



ISSUE NO. 274

# NATIONAL INSTITUTE OF JUSTICE JOURNAL

12/2014

## Study Identifies Ways to Improve ATF Ballistic Evidence Program

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The Science Behind Firearm and Tool  
Mark Examination

Services for IPV Victims: Encouraging  
Stronger Research Methods to  
Produce More Valid Results

Addressing the Impact of Wrongful  
Convictions on Crime Victims

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## **William J. Sabol**

Acting Director, National Institute of Justice

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# MESSAGE FROM THE EDITOR-IN-CHIEF



Transition is in full swing this fall at NIJ. In September, William J. Sabol, Ph.D., became our Acting Director. In October, we welcomed Howard Spivak, M.D., as our new Deputy Director and Chief of Staff and Seri Irazola, Ph.D., as the new Director of our Office of Research and Evaluation.

Dr. Sabol is the Acting Director of both NIJ and the Bureau of Justice Statistics (BJS), the two science agencies within the U.S. Department of Justice. NIJ and BJS are sometimes called sister agencies because of their similarities, especially their mission to conduct rigorous scientific studies and to do so independently, free from outside influences. Several articles in this issue of the *NIJ Journal* illustrate this commitment to independent, rigorous science. See, for example, the article about randomized controlled trials (RCTs) by Melissa Rorie, Bethany Backes and Jaspreet Chahal. RCTs are one of the strongest research methods for determining whether a new approach works better than a traditional approach.

Dr. Spivak is well-known to many readers for his contributions in the field of violence prevention. As the former Director of the Division of Violence Prevention at the Centers for Disease Control and Prevention's National Center for Injury Prevention and Control, he contributed to a number of initiatives with overlapping issues in crime and public health. As Deputy Director at NIJ, he will play a key role in guiding our scientific endeavors. As Chief of Staff, he will oversee the efficient operation of NIJ's daily activities, including budget, human resources and communications.

In a happy coincidence, Dr. Irazola has an article in this issue of the magazine. "Addressing the Impact of Wrongful Convictions on Crime Victims" was written before she joined NIJ, while she was working at ICF International. In the past, Dr. Irazola's interest has been primarily focused on victims, as evidenced by her extensive list of publications. As the new Director of NIJ's Office of Research and Evaluation, she will be expanding her scope as she takes on the task of managing the staff who are building NIJ's social sciences portfolios.

We hope that you find something useful in this issue of the *Journal*. Tell us what you think or how you are using research in your everyday work. Follow us on Twitter or Facebook. Or use the "Stay Connected" box on the home page of NIJ.gov to choose your preference to keep in touch and learn about evidence-based practices and policies that can improve the administration of justice.

A handwritten signature in black ink, reading "Jolene Hernon". The signature is fluid and cursive, with the first name "Jolene" and last name "Hernon" clearly distinguishable.

Jolene Hernon  
Director of Communications, NIJ  
Editor-in-Chief, *NIJ Journal*

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The National Institute of Justice is the research, development and evaluation agency of the U.S. Department of Justice. NIJ's mission is to advance scientific research, development and evaluation to enhance the administration of justice and public safety.

The National Institute of Justice is a component of the Office of Justice Programs, which also includes the Bureau of Justice Assistance; the Bureau of Justice Statistics; the Office for Victims of Crime; the Office of Juvenile Justice and Delinquency Prevention; and the Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering, and Tracking (SMART).

Photo Sources: Thinkstock, Peter Diaczuk

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# NIJ BULLETIN



## Publications in Brief



### Cost-Benefit Analysis: A Guide for Drug Courts and Other Criminal Justice Programs

In this new *Research in Brief*, P. Mitchell Downey and John K. Roman expand on the *NIJ Journal* article by Roman that appeared in issue 272, “Cost-Benefit Analysis of Criminal Justice Reform,” and explain how practitioners and policymakers can use cost-benefit analysis (CBA) to make choices about limited resources. CBA can help evaluate the impact — positive or negative — that a service or program has on society.

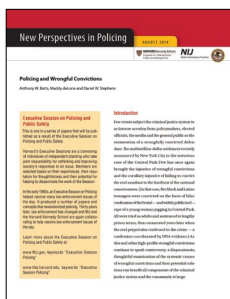
Learn how CBA can be used to estimate the impact of drug courts or other criminal justice programs at [NCJRS.gov](http://NCJRS.gov), keyword: 246769.



### Five Things About Deterrence

This installment of the *Five Things* series focuses on how policymakers and practitioners can deter would-be criminals by using scientific evidence about human behavior and perceptions about the costs, risks and rewards of crime. Based on “Deterrence in the 21st Century,” an essay by Daniel Nagin in *Crime and Justice: An Annual Review of Research*, this flier discusses how deterrence is actually a question of perception and concludes that certainty of being caught is more powerful in discouraging crime than is severity of punishment.

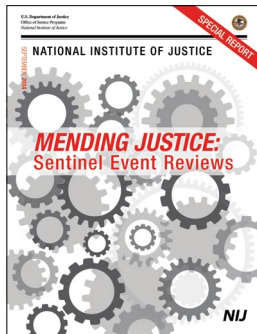
Read *Five Things* at [NIJ.gov](http://NIJ.gov), keywords: five things.



### Policing and Wrongful Convictions

Wrongful convictions are often the result of errors made by more than one component of the criminal justice system. In a recent NIJ-Harvard Kennedy School *New Perspectives in Policing* paper, “Policing and Wrongful Convictions,” Antony W. Batts, Maddy deLone and Darrel W. Stephens present a dispassionate, thoughtful examination of the systemic causes of wrongful convictions and offer specific, evidence-based recommendations for reducing their likelihood. The authors suggest research-based protocols for improved eyewitness identification, interrogation, use of informants, and evidence storage and preservation. The protocols have been shown to enhance police investigations and help investigators test their initial assumptions about a suspect.

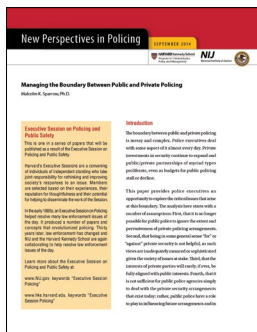
Read the report at [NCJRS.gov](http://NCJRS.gov), keyword: 246328.



## Mending Justice: Sentinel Event Reviews

This special report draws on lessons learned in medicine, aviation and other high-risk enterprises to explore how a “sentinel event” review approach could be used to learn from errors in the criminal justice system. A sentinel event could be the exoneration of an innocent person, the release of a dangerous person from prison, or even a “near miss” in which an innocent suspect was arrested and held until the error was discovered. *Mending Justice: Sentinel Event Reviews* explores how these lessons might be applied to the criminal justice system to improve the administration of justice and prevent future errors. Attorney General Eric Holder offers an introductory message, and 16 nationally recognized criminal justice researchers and practitioners are featured in short commentaries.

Read the report at [NCJRS.gov](http://NCJRS.gov), keyword: 247141.



## Managing the Boundary Between Public and Private Policing

The line between public and private policing continues to blur. In a new paper for the NIJ-Harvard Kennedy School *New Perspectives in Policing* series, Malcolm K. Sparrow offers guidance on how to handle situations that arise along the boundary between public and private policing. From private hostage rescue units and security associations to local neighborhood watch and campus police departments, Sparrow argues that public law enforcement agencies cannot ignore the private security arrangements that operate within their jurisdictions and may affect their work. He explores the benefits and risks of cooperating with private police through four hypothetical scenarios and makes recommendations on policy and operational challenges.

Read the report at [NCJRS.gov](http://NCJRS.gov), keyword: 247182.



## News & Events



## Esbensen Receives 2013 James L. Maddex, Jr., Paper of the Year Award

NIJ grantee Finn-Aage Esbensen has received the 2013 James L. Maddex, Jr., Paper of the Year award. Esbensen's article “Youth Gang Desistance: An Examination of the Effect of Different Operational Definitions of Desistance on the Motivations, Methods, and Consequences Associated With Leaving the Gang,” written with Dena C. Carson and Dana Peterson, was selected from among all the articles published last year in the academic journal *Criminal Justice Review*. The article is based on NIJ-funded research that found that regardless of demographics or gang embeddedness, youth become disillusioned with gang life and drift away from membership, typically without consequences. The authors recommend that policymakers use this knowledge to help youth choose alternatives to gang life and minimize their time as gang members.

Read about Esbensen's work at [NCJRS.gov](http://NCJRS.gov), keyword: Esbensen.



### Student Becomes Youngest Recipient of Ellis R. Kerley Award

Mariyam Isa has become the youngest-ever recipient of the Ellis R. Kerley Award, which recognizes innovative work in the field of forensic anthropology.

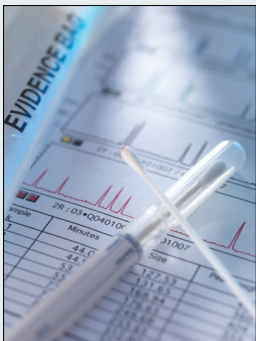
Isa is an anthropology student at Michigan State University (MSU) and part of a multidisciplinary research project funded by NIJ. In 2011, NIJ awarded \$680,000 to MSU to lead a research effort — with experts from the university's Forensic Anthropology and Orthopaedic Biomechanics Laboratories, Sparrow Hospital Pathology and the Harris County Institute of Forensic Sciences — to examine data in cranial fracture patterns. The project's ultimate goal is to compute a statistical probability that a particular impact condition caused specific fractures. Isa received the prize for a paper she produced about this ongoing research on the interpretation of skull fractures, particularly in cases where child abuse is suspected.

Learn more about the MSU research project at [NIJ.gov/funding/awards](https://www.nij.gov/funding/awards), keywords: pediatric fracture printing.



### NIJ Welcomes New Deputy Director

In October, Howard Spivak joined NIJ as its Deputy Director and Chief of Staff. A world-class expert in violence and violence prevention, Spivak was most recently the Director of the Violence Prevention Division at the Centers for Disease Control and Prevention's National Center for Injury Prevention and Control. He started his career as a pediatrician and was an early pioneer in recognizing the link between violence and public health. He has published two books on youth violence: *Murder Is No Accident: Understanding and Preventing Youth Violence in America* and *Sugar & Spice and No Longer Nice: How We Can Stop Girls' Violence*. As Deputy Director, Spivak will be a key leader in NIJ's scientific endeavors, and as Chief of Staff, he will guide its efficient day-to-day operations.



### NIJ Partners With the FBI to Research Sexual Assault Kits

Addressing the issues surrounding the testing of sexual assault kits (SAKs) is one of the most complex challenges facing our nation's criminal justice system. The FBI and NIJ have formed a research partnership to help find the best strategies, methods and procedures for dealing with SAKs. State and local law enforcement agencies submit their eligible SAKs to the FBI for testing, and NIJ gathers data about the processing of the cases. The goal is to develop more effective tools and strategies for evaluating current methods and procedures, improve practices, and inform future policies and decisions.

Read more at [NIJ.gov](https://www.nij.gov), keywords: sexual assault kit partnership.





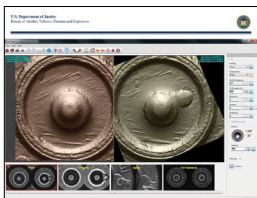
## Multimedia



### Science at NIJ

NIJ staff members describe some specific ways in which the Institute's science and innovation are improving the administration of justice. The interviews in this video highlight the long-term effects that NIJ has had on crime through forensic science research, crime mapping, policing shift research and future technologies such as matching police sketches to mug shots.

Watch the video at [NIJ.gov](http://NIJ.gov), keywords: NIJ science.



### Research for the Real World: Opening the Black Box of NIBIN

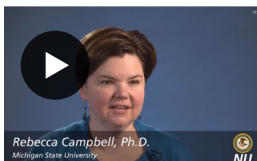
William King of Sam Houston State University and John Risenhoover of the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) discuss the operations of the National Integrated Ballistic Information Network (NIBIN). NIBIN is a program through which firearms examiners at state and local crime laboratories compare tool marks on spent bullets or cartridges found at a crime scene with digitized images of ballistic evidence in a nationwide database. King headed a team of researchers that examined the value of NIBIN database "hits" in solving crimes involving firearms.

In this *Research for the Real World*, King discusses the team's findings and recommendations for improving NIBIN's tactical value (using a NIBIN hit to link crimes that were not previously known to be related and, in turn, identify suspects) and strategic value (helping law enforcement understand larger patterns of gun crime, including the criminal activities of street gangs and drug cartels).

Risenhoover, NIBIN's national coordinator at ATF, describes the ways in which ATF is using the research findings to improve NIBIN's efficiency and effectiveness.

Watch and listen to the seminar at [NIJ.gov](http://NIJ.gov), keywords: NIBIN seminar.

See the related article "Study Identifies Ways to Improve ATF Ballistic Evidence Program" on p. 12.



### What We Have Learned About Unsubmitted Sexual Assault Kits

Watch and listen as several researchers explain some of the key issues related to the large number of sexual assault kits (SAKs) not sent to crime laboratories for testing. NIJ has funded multidisciplinary teams to tackle the issue in Detroit and Houston. In these expert interviews, researchers Rebecca Campbell, William Wells, Caitlin Sulley and Noël Busch-Armendariz discuss the potential risk factors for developing a large number of unsubmitted SAKs, how police departments can better work with sexual assault victims, and creating protocols to inform victims about new SAK DNA testing.

Watch the videos at [NIJ.gov](http://NIJ.gov), keywords: SAK videos.



## Recent Research Findings



### Identifying Victims of Human Trafficking

A validated tool is now available to help identify victims of human trafficking. The tool involves a number of critical questions that victim service providers; law enforcement; and legal, health care and social service providers can ask individuals to ascertain whether they are victims of trafficking. The tool was validated using a diverse sample of potential victims and reliably predicts labor and sex trafficking victims.

With funding from NIJ, researchers at the Vera Institute of Justice developed the tool, which is intended to be part of the regular intake or enrollment process for specific programs. It comes with guidelines, frequently asked questions and a list of resources related to trafficking.

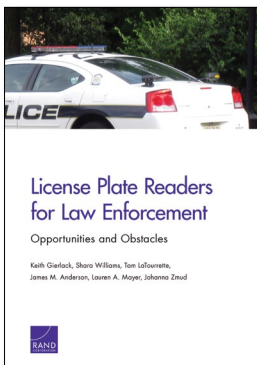
Read the full report at [NCJRS.gov](https://www.ncjrs.gov), keyword: 246712.



### Prosecution and Racial Justice in New York County

Prior research has not adequately examined the extent to which prosecutors' discretion to file charges, change or reduce charges, plea bargain, and make sentencing recommendations may contribute to racial and ethnic disparities. With NIJ funding, researchers at the Vera Institute of Justice found that the New York County District Attorney's Office prosecutes nearly all criminal cases brought by the police with no marked racial or ethnic differences at case screening. For subsequent decisions, disparities varied by discretionary point and offense category. For all offenses combined, black and Latino defendants — compared with similarly situated white defendants — were more likely to be detained, receive a custodial plea offer and be incarcerated; they also were more likely to benefit from case dismissals. Asian defendants appeared to have the most favorable outcomes across all discretionary points.

Read the full report on [NCJRS.gov](https://www.ncjrs.gov), keyword: 247227.



### License Plate Readers for Law Enforcement: Opportunities and Obstacles

License plate reader (LPR) systems give law enforcement a technology tool that can be used to investigate a variety of crimes. Portable and fixed LPR systems can capture the image of a passing vehicle and compare its license plate against official lists of open infractions.

The RAND Corporation published new NIJ-funded research on the current and potential applications of LPR systems, their benefits and limitations, and emerging practices for their use. The report makes recommendations on how to improve LPR practice and procedures, including cooperation between agencies, data storage and privacy concerns.

Read the full study at [NCJRS.gov](https://www.ncjrs.gov), keyword: 247283.



## New NIJ.gov Pages



### International Market for Stolen Credit Card Data

Thomas Holt and Olga Smirnova analyzed nearly 2,000 online discussion threads from 13 easily accessible Web forums from around the world to study who buys and sells credit card data online, where these transactions take place and what that data are worth.

Holt and Smirnova found a network of international cybercriminals working collaboratively to buy and sell a range of illegal financial products, including credit cards, bank account data, credit card verification value number data, and data from eBay and PayPal accounts. The most common products being sold were “dumps” — bundled information from tens to hundreds of bank and credit card accounts.

Other findings include:

- Visa and MasterCard data were the most common card data for sale.
- The average advertised price for a stolen credit card or bank card number was about \$102.
- The average price for accessing a hacked eBay or PayPal account was about \$27.

Learn more at [NIJ.gov](http://NIJ.gov), keywords: stolen credit card data.



### Evaluating the Use of GPS Technology in Community Corrections

NIJ has funded several studies on the effectiveness of using GPS for monitoring different types of offenders who are under supervision in the community. Two studies conducted by the Development Services Group and led by Stephen V. Gies are particularly interesting. When studying the use of GPS to monitor high-risk gang offenders and high-risk sex offenders, Gies and his team found that probation officers use data differently depending on the nature of the offender and the offense. The two main outcomes of interest were compliance (measured through parole violations) and recidivism (measured by rearrests).

Results from the gang offender study showed that subjects in the GPS group were less likely than their non-GPS counterparts to be arrested but were much more likely to have technical and nontechnical violations. In addition, GPS parolees were returned to custody during the study period more often than were their non-GPS counterparts.

In contrast, GPS parolees in the sex offender study complied with the terms of their parole at higher rates than did offenders on traditional parole. Parole agents were more likely to use the technology to counsel and provide assistance to parolees who displayed aberrant GPS locations.

Learn more about these studies at [NIJ.gov](http://NIJ.gov), keywords: evaluating GPS technology.



### Domestic Radicalization to Violent Extremism

Why and how do people come to support or commit ideologically motivated violence to further political, social or religious goals? This process, often referred to as “radicalization to violent extremism,” is the focus of NIJ’s research and evaluation efforts addressing violent extremism in the U.S.

NIJ supports research aimed at answering several questions:

- What are the common threads among cases of domestic radicalization and violent extremism?
- Which models explain how the process occurs in the U.S., and what can these models tell us about preventing and countering violent extremism?
- Why do people adopt radical beliefs, and why do some people choose to engage in violence to further those beliefs whereas others do not?
- How are U.S. communities responding to radicalization, and what works to prevent violent extremism?

The goal of NIJ’s work is to provide community leaders with evidence-based practices for bolstering resilience and developing communitywide responses that can prevent and mitigate threats posed by violent extremists.

Learn more at [NIJ.gov](http://NIJ.gov), keywords: violent extremism.



## Sharing Data to Improve Science



### Data Resources Program

Secondary data analysis allows researchers to build on existing findings, replicate results and conduct new analyses. Through NIJ’s Data Resources Program, data collected as part of NIJ research are archived in the National Archive of Criminal Justice Data and made available to support new research aimed at reproducing original findings, replicating results and testing new hypotheses.

- Learn about NIJ’s Data Resources Program at [NIJ.gov](http://NIJ.gov), keyword: DRP.

Recent data sets added to the National Archive include:

- Age and Sex Estimation From the Human Clavicle in the American Population, 1912-1938 and 1986-1998
- Developing a Common Metric for Evaluating Police Performance in Deadly Force Situations in the United States, 2009-2011
- Effects of Intimate Partner Violence on the Workplace in the United States, 2005-2008
- Lifecourse Experiences of Intimate Partner Violence and Help-Seeking Among Filipina, Indian, and Pakistani Women: Implications for Justice System Responses, 2007-2009, San Francisco, California

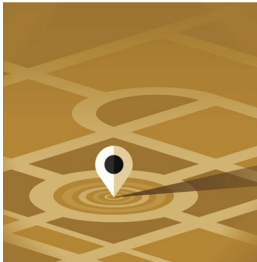
Learn about accessing and using research data from NIJ studies at [NIJ.gov](http://NIJ.gov), keywords: accessing data resources.





## Research Updates

The following NIJ Web pages have been updated with additional findings or information about ongoing studies:



### Sex Offender Research

What is the best way to determine the risk posed by released sex offenders? What methods can law enforcement or communities use to reduce the risk of reoffending? Do existing sex offender management and risk assessment laws serve their intended purpose? NIJ supports studies that seek to answer these questions. Such evidence can help us spend enforcement dollars wisely, improve public safety, and help offenders reintegrate into society.

Read about what we have learned and what we are currently studying at [NIJ.gov](http://NIJ.gov), keywords: sex offender research.



### Evaluating Video Visitation Technology for Prisons

NIJ awarded a competitive, multiyear grant to the Vera Institute of Justice to conduct the first-ever systemwide evaluation of video visitation technology for prisons. The study is using a mixed-methods design to better understand how to create policies about family-inmate contact, inform investment decisions and policies related to video visitation technology, and understand video visitation's role in reducing recidivism.

Learn more at [NIJ.gov](http://NIJ.gov), keywords: video visitation.



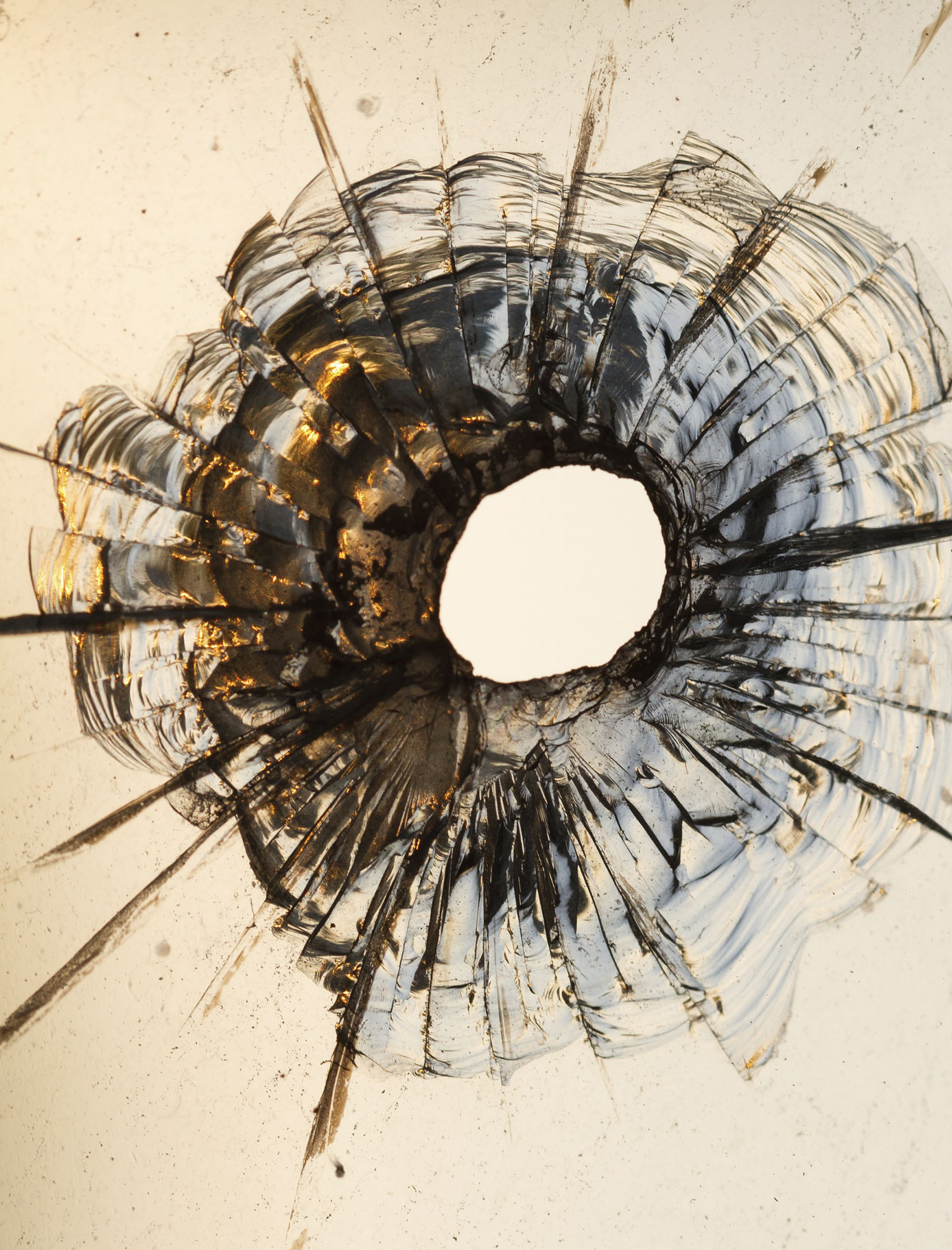
### Predictive Policing Research

NIJ supports a robust research portfolio on geospatial police strategies. An update to NIJ's page on predictive policing includes new information about ongoing research on critical questions, such as:

- Does sending police patrols to areas at high risk for crime affect the number and location of new crimes?
- How do we know whether predictive policing is effective?
- Can we model how future hot spots will react to different police tactics and choose the most cost-effective approach to enforcement?
- What environmental cues lead to certain locations becoming crime hot spots?

Read more at [NIJ.gov](http://NIJ.gov), keywords: predictive policing research.







# STUDY IDENTIFIES WAYS TO IMPROVE ATF BALLISTIC EVIDENCE PROGRAM

BY **NANCY RITTER**

An NIJ-funded examination of NIBIN offers recommendations for improving the program's tactical and strategic value.

**N**IJ-funded researchers have concluded that the nation's ballistic evidence program has significant "untapped potential" to solve crimes that involve a firearm.

The NIJ-funded examination of the National Integrated Ballistic Information Network — referred to simply as "NIBIN" by everyone in law enforcement — revealed that the timeliness of processing evidence varies greatly from jurisdiction to jurisdiction. Some identified hits against the national gun-crime evidence database within a few days of a crime, and others produced hit reports so slowly that they had no investigative value.

It is important to understand that this study did not examine the science of firearm and tool mark examination itself; rather, the study looked only at the operations of the NIBIN program as an investigative tool. For the latest on the accuracy, reliability and validity of firearm and tool mark examinations, see "The Science Behind Firearm and Tool Mark Examination" on p. 20.

NIBIN is a program operated by the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) in which firearms examiners at state and local crime laboratories compare tool marks on spent cartridges or bullets found at a crime scene to digitized images of ballistic evidence in the database. In essence, it is a grant-in-aid program that makes ballistic imaging technology available, via the database, to state and local law enforcement agencies (called "NIBIN sites") that generally would not be able to acquire the technology on their own. ATF provides the equipment, and the NIBIN sites are responsible for entering data into the nationwide database and then, of course, following up on hits.

In their final report, the NIBIN study researchers make extensive recommendations for improving the program's tactical and strategic value.

## **How Does NIBIN Work?**

Firearms have numerous metal parts. During the manufacturing of a firearm, the machining process leaves unique, microscopic markings (called tool

marks) on parts of the firearm. When most firearms are fired, the tool marks — which, in terms of their distinctiveness, can be thought of as somewhat analogous to fingerprints — are transferred to the “spent” bullet or cartridge, which can be collected from the scene of a crime (such as a homicide or shooting) and then compared with a test-fired firearm that, for example, has been confiscated from a suspect.

Ballistic imaging technology converts these tool marks into a two- or three-dimensional digitized image. These images are uploaded into the NIBIN database, which searches for possible matches or hits. Hit information is sent back to the local jurisdiction, where a firearms examiner views the possible-match images, side by side, on a computer screen. If they appear to match, it is called an “unconfirmed hit.” It then becomes necessary to “confirm” the hit. To do this, the actual piece of evidence (the spent cartridge or bullet from a test-fire or from a crime scene) must be manually reviewed using a comparison microscope. If evidence is stored at another laboratory or law enforcement agency, the laboratory originating the unconfirmed hit must secure the evidence and examine it. Only after this visual examination can a hit be confirmed, at which time a “hit report” is generated and sent by the crime laboratory to police investigators.

Law enforcement can use a confirmed hit in two ways: tactically or strategically. On the tactical level, a NIBIN hit can link crimes that were not previously known to be related and, in turn, can help identify suspects. On the strategic level, NIBIN hits can help law enforcement understand larger patterns of gun crime, including gun usage; gun sharing; and the gun-related criminal activities of street gangs, drug cartels, outlaw motorcycle gangs and other organized crime entities. (See sidebar, “How ATF Is Working to Improve NIBIN.”)

### How Was the Study Conducted?

After a competitive solicitation process, NIJ awarded \$341,807 to researchers at four universities: William King and William Wells, from Sam Houston State University; Charles Katz, from Arizona State University;

Edward Maguire, from American University; and James Frank, from the University of Cincinnati. This research team collected data from four sources:

- Input and confirmed hit data from June 2006 through July 2012 from all 150 NIBIN sites.
- Detailed data from 2007 to 2012 on 8,231 NIBIN hits from 19 sample sites. These sites were not randomly selected; rather, the researchers chose them in an effort to ensure a range of geographic representation and practices.
- A 2012 survey of publicly funded crime laboratories in the U.S., with a 33 percent response rate from laboratory directors and a 49 percent response rate from firearms sections in crime laboratories.
- Interviews of laboratory directors, firearms section personnel and all levels of law enforcement at 10 of the 19 sample sites, including detectives who investigated 65 serious violent crimes linked to NIBIN hit reports.

The fourth data source was important because one of the study’s goals was to determine how useful NIBIN hits are for investigators. Ultimately, NIBIN is a criminal investigation and intelligence tool. Firearm and tool mark examiners in crime laboratories produce the hits, but they do not act on the hits — law enforcement investigators do.

Prior to the NIJ-funded study, two other entities had looked at NIBIN’s operation: the National Research Council (NRC) of the National Academy of Sciences (2008) and the U.S. Department of Justice’s Office of the Inspector General, which conducted an audit in 2005. Both of those studies noted the lack of research on how law enforcement actually uses NIBIN information. The NRC report stated that “a full evaluation of the program’s performance would consider what happens after a ‘hit’ is made using NIBIN — whether the information leads to an arrest or a conviction and how large a role the ballistics evidence ‘hit’ played in achieving those results.” The recently released NIJ study addresses this issue.

It is important to note that the NIJ-funded researchers faced some challenges in obtaining data due, in part, to a 50-percent budget cut to the NIBIN program



in 2011. That said, they determined that the data were adequate for examining the operation and performance of NIBIN in the 19 sample sites, and independent peer reviewers determined that the research methods were sound and the findings and recommendations for improving the operability and effectiveness of NIBIN were well grounded.

### Does NIBIN “Work”?

Again, keep in mind that there are really two parts to this question: (1) the science of firearm and tool mark examinations, and (2) NIBIN’s operation in solving crimes. The NIJ NIBIN study addressed only the second part. (To learn more about the science of firearm and tool mark examinations, see “The Science Behind Firearm and Tool Mark Examination” on p. 20.)

Based on their study of 19 of the 150 nationwide NIBIN sites, the researchers made three overarching findings:

- The implementation of NIBIN varies greatly with respect to staffing, data input and hits. Some NIBIN sites were relatively unproductive with respect to the quantity and type of data entered into the system and the hits produced; others were highly productive. Even when hit reports were produced, however, they often lacked the contextual information that could have made them more useful in investigations.
- Generally, there was no feedback from investigators (the “end users” of a NIBIN hit) back to the crime laboratory. This means that hit reports were rarely used strategically to assist in the identification, investigation and prosecution of criminal groups; however, the researchers said that in jurisdictions where this feedback loop occurred, the results were impressive.
- The timeliness of processing evidence and identifying hits varies greatly.

Certainly, as the number of ballistic images in the NIBIN database increases — and as more law enforcement agencies turn to the database for investigative support — the tactical and strategic value of NIBIN will also increase. However, the

## “Delays in processing ballistic evidence are the single greatest threat to the utility of NIBIN as an investigative tool.”

researchers found in an in-depth look at 65 cases that the suspect had already been identified by law enforcement before the NIBIN hit was produced in half of those cases; in 34 percent of the cases, the suspect had been arrested before the hit.

The bottom line seems to be that criminal investigators rarely used NIBIN hit reports to identify unknown suspects. Police credited a NIBIN hit with helping them identify a suspect in about 10 percent of the cases and assisting in an arrest in about 2 percent. They reported, however, that NIBIN hit reports were useful as background or to confirm (or disconfirm) information provided by suspects, witnesses and informants. The researchers said that this means that police are currently using NIBIN hits and other forms of forensic intelligence in similar ways.

Given all these data, the question is fairly asked: Why isn’t NIBIN doing a better job of helping investigators identify and arrest suspects in violent crimes involving a firearm? The researchers explore a number of explanations but primarily point to the often considerable delays in identifying hits.

“Delays in processing ballistic evidence are the single greatest threat to the utility of NIBIN as an investigative tool,” the researchers said, noting that in the 19 sample sites, the median elapsed time between a crime and identification of a NIBIN hit was 101 days; the mean was 337 days.

There are a variety of reasons for these delays. Some are imposed on laboratories by outside agencies; others result from cumbersome laboratory procedures. For example, in some crime laboratories, procedures for routing firearms and evidence to

the firearms section create delays that the firearms examiners do not control.

“At present, the data in NIBIN are bottlenecked within the NIBIN system,” the researchers said. “Labs can only access NIBIN data by viewing it on a screen or printing paper reports.”

Also compounding delays is that investigators who want to search NIBIN must go through the firearms section in the crime laboratory; the researchers noted that “[t]his access is not easy for investigators to attain and requests for searches create additional work for firearms personnel.”

## How ATF Is Working to Improve NIBIN

By **John Risenhoover**

In 2012, under the direction of then Acting Director B. Todd Jones, the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) embarked on an internal evaluation of one of its most critical programs, the National Integrated Ballistic Information Network (NIBIN). The NIBIN program had been operating essentially unchanged since its initial deployment in 2001. As part of ATF’s evaluation process, ATF agreed to share data with NIJ-funded researchers who, under a competitive, peer-reviewed process, proposed to conduct an independent examination of the NIBIN program.

The findings contained in the NIJ-funded review confirmed the conclusion from ATF’s internal evaluation: To maximize the program’s potential, ATF and its partner agencies need to approach NIBIN as an integrated multiagency, multidisciplinary process, rather than a stand-alone technology.

ATF fully supports that approach and has incorporated virtually every recommendation from the NIJ-funded review to facilitate the modernization of the NIBIN program. Many of these recommendations were implemented before the review was completed.

Most importantly, the ATF Crime Gun Intelligence Concept (CGIC) employs a holistic approach to gun violence, using NIBIN as the cornerstone technology. The CGIC requires four distinct processes taken directly from the review:

- (1) Comprehensive collection (gathering all suitable ballistic evidence, without prioritization)
- (2) Timeliness for the entire CGIC process (with the goal of providing preliminary findings or lead information to investigators within 48 hours of an incident)
- (3) Follow-up (integration of criminal intelligence information and dedicated investigation)
- (4) Feedback loops (incorporation of a continuous feedback throughout the CGIC)

In addition, the NIJ-funded researchers concluded that ATF’s NIBIN metrics, which were focused narrowly on numbers of casings entered into the system and on hits, were actually activity metrics, rather than the performance metrics that are so vital to effective program management. In response, ATF added outcome-based CGIC performance metrics focused on the identification, targeting and prosecution of criminal shooters and their sources of crime firearms. Not coincidentally, these metrics form the cornerstone of the new NIBIN mission statement:

“Identify, target and prosecute shooters and their sources of crime guns.”

ATF has leveraged the findings and recommendations of the NIJ-funded review to make significant improvements to the overall NIBIN program. Recognizing the intrinsic value of ongoing independent review, ATF is hoping to continue working with NIJ and its researcher-partners in an ongoing evaluation of the NIBIN/CGIC program, thereby ensuring that law enforcement has the most efficient and relevant gun violence reduction program now and in the future.

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### About the Author

John Risenhoover is an ATF senior special agent and the national coordinator for the NIBIN program.

In addition, the researchers found that there are not enough ATF personnel to analyze and disseminate NIBIN data to local agencies. They also noted that the only metrics currently used to evaluate the performance of NIBIN and NIBIN sites are the numbers of data inputs and hits/matches. Although this information is certainly useful for gauging workload, it fails to offer meaningful outcomes such as arrests, clearances or successful prosecutions. Therefore, among their many recommendations, the researchers state that the swiftness with which hits are produced should be included in a suite of new performance measures.

### How Can NIBIN Be Improved?

The final report offers a robust discussion on ways to improve the value of NIBIN. Although most NIBIN sites are not taking full advantage of the program's strategic capabilities, some are. Basically, the researchers found that sites successfully using NIBIN — both tactically and strategically — shared two practices:

- The sites viewed NIBIN as a process involving people, interorganizational relationships and information sharing and not merely as a piece of technology.
- They added information to hit reports (such as geocodes and information from criminal records databases) that improved hits' investigative value.

Among measures that would improve the tactical and strategic value of NIBIN in solving gun crimes, the researchers recommend:

- Creating standardized measures (beyond the numbers of inputs and hits) for evaluating the performance of local NIBIN sites.
- Developing a “force-multiplier” software program to add other criminal intelligence, such as eTrace data, to NIBIN reports.
- Establishing demonstration projects to highlight successful strategic uses of NIBIN.
- Addressing delays in processing ballistic evidence and identifying hits through better cooperation among all stakeholders (that is, beyond crime laboratories).
- Establishing an ATF research and development program to discover, cultivate and test innovative practices at local NIBIN sites, particularly practices to remove impediments to identifying hits in a timely manner.
- Establishing regional NIBIN Centers of Excellence to provide training and technical assistance to local jurisdictions, host regional conferences, create websites and publications to raise the level of professional activity, and create networking among criminal investigators, firearms examiners and firearms technicians.

The bottom line, the researchers said, is that thinking of NIBIN only as a tool that can produce hits “places unnecessary limits upon its potential as a strategic intelligence source.” As with many technologies, they added, NIBIN’s success “is ultimately a function not only of its technological capacity but also of the interplay between the technology and the organizations and human systems in which it is situated” — that is, the entities entering data into the NIBIN database, the entities using NIBIN to process the inputs and the entities using the hit reports.

For example, the researchers found that hit reports are rarely routed to crime analysis units where they could be used for strategic analyses. “There is generally no information feedback from investigators and end users of NIBIN hits back to labs,” they said. “Lab personnel rarely collect systematic information on how NIBIN hits are used or the level of utility of hits for end users.”

The researchers also found that although NIBIN contains an incredible amount of information on crimes and weapons that goes well beyond what is contained in a hit report, “the majority of evidence in NIBIN is never connected with other offenses, events or weapons.”

For already overburdened firearms examiners to make such connections, the researchers said, is easier said than done. But adding more information to NIBIN — such as geocodes, the names of suspects and victims, and possible gang affiliations — could, they said, help realize NIBIN’s full strategic value.

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### About the Author

Nancy Ritter is a writer and editor at NIJ.

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### For More Information

- The final report, *Opening the Black Box of NIBIN: A Process and Outcome Evaluation of the Use of NIBIN and Its Effects on Criminal Investigations*, is available at [NCJRS.gov](http://NCJRS.gov), keyword: 243875.
  - Watch William King and John Risenhoover’s *Research for the Real World* presentation “Opening the Black Box of NIBIN” at [NIJ.gov](http://NIJ.gov), keywords: NIBIN seminar.
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**NCJ 247878**



# COMPREHENSIVE SCHOOL SAFETY INITIATIVE

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In October 2014, NIJ awarded nearly \$63 million to school districts and research organizations through the Comprehensive School Safety Initiative, a multiagency research effort to build knowledge of how to increase school safety. The Initiative has three primary goals: to collect national-level data, to convene stakeholders to identify and share best practices, and to conduct innovative research and evaluate pilot projects in school districts.

Learn more about NIJ's Comprehensive School Safety Initiative on [NIJ.gov](http://NIJ.gov), keywords: school safety.

## Comprehensive School Safety Initiative

Building Knowledge About What Makes Schools Safer

### REVIEWING CURRENT APPROACHES TO SAFETY \$2,350,000

Building more knowledge about safe schools starts with a review of what is already known. NIJ is convening stakeholders and reviewing existing technologies and approaches to understand what is currently being done to keep our students safe.

### TESTING INNOVATIVE PROGRAMS IN SCHOOLS \$45,036,399

Conducting new and innovative pilot programs and evaluating the impact is one of the best ways to see what works to keep schools safer. NIJ is supporting 15 pilot projects in local schools to implement and test innovative programs and strategies in urban and rural settings.

### USING RESEARCH TO ASSESS IMPACT \$18,249,540

Evaluating the effectiveness of current safety programs is a core part of learning what works to make schools safer. NIJ is supporting nine research projects to investigate which school safety programs and interventions are having the most impact.

### ENHANCING SCHOOL SAFETY DATA COLLECTION \$3,550,000

Understanding the safety problems schools face begins with collecting better data. NIJ is working with four federal partners to improve survey and incident level data on school safety at the national level.



# THE SCIENCE BEHIND FIREARM AND TOOL MARK EXAMINATION

BY **NANCY RITTER**

Study finds less than 1.2 percent error rate in matching bullets fired from Glock semiautomatic pistol barrels to the actual firearm.

**T**he NIJ-funded study described in “Study Identifies Ways to Improve ATF Ballistic Evidence Program” looked at the operation of the National Integrated Ballistic Information Network (NIBIN), not at the underlying science of firearm and tool mark examination. This forensic science — sometimes referred to by laypeople as “ballistics” — is concerned with the validity of matching a fired bullet to a particular firearm.

So what is the current state of the science of firearm and tool mark examinations? Are these examinations accurate, reliable and valid?

First, the basics: Firearms have numerous metal parts. During the manufacture of a firearm, the machining process leaves unique, microscopic markings (called tool marks) on some of these parts. When most firearms are fired, these tool marks are transferred to the discharged (“spent”) cartridge casings and bullets. This evidence can be collected from the scene of a crime, such as a homicide or shooting, and firearm and tool mark examiners can compare them with a test-fired firearm that, for example, has been confiscated from a suspect.

Since 2009, NIJ has funded research to determine the accuracy and reliability of firearms examinations — that is, whether a fired bullet (sometimes referred

to as a spent projectile) was ejected from a particular firearm or the probability of finding unique patterns on casings that are shared by spent ammunition from the same firearm. NIJ’s most recent findings, released in February 2014, established an error rate of less than 1.2 percent in matching bullets fired from Glock semiautomatic pistol barrels to the actual firearm.

The study — a collaboration between a Florida International University statistician and the Miami-Dade Police Department, which has been studying Glock barrels since 1994 — was designed to answer two basic questions:

- Will trained firearm and tool mark examiners looking at bullets fired through consecutively manufactured firearm barrels that contain the same barcode-like pattern be able to correctly identify the firearm that fired the bullet?
- What role does an examiner’s level of experience play in accurately identifying the firearm that fired an unknown (or “questioned”) bullet?

The experiment looked at bullets fired from 10 consecutively manufactured Glock barrels. Here’s the interesting part: During the manufacturing process, specific Glock barrels are imprinted with a barcode-like pattern called the Enhanced Bullet Identification System (EBIS). The idea behind this study was that

**Opposite page:**  
9mm full metal jacket bullet that was fired from a Glock 19 with a polygonally rifled barrel\*



even though these barrels were consecutively made and cut with the same EBIS pattern, their “signatures” (or tool marks) should still be different. Consecutively manufactured barrels, as the final report states, “represent the best possibility for the production of two firearms that could produce non-distinguishable markings,” since the same tools and machining processes were used, back to back, on one barrel after another.

Here’s how the experiment worked: One hundred and fifty test sets — with an “open set” design, in which the participants had no expectation that all unknown bullets should match known test sets — were sent to 165 firearm and tool mark examiners in 41 states, the District of Columbia and internationally. This sample was the largest ever used for this type of experiment. Sneha Gulati, with the Department of Mathematics and Statistics at Florida International University, analyzed the results.

### The Findings

The examiners correctly matched the spent bullet to the barrel that fired it 98.8 percent of the time.

The study also found that examiners with less than 10 years of experience did not reach different conclusions than examiners with more than 10 years of experience; that is, there was no significant difference between these two groups in their ability to correctly identify which bullets were fired from which consecutively manufactured Glock barrels.

The researchers stated:

Through examination of the individual striations/impressions, the signature can be positively identified to the firearm/tool that produced it. Such tool mark identifications are made to a practical certainty ... Practical impossibility cannot be expressed in mathematical terms. As a result of extensive empirical research and validation studies such as this one ... an opinion can be justifiably formed that it is a practical impossibility that another firearm will be found that exhibits as much individual microscopic agreement with test tool marks as the questioned tool marks that have been identified.

It is very important to note, of course, that there are many other types of firearms that have not been studied in this same way, particularly using consecutively manufactured barrels. That said, Gerry LaPorte, Acting Director of NIJ’s Office of Investigative and Forensic Sciences, noted that the findings from this study support the scientific foundation of forensic firearm and tool mark identification through the evaluation of the repeatability and uniqueness of striations of unknown bullets.

“The Glock study provides empirical data to strengthen the foundation of firearms identification, which was among the issues raised in 2009 by the National Academy of Sciences in *Strengthening Forensic Science in the United States: A Path Forward*,” he added.

Read the full Glock report, *An Empirical Study to Improve the Scientific Foundation of Forensic Firearm and Tool Mark Identification Utilizing Consecutively Manufactured Glock EBIS Barrels With the Same EBIS Pattern*, at [NCJRS.gov](https://www.ncjrs.gov/pandoc/tandem/cjrtitles.aspx?id=244232), keyword: 244232. The report includes an extensive review of past studies that have looked at the science of firearm and tool mark identification.

### Ongoing Firearm and Tool Mark Examination Research and Development

NIJ is also funding two ongoing studies that could inform the scientific foundation of firearm and tool mark examination as a forensic investigative tool:

- Cadre Research Labs is working on rapid three-dimensional ballistic imaging and matching using a novel gel-based sensor that, when touched, conforms to an object’s surface and renders a three-dimensional profile in roughly two minutes. This research includes five “deployment studies” that will gather feedback on the system’s functionality, interface and usability from firearm and tool mark investigators with the Oakland Police Department; the San Francisco Police Department; the Contra Costa County Office of the Sheriff; the Walnut Creek Bureau of Alcohol, Tobacco, Firearms and Explosives; and the Illinois State Police.



- NIJ awarded a competitive grant to the National Institute of Standards and Technology to create an open-access ballistics reference database — containing a wide range of two- and three-dimensional data for bullets and cartridge cases — that researchers and vendors will be able to use to improve pattern recognition, or “matching,” algorithms. This type of research database has already been created in the field of biometrics (including, for example, fingerprints), leading to advancements in image-based matching algorithms. To stimulate similar technological advancements in pattern-matching algorithms for firearms and tool marks, the ballistics database will include a large diversity of breech face, firing pin and bullet land

impressions of test fires, providing crucial data for testing the robustness of matching algorithms.

Findings from these studies are expected by 2016.

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### About the Author

Nancy Ritter is a writer and editor at NIJ.

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\* Photo taken by Peter Diaczuk, an adjunct instructor of criminalistics in the Department of Sciences at John Jay College of Criminal Justice, CUNY.

**NCJ 247879**

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# SERVICES FOR IPV VICTIMS: ENCOURAGING STRONGER RESEARCH METHODS TO PRODUCE MORE VALID RESULTS

BY MELISSA RORIE, BETHANY BACKES AND JASPREET CHAHAL

Using rigorous research methods like randomized controlled trials can help increase confidence in evaluation findings.

Violence against women remains prevalent in the United States. In 2010, six out of every 1,000 women<sup>1</sup> experienced intimate partner violence (IPV; sometimes referred to as “domestic violence”), and two out of every 1,000 women were raped or sexually assaulted.<sup>2</sup>

Victims need careful and often intensive services to help address their physical, emotional and financial suffering. To that end, the federal government funds a variety of programs that provide victims with transitional housing, legal aid, counseling, job training and other assistance. But in recent years, funding for these programs has declined. For example, in 2013, the Violence Against Women Act (VAWA) — which covers not only victims’ services but also research, batterer interventions and criminal justice capacity building — received \$388 million, down from \$412.5 million in 2012. According to the National Network to End Domestic Violence, shrinking budgets have

caused service providers to close victims’ shelters, reduce programming hours and cut program staff.<sup>3</sup>

Given the strain on funding, it is critical that the programs that do receive money effectively increase safety, increase victims’ knowledge of and confidence in legal options, and help them recover from victimization. Yet few programs to date have been evaluated using rigorous research designs and systematic study. Fewer than half of 18 seminal studies on IPV victims’ services employed a randomized controlled trial (RCT), generally thought to be the strongest method for establishing whether a program is effective.<sup>4</sup> As we move forward, more efforts should be made to use rigorous research methods like RCTs when evaluating victims’ services programs.

## Prior Research

NIJ has supported efforts to understand violence against women, including preventing this type of

violence and helping women to recover. NIJ has a long history of funding research on:

- Protection orders
- Policy and legislation
- Victim services and advocacy
- Risk factors for homicide and serious injury
- Evaluations of grants funded under VAWA

Program evaluations help inform policy and strategies to improve the lives of victims. To date, evaluations of victims' services in the IPV field generally have focused on advocacy programs that connect women to legal, financial and emotional support. These studies tend to show positive results: Women participating in advocacy programs are more likely to be involved in legal proceedings and have better success in obtaining resources and support.<sup>5</sup>

Another important branch of IPV research has focused on counseling services; studies have generally found that receiving counseling helps women build better self-esteem, assertiveness, social support, coping skills and self-efficacy.<sup>6</sup> There have also been evaluations on multidisciplinary responses to sexual assault, specifically Sexual Assault Nurse Examiner (SANE) programs. These studies indicate that SANE programs result in more cases reaching the final stages of prosecution; for example, such programs increase the likelihood of a guilty plea and conviction.<sup>7</sup> Finally, research has shown that shelters are one of the most important and effective services for abused women.<sup>8</sup> Although these findings are all promising, their "certainty" may be diminished if evaluations of the programs' effectiveness failed to use an experimental research design.

Overall, the use of strong methods to evaluate victims' services programs is wanting. In a 2009 review that examined 18 intervention studies for victims of IPV, only three of the studies qualified as rigorous based on three criteria:

- Random assignment of participants to a treatment group (i.e., individuals receiving the intervention) or a control group (i.e., individuals receiving "business as usual")

- At least 20 cases included in each group
- An outcome of IPV recidivism or violence severity<sup>9</sup>

Most studies to date do not account for inherent differences between participants who receive services and those who do not. This means that any benefits attributed to receiving treatment may not be due to the program itself but instead may be due to a characteristic that treatment participants share — for example, being highly motivated to receive services or having more social support encouraging them to seek services. When we evaluate programs using methods that account for this kind of "selection bias" — for example, through random assignment to groups — we might find that the programs are not as effective as once thought.

When looking at the most frequently cited studies in the IPV literature, we find that with the exception of a select few, most of the studies used a quasi-experimental design (QED) at best — that is, a design that compares a treatment group to a control group but in which researchers cannot control who is assigned to which group (more information on QED is provided below). These studies do not explain with certainty whether the treatment provided directly relates to the positive outcomes. These studies cannot say that the comparison groups are truly equivalent prior to treatment, so we are left guessing whether the effect seen is due to something other than the interventions. (See a table comparing 18 IPV studies at [NIJ.gov](http://NIJ.gov), keywords: IPV victim services.)

QED methods are incredibly beneficial and often demonstrate strong correlational links between interventions and positive outcomes. However, service providers can better argue that a program works if its evaluation uses RCT methods, because they better account for differences in groups and thereby increase confidence that the outcome is due to the program.

## Understanding Research Designs

The desire to improve services for victims should serve as the driving force behind the choice of a research design. In other words, we should craft



research that will provide the most accurate and useable information. However, the choice of a research design must also consider the fiscal resources available to agencies and researchers as well as their capacity to carry out the research design.

Generally, RCTs are thought to be the best method for increasing the accuracy of study results because they require a comparison between a treatment group and a control group. Participants are randomly assigned to the treatment group, thus allowing researchers to balance out certain pre-existing characteristics — for example, motivation to seek treatment — or reduce their impact so that the researchers can evaluate the program more clearly.

Here's an example: An IPV services agency begins a counseling program for battered women. The agency conducts an evaluation that compares outcomes for women who *volunteered* for counseling with outcomes for women who declined counseling and finds that counseling improves client self-esteem and quality of life. In this example, it is easy to see that increased self-esteem and quality of life might be due to the client's desire to better herself and seek social support — and not to the program itself. On the other hand, if the agency *recruits* women who are interested in counseling and then randomly assigns them to either counseling or treatment-as-usual conditions, the finding that the counseling group experienced better outcomes is more clearly related to the program and not necessarily to motivation.

RCTs are not without their own limitations, however. Many practitioners and researchers alike argue that RCTs are too simplistic and verge on artificiality — that is, they may not account for the way that certain individual characteristics or environments make the treatment more or less effective.<sup>10</sup> An important question, then, is how well a program implemented under “optimal conditions” — that is, under careful scrutiny during an RCT — will work when implemented in the real world. Researchers should demonstrate not only that the program is effective during the research phase but also that ground-level service providers can implement the program with fidelity.<sup>11</sup>

## The desire to improve services for victims should serve as the driving force behind the choice of a research design.

It also may be problematic to assume that randomization creates unbiased treatment and control groups. Even in these types of experiments, it is important to know who the individuals are who make up the sample and whether differences exist between the groups despite randomization. Similarly, randomization does not correct for volunteer bias in the sample as a whole. In other words, even if there are no differences among people in the treatment and control groups, there may be differences among people participating in the study and those who do not.<sup>12</sup>

Some situations might render an RCT design inappropriate. For example, another research design might be better at encouraging participation and, therefore, might produce results that more accurately represent the population of interest as a whole.<sup>13</sup> This is particularly important in the IPV field, as these victims might be particularly reluctant to have any form of information collected, no matter how many assurances of confidentiality are provided.

In other cases, program staff might be highly resistant to randomization despite researchers' best efforts to allay concerns, or the cost and resources involved in a full randomization might be prohibitive (see sidebar, “Practitioner and Researcher Concerns About RCTs”). In these cases, alternative methods such as QEDs might be available that allow researchers to manipulate the data and sampling to simulate treatment and control groups. Some argue that QEDs might even be more desirable than RCTs because researchers must be more deliberate about how comparisons are made.<sup>14</sup> In this article, we argue that RCTs are the best method for establishing causality,



but it is worth noting that QEDs can make a valuable contribution when random assignment is not feasible.

One example of a QED is the use of “nonequivalent control groups.” In this method, researchers compare participants who receive treatment to those who do not, but they do not randomly assign participants to the groups. Instead, the researchers attempt to ensure that the groups are as similar as possible before the intervention begins. This can be done in IPV studies, for example, by comparing individuals who, prior to the evaluation, had similar risk for revictimization.

Another strategy is a “time-series” design. Researchers collect data for several time points prior to the treatment being introduced and for a long follow-up period to determine how incidences of victimization changed after the intervention was put into place. Having data on longer periods of time helps ensure that the intervention’s effect is real and that any changes in victimization are not due to temporary fluctuations.

No matter which research method is used, researchers must always explain the reasons for their decision, be aware of any limitations that might arise from the use of that method, and understand how these limitations affect the results and the interpretation of the results. When RCTs are not feasible due to ethical concerns, costs, buy-in or other reasons, QEDs serve as an alternative that can increase the credibility of the results when compared with most nonexperimental evaluations.

Of course, like RCTs, QEDs have their own limitations and might not always be appropriate for the research questions. Table 1 compares how well RCTs and QEDs establish that the intervention directly causes changes in relevant outcomes. Both methods can determine that an association exists between the program and the outcomes as well as ensure that the intervention precedes the outcome of interest (i.e., the designs establish accurate time-ordering). However, QEDs are less successful at ruling out alternative explanations for the results.

**Table 1. Comparing Randomized Controlled Trials With Quasi-Experimental Designs**

	Randomized Controlled Trials	Quasi-Experimental Designs
<b>Can the research method establish an association between the intervention and the outcomes?</b>	<b>Yes.</b> One can determine whether an individual’s treatment status is related to changes in the outcome.	<b>Yes.</b> One can determine whether an individual’s treatment status is related to changes in the outcome.
<b>Can the research method establish that the treatment preceded the desired outcome?</b>	<b>Yes.</b> The outcome is measured after the treatment is implemented.	<b>Yes.</b> Generally, there are assessments prior to and after treatment implementation.
<b>Can the research method rule out other explanations?</b>	<b>Yes.</b> Randomization helps ensure that the treatment and control groups are equivalent on both observed and unobserved variables.	<b>No.</b> Although matching ensures balance on observed variables, differences might exist that are not measured. With time-series designs, there might be historical events that impact the respondents, or respondents might change their attitudes or behaviors naturally over time.

## Encouraging the Use of More Rigorous Designs

The best program evaluations will use the most rigorous method possible to successfully gather evidence about a program's effect. When deciding which method is appropriate, researchers and practitioners should consider the benefits and the limitations of RCTs. However, even given the method's limitations, it is important that we do not dismiss RCTs without strong reasons for doing so. Randomization and the use of a control group generally enhance the accuracy of research findings. Furthermore, funding agencies increasingly prioritize rigorous methods, as these agencies attempt to show that public money is being used efficiently.

So how do we mitigate the concerns of both practitioners and researchers and encourage the use of RCTs?

- (1) **Establish a strong researcher-practitioner relationship:** Practitioners often have strong opinions about whether a program works and whether a client needs the program (as well as potential safety concerns should the client not receive the intervention). Researchers must be ready to explain why an RCT is the best method by which to study a program and should work with practitioners to resolve any concerns about safety or nontreatment. Some research suggests that conducting an RCT soon after a program's development — that is, before practitioners establish expectations about a program's success — might be beneficial.<sup>15</sup>

Practitioner staff might want to override an assignment of an individual to the control group, perhaps because of potential safety concerns. In these cases, establishing a procedure where such overrides can take place with the approval of upper-level management might be necessary.<sup>16</sup> Alternatively, the pool of an agency's clients who are chosen for randomization might be those who are less at risk than the clientele of the agency in general — many RCTs in the IPV realm draw only from misdemeanor cases.<sup>17</sup>

In addition, it is often difficult to recruit clients to enroll and remain in the program for its duration; working closely with program staff can make this process much easier. Practitioners and researchers should work together to develop methods to increase safety (for example, by ensuring that no participant can be identified in the data) and to encourage clients to remain involved in the program while the evaluation is being conducted.

- (2) **Link funding to research designs:** A constant concern for agencies and organizations is the availability of resources. RCTs are time-intensive and at times can cost more money than alternative research methods for a variety of reasons, including the amount of training required. External funders, such as NIJ, must emphasize the desirability of RCTs and widely disseminate examples of such rigorous studies. When applying for funds, programs and researchers should make sure that they carefully calculate the resources necessary to implement the design accurately. And if RCTs show that a program has no effect, then funding should focus on alternative program development and evaluation.<sup>18</sup>

By using more rigorous research methods like RCTs, we can increase confidence in evaluation findings. In doing so, service providers will be better positioned to find funding for programs and to encourage clients to seek out life-enhancing resources.

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## Practitioner and Researcher Concerns About RCTs

Although the use of randomized controlled trials (RCTs) can improve the validity of research results, it is not without complications. Practitioners and researchers commonly cite six concerns about RCTs:

### Practitioner Concerns

(1) **Victim safety:** When it comes to implementing experimental designs and collecting data in intimate partner violence (IPV) research, the victim's anonymity must be protected. The most dangerous time for IPV victims is when they decide to leave the relationship or reach out for services.<sup>1</sup> Providers take great care to ensure victims are out of harm's way — for example, shelters are unmarked, victims must be a certain distance from the shelter in order to meet anyone, and the Health Insurance Portability and Accountability Act protects any medical treatment they seek. It is imperative that victims' anonymity be preserved to maintain their safekeeping. Practitioners' concern for victim safety is justified and should be highly considered when using experimental designs.

(2) **Equity in services:** In RCTs, the control group is not deprived of services. In most designs, the control group receives the agency's standard services, whereas the treatment group receives the agency's standard services *and* the enhanced intervention being tested.

Still, is it ethical to deny additional services to potential recipients based on the luck of the draw? Will victims receiving only basic treatment face increased harm compared with the treatment (enhanced services) group? Conversely, is it ethical to deliver additional services without knowing whether they are helpful or even detrimental to victims? Is it ethical to deliver services that often require significant time and emotional investment from the victims without knowing whether the services work? Some researchers argue that RCTs might actually be more ethical than other methods because of the improved ability to determine whether a program is helpful and whether there are any adverse effects.<sup>2</sup>

(3) **Agency burden of evaluation:** Many victims' services agencies are small and based on a highly collaborative, mission-driven model. Being mandated to evaluate its programs requires an agency to spend staff time and funding on research instead of on direct service. Without adequate funding to ease these additional pressures, this demand on resources might be seen as harmful to victims seeking help.<sup>3</sup> Further, experimental designs are not only the most rigorous method of evaluation but also can be more expensive than other methods. As such, RCTs may be more costly than small programs can afford.

There are also the potential consequences of doing an evaluation. If an evaluation indicates that the services an organization provides are not effective, then what? Has the nonprofit organization used its resources for "nothing" because the evaluation showed no effect? Where does the organization go from here? Program staff may fear that unfavorable findings will put them out of business. They also may argue that quantitative results do not accurately depict their work or the successes they see on a daily basis. The agency may measure success using anecdotal evidence, like victims' stories, and may argue that the program's success cannot be measured with quantitative data, regardless of the strength of the methods.

In cases in which the treatment does not demonstrate the desired effect, researchers and practitioners should collaborate to understand why the program is not working and what benefits the program is having. They should then modify the program based on the findings. Practitioners and researchers must work together to establish within-agency routines that allow for continuous program performance evaluations after the researchers withdraw.

## Researcher Concerns

- (1) **Implementation:** The greatest concern for researchers is that practitioners — who know their clients well and are in a good position to make recommendations to them — will use anecdotal information to alter the random assignment of the experiment or trial. When practitioners feel certain that the program is effective or when they fear the effect that unfavorable or nonsignificant findings will have on support or funding, concerns with implementing the research design become more salient. This is a problem with all evaluations, not just RCTs.<sup>4</sup> But with RCTs in particular, practitioners might not fully understand the underlying assumptions and methods and, therefore, might not know what role they are supposed to take in the evaluation.<sup>5</sup>

It is important for researchers to work with practitioners and provide feedback throughout the evaluation. Assuring practitioners that they will have an opportunity to voice their interpretations about the results might help alleviate their fears about the consequences of the evaluation.<sup>6</sup> The Enhanced Nurse Family Partnership Study in Los Angeles offers a prime example of a successful collaboration between researchers and practitioners. In this project, researchers and the Multnomah County Health Department worked together to integrate an IPV prevention program into the department's long-standing nurse-family partnership program and to test it using RCT methods.<sup>7</sup>

- (2) **Confidentiality issues:** If a researcher does not take sufficient care to ensure data confidentiality and fails to comply with institutional review board (IRB) review, data might be subpoenaed and a victim's privacy compromised.<sup>8</sup> Because of this concern, IRBs place most experiments that evaluate victims of IPV under special scrutiny. It is critical that researchers follow IRB recommendations, as well as human subjects and confidentiality regulations dictated by their funding agencies, and that they work to address any confidentiality and safety issues when designing the study.<sup>9</sup>

- (3) **Cost to researchers:** Researchers and practitioners alike find that designing and implementing an RCT is incredibly time consuming. Practitioners are crunched for time as they struggle with overwhelming caseloads, and researchers might prefer to do something less arduous so that they can publish their results quickly. One study asked researchers why they would choose randomized methods over less rigorous designs: One of the most important motivators researchers cited was funding agency priorities. Subsidizing the randomization process might be an important way to increase the use of such designs.<sup>10</sup>

These concerns need to be addressed before deciding that an RCT is the best method to evaluate a specific program. Collaboration and funding might help alleviate some discomfort with this design. However, if concerns for victim safety and privacy remain high, then using alternative methods might be warranted.

## Practitioner and Researcher Concerns About RCTs (continued)

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17. This, itself, might affect the results: If the treatment is more effective for victims who are more at risk, then using a pool of less vulnerable victims will likely dull the treatment impact seen in the study. Such concerns should, of course, be weighed against the need to protect the safety of the victim. See Sherman, Lawrence W., and Richard A. Berk, "The Specific Deterrent Effects of Arrest for Domestic Assault," *American Sociological Review* 49 (2) (1984): 261-272; Labriola, Melissa, Michael Rempel, and Robert Carl Davis, "Testing the Effectiveness of Batterer Programs and Judicial Monitoring: Results From a Randomized Trial at the Bronx Misdemeanor Domestic Violence Court," Final report to the National Institute of Justice, grant number 2001-WT-BX-0506, November 2005, NCJ 245144, available at <http://www.courtinnovation.org/sites/default/files/battererprogramseffectiveness.pdf>. Also, although any randomized research will help increase the understanding of the benefits of a program, evaluating the program's impact only on lower-risk clients means the results of the study would apply only to that particular type of client, and follow-up work would need to determine whether the treatment is effective with higher-risk clients.
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# ADDRESSING THE IMPACT OF WRONGFUL CONVICTIONS ON CRIME VICTIMS

BY **SERI IRAZOLA, ERIN WILLIAMSON, JULIE STRICKER AND EMILY NIEDZWIECKI**

We need to better understand how wrongful convictions affect the original crime victims and improve systemic support available to them.

**W**hen a wrongfully convicted individual is exonerated, the original crime victim may experience feelings of guilt, fear, helplessness, devastation and depression. For some victims, the impact of the wrongful conviction may be comparable to — or even worse than — that of their original victimization.

These are the findings of an NIJ-funded study examining how wrongful convictions affect the original crime victims, an area in which no prior empirical research had been conducted. Researchers from ICF International conducted in-depth studies to identify the shared experiences and service needs of the original crime victims in 11 cases of wrongful conviction. Recognizing the sensitive nature of the study, the researchers initially contacted victims through third parties, such as district attorney's offices and innocence commissions that had pre-existing relationships with the victims. They also used what is called "snowball sampling," meaning they worked with participating victims and stakeholders to reach out to crime victims in other cases of wrongful conviction and to identify service providers, law enforcement

officers, prosecutors, attorneys and family members who supported victims during the exonerations. In total, researchers interviewed 33 individuals:

- Eleven victims (including immediate family members in cases of homicide)
- Nine prosecutors
- Four service providers
- Three law enforcement officers
- Two family members
- Two individuals who provided victims with legal advice
- Two innocence commission members

The study found that wrongful convictions have a significant impact on the original crime victims and exposed a lack of services available to them. The researchers also noted that although we have made significant strides over the past three decades to identify wrongfully convicted individuals and to help them gain their freedom and transition to life after



## For some victims, the impact of the wrongful conviction may be comparable to — or even worse than — that of their original victimization.

exoneration, additional research is still needed to fully understand the experiences and address the needs of the original crime victims during this process. As one victim told researchers, “For [several] years, I had been quite comfortable with my role as the victim. When the exoneration happened, that exoneree became the victim, and I, the rape victim, became the offender. The roles switch, and it’s a role you don’t know what to do with.”

### A Closer Look at the Cases\*

\* This article uses gender-neutral language (they, them, their, themselves) and omits demographic and other identifying information to protect the identities of the victims who participated in the study.

The 11 case studies involved nonfederal violent crimes committed in six states; eight of the crimes took place in urban communities. Many of the cases involved multiple crimes. In order of frequency, the offenses were:

- Rape
- Homicide
- Sexual assault
- Burglary
- Attempted homicide
- Breaking and entering
- Other sexual offenses

Twelve individuals were wrongfully convicted for these crimes. Eyewitness misidentification, invalidated or improper forensic evidence and analysis, false

testimony by informants, false confessions, and ineffective legal counsel contributed to the wrongful convictions.

In five cases, law enforcement officers, victim advocates or other officials notified the victim of the potential wrongful conviction during the reinvestigation — for example, when a DNA test had been ordered or when the case had been opened for a formal review in response to an innocence commission. In one case, an official notified the victim after the wrongfully convicted individual had already been exonerated. In four cases, victims learned of the potential wrongful conviction through third parties, such as reporters or legal representatives for the wrongfully convicted individuals. And in one case, notification was not necessary because the victim believed in the wrongfully convicted person’s innocence from the time of the original trial and was actively involved in the appeal and exoneration process.

In nine of the 11 cases, law enforcement identified the actual offender through a confession, DNA testing or new evidence. Three of these offenders were prosecuted and convicted. In three cases, the statute of limitations had passed. In the remaining cases, the offenders were not prosecuted for reasons specific to the individual cases; however, in a few of these cases, the actual offenders were incarcerated for other offenses.

### How Wrongful Convictions May Affect Victims

More than half of the victims in the study described the impact of the wrongful conviction as being comparable to — or worse than — that of their original victimization. Many said they were in shock when they first heard about the exoneration. The majority of the victims also reported intense feelings of guilt. This was especially true for the two-thirds of victims in the study who provided eyewitness identification. One victim recounted, “It was harder going through the revictimization than it was through the rape. . . . Now you have the same feelings of that pain. You have the same scariness. You have the same fear. You have the same panic, but now you have this flood of guilt on top of it.”



As with many cases of wrongful conviction, most of the cases studied received media attention, generating notoriety for both the wrongfully convicted individuals and the crime victims. As one law enforcement officer explained, “You see exoneration cases. You see the media’s flash when [the wrongfully convicted individual is] walking out of the courthouse. Everybody is excited, and yet quietly sitting at home by themselves are the victims.” Some of the victims felt that the media insinuated that they had intentionally misidentified the wrongfully convicted individuals. Many found the anger directed toward them in blogs and comments that followed news articles particularly painful. One victim stated, “This is the thing — your name’s not out there, but you are out there. This is your case. This is something that happened to your body. This is what happened to your mind, to your life. ... I didn’t give anybody permission to put this out in the newspaper.”

The crime victims reported being afraid of the wrongfully convicted individual following the exoneration. One victim said, “My initial thought was [the wrongfully convicted individual] is going to kill me. [They] will hurt me, and if [they] can’t get to me, [they] will get to my children. So I was hyperalert. The children could not leave my side. I went to school and told the teachers, ‘They are to stay with you every second.’ That went on for almost two years.” The crime victims also reported being afraid of the actual offenders. Some experienced helplessness, devastation and depression; at least one felt suicidal.

### Improving Support for Victims

When asked for recommendations, victims and stakeholders spoke of the need to improve notification, information and services for the original crime victims in cases of wrongful conviction. In all of the case studies, those interviewed agreed that the criminal justice system should provide initial notification. Victims and other stakeholders recommended that, when appropriate and possible, officials involved in the original case should notify the crime victim. When this is not possible, many stakeholders suggested having a victim service provider present. Others stressed that law enforcement or prosecutors should

be present, especially in cases that may involve additional litigation.

Interviewees generally advised that officials should notify the original crime victim in person. One service provider suggested that officials dress in plain clothes to avert unwanted attention or speculation from community members. Service providers noted that when in-person notification is not possible, telephone notification is preferable to a letter or other form of communication.

Recommendations varied regarding the timing of the initial notification. Law enforcement and prosecutors were reluctant to disrupt victims’ lives every time there was a claim of innocence, whereas the crime victims expressed a desire to be notified early in the process. This study did identify a complicating factor: the varying amount of time it takes for a wrongful conviction to be confirmed and then for the wrongfully convicted individual to be released. Victims and stakeholders agreed that the original crime victims should not be blindsided by the exoneration or find out after the wrongfully convicted individual has been released.

Victims and stakeholders stressed that the crime victims are often unfamiliar with the criminal justice system and need information explaining the exoneration process. Service providers noted that victims want to understand the process and how it may affect their lives, well-being and safety. Victims who received regular updates emphasized the importance of these updates, saying that the updates made them feel that they were part of the process. However, it cannot be assumed that all victims will want ongoing updates. Victims and stakeholders recommended asking the crime victims during the initial notification what types of information and case updates they want to receive and how they want to receive them.

Several victims in the study who provided eyewitness identification said that learning how misidentifications may occur helped them process their reactions and understand the wrongful conviction. Some officials, however, pointed out that providing such information might not be appropriate or legally advisable for law

enforcement. Victims also said that information on how memories are formed helped them understand why they continued to envision the wrongfully convicted individual when they thought about the crime.

Recognizing that victims are often unable to absorb the information they are given, especially during initial notification, stakeholders recommended giving crime victims printed materials to refer to when they have questions. In addition, stakeholders suggested giving victims a point of contact within the criminal justice system, whom they can reach with additional questions or concerns.

Victims said that notification and information should be provided in a neutral manner. Key stakeholders reported that crime victims usually take a strong position for or against the exoneration, but trying to convince them to take one position or the other is not always helpful. In addition, victims who had been assured that DNA tests postconviction would confirm the convicted person's guilt reported that the exoneration was especially difficult because they had never considered that a wrongful conviction was even a possibility.

Both victims and service providers recommended safety planning for crime victims. Only one victim interviewed for this study received safety planning, and that was after they specifically requested it. In general, victims remembered being told not to worry about safety. When discussing the importance of safety planning, one service provider explained that regardless of whether there is an actual threat, crime victims who perceive danger genuinely fear for their safety and the safety of their families.

Interviewees also highlighted the importance of counseling services in helping crime victims come to terms with the wrongful conviction. Given the unique nature of these cases, interviewees recommended that counseling services be provided by someone with formal training and experience working with victims of trauma. They also suggested making peer support available. Several victims recommended establishing a national network, operated by a neutral victim-centered organization, to facilitate peer support across jurisdictions. All of the victims interviewed for this

study who received peer support were direct victims of a crime; additional research is needed to explore the benefits of peer support for other victims, such as family members in cases of homicide.

Finally, attorneys interviewed for this study recommended that all victims in wrongful conviction cases receive access to independent legal counsel. One attorney suggested that counsel have expertise in criminal defense, as well as training and experience working with victims of trauma. More research is needed to examine the legal considerations for victims in cases of wrongful conviction.

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## About the Authors

Seri Irazola is the Director of NIJ's Office of Research and Evaluation. While employed at ICF, she served as the principal investigator on the study of wrongful conviction. Erin Williamson is currently a survivor support coordinator for Love146; she served as the study's project manager and was responsible for conducting victim interviews. Julie Stricker, currently with the International Justice Mission, and Emily Niedzwiecki, an associate at ICF, conducted victim interviews for the study.

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## For More Information

- To read the full report, *Study of Victim Experiences of Wrongful Conviction*, go to [NCJRS.gov](http://NCJRS.gov), keyword: 244084.
- For more on NIJ's work in postconviction testing and wrongful convictions, visit [NIJ.gov](http://NIJ.gov), keywords: wrongful conviction.
- Watch an interview with Jon Gould from American University on why wrongful convictions happen at [NIJ.gov](http://NIJ.gov), keywords: Gould interview.
- Read an *NIJ Journal* article on postconviction testing and wrongful convictions at [NIJ.gov](http://NIJ.gov), keywords: postconviction core.

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# THIS ISSUE DOESN'T HAVE TO END

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# NIJ CHALLENGES: GENERATING INNOVATIVE SOLUTIONS TO CRIMINAL JUSTICE PROBLEMS

BY **RUSTUM NYQUIST**

Challenges serve as an alternative to NIJ's traditional grant-making process and as a way to advance the cutting edge of research.

In September 2012, NIJ issued a challenge to scientists, inventors and innovators: Come up with unique, creative ways to test the performance and usability of body armor without destroying it — and potentially win \$50,000.

Most law enforcement agencies replace their body armor every three to five years — the typical length of the manufacturer's warranty. However, scientists suspect that the ballistic performance of individual vests may vary because of normal daily wear and tear and a variety of physical, chemical and environmental factors. NIJ held the prize competition because there is no known way to predict the amount and rate of change of a vest's ballistic performance due to these factors.

Many answered NIJ's call and offered potential solutions. In the end, four finalists received prizes: two teams of academics, a team from a national laboratory and an independent two-person team.

The eventual winner — a group of doctoral students in Purdue University's School of Aeronautics and Astronautics — came from outside of the traditional criminal justice research community.<sup>1</sup>

The body armor competition was the first NIJ Challenge, an alternative to NIJ's traditional grant-making process and a way to bring practitioners and researchers together to generate innovative solutions.

NIJ has since issued more Challenges. One sought innovative solutions that provide mission-critical voice communications services to law enforcement and other public safety responders using commercial off-the-shelf technology.<sup>2</sup> Another asked for "disruptive" criminal justice applications that use ultra-high-speed networks and have the potential to change how services and information are delivered to criminal justice and other public safety practitioners.<sup>3</sup> A third Challenge sought ways of developing strategies to measure the implementation

## These competitions can help bridge gaps between practitioners, researchers and technology companies.

costs or public safety benefits of the Sex Offender Registration and Notification Act, part of the Adam Walsh Child Protection and Safety Act of 2006.<sup>4</sup> These competitions have all closed, but NIJ recently issued two new Challenges. The first calls for the use of timely and innovative randomized controlled trials that address meaningful criminal justice problems.<sup>5</sup> The second Challenge – launched in collaboration with the Bureau of Justice Statistics – looks to increase the transparency and accessibility of criminal justice data.<sup>6</sup> And the Institute is busy putting together a slate of other exciting new Challenges that will help push forward the cutting edge of research and streamline the delivery of market-ready solutions.

The audience for individual Challenges will vary depending on the question's complexity and format, but, in general, NIJ is seeking ideas from researchers and practitioners in a wide variety of science, technology and criminal justice fields, as well as members of the general public interested in applying their know-how to problems facing criminal justice practitioners. These competitions can help bridge gaps between practitioners, researchers and technology companies. For example, some Challenges involve two phases (ideation and technology demonstration), allowing NIJ to gather input from practitioners who know what is needed in the field and then to bring those requirements to researchers with the technical abilities to address them.

Challenges are also a good value proposition for the government and taxpayers. They allow NIJ to pay only for successful solutions, spur market interest in problems relevant to practitioners, and may speed the delivery of products to the field. The competitions are generally conducted over a short period of time and

have minimal administrative burdens, thus attracting applicants who might otherwise be dissuaded by the lengthy application process required for multiyear federal grants.

NIJ is not alone in this effort: Promoting the use of Challenges is a governmentwide initiative spearheaded by the White House since 2009. Both federal agencies and the private sector have used these competitions to encourage top talent to think about solutions to problems that have proven difficult to solve through other means. Challenge.gov, a one-stop shop to find Challenges offered by federal agencies, was established in 2010. Since then, it has facilitated the award of more than 200 prizes. In 2013, the website received the Innovations in American Government Award from the Harvard Kennedy School.

Be sure to visit Challenge.gov for the most up-to-date list of competitions.

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### About the Author

Rustum Nyquist is a foreign affairs officer with the U.S. Department of State. He spent five months in 2014 detailed to NIJ as a Presidential Management Fellow.

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### Notes

1. To read more about the Body Armor Challenge, go to [NIJ.gov](http://NIJ.gov), keywords: armor challenge.
  2. To read more, go to [NIJ.gov](http://NIJ.gov), keywords: COTS challenge.
  3. To read more about this Challenge, go to [NIJ.gov](http://NIJ.gov), keywords: high speed apps.
  4. To read more, go to [NIJ.gov](http://NIJ.gov), keyword: SORNA.
  5. For more information, go to [NIJ.gov](http://NIJ.gov), keywords: RCT challenge.
  6. To read more, go to [NIJ.gov](http://NIJ.gov), keywords: data visualization.
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**NCJ 247885**

# FIND THE RIGHT FELLOWSHIP FROM NIJ!

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## **STEM Graduate Research Fellowship**

The science, technology, engineering and mathematics (STEM) fields are alive and well at NIJ. Get funding for your innovative doctoral dissertation in engineering, computer and information sciences, materials research, mathematics, chemistry, physics, or life sciences. Your topic must be applicable to crime and justice.

We expect to make up to 30 STEM awards this fiscal year. Awards include up to three years of support at \$35,000 annually.

Watch for the announcement in early 2015, and contact [st-research@ojp.usdoj.gov](mailto:st-research@ojp.usdoj.gov) to learn more.

## **Graduate Research Fellowship in the Social and Behavioral Sciences**

Get funding for your doctoral degree in crime, violence or another criminal justice-related topic. NIJ typically funds multiple fellows annually up to \$32,000 under this program.

We are now accepting applications! Apply by Dec. 24, 2014. To learn more, contact [grf@usdoj.gov](mailto:grf@usdoj.gov) or log on to [NIJ.gov](http://NIJ.gov), keyword: GRF.

## **W.E.B. Du Bois Fellowship**

Du Bois Fellows study crime and justice in diverse cultural contexts. These fellows are researchers early in their careers who want to elevate their research to the level of national discussion. NIJ typically funds fellows for up to \$100,000 a year.

We are now accepting applications! Apply by Dec. 24, 2014. To learn more, contact [dubois@usdoj.gov](mailto:dubois@usdoj.gov) or log on to [NIJ.gov](http://NIJ.gov), keyword: DuBois.









# HOMELAND SECURITY IN SMALL LAW ENFORCEMENT AGENCIES: PREPAREDNESS AND PROXIMITY TO BIG-CITY PEERS

BY **GEORGE W. BURRUSS, JOSEPH A. SCHAFER, MATTHEW J. GIBLIN AND MELISSA R. HAYNES**

Study finds that increased interaction with nearby large-town agencies improves preparedness of smaller jurisdictions.

**T**he Sept. 11 terrorist attacks compelled many local law enforcement agencies to rethink their function as they were called upon to “respond to suspicious situations, uncover terrorist networks, and work with other agencies and jurisdictions in unprecedented ways,” all in the interest of homeland security.<sup>1</sup> During the post-9/11 years, their role expanded even further through a series of presidential directives and homeland security initiatives. Police were asked to help prepare for, respond to and recover from a range of nonterrorist threats, including natural (such as weather) and human-caused (such as a chemical spill) disasters and emergencies. For instance, local police played a critical role as Hurricanes Katrina and Rita ravaged the Gulf Coast within a month of each other in 2005.

We know little about small agencies’ ability to handle this broader range of homeland security threats.<sup>2</sup> Research shows that preparedness in local police agencies is directly related to agency size: Larger organizations tend to take more steps to prepare for, respond to and recover from homeland security incidents.<sup>3</sup> This suggests that smaller agencies may be less prepared, but it does not take into account whether they compensate through close relationships with large-agency peers. A small agency located near larger agencies, for example, may benefit from a network of partnerships, training opportunities, model homeland security policies and other advantages not available in isolated, less metropolitan areas.

An NIJ-funded study sought to determine whether small local law enforcement agencies (defined here as those employing one to 25 full-time officers) improve their level of preparedness if they are geographically close to and interact with bigger-city peers about homeland security issues.

### Study Used Survey Research

Researchers from Southern Illinois University Carbondale mailed a survey to chief executives of 810 small local law enforcement agencies. The survey covered topics such as preparedness, perceived efficacy, risk, funding, and relationships with the nearest jurisdiction employing 250 or more full-time officers. The response rate was 44.5 percent.<sup>4</sup>

The survey asked the chief executives to identify which of the following commonly prescribed actions their agency had taken to prevent, respond to and recover from homeland security incidents:

- Created a special unit
- Participated in an interagency task force
- Developed procedures for distributing advisories and contacting other authorities
- Drafted a response plan
- Forged mutual aid agreements with law enforcement and other agencies
- Operated on a shared radio frequency
- Conducted threat inventories and risk assessments
- Disseminated information to the community
- Trained personnel
- Participated in field or tabletop training

Respondents were asked to evaluate the likelihood of various terrorist- and nonterrorist-related incidents occurring within their jurisdictions in the next five years. Terrorism risks included cyber-terrorism; conventional explosives; chemical, biological and radiological weapons; and military weapons. Nonterrorism risks included severe weather, earthquakes, wildfires, chemical spills or radiological leaks, medical pandemics, and explosions or structural failures involving mass casualties.

Respondents were also asked to describe how often their agency and their large-agency peers:

- Shared crime-related and terrorism-related intelligence
- Discussed crime control strategies
- Discussed mutual aid agreements
- Jointly planned security
- Jointly applied for grants
- Trained on issues unrelated to homeland security

Finally, the survey asked whether the small agencies faced problems similar to those their large-agency peers encountered and whether they modeled their policies and practices after those of larger agencies.

### What the Study Found

The researchers found that small jurisdictions that collaborated and developed relationships with nearby large jurisdictions were better prepared than small agencies that did not engage with larger peers.

It is important to note that although many people assume that small agencies are rural or isolated, nearly half are located within metropolitan counties.<sup>5</sup> Small, isolated agencies were less likely than their more metropolitan peers to develop strong or frequent ties to large agencies.

Small, geographically isolated agencies, however, can still cultivate relationships with larger police departments to enhance their preparedness. The study found that physical distance between a large agency and a small one mattered only to the extent that it discouraged the frequent interactions that seem to cultivate greater preparedness. But geographic separation did not — by itself — reduce preparedness in small jurisdictions.

The study did not determine whether the benefits of physical and relational closeness to large agencies can be sustained over a long period of time. Is enhanced preparedness fleeting, a product of increased attention to homeland security that will wane over time? This question is a particular concern for “asymmetrical

collaborations” that produce advantages for some parties but disadvantages for others. For example, there is tremendous incentive for small departments to participate and coordinate with large-agency peers. The small departments reap the rewards associated with size, including extra resources and training opportunities. Large agencies, however, are unlikely to benefit as much, because they are presumably providing more resources and personnel to assist smaller agencies than they are getting in return. The likelihood that a large agency would be called upon to lend aid is substantial and the impact appreciable; smaller agencies may be less likely to need to aid larger peers and, when called to do so, would have fewer personnel and resources to offer.

## Policy Implications

Policymakers, such as federal and state legislators or those administering federal and state agencies, can equalize the incentives for all agencies by funding task forces, partnerships or other collaborations that promote interaction and absorb its costs, thereby indirectly encouraging small agency preparedness. Similarly, funding for equipment for large agencies could stipulate regional sharing in times of need or the donation of equipment to smaller agencies over time. In these situations, both large and small organizations benefit.

The study also found that small police agencies made a conceptual distinction between nonterrorism- and terrorism-related preparedness. Small jurisdictions that saw themselves at greater risk for terrorism interacted more frequently with their big-city peers specifically to address terrorism risks, but not necessarily to address nonterrorism risks such as natural disasters. This is surprising, given the all-hazards approach used in homeland security literature and training. Nevertheless, preparing for terrorism risks improves an agency’s overall preparedness for any type of homeland security event, including those that are not terroristic in nature.

of Criminology and Criminal Justice at Southern Illinois University Carbondale. Joseph A. Schafer is the department’s chair. Matthew J. Giblin is an associate professor and undergraduate program director in the department, and Melissa R. Haynes is a doctoral student in the department.

## For More Information

To read the full report, *Homeland Security in Small Law Enforcement Jurisdictions: Preparedness, Efficacy, and Proximity to Big-City Peers*, go to NCJRS.gov, keyword: 239466.

## Notes

1. National Research Council, *Fairness and Effectiveness in Policing: The Evidence*, Committee to Review Research on Policy and Practices, W. Skogan and K. Frydl, eds., Committee on Law and Justice, Division of Behavioral and Social Sciences and Education, Washington, D.C.: National Academies Press, 2004: 209.
2. *Ibid.*, 209. See also Lum, Cynthia, Maria (Maki) Haberfeld, George Fachner, and Charles Lieberman, “Police Activities to Counter Terrorism: What We Know and What We Need to Know,” in *To Protect and To Serve*, eds. D. Weisburd, T.E. Feucht, I. Hakimi, L.F. Mock, and S. Perry, New York: Springer, 2009: 101-141.
3. See, for example, Davis, Lois M., K. Jack Riley, Greg Ridgeway, Jennifer E. Pace, Sarah K. Cotton, Paul S. Steinberg, Kelly Damphousse, and Brent L. Smith, *When Terrorism Hits Home: How Prepared Are State and Local Law Enforcement?* Santa Monica, Calif.: Rand, 2004.
4. Data from the *Census of State and Local Law Enforcement Agencies* (2004) and other sources were used to compare respondents and nonrespondents on 36 dimensions. Only three of these comparisons were statistically significant, and effect sizes were small, suggesting no significant response bias exists.
5. Falcone, David N., L. Edward Wells, and Ralph A. Weisheit, “The Small-Town Police Department,” *Policing: An International Journal of Police Strategies and Management* 25 (2) (2002): 371-384.

## About the Authors

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NCJ 247882







# HOW NIJ IS BUILDING THE NATION'S RESEARCH INFRASTRUCTURE

BY **ANDREW MARCOUX**

NIJ provides a multilevel system of support helping researchers at every level of their careers.

In 2013, a team of doctoral students at Purdue University's School of Aeronautics and Astronautics won NIJ's Body Armor Challenge, which sought ways to determine how long body armor maintains its viability. The problem had been that testing body armor being used in the field by shooting a bullet into it destroyed the armor. The Purdue students proposed a solution called the Vibration Energy Signature Test.

Two things about the Challenge winners are noteworthy: First, their solution drew on aeronautics rather than from criminal justice research, and second, the winners were young. Greg Ridgeway, former Acting Director of NIJ, said the Challenge represents one of several approaches that the Institute is using to build up the next generation of criminal justice researchers across the United States.

"Young researchers are important because they don't have preconceived notions of how things are supposed to be, which allows for creative solutions to questions, as well as innovative approaches to problem-solving," said Ridgeway.

NIJ provides a multilevel system of support — helping researchers at every level of their careers — through

programs and initiatives such as the W.E.B. Du Bois Fellowship, the Graduate Research Fellowship, the Data Resources Program and various internships. Below is a brief overview of these programs and how they support and promote America's next generation of criminal justice researchers.

## **W.E.B. Du Bois Fellowship**

The cultural backgrounds of millions of people are inextricably woven into the fabric of the United States. As a research agency, NIJ recognizes how important these cultural intricacies are to furthering our understanding of race, gender and culture and how they interact with crime and the administration of justice. NIJ developed the W.E.B. Du Bois Fellowship to support new scholars as they explore the intersections of these social phenomena.

Under the guidance of Nadine Frederique, a social science analyst with NIJ, the program has grown and expanded in recent years. According to Frederique, when she started at NIJ, there was generally one fellow selected each year for up to \$100,000 of funding. In 2013, that increased to three fellowships. This year, \$150,000 is available for each fellow, depending on the type of research.

"We are strongly encouraging new and emerging scholars to apply for the fellowship," Frederique said. "The program is a great opportunity to help young scholars dip their toes into the grant-writing enterprise — and our Du Bois Fellows often go on to receive tenure at their institutions."

In fact, helping researchers achieve tenure is one of the program's goals. Another goal is disseminating the Fellows' research and raising awareness of their work to a national level through panels and workshops at NIJ and at national conferences.

The W.E.B. Du Bois Fellowship allows for a broad range of research topics. In 2013, the program made awards for research on the following topics:

- **Victimization and fear of crime among Arab Americans in metro Detroit.** This project investigates Arab Americans' experiences with crime, their fear of crime and factors that affect their risks of victimization.
- **Racial socialization among African-Americans.** This project looks at how racial socialization and gender can moderate the impact of racial discrimination on crime among African-Americans.
- **Dispute-related violence.** This project examines how disputes shape violence.

Explore other research projects at [NIJ.gov](http://NIJ.gov), keyword: DuBois.

## Graduate Research Fellowship

The Graduate Research Fellowship (GRF), one of NIJ's signature fellowship programs, supports promising doctoral candidates with a paid fellowship for dissertation research on crime, violence and other topics related to criminal justice. Marie Garcia, a fellow herself before she joined NIJ as a social science analyst, manages the GRF program in the social and behavioral sciences. For more on the program, see sidebar, "Marie Garcia Talks About NIJ's Graduate Research Fellowship."

Learn more about the GRF program at [NIJ.gov](http://NIJ.gov), keyword: GRF.

## Data Resources Program

"Educating and supporting young researchers at key levels of their career paths is indispensable," says Patrick Clark, a former NIJ social science program specialist who managed the Data Resources Program (DRP).

According to Clark, this is one of the main goals of DRP, which allows researchers free access to one of the oldest social science archives in the U.S., the National Archive of Criminal Justice Data (NACJD). The NACJD database collects and preserves the raw data sets created through NIJ-funded research so that researchers can further analyze them using new techniques.

DRP uses a two-pronged approach to help young researchers. First, it provides a small grant of \$40,000 to young, tenure-track scholars looking to conduct research and publish their findings. These scholars can work with secondary data — data already collected by another researcher and stored in NACJD — and analyze it in new ways, possibly replicating previous research or yielding different results.

Second, the program allows professors to access NACJD and give their students the opportunity to learn research design and data analysis with real-life data sets. For example, Janet Lauritsen, a professor of criminology and criminal justice at the University of Missouri-St. Louis, has her students attempt to replicate results from past criminal justice research that has had its data stored in NACJD.

"The value in this," said Clark, "lies in the fact that this is a reasonable facsimile of real research. Hopefully, this is what these students will be doing when they graduate — they are analyzing data from actual sources collected by criminal justice researchers."

In the coming years, NIJ plans to modify the program to respond to the changing needs of the next generation of researchers. By developing webinars and videos that can be accessed on the Internet, Clark

hopes to teach young researchers necessary skills such as data collection, preparation and management. He added that NIJ is trying to make DRP more relevant by talking with professors about what they need to educate their students.

Learn more about DRP at [NIJ.gov](http://NIJ.gov), keyword: DRP.

## NIJ Internships

Over the years, NIJ has worked with student interns, including through the University of Maryland's Federal Semester Program. For more on this internship program, see sidebar, "My 'Federal Semester' Intern Experience."

## Students Working With Researchers

In addition to programs that directly focus on building the next generation of criminal justice researchers, the types of projects NIJ funds have an important indirect effect: Students often get to work with the primary investigators.

Here is just one example: To understand why there are so many untested sexual assault kits in evidence or storage rooms across the country, NIJ funded what is called an "action-research" project, in which academics team up with practitioners. Over the past three years, NIJ awarded grants to the Houston Police Department, which subcontracted the research portions to both Sam Houston State University and the University of Texas at Austin. The lead investigators are seasoned and respected researchers, but — as

is often the case in an academic environment — the projects have had a "trickle-down" effect that may greatly affect some young researchers' careers. Three doctoral students who have worked with the lead researchers in the sexual assault action-research project offer their unique perspectives on this experience in the sidebar "Building Young Researchers in the Trenches."

## Investing in the Future

All of these programs are examples of how NIJ is building the research infrastructure in the United States, a goal the National Academy of Sciences specifically called for in its 2010 report *Strengthening the National Institute of Justice*. By providing young researchers with the tools and skills they need to succeed, NIJ is also investing in its own future, as the Institute begins to embrace a new generation of criminal justice researchers who have benefited from this variety of support programs.

## About the Author

Andrew Marcoux is an undergraduate student pursuing a double major in government and politics and criminology and criminal justice at the University of Maryland, College Park. He was an intern in NIJ's Office of Communications from October 2013 to August 2014.

NCJ 247883

## Building Young Researchers in the Trenches

by **Deidi Olaya-Rodriguez**

I became a social worker to change the lives of others, but what I did not know at the time was that along the way, the very people I sought to help would change my life forever. In 2005, I accepted a position at Casa de la Mujer, one of the most influential women's rights organizations in my native Colombia. My initial responsibilities included training health care providers to detect, report and respond to cases of intimate partner violence and sexual assault. But as my experience grew, I took on new responsibilities, including conducting workshops for women survivors of sexual and other types of violence.

### Building Young Researchers in the Trenches *(continued)*

The workshops centered on empowerment, psychosocial support, legal consultation and political advocacy. At Casa de la Mujer, we worked almost exclusively in multidisciplinary teams that included social workers, lawyers, social scientists and sociologists. Drawing on each of our respective fields allowed us to develop trust and implement an integrated approach that had astonishing results. The workshops inspired women to tell their stories, gain autonomy and confidence, and influence change in their communities; some even ran for public office. Profoundly moved by the firsthand accounts of violence and its aftermath, I decided to start a new journey, one that would take me to the University of Texas at Austin School of Social Work.

I began pursuing a master's degree in social work at the University of Texas at Austin in 2012. I was immediately drawn to the work of Noël Busch-Armendariz at the university's Institute on Domestic Violence and Sexual Assault (IDVSA). IDVSA is similar to Casa de la Mujer in many ways, including its feminist approach, work on sexual assault and intimate partner violence, and partnerships in the community. When Busch-Armendariz and her colleague Caitlin Sulley approached me in early January 2014 about working on the NIJ action-research project, I was immediately interested. The issue of untested sexual assault kits (SAKs) and backlogs struck me as crucial for achieving justice for thousands of sexual violence survivors across the United States.

For the project, I have analyzed data from case studies to improve systems of communication and operation related to SAK evidence collection. I have also had the opportunity to attend meetings with our collaborative partners, listen to a survivor and read transcripts of several interviews on victim notification in cold cases. Witnessing the emotional impact on these U.S. survivors reminded me of hundreds of similar cases I heard during my time at Casa de la Mujer; there, survivors of sexual violence often experienced discouraging and revictimizing responses from the judicial system. But during this project, I have heard positive responses from survivors in Houston, who are reporting much better treatment from law enforcement. This renews my hope for justice and institutional change.

Although I have only been working on the project for the last few months, I have already learned a great deal. One of my key takeaways is that action research requires more than just a multidisciplinary approach. It requires something I have often heard about in Houston Police Department meetings: "having the right people in the right place." I have been amazed by the level of synergy between the different stakeholders in our Houston project, and I believe that their willing collaboration has played a key role in the progress made to date.

I have also learned about the importance of trust between all stakeholders. Producing change requires a dialogue between theory, process and practice. Without trust, it is hard to have open and honest conversations about the issues.

This project has also expanded my knowledge of the process of action research. It is not just about working together to understand what would work and why; it is about taking findings to the action level and implementing them in real-world settings. My experience on this project has allowed me to expand upon my time at Casa de la Mujer, and I know it will help me as I pursue doctoral studies on preventing interpersonal violence.



## Building Young Researchers in the Trenches *(continued)*

by **Tasha A. Menaker**

I am pleased (and relieved) to be a recent graduate of the doctoral program in the Department of Criminal Justice and Criminology at Sam Houston State University (SHSU). With a master's degree in clinical psychology from SHSU and bachelor's degrees in criminal justice and psychology from the University of Nevada, Las Vegas, I strive to integrate psychology and criminology into research and practice. My research focuses on trauma and violence against women, including sexual assault, intimate partner violence, and sex trafficking and prostitution. I am passionate about creating awareness of gendered violence, enhancing policy and service provisions for survivors, and ultimately eliminating violence against women. Perhaps the latter goal is lofty, but it is certainly worth the fight.

I am fortunate that my undergraduate and graduate studies have provided me with abundant opportunities to achieve these goals. In particular, I worked as a research assistant on the NIJ-funded action-research project during my first two years as a Ph.D. student. The project — carried out in collaboration with the Houston Police Department (HPD), community victim advocates, the District Attorney's Office, sexual assault nurse examiners and other stakeholders in Houston — looked at sexual assault kits (SAKs) that were never submitted to a crime laboratory for analysis. It also examined the local response to sexual assaults and the implementation of reforms.

William Wells, who served as the lead researcher on the project, selected me for involvement based on my prior research on sexual assault and my experience collecting data through interviews. My primary role was to conduct interviews with investigators in HPD's Sex Crimes Unit and collect data about sexual assault case processing, investigators' use of SAK evidence, and collaborations with victim advocates and prosecutors. I also authored papers summarizing project findings and delivered presentations to HPD personnel and criminal justice researchers.

This experience was particularly meaningful for several reasons. I valued the opportunity to conduct research with direct implications for victims. In addition, the project enhanced my skills as a researcher and taught me about the complexities and advantages of collaborative research with practitioners. I gained practical knowledge about interview strategies, creating field notes, and developing technical reports and presentations tailored to a practitioner audience. My experiences on this project also strengthened my ability to apply research to real-world problems.

Most important, I learned about collaborating with practitioners toward a common goal. It is essential to find a balance between being knowledgeable and being humble — researchers have much to learn from practitioners, and vice versa, and our willingness to learn must be evident. Accordingly, soliciting stakeholder input on study protocols is critical, because stakeholders' knowledge and experience can enhance the quality of data collection, as it did with our interview protocol.

I also developed an understanding of the daily challenges that confront practitioners, such as political climates, financial constraints and media scrutiny, which researchers must consider when working with these agencies. Finally, I learned the importance of establishing strong communication channels and trust

### Building Young Researchers in the Trenches *(continued)*

between researchers and practitioners. Stakeholders should be regularly updated on research progress and findings. Applied research often seeks to understand problems that may reveal inadequacies in agency functioning, so researchers and practitioners must have honest discussions about how to present and discuss findings.

Collecting original data as part of an applied project is demanding, but the payoff is worthwhile. I spoke with many investigators and supervisors who made me feel hopeful about research's capacity to create positive change among practitioners who are open to suggestions and motivated to improve their agencies. I gained skills and knowledge from practitioners that I could not have obtained through other forms of data collection and reading. Moreover, I found that the connections I made with practitioners opened other opportunities, such as having sex crimes investigators speak in my gender and crime course, a truly beneficial experience for me and my students. This project demonstrated to me that working with practitioners has practical challenges, but it can result in positive outcomes for researchers, agencies and members of the public.

(For information on NIJ's work to encourage researcher-practitioner partnerships, go to [NIJ.gov](http://NIJ.gov), keywords: researchers practitioners collaborate.)

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by **Bradley A. Campbell**

While pursuing bachelor's degrees in criminal justice and political science from Saint Joseph's College of Maine, I worked as a summer law enforcement officer for three years. Through this (albeit limited) experience with law enforcement, I faced the challenge of balancing my duties and responding to crime victims. This experience solidified my interest in attending graduate school with the goal of studying policing and finding ways to help law enforcement officers improve their response to victims. As such, my research interests lie primarily in policing with a focus on police investigations.

I went on to earn a master's degree in criminal justice and criminology from Sam Houston State University (SHSU) and am currently a doctoral candidate in SHSU's criminal justice and criminology program. During the summer of 2011, as I transitioned into the doctoral program, William Wells offered me the opportunity to participate in the NIJ-funded action-research project with the Houston Police Department (HPD). The project examines the problem of unsubmitted sexual assault kits (SAKs) and seeks to identify ways of improving responses to sexual assault. Initially, I helped develop an interview protocol for police investigators and scheduled and conducted interviews with members of HPD's Sex Crimes Unit. I later analyzed the interview data for reports and presentations to HPD personnel.

I have learned several valuable lessons working on the action-research project that cannot be garnered in a typical doctoral classroom setting. First, I gained practical research experience. Specifically, I learned to effectively collect interview data and compile field notes that capture information relevant to the research questions. I also learned the intricacies of sexual assault investigations as well as the factors that investigators must consider when balancing their roles as investigators and as compassionate responders

## Building Young Researchers in the Trenches *(continued)*

to victims. The in-depth interviews helped me understand the nuances of decision-making during an investigation in a way that analyzing only quantitative data would not have done.

Second, I learned that practitioners and researchers can form effective partnerships that have the ability to change practices. The project taught me that researchers can provide practitioners with tools to make their jobs easier. For example, I compiled a report that summarized information about other agencies' policies and practices for investigating cold cases. The report helped inform discussions within HPD about how to involve victim advocates during sexual assault investigations, and in April 2012, HPD created a victim advocate position in its Adult Sex Crimes Unit. It is exciting to see how small pieces of an action-research project can influence an agency's practices.

Finally, I learned the balance between being a researcher and respecting the reality of practitioners' work. As a researcher, it is easy to overlook practitioner concerns about outside influences, such as the media and local politics. We must be aware of these influences when presenting sensitive research findings.

I have come to view researcher-practitioner collaborations as a mutual learning process. Through my work with practitioners, I have gained insights into the realities of sexual assault investigations that I could not have learned in academic articles or classroom settings. This enables me to better frame research questions and, ultimately, allows my research to be more meaningful because it will be framed in a nuanced way. I was inspired by how receptive HPD's Sex Crimes Unit was to the research findings and by the unit's willingness to incorporate project recommendations. Because of this, I look forward to a career centered on research derived from researcher-practitioner partnerships.

## Marie Garcia Talks About NIJ's Graduate Research Fellowship

Andrew Marcoux sat down with Marie Garcia, who manages NIJ's Graduate Research Fellowship (GRF), to learn more about the program.

**Andrew Marcoux (AM):** What resources does the GRF program make available to doctoral students?

**Marie Garcia (MG):** The GRF program supports universities that sponsor doctoral students who demonstrate the potential to successfully complete their degrees in academic disciplines relevant to NIJ's mission. The real benefit of the GRF program is that it provides doctoral students with funds in the final phase of their dissertation research, so they can focus on completing their degrees.

**AM:** How has the program changed since you began managing it?

**MG:** The GRF program has always encouraged doctoral students from all academic disciplines to apply for awards if their dissertation research has direct implications for criminal justice policy and practice in the United States. An important change to the program happened in fiscal year 2014, when we released

**Marie Garcia Talks About NIJ's Graduate Research Fellowship *(continued)***

two solicitations. One sought dissertation research that focused on the social and behavioral sciences, and the second focused on science, technology, engineering and mathematics. Although the goal of both solicitations is the same, this allows us to consider a broader range of topics for research fellowships, and it speaks to the changing nature of criminal justice.

**AM: What other types of research have been funded?**

**MG:** The dissertation research funded under the GRF program represents the diversity and range of issues that practitioners and researchers face when assessing the state of the criminal justice system. Recent fellowships have focused on how contact with the juvenile justice system affects delinquency and academic achievement and how physical and biochemical factors affect the recovery and analysis of DNA from human skeletal remains.

**AM: Why is NIJ interested in assisting doctoral students?**

**MG:** By helping doctoral students complete their dissertation research, we are investing in their futures and, in turn, in our own future. Our goal with this program and NIJ's other fellowship programs is to increase the pool of young researchers with innovative ideas whose research can have an impact on the criminal justice system.

**AM: In what ways does NIJ assist doctoral students?**

**MG:** Funds can be used in a variety of ways. For example, students can use their funds to travel to conferences to disseminate their research or pay for courses on new, innovative statistical techniques. This allows students to bring attention to their research while gaining valuable networking opportunities with scholars and practitioners in their field of study. Also, the experience of writing a successful grant application is hugely beneficial for those who will enter academia and want to continue their line of research.

**AM: What made you want to apply to be a graduate research fellow? How did the program help you personally?**

**MG:** I applied to the GRF program because if funded, I knew it would allow me the time and resources to focus on my dissertation research. Being able to dedicate all of my time and energy to the final phase of my program was one of the most important benefits of receiving the fellowship.

**AM: How does one apply for a fellowship?**

**MG:** NIJ typically releases the annual solicitation in late fall. Information about the program and the requirements for applying are on NIJ's website.

Learn more about the GRF program and find a complete list of funded projects at [NIJ.gov](https://www.nij.gov), keyword: GRF.

To be notified when the GRF and other NIJ funding opportunities are released, sign up for email updates at [https://service.govdelivery.com/service/subscribe.html?code=USDOJJP\\_8](https://service.govdelivery.com/service/subscribe.html?code=USDOJJP_8).



## My “Federal Semester” Intern Experience

by **Andrew Marcoux**

The goal of the University of Maryland’s Federal Semester Program is to equip students with the skills needed to excel in a public-service career. The program includes a theme-based seminar course — my course, taught by experts from the National Counterterrorism Center, was on federal homeland security policy — and professional development workshops, a committed network of alumni and peers, and an unpaid internship for college credit. This is what brought me to NIJ, where I have witnessed the win-win scenario that arises out of pairing students with internship providers.

Joan Burton, director of the Federal Semester Program, put it this way: “The benefits of this program for employers and internship providers include the opportunity to mentor and prepare talented, diverse students for careers in public service and the ability to gain new, youthful and innovative insights into solving the challenges and needs of the future.”

Burton added, “Our student interns also provide insights into solving the challenges and needs of the future workforce.”

One thing that almost all college students search for in their education is inspiration for their future. This is perhaps even more true for millennials like me, to whom a college education is almost a prerequisite to getting a job. Through the Federal Semester Program, including my internship with NIJ, I am getting real-world experience that reinforces my personal passion about government work.

In my experience, most millennials do not know what they want to do and struggle with their search for inspiration. We want to know that our academic work is on the right track and is helping us to craft our futures. A good internship can help a student with both of these concerns. Working at NIJ has given me the motivation to pursue what I am passionate about. Through my internship, I have encountered a variety of criminal justice topics that have fostered a great respect for and interest in the research that NIJ conducts and promotes. By allowing students like me to be at the apex of criminal justice research — and to participate in front-line work with professionals in their fields — NIJ is helping to build the next generation of the nation’s researchers.

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