BX-K155 \$139,883	Montgomery, County of 2004-DN-BX-K090 \$98,620
Indiana State Police 2004-DN-BX-K052 \$788,854	Mansfield, City of 2004-DN-BX-K031 \$130,979	Nebraska State Patrol 2004-DN-BX-K134 \$183,172

New Hampshire Department of Safety, Division of Motor Vehicles 2004-DN-BX-K045 \$163,853	Oregon State Police 2004-DN-BX-K049 \$468,662	Santa Clara, County of 2004-DN-BX-K030 \$144,081
New Jersey Department of Law and Public Safety 2004-DN-BX-K092 \$602,463	Palm Beach County Sheriff's Office 2004-DN-BX-K140 \$191,807	South Carolina Law Enforcement Division 2004-DN-BX-K047 \$733,785
New York State Division of Criminal Justice Services 2004-DN-BX-K055 \$1,583,760	Pennsylvania State Police 2004-DN-BX-K027 \$223,444	South Dakota Office of the Attorney General 2004-DN-BX-K151 \$133,086
North Carolina Department of Crime Control and Public Safety 2004-DN-BX-K158 \$981,685	Philadelphia, City of 2004-DN-BX-K088 \$1,067,670	St. Louis County Police 2004-DN-BX-K057 \$83,168
North Dakota, State of 2004-DN-BX-K217 \$60,103	Richland County Government 2004-DN-BX-K113 \$73,672	St. Louis Metropolitan Police Department 2004-DN-BX-K038 \$105,970
Northern Illinois Police Crime Laboratory 2004-DN-BX-K093 \$61,852	Sacramento, County of 2004-DN-BX-K035 \$227,883	Texas, State of 2004-DN-BX-K050 \$1,782,700
Oakland, City of 2004-DN-BX-K051 \$98,344	San Bernardino, County of 2004-DN-BX-K034 \$239,504	University of North Texas Health Science Center—Fort Worth 2004-DN-BX-K219 \$371,994
Ohio Office of the Attorney General 2004-DN-BX-K036 \$1,151,502	San Diego, City of 2004-DN-BX-K118 \$155,697	Ventura, County of 2004-DN-BX-K056 \$58,075
Oklahoma State Bureau of Investigation 2004-DN-BX-K138 \$621,066	San Diego, County of 2004-DN-BX-K150 \$180,847	Vermont Department of Public Safety 2004-DN-BX-K039 \$49,728
Orange, County of 2004-DN-BX-K141 \$173,440	San Francisco, City and County of 2004-DN-BX-K089 \$143,156	Virginia, Commonwealth of 2004-DN-BX-K160 \$796,725
	San Mateo, County of 2004-DN-BX-K048 \$62,326	Washington State Patrol 2004-DN-BX-K095 \$1,043,935

West Virginia State Police  
2004-DN-BX-K026  
\$137,736

Wisconsin Department of Justice  
2004-DN-BX-K042  
\$497,640

Wyoming Office of the Attorney General  
2004-DN-BX-K037  
\$58,314

***Paul Coverdell Forensic Science  
Improvement Grants***

Alabama Department of Economic and  
Community Affairs  
2004-DN-BX-0186  
\$183,075

Alaska Department of Public Safety  
2004-DN-BX-0189  
\$57,052

Arapahoe County Sheriff's Office  
2004-DN-BX-0179  
\$19,211

Arizona Criminal Justice Commission  
2004-DN-BX-0192  
\$207,752

Arkansas Department of Finance and  
Administration  
2004-DN-BX-0185  
\$62,283

Baltimore, County of  
2004-DN-BX-0193  
\$78,233

California Governor's Office of  
Emergency Services  
2003-DN-BX-4006  
\$164,668

California Governor's Office of  
Emergency Services  
2003-DN-BX-4077  
\$427,017

California Governor's Office of  
Emergency Services  
2004-DN-BX-0002  
\$89,072

California Governor's Office of  
Emergency Services  
2004-DN-BX-0159  
\$810,820

Colorado Division of Criminal Justice  
2004-DN-BX-0149  
\$103,983

Connecticut, State of  
2004-DN-BX-0148  
\$79,595

Dallas, County of  
2004-DN-BX-0202  
\$80,233

Delaware Criminal Justice Council  
2004-DN-BX-0180  
\$57,052

District of Columbia Justice  
Grants Administration  
2004-DN-BX-0181  
\$57,052

Florida Department of Law Enforcement  
2004-DN-BX-0152  
\$388,886

Fulton, County of  
2004-DN-BX-0184  
\$80,233

Galveston, County of, and University of  
Texas Medical Branch  
2004-DN-BX-0212  
\$80,233

Georgia Criminal Justice Coordinating Council  
2004-DN-BX-0191  
\$276,487

Greenville County Medical Examiner  
2004-DN-BX-0208  
\$35,233

Hamilton County Coroner  
2004-DN-BX-0210  
\$79,175

Hawaii Department of the Attorney General  
2004-DN-BX-0154  
\$57,052

Hernando County Sheriff's Office  
2004-DN-BX-0190  
\$45,937

Hillsborough, County of  
2004-DN-BX-0177  
\$72,423

Idaho State Police  
2004-DN-BX-0151  
\$57,052

Illinois Criminal Justice Information Authority 2004-DN-BX-0194 \$289,134	Maryland Governor's Office of Crime Control and Prevention 2004-DN-BX-0150 \$125,879	Nebraska State Patrol 2004-DN-BX-0173 \$57,052
Indiana Criminal Justice Institute 2004-DN-BX-0153 \$141,571	Maryland Office of the Chief Medical Examiner 2004-DN-BX-0198 \$80,083	New Hampshire Department of Justice 2004-DN-BX-0209 \$57,052
Iowa Governor's Office of Drug Control Policy 2004-DN-BX-0156 \$67,272	Massachusetts State Police 2004-DN-BX-0223 \$147,004	New Jersey Department of Law and Public Safety 2004-DN-BX-0167 \$197,387
Jefferson, County of 2004-DN-BX-0187 \$40,234	Michigan, State of 2004-DN-BX-0155 \$230,328	New Mexico, State of 2004-DN-BX-0221 \$57,052
Jefferson, County of 2004-DN-BX-0211 \$78,051	Middlesex, County of 2004-DN-BX-0213 \$80,233	New York State Division of Criminal Justice Services 2004-DN-BX-0171 \$438,494
Kansas, State of 2004-DN-BX-0162 \$62,232	Minneapolis, City of 2004-DN-BX-0199 \$74,512	North Carolina Governor's Crime Commission 2004-DN-BX-0170 \$192,106
Kentucky Justice and Public Safety Cabinet 2004-DN-BX-0158 \$94,092	Minnesota Department of Public Safety 2004-DN-BX-0160 \$115,607	North Dakota, State of 2004-DN-BX-0218 \$57,052
Las Vegas Metropolitan Police Department 2004-DN-BX-0206 \$80,233	Mississippi Department of Public Safety 2004-DN-BX-0157 \$146,070	Ocean County Sheriff's Department 2004-DN-BX-0215 \$70,177
Louisiana Commission on Law Enforcement and Administration of Justice 2004-DN-BX-0195 \$182,974	Missouri Department of Public Safety 2004-DN-BX-0163 \$210,565	Ohio Office of Criminal Justice Services 2004-DN-BX-0174 \$261,308
Maine Department of Public Safety 2004-DN-BX-0161 \$57,052	Montana, State of 2004-DN-BX-0168 \$57,052	Oklahoma District Attorneys Council 2004-DN-BX-0165 \$80,239
Mansfield, City of 2004-DN-BX-0220 \$77,233	Montgomery, County of 2004-DN-BX-0214 \$80,233	

Orange, County of  
2004-DN-BX-0178  
\$80,233

Oregon State Police  
2004-DN-BX-0205  
\$154,270

Pennsylvania Commission on  
Crime and Delinquency  
2004-DN-BX-0009  
\$282,550

Pinellas, County of  
2004-DN-BX-0188  
\$52,233

Rhode Island, State of  
2004-DN-BX-0222  
\$57,052

Savannah, City of  
2004-DN-BX-0183  
\$76,883

South Carolina Department of Public Safety  
2004-DN-BX-0166  
\$94,762

South Dakota Office of the Attorney General  
2004-DN-BX-0203  
\$97,697

Spokane, County of  
2004-DN-BX-0204  
\$73,633

St. Croix, County of  
2004-DN-BX-0217  
\$39,750

St. Louis County Police  
2004-DN-BX-0196  
\$80,024

Tennessee, State of  
2004-DN-BX-0176  
\$133,484

Texas, State of  
2004-DN-BX-0175  
\$505,408

Utah Department of Public Safety  
2004-DN-BX-0216  
\$133,964

Ventura, County of  
2004-DN-BX-0182  
\$80,233

Vermont Department of Public Safety  
2004-DN-BX-0207  
\$57,052

Virgin Islands  
2004-DN-BX-0201  
\$57,052

Virginia Department of Health  
2004-DN-BX-0219  
\$168,778

Waco, City of  
2004-DN-BX-0200  
\$38,733

Washington, State of  
2004-DN-BX-0172  
\$140,104

West Virginia Division of Criminal Justice  
Services  
2004-DN-BX-0169  
\$57,052

Wisconsin Department of Justice  
2004-DN-BX-0164  
\$125,042

Wyoming Office of the Attorney General  
2004-DN-BX-0227  
\$57,052

## LESS-LETHAL INCAPACITATION

### Collection and Dissemination of Less-Lethal Databases to Law Enforcement

Pennsylvania State University  
2004-IJ-CX-K039  
\$113,481

### Compact and Rugged Pulsed Laser Technology for Less-Lethal Weapons

Sterling Photonics, Inc.  
2004-IJ-CX-K043  
\$358,259

### Independent Assessment and Evaluation of Less-Lethal Devices

Pennsylvania State University  
2004-IJ-CX-K013  
\$300,000

### Injuries Produced by Law Enforcement's Use of Less-Lethal Weapons: A Multicenter Trial

Wake Forest University Health Sciences  
2004-IJ-CX-K047  
\$104,071

### Less-Lethal Weapon Technology Review and Operational Needs Assessment

Pennsylvania State University  
2004-IJ-CX-K040  
\$202,000

### Modeling Electric Current Through the Human Body From a Less-Lethal Electromuscular Device

University of Wisconsin  
2004-IJ-CX-K036  
\$490,591

**Multishot Launcher With Advanced Segmented Ring Airfoil Projectiles**

Chester F. Vanek  
2004-IJ-CX-K054  
\$350,000

**Multiwave Dazzler**

Scientific Applications and Research Associates, Inc.  
2004-IJ-CX-K037  
\$419,759

**Ring Airfoil Projectile System: Operational Testing Guidance**

Aerospace Corporation  
2004-IJ-CX-K052  
\$35,000

**Solid-State Active Denial System Demonstration Program**

Raytheon Company  
2004-IJ-CX-K035  
\$499,995

**POLICING**

**Blind/Sequential Police Lineup Procedures: Toward an Integrated Laboratory and Field Practice Perspective**

Augsburg College  
2004-IJ-CX-0044  
\$112,039

**Conduct Needs Assessment for Personal Protective Equipment**

Aspen Systems Corporation  
1996-MU-MU-K011  
\$200,000

**Enhancing Local and State Law Enforcement's Understanding and Use of Emerging Technology**

International Association of Chiefs of Police  
1999-LT-VX-K004  
\$439,820

**In-Car Law Enforcement Technology**

University of Houston  
2003-IJ-CX-K011  
\$993,500

**Technology Improvements for the Middle Rio Grande Region of Texas**

Middle Rio Grande Development Council  
2004-LT-BX-K003  
\$1,978,955

**Testing the Effectiveness of a Comprehensive Fatigue Management Program for the Boston Police**

Brigham and Women's Hospital, Inc.  
2004-FS-BX-0001  
\$1,499,969

**SCHOOLS**

**Evaluation of the "Bully-Proofing Your School" Program**

University of Colorado  
2004-IJ-CX-0082  
\$406,361

**Safe Schools, Law Enforcement, and Corrections Research Support**

George Mason University  
2000-RD-CX-K003  
\$49,815

**Teacher-Parent Authentication Security System II: The Next Generation of Iris Recognition Technology in Schools**

Freehold Borough Board of Education  
2004-RD-CX-K003  
\$369,998

**TECHNOLOGY**

**Design and Development of the Predator and Prey Alert System**

Florida State University  
2004-RD-CX-K154  
\$280,998

**Effects of Radio Frequency (RF) Radiation on Motor Vehicles Due to Variations in the Polarization and Frequency of RF Waveforms**

Eureka Aerospace  
2004-IJ-CX-K044  
\$188,444

**Kentucky Community Critical Infrastructure Protection Laboratory**

Eastern Kentucky University  
2004-IJ-CX-K055  
\$5,000,000

**Northeast Technology and Product Assessment Committee**

Massachusetts Department of Correction  
2004-LT-BX-K086  
\$50,000

**Project SeaHawk, Phase II**

South Carolina Research Authority  
2002-MU-MU-K011  
\$7,421,081



**Wireless and Rapid Deployment  
Upgrades to ShotSpotter System**

South Carolina Research Authority  
2002-MU-MU-K011  
\$890,530

***Technology, National Law Enforcement  
and Corrections Technology Centers***

**Development of the National  
Corrections and Law Enforcement  
Training and Technology Center**  
National Corrections and Law Enforcement  
Training and Technology Center  
2001-LT-BX-K007  
\$989,477

**Law Enforcement and Corrections  
Technology Commercialization**  
Office of Law Enforcement Technology  
Commercialization, Inc.  
2003-IJ-CX-K001  
\$3,148,280

**National Law Enforcement and Corrections  
Technology Center—Rocky Mountain Region**  
University of Denver—Colorado Seminary  
1996-MU-MU-K012  
\$2,971,432

**National Law Enforcement and Corrections  
Technology Center—Southeast Crime Series  
Analysis Project**  
South Carolina Research Authority  
2002-MU-MU-K011  
\$250,000

**Operations of the National Law Enforcement  
and Corrections Technology Center**  
Aspen Systems Corporation  
1996-MU-MU-K011  
\$2,896,432

**Operations of the National Law Enforcement  
and Corrections Technology Center—  
Southeast Region**

South Carolina Research Authority  
2002-MU-MU-K011  
\$2,846,432

**Operations of the National Law Enforcement  
and Corrections Technology Center—  
Western Region**

Aerospace Corporation  
2000-MU-MU-K004  
\$2,875,040

**Rural Law Enforcement Technology Center**  
Eastern Kentucky University  
2001-MU-MU-K009  
\$2,643,449

**TERRORISM AND CRITICAL  
INCIDENTS**

**Counterterrorism Preparedness for  
International and Domestic Police  
Forces and Research at the Center on  
Terrorism at John Jay College**  
City University of New York  
2004-DB-BX-1010  
\$247,369

**16x20 Inch Instant Film X-Ray  
System for Bomb Technicians**  
Wisner Classic Manufacturing Company, Inc.  
2003-RD-CX-K012  
\$20,000

**Technical Considerations for Effective Policy to  
Implement Chemical and Biological Detectors  
for First Responders and Law Enforcement**  
Monterey Institute of International Studies  
2004-IJ-CX-0050  
\$283,589

**VICTIMIZATION AND VICTIM  
SERVICES**

**Court Responses to Batterer Program  
Noncompliance: A National Perspective**  
Fund for the City of New York  
2004-WG-BX-0005  
\$142,631

**Evaluation of Services for Trafficking  
Victims Discretionary Grant Program:  
Comprehensive Service Site**  
Caliber Associates, Inc.  
2002-MU-MU-K004  
\$162,641

**Impact of Proactive Enforcement of  
No-Contact Orders on Victim Safety**  
University of South Carolina  
Research Foundation  
2004-WG-BX-0007  
\$446,542

**Law Enforcement Response to Human  
Trafficking and the Implications for Victims**  
Caliber Associates, Inc.  
2004-WG-BX-0088  
\$199,661

**Mandatory Reporting of Nursing Home  
Deaths: Markers for Mistreatment, Effect on  
Care Quality, and Generalizability**  
University of Missouri  
2004-IJ-CX-1012  
\$432,061

**Preventing Repeat Incidents of Family  
Violence: A Randomized Multi-Site Field Test**  
Police Foundation  
2004-WG-BX-0002  
\$411,961

**Stages of Change and the Group Treatment of Batterers**

BOTEC Analysis Corporation  
2004–WG–BX–0011  
\$78,391

**VIOLENCE**

*Firearms*

**Child-Safe Personalized Weapons:**

**Smart Gun Project**  
New Jersey, State of  
2004–IJ–CX–0096  
\$1,133,941

**Crime Gun Risk Factors: Impact of Dealer, Firearm, Transaction, and Buyer Characteristics on the Likelihood of Gun Use in Crime**

University of Pennsylvania  
2004–IJ–CX–0030  
\$103,514

**Strategic Disruption of Firearms Markets: Evaluation of the Utility of the Bureau of Alcohol, Tobacco, Firearms, and Explosives' Youth Crime Gun Interdiction Initiative**

Rand Corporation  
2001–IJ–CX–0028  
\$249,877

*Sexual Assault*

**Characteristics, Processes, and Outcomes of Sexual Assaults in Alaska**

University of Alaska  
2004–WG–BX–0003  
\$152,087

**Development of an Online Domestic Violence and Sexual Assault Data Resource Center**

Justice Research and Statistics Association, Inc.  
2004–WG–BX–0012  
\$224,131

**Impact of Self-Protection on Rape and Injury**

Florida State University  
2004–IJ–CX–0046  
\$33,825

**Prevalence, Context, and Reporting of Drug-Facilitated Sexual Assault on University Campuses**

Research Triangle Institute  
2004–WG–BX–0010  
\$419,339

**Visiting Fellowship Program: Police Investigations of Rape—Roadblocks and Solutions**

Ohio University  
2003–IJ–CX–1027  
\$166,089

*Violence Against Women and Family Violence*

**Center on Domestic Violence, University of Colorado—Denver Graduate School of Public Affairs**

University of Colorado—Denver  
2004–DD–BX–1005  
\$742,108

**Domestic Violence Digital Evidence**

New York, City of  
2004–RG–CX–K005  
\$397,400

**Effects of Different Case Screening Practices on Domestic Violence Recidivism**

Safe Horizon  
2004–WG–BX–0009  
\$433,942

**Effects of Intimate Partner Violence on the Workplace**

University of Arkansas  
2003–RD–CX–0021  
\$247,369

**Impact of a Specialized Domestic Violence Police Unit**

University of North Carolina—Charlotte  
2004–WG–BX–0004  
\$93,878

**Offender Characteristics, Offense Mix, and Escalation in Domestic Violence**

University of Florida  
2004–IJ–CX–0013  
\$24,856

**Preventing Firearm Violence Among Victims of Intimate Partner Violence: Evaluation of a New North Carolina Law**

Pacific Institute for Research and Evaluation  
2004–IJ–CX–0025  
\$114,784

**Stages of Change and the Group Treatment of Batterers**

University of Pennsylvania  
2004–WG–BX–0001  
\$236,176

**Year Five Evaluation of a Multisite  
Demonstration of Collaborations to Address  
Domestic Violence and Child Maltreatment**

Caliber Associates, Inc.  
2000-MU-MU-0014  
\$549,967

**WEAPONS TECHNOLOGY**

**Multifunctional Grenade  
Modeling and Simulation**

Scientific Applications and Research  
Associates, Inc.  
2004-IJ-CX-K051  
\$149,917

**SECURES® Demonstration in Hampton/  
Newport News, Virginia**

Planning Systems, Inc.  
2003-IJ-CX-K029  
\$248,989

**YOUTH**

**AMBERVIEW: Digitally Recording and  
Storing 3-D Facial Images and Fingerprints of  
School-Age Children**

West Virginia High Technology  
Consortium Foundation  
2004-LT-BX-K002  
\$494,739

**Childhood Maltreatment and  
Pathways to Delinquency**

National Institute for Law and Equity  
2004-JL-FX-1064  
\$98,948

**Long-Term Effects of After-School  
Programming on Educational Adjustment and  
Juvenile Crime: A Study of Los Angeles' BEST  
After-School Program**

University of California  
2004-SI-FX-0032  
\$522,576

**Trajectories of Violent Offending and  
Risk Status Across Adolescence and  
Early Adulthood**

Portland State University  
2004-IJ-CX-0017  
\$35,000

**Volunteer Child Mentoring: Effects of Same-  
Race Compared to Cross-Race Matching**

New York University  
2004-JG-FX-1007  
\$130,000

## Appendix C

### NIJ Publications and Products in FY 2004

Most NIJ materials are free and can be obtained from these three sources:

1. NIJ Web page: <http://www.ojp.usdoj.gov/nij>.
2. National Criminal Justice Reference Service (NCJRS): <http://www.ncjrs.org>, 800-851-3420, P.O. Box 6000, Rockville, MD 20849-6000.
3. National Law Enforcement and Corrections Technology Center (NLECTC) (for science and technology materials): <http://www.justnet.org>, 800-248-2742.

#### CHILD ABUSE AND NEGLECT

*A Resource for Evaluating Child Advocacy Centers*, Jackson, Shelly L., Special Report, July 2004, 414 pages, NCJ 192825.

#### CORRECTIONS

*Duress Systems in Corrections Facilities*, National Institute of Justice, In Short—Toward Criminal Justice Solutions, September 2004, 3 pages, NCJ 205836.

#### COURTS, PROSECUTION, AND DEFENSE

*Fighting Urban Crime: The Evolution of Federal-Local Collaboration*, Russell-Einhorn, Malcolm L., Research in Brief, December 2003, 19 pages, NCJ 197040.

*Science and the Law: 2001 and 2002 National Conferences*, National Institute of Justice, Special Report, May 2004, 86 pages, NCJ 202955.

#### CRIME CONTROL

*Characteristics of Chinese Human Smugglers*, Zhang, Sheldon, and Ko-lin Chin, Research in Brief, August 2004, 19 pages, NCJ 204989.

*Evaluating G.R.E.A.T.: A School-Based Gang Prevention Program*, Esbensen, Finn-Aage, Research for Policy, June 2004, 7 pages, NCJ 198604.

*Fighting Urban Crime: The Evolution of Federal-Local Collaboration*, Russell-Einhorn, Malcolm L., Research in Brief, December 2003, 19 pages, NCJ 197040.

*Gambling and Crime Among Arrestees: Exploring the Link*, McCorkle, Richard C., Research for Practice, July 2004, 13 pages, NCJ 203197.

*NIJ Journal, No. 250*, National Institute of Justice, November 2003, 53 pages, JR 000250.

*NIJ Journal, No. 251*, National Institute of Justice, July 2004, 35 pages, JR 000251.

#### CYBER/ELECTRONIC CRIME

*Forensic Examination of Digital Evidence: A Guide for Law Enforcement*, National Institute of Standards and Technology, Special Report, April 2004, 101 pages, NCJ 199408.

*Test Results for Software Write Block Tools: RCMP HDL VO.4*, National Institute of Justice, Special Report, August 2004, 83 pages, NCJ 206231.

*Test Results for Software Write Block Tools: RCMP HDL VO.5*, National Institute of Justice, Special Report, August 2004, 82 pages, NCJ 206232.

*Test Results for Software Write Block Tools: RCMP HDL VO.7*, National Institute of Justice, Special Report, August 2004, 85 pages, NCJ 206233.

*Test Results for Software Write Block Tools: RCMP HDL VO.8*, National Institute of Justice, Special Report, February 2004, 86 pages, NCJ 203196.

#### DRUGS, ALCOHOL, AND CRIME

*Fighting Urban Crime: The Evolution of Federal-Local Collaboration*, Russell-Einhorn, Malcolm L., Research in Brief, December 2003, 19 pages, NCJ 197040.

*Gambling and Crime Among Arrestees: Exploring the Link*, McCorkle, Richard C., Research for Practice, July 2004, 13 pages, NCJ 203197.

*NIJ Journal, No. 250*, National Institute of Justice, November 2003, 53 pages, JR 000250.

#### EXPLOSIVE DETECTION/REMEDICATION

*Vanguard Robot Assessment*, National Institute of Justice, In Short—Toward Criminal Justice Solutions, July 2004, 5 pages, NCJ 204637.

#### INVESTIGATIVE AND FORENSIC SCIENCES

*Crime Scene Investigation: A Reference for Law Enforcement Training*, Technical Working Group on Crime Scene Investigation, Special Report, June 2004, 69 pages, NCJ 200160.

*Education and Training in Forensic Science: A Guide for Forensic Science Laboratories, Educational Institutions, and Students*, Technical Working Group for Education and Training in Forensic Science, Special Report, June 2004, 64 pages, NCJ 203099.

*Science and the Law: 2001 and 2002 National Conferences*, National Institute of Justice, Special Report, May 2004, 86 pages, NCJ 202955.

## POLICING

*Español for Law Enforcement: An Interactive Training Tool*, National Institute of Justice, February 2004, CD-ROM, NCJ 201801.

*Hiring and Keeping Police Officers*, National Institute of Justice and Office of Community Oriented Policing Services, Research for Practice, July 2004, 14 pages, NCJ 202289.

*Law Enforcement Technology: Are Small and Rural Agencies Equipped and Trained?* National Institute of Justice, Research for Practice, June 2004, 14 pages, NCJ 204609.

*Voice Translators for Law Enforcement*, National Institute of Justice, In Short—Toward Criminal Justice Solutions, September 2004, 4 pages, NCJ 205837.

## SURVEILLANCE AND DETECTION

*Hand-Held Metal Detectors for Use in Concealed Weapon and Contraband Detection (NIJ Standard-0602.02)*, Paulter, Jr., Nicholas G., NIJ Standard, November 2003, 55 pages, NCJ 200330.

## VICTIMIZATION

*NIJ Journal, No. 250*, National Institute of Justice, November 2003, 53 pages, JR 000250.

*A Resource for Evaluating Child Advocacy Centers*, Jackson, Shelly L., Special Report, July 2004, 414 pages, NCJ 192825.

## VIOLENCE AND VIOLENT CRIME

*NIJ Journal, No. 250*, National Institute of Justice, November 2003, 53 pages, JR 000250.

*When Violence Hits Home: How Economics and Neighborhood Play a Role*, Benson, Michael L., and Greer Litton Fox, Research in Brief, September 2004, 12 pages, NCJ 205004.

## NIJ JOURNAL

*NIJ Journal, No. 250*, National Institute of Justice, November 2003, 53 pages, JR 000250.

*NIJ Journal, No. 251*, National Institute of Justice, July 2004, 35 pages, JR 000251.

## ANNUAL REPORTS

*NIJ 2002 Annual Report*, National Institute of Justice, Annual Report to Congress, January 2004, 43 pages, NCJ 200338.

## Top Publications by Number of Electronic Copies Accessed from the Web, FY 2004

Title and Author	Accessed	Accessed	NCJ Number	Year Published
<i>Electronic Crime Scene Investigation: A Guide for First Responders</i> (Guide), NIJ	103,240	<a href="http://www.ncjrs.org/pdffiles1/nij/187736.pdf">http://www.ncjrs.org/pdffiles1/nij/187736.pdf</a>	NCJ 187736	2001
<i>Crime Scene Investigation:</i>				
• <i>A Guide for Law Enforcement</i> (Research Report), NIJ	98,658	<a href="http://www.ncjrs.org/pdffiles1/nij/178280.pdf">http://www.ncjrs.org/pdffiles1/nij/178280.pdf</a>	NCJ 178280	2000
• <i>A Reference for Law Enforcement Training</i> (Special Report), NIJ	73,631	<a href="http://www.ncjrs.org/pdffiles1/nij/200160.pdf">http://www.ncjrs.org/pdffiles1/nij/200160.pdf</a>	NCJ 200160	2004
<i>Eyewitness Evidence:</i>				
• <i>A Trainer's Manual for Law Enforcement</i> (Special Report), NIJ	74,392	<a href="http://www.ncjrs.org/nij/eyewitness/188678.pdf">http://www.ncjrs.org/nij/eyewitness/188678.pdf</a>	NCJ 188678	2003
• <i>A Guide for Law Enforcement</i> (Research Report), NIJ	50,579	<a href="http://www.ncjrs.org/pdffiles1/nij/178240.pdf">http://www.ncjrs.org/pdffiles1/nij/178240.pdf</a>	NCJ 178240	1999
<i>Forensic Examination of Digital Evidence: A Guide for Law Enforcement</i> (Special Report), NIJ	72,464	<a href="http://www.ncjrs.org/pdffiles1/nij/199408.pdf">http://www.ncjrs.org/pdffiles1/nij/199408.pdf</a>	NCJ 199408	2004
<i>Death Investigation: A Guide for the Scene Investigator</i> (Research Report), NIJ, Bureau of Justice Assistance, and Centers for Disease Control and Prevention	65,709	<a href="http://www.ncjrs.org/pdffiles1/167568.pdf">http://www.ncjrs.org/pdffiles1/167568.pdf</a>	NCJ 167568	1999
<i>The Sexual Victimization of College Women</i> (Research Report), Bonnie S. Fischer, Francis T. Cullen, and Michael G. Turner	63,739	<a href="http://www.ncjrs.org/pdffiles1/nij/182369.pdf">http://www.ncjrs.org/pdffiles1/nij/182369.pdf</a>	NCJ 182369	2000
<i>Using DNA to Solve Cold Cases</i> (Special Report), NIJ	60,301	<a href="http://www.ncjrs.org/pdffiles1/nij/194197.pdf">http://www.ncjrs.org/pdffiles1/nij/194197.pdf</a>	NCJ 194197	2002
<i>Guide for the Selection of Personal Protective Equipment for Emergency First Responders, NIJ Guide 102-00, Volume 1</i> (Guide), Alim A. Fatah, John A. Barrett, Richard D. Arcilesi, Jr., Charlotte H. Lattin, Charles G. Janney, and Edward A. Blackman	60,164	<a href="http://www.ncjrs.org/pdffiles1/nij/191518.pdf">http://www.ncjrs.org/pdffiles1/nij/191518.pdf</a>	NCJ 191518	2002
<i>Education and Training in Forensic Science: A Guide for Forensic Science Laboratories, Educational Institutions, and Students</i> (Special Report), NIJ	59,472	<a href="http://www.ncjrs.org/pdffiles1/nij/203099.pdf">http://www.ncjrs.org/pdffiles1/nij/203099.pdf</a>	NCJ 203099	2004
<i>Arrestee Drug Abuse Monitoring: 2000 Annual Report</i> (Research Report), NIJ	58,844	<a href="http://www.ncjrs.org/pdffiles1/nij/193013.pdf">http://www.ncjrs.org/pdffiles1/nij/193013.pdf</a>	NCJ 193013	2003
<i>Responding to Gangs: Evaluation and Research</i> (Research Report), Winifred L. Reed and Scott H. Decker, eds.	54,844	<a href="http://www.ncjrs.org/pdffiles1/nij/190351.pdf">http://www.ncjrs.org/pdffiles1/nij/190351.pdf</a>	NCJ 190351	2002
<i>Extent, Nature, and Consequences of Intimate Partner Violence: Findings From the National Violence Against Women Survey</i> (Research Report), Patricia Tjaden and Nancy Thoennes	53,897	<a href="http://www.ncjrs.org/pdffiles1/nij/181867.pdf">http://www.ncjrs.org/pdffiles1/nij/181867.pdf</a>	NCJ 181867	2000
<i>Guide for the Selection of Chemical Agent and Toxic Industrial Material Detection Equipment for Emergency First Responders, NIJ Guide 100-00, Volume 1</i> (Guide), Alim A. Fatah, Richard D. Arcilesi, Jr., Kenneth J. Ewing, Charlotte H. Lattin, and Michael S. Helinski	51,366	<a href="http://www.ncjrs.org/pdffiles1/nij/184449.pdf">http://www.ncjrs.org/pdffiles1/nij/184449.pdf</a>	NCJ 184449	2000
<i>Full Report of the Prevalence, Incidence, and Consequences of Violence Against Women: Findings From the National Violence Against Women Survey</i> (Research Report), Patricia Tjaden and Nancy Thoennes	41,038	<a href="http://www.ncjrs.org/pdffiles1/nij/183781.pdf">http://www.ncjrs.org/pdffiles1/nij/183781.pdf</a>	NCJ 183781	2000
<i>Batterer Intervention Programs: Where Do We Go From Here?</i> (Special Report), Shelly Jackson, Lynette Feder, David R. Forde, Robert C. Davis, Christopher D. Maxwell, and Bruce G. Taylor	37,510	<a href="http://www.ncjrs.org/pdffiles1/nij/195079.pdf">http://www.ncjrs.org/pdffiles1/nij/195079.pdf</a>	NCJ 195079	2003
<i>Use of Force by Police: Overview of National and Local Data</i> (Research Report), Kenneth Adams, Geoffrey P. Alpert, Roger G. Dunham, Joel H. Garner, Lawrence A. Greenfeld, Mark A. Henriquez, Patrick A. Langan, Christopher D. Maxwell, and Steven K. Smith	37,345	<a href="http://www.ncjrs.org/pdffiles1/nij/176330-1.pdf">http://www.ncjrs.org/pdffiles1/nij/176330-1.pdf</a>	NCJ 176330	1999
<i>An Introduction to Biological Agent Detection Equipment for Emergency First Responders, NIJ Guide 101-00</i> (Guide), Alim A. Fatah, John A. Barrett, Richard D. Arcilesi, Jr., Kenneth J. Ewing, Charlotte H. Lattin, and Timothy F. Moshier	34,785	<a href="http://www.ncjrs.org/pdffiles1/nij/190747.pdf">http://www.ncjrs.org/pdffiles1/nij/190747.pdf</a>	NCJ 190747	2001
<i>Addressing Correctional Officer Stress: Programs and Strategies</i> (Issues and Practices), Peter Finn	34,610	<a href="http://www.ncjrs.org/pdffiles1/nij/183474.pdf">http://www.ncjrs.org/pdffiles1/nij/183474.pdf</a>	NCJ 183474	2000

### Top Publications by Number of Paper Copies Requested, FY 2004

Title and Author	Quantity	NCJ Number	Year Published
<i>Español for Law Enforcement: An Interactive Tool</i> (CD-ROM), NIJ	7,117	NCJ 201801	2004
<i>What Every Law Enforcement Officer Should Know About DNA Evidence</i> , NIJ			
• Brochure	6,662	NCJ 204892	1999
• Beginning module #1 (CD-ROM)	4,396	NCJ 182992	2000
• Advanced module #2 (CD-ROM)	5,431	NCJ 184479	2000
<i>Crime Scene Investigation: A Guide for Law Enforcement</i> (Research Report), NIJ	4,772	NCJ 178280	2000
<i>Conflict Resolution for School Personnel: An Interactive School Safety Training Tool</i> (CD-ROM), NIJ	4,629	NCJ 194198	2002
<i>Death Investigation: A Guide for the Scene Investigator</i> (Research Report), NIJ, Bureau of Justice Assistance, and Centers for Disease Control and Prevention	4,574	NCJ 167568	1999
<i>Crime in the Schools: Reducing Conflict with Student Problem Solving</i> (Research in Brief), Dennis J. Kenney and Stuart Watson	4,375	NCJ 177618	1999
<i>Eyewitness Evidence:</i>			
• <i>A Guide for Law Enforcement</i> (Research Report), NIJ	3,319	NCJ 178240	1999
• <i>A Trainer's Manual for Law Enforcement</i> (Special Report), NIJ	3,280	NCJ 188678	2003
<i>Using DNA to Solve Cold Cases</i> (Special Report), NIJ	3,258	NCJ 194197	2002
<i>Emergency Responder Chemical and Biological Equipment Guides and Database</i> (CD-ROM), NIJ	3,011	NCJ 197978	2003
<i>Understanding DNA Evidence: A Guide for Victim Service Providers</i> (Brochure), NIJ and Office for Victims of Crime	2,931	NCJ 185690	2001
<i>Guide for Explosion and Bombing Scene Investigation</i> (Research Report), NIJ	2,772	NCJ 181869	2000
<i>Advancing Justice Through DNA Technology</i> (Online Document), White House	2,312	NCJ 200005	2003
<i>Forensic Examination of Digital Evidence: A Guide for Law Enforcement</i> (Special Report), NIJ	2,300	NCJ 199408	2004
<i>Fire and Arson Scene Evidence: A Guide for Public Safety Personnel</i> (Research Report), Brian M. Dixon and Ronald L. Kelly, eds.	2,260	NCJ 181584	2000
<i>NIJ Journal, No. 250</i> (Cover story on Intimate Partner Violence), NIJ	2,034	NCJ 196543	2003
<i>Do Batterer Intervention Programs Work? Two Studies</i> (Research for Practice), NIJ	1,914	NCJ 200331	2003
<i>Responding to Gangs: Evaluation and Research</i> (Research Report), Winifred L. Reed and Scott H. Decker, eds.	1,618	NCJ 190351	2002
<i>Report to the Attorney General on Delays in Forensic DNA Analysis</i> (Special Report), NIJ	1,579	NCJ 199425	2003
<i>Factors That Influence Public Opinion of the Police</i> (Research for Practice), Cheryl Maxson, Karen Hennigan, and David C. Sloane	1,491	NCJ 197925	2003



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