



NIJ

National Institute of Justice

JOURNAL



Study Raises Questions About Psychological Effects of Solitary Confinement

- Applying Carbon-14 Dating to Recent Human Remains
- Being Smart on Crime With Evidence-based Policing
- Improving Access to Services for Female Offenders Returning to the Community

Also in this issue

HOPE: A Swift and Certain Process for Probationers

In Brief: Law 101: Legal Guide for the Forensic Expert

Solving Crime Problems With Research



BUILDING
KNOWLEDGE TO
MEET THE CHALLENGE OF
CRIME AND JUSTICE

National Institute of Justice

John H. Laub

Director, National Institute of Justice

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Director's Message



Researchers, practitioners and policymakers all face a raft of questions, and the reality of doing research is that a single study is rarely sufficient. Few studies will answer all of the questions surrounding a topic, and most good studies will raise new ones — and sometimes they raise more questions than they answer. As a result, building a body of knowledge on a topic is a complex, dynamic and demanding endeavor.

The articles in this issue of the *NIJ Journal* address the challenge of building and using a body of knowledge from several perspectives:

- **Evaluation:** The evaluation of the Serious and Violent Offender Reentry Initiative (SVORI) involved multiple complex facets. One of the clearest findings was related to the effects of programming on women re-entering the community. The researchers found that although increasing access to programs led to modest improvements in the program focus areas (i.e., employment and drug abuse), women's high levels of need outstripped the services they received, even when those included SVORI services.
- **Replication:** NIJ's evaluation of Hawaii's Opportunity Probation with Enforcement (HOPE) probation program found that HOPE produced positive results, reducing both parole violations and parole revocations. But HOPE has been implemented only in Hawaii. Can the same model work in other jurisdictions? To find out, NIJ and the Bureau of Justice Assistance are joining forces to replicate and evaluate the HOPE model at four sites around the country.
- **Growing the body of knowledge:** Administrative segregation, or AS — commonly referred to as solitary confinement — has been the subject of relatively little research. The surprising results that emerged from a study in the Colorado prison system, which showed no decline in mental health for prisoners in AS, add to what we know about the effects of AS, but much work remains to be done. The article in this issue also touches on the unique challenges researchers face when conducting research in prisons.
- **Finding and using research:** Retired police chief Jim Bueermann, who was NIJ's first Executive Fellow in early 2011, encourages other police chiefs to adopt evidence-based practices. "Tremendous resources exist today that can help them craft smart policing strategies," he writes. Among the resources he lists is the Office of Justice Programs' CrimeSolutions.gov, which debuted last summer and can help practitioners and policymakers discover what research has found about programs in many fields.

As always, I welcome your feedback on the *Journal* and all of NIJ's products. Your input is critical to our understanding of the "demand" side of research. When you tell us about your information needs and the best way to share that information with you, we are able to develop a more vital research agenda, better communicate our findings, and ultimately produce a stronger body of knowledge on crime and criminal justice practices and policies.

John H. Laub

John H. Laub
Director, National Institute of Justice

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Publications

IN BRIEF

Geography and Public Safety, Volume 3, Issue 1: Using Geographic Information Systems (GIS) to Address the Full Spectrum of Law Enforcement Issues

Geographic analysis can enhance community policing and problem-solving strategies. The latest issue of *Geography and Public Safety* helps readers make good decisions through the best use of available geographic and crime data.

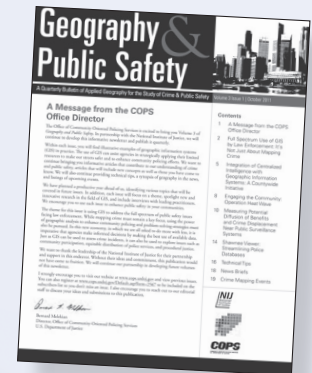
Just as GIS can be used to assess crime incidents, it also can be used to explore such issues as community participation, equitable distribution of police services and procedural justice.

Articles include:

- Full Spectrum Use of GIS by Law Enforcement: It's Not Just About Mapping Crime
- Integration of Centralized Intelligence With Geographic Information Systems: A Countrywide Initiative

- Engaging the Community: Operation Heat Wave
 - Measuring Potential Diffusion of Benefits and Crime Displacement Near Public Surveillance Systems
 - Shawnee Viewer: Streamlining Police Databases
- ▶ Read the issue at http://www.cops.usdoj.gov/files/RIC/Publications/e081117392_GPS_Vol3_Iss1-508.pdf.

Geography and Public Safety is published through a partnership between NIJ and the Office of Community Oriented Policing Services. Learn more about crime mapping at <http://www.nij.gov/maps>.



News & Notes

New International Partnership Will Improve Forensic Science

Agencies collaborate to gain strength from one another; they can increase their resources, collectively solve problems and share in achievements. On November 15, 2011, NIJ formally launched a new partnership with the Netherlands Organisation for Scientific Research and the Netherlands Forensic Institute. This groundbreaking partnership will allow the agencies to learn from each other and share specialized skills and technology as they work to improve their countries' criminal justice systems.

NIJ's first project with the Dutch will be a workshop, slated for spring 2012, to examine research development, evaluation and operational use of forensic science technologies.

Potential topics include training, policy and program evaluation, strategic planning and resource management, technology performance standards, digital forensics and e-forensics, forensic radiology, capacity building, and international forensic standards development.

NIJ Welcomes Visiting Fellows James M. Doyle and Mark Kleiman

NIJ is pleased to welcome Visiting Fellows James M. Doyle and Mark Kleiman.

Doyle is of counsel to the Boston law firm Carney & Bassil, where his private practice focuses on trial and appellate litigation in civil and criminal cases. As an NIJ Visiting Fellow,

Doyle will examine the utility of the "organizational accident" model to better understand and avoid criminal justice errors. The model takes a system-level approach that focuses on latent system weaknesses and flaws. It has been successfully applied to anticipating and managing errors in hospitals and in the aviation industry.

Kleiman is a professor of public policy at the UCLA School of Public Affairs. His work has shown that drugs and violence are intertwined but not in entirely obvious ways. Drug law enforcement can increase violence as well as decrease it, and enforcement often has little effect on the level of drug consumption. While at NIJ, Kleiman will examine issues related to drugs, violence and law enforcement.



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Newest Research Findings

Law Enforcement Officers Benefit From 10-Hour Shifts

In a study conducted by the Police Foundation, researchers examined the impact of police shift length on performance, health, quality of life, sleep, fatigue and the amount of overtime worked. They found that, compared with those who worked eight- and 12-hour shifts, officers who worked 10-hour shifts got more sleep and had a better quality of life in the workplace. They also worked less overtime, which could result in cost savings to the department. Importantly, 10-hour shifts do not adversely affect performance.

Most police departments have traditionally employed a 40-hour work week in which officers work 8-hour shifts on five consecutive days, followed by two days off. In recent years, an increasing number of law enforcement agencies have moved to some variant of a compressed work week. Although this trend has been moving apace, few, if any, rigorous scientific studies examining the advantages and disadvantages of these work schedules for officers and their agencies have been completed until now.

▶ Read the full report on NCJRS.gov. Keyword: NCJ 237330.

Predicting Recidivism Among Sex Offenders

Risk assessments are performed on sex offenders to determine the likelihood that they will recidivate. Understanding a sex offender's risk to reoffend is critical in determining which services the offender receives. Services commensurate to an offender's risk level are most effective at increasing community safety and efficiently using public resources.

Researchers from the Vermont Department of Corrections studied risk assessment models for combining static (unchangeable aspects of an individual's history) and dynamic (potentially changeable aspects) risk measures and found that integrating these measures predicts sexual recidivism better than either type of measure alone. The researchers also developed a new dynamic risk measure, the Sex Offender Treatment Intervention and Progress Scale (SOTIPS). If the SOTIPS is validated in replication studies, it may help jurisdictions determine a sex offender's risk levels, allowing them to accurately and effectively allocate resources for treatment.

▶ Read the full report on NCJRS.gov. Keyword: NCJ 236217.

Reducing Dating Violence and Sexual Harassment in Middle Schoolers

Intervening to prevent dating violence and sexual harassment among young people is crucial because these pervasive, serious abuses can have long-lasting consequences for the physical and mental health of victims.

A recent study on the efficacy of dating violence and sexual harassment prevention programs in 30 New York City public middle schools found that:

- School-level interventions such as school-based "boundary agreements," which are akin to restraining orders between students, and increased faculty and security presence in "hot spots" effectively reduced dating violence and sexual harassment — in some cases decreasing dating violence by as much as 50 percent.
- Combining school-level interventions with a classroom-level intervention administered through a six-session curriculum also reduced sexual harassment.
- Classroom-level interventions, which included instruction on state laws and penalties, consequences for perpetrators, and the construction of gender roles and healthy relationships, were not effective on their own.

The success of the school-level interventions is particularly significant because these interventions can be implemented with very few extra costs to schools.

▶ Read the full report on NCJRS.gov. Keyword: NCJ 236175.

.gov

Look for multimedia links throughout this issue of the *NIJ Journal*. On the NIJ website, look for the following new content:

- ▶ Updated topic pages on elder abuse
- ▶ Stalking research workshop meeting summary
- ▶ Presentations and interviews from the 2011 NIJ Conference
- ▶ David Kirk discussing how Hurricane Katrina affected ex-prisoners originally from New Orleans
- ▶ Philip Cook discussing crime as a choice influenced by available opportunities as much as by character
- ▶ Updates to John Laub's "Director's Corner"
- ▶ NIJ FY2012 grant solicitations and information about past awards
- ▶ Current training opportunities
- ▶ The archive of *NIJ Journal* back issues

<http://www.nij.gov>

NIJ



Study Raises Questions About Psychological Effects of Solitary Confinement

by Philip Bulman, Marie Garcia and Jolene Hernon

[A small study of administrative segregation surprised researchers with findings that were inconsistent with those from previous studies.](#)

A study of the psychological effects of solitary confinement in Colorado prisons showed the mental health of most inmates did not decline over the course of the one-year study.

The NIJ-funded study assessed the effects of solitary confinement, known as administrative segregation or AS in the corrections field. Researchers evaluated 247 men in the Colorado prison system. The sample included inmates in AS at Colorado State Penitentiary, a “supermax” facility, and two other groups for comparison: the general prison population and residents of San Carlos Correctional Facility, a

psychiatric care prison. The sample of inmates was divided into those with mental illness and those with no mental illness.¹ Participants ranged in age from 17 to 59. The ethnic breakdown was 40 percent white, 36 percent Hispanic, 19 percent African-American, 4 percent Native American and 1 percent Asian.

The researchers tested three hypotheses:

- Offenders in AS would develop an array of psychological symptoms consistent with the “security housing unit syndrome,” which is characterized by free-floating anxiety, hallucinations, excitability and outbursts.



- Offenders with and without mental illness would worsen over time in AS, but mentally ill inmates would decline more rapidly and have more serious illnesses.
- Inmates in AS would experience greater psychological decline over time than the comparison groups in the general prison population and the psychiatric care prison.

Inmates and staff completed standardized tests at three-month intervals over the course of the one-year study. To participate in the study, inmates had to read and write at a proficient level because the assessments were done using standardized self-administered pencil and paper materials; no clinical psychologist interviewed the inmates. The researchers used 14 tests measuring states such as anxiety, depression

and psychosis to collect data. Clinical staff completed the Brief Psychiatric Rating Scale; correctional staff completed the Prison Behavior Rating Scale; and prisoners completed 12 self-report instruments such as the Beck Hopelessness Scale.

None of the hypotheses were borne out by the results of the study. In fact, the results showed initial *improvements* in psychological well-being in all three groups of inmates. Most of the improvement occurred between the first and second testing periods followed by relative stability. Overall, the researchers found that 20 percent of the study sample improved and 7 percent worsened during the study period.

Previous studies of AS and its psychological effects have produced mixed results. Some characterize

Results showed initial improvements in psychological well-being in all three groups of inmates. Most of the improvement occurred between the first and second testing periods followed by relative stability.

What Is Administrative Segregation?

Prisoners are placed in solitary confinement, or administrative segregation, for violent or disruptive behavior. AS typically involves single-cell confinement for 23 hours daily; inmates are allowed one hour out of the cell for exercise and showers. Facilities for AS are expensive to build and maintain.

In the Colorado study, the cells were 80 square feet and had 35 square feet of unencumbered floor space. Each cell contained a bunk, toilet, sink, desk and stool. These items were made of metal and mounted on the floor or wall for security.

Each cell had an exterior window through which the prisoner could

see the outside and a window that gave a view of the inside of the prison. Neither window opened, so the prisoner could not control airflow.

Prisoners were permitted at least one hour five times a week for recreation, as well as 15-minute showers three times a week. Prisoners were placed in full restraints before being escorted to the "recreation room," a 90-square-foot cell that contained a pull-up bar mounted to the wall but no other equipment.

Inmates received most services at their cell doors, including meals. Mental health clinicians visited at least once a month, and a librarian delivered books and magazines once a week.



At the beginning of their confinement, prisoners were allowed to have one 20-minute phone call and one non-contact visit each month. Privileges could be expanded if prisoners successfully completed behavior modification and cognitive programs.

Challenges of Conducting Research in Prisons

Researchers who study prison life face unique challenges.

Prison is a self-contained environment in which everyone's activity is tightly regulated and monitored. Simply getting access to a prison can be difficult for researchers. Furthermore, prisoners are regarded as a vulnerable population for research study purposes. The Department of Health and Human Services regulations on human subjects protection designate prisoners, along with other groups such as children and pregnant women, as especially vulnerable. The regulations require additional protections for prisoners. It is critical that the consent form state that a prisoner's participation in research is voluntary and will not affect parole or correctional programming decisions.¹ Research subjects

must be told of the potential risks and benefits of their participation, and they must receive enough understandable information to make a voluntary decision. Informed consent and voluntary participation are fundamental ingredients of ethical research. Consequently, researchers who want to conduct prison research face heightened scrutiny from institutional review boards.

In addition, in correctional settings, it is difficult to implement rigorous evaluation designs that could isolate the effects of one factor and provide completely comparable groups of inmates for a study, such as randomized trials. As a result, researchers must often rely on weaker, quasi-experimental designs with comparison groups that may not completely rule out competing hypotheses to explain apparent differences and outcomes.

Despite the challenges involved, researchers have completed a variety of studies of prison life, using everything from mailed surveys to personal interviews to obtain information. Having outsiders arrive in a closed environment may in itself affect the perceptions of prisoners about the institutions they live in, and the effects may be larger still for those in solitary confinement. Researchers arriving to interview inmates is a major event in the monotonous routine of prison life, especially for an inmate who is in isolation 23 hours a day. Researchers have examined a variety of factors that could affect their subjects and the research.

One such factor is the Hawthorne effect, in which social and behavioral researchers' interactions with and observation of subjects being studied affects the subjects' behavior. The

the conditions as damaging to the psychological health of prisoners, whereas others have found little evidence of harm.

The researchers noted that their findings might not apply to other prison systems. Systems that have more restrictive living conditions and fewer treatment and other programs may have very different results. Additionally, the researchers noted that the study was limited to literate adult men, and the findings should not be assumed to apply to juveniles, females or illiterate men. Because participation was voluntary and required participants to be literate,

the study sample may have excluded some people who would have been more vulnerable to the stresses of solitary confinement, such as those with serious mental illnesses or those who cannot read. Finally, because inmates were not randomly assigned to study groups, the groups — and their outcomes, including mental health outcomes — may not be strictly comparable.

They also noted that AS may have negative effects that were not measured in the study. For example, previous research has shown that inmates released directly from AS to the streets had dramatically higher

recidivism rates than those who first returned to the general prison population.²

The Colorado study adds to the knowledge base, but it does not resolve the debate about the effectiveness of AS.

About the authors: Philip Bulman is a writer in NIJ's Office of Communications. Marie Garcia is a social science analyst in NIJ's Office of Research and Evaluation. Jolene Hernon is Director of NIJ's Office of Communications.

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name stems from a study of factory workers at Western Electric's Hawthorne plant in Illinois in the late 1920s and early 1930s. Researchers set out to see what effect, if any, changes in lighting would have on the workers' productivity. They found that regardless of the changes made, productivity increased. They decided that the productivity increased because the workers saw themselves as special participants in an experiment.

Recent examinations of the Hawthorne data question the original conclusions and suggest there was either no effect or a placebo effect.² Perhaps the Hawthorne effect was present in the Colorado study of administrative segregation. If such an effect were present, the prisoners might be expected to have a more positive view of their situation by virtue of being study participants.

Additionally, people in isolation might be more inclined to participate in a study simply because it would involve receiving attention from an interviewer.

On the other hand, inmates may be wary of researchers. Establishing

trust in order to collect accurate information is a prime concern for researchers, who know that inmates may withhold information or tell researchers only what they think the researchers want to hear.

Notes

1. Some experts believe that prisoners can never give true informed consent because they live in an environment in which they have little or no freedom to make an informed decision.
2. Steven D. Levitt and John A. List, for example, point out that statistical methods available at the time did not account for the impact of a number of other variables — such as the day of the week on which the light bulbs were changed. Levitt and List conclude that there was no “Hawthorne effect” and that the changes in productivity can be attributed to other factors. Levitt, Steven D., and John A. List, *Was There Really a Hawthorne Effect at the Hawthorne Plant? An Analysis of the Original Illumination Experiments*, The National Bureau of Economic Research, NBER Working Paper no. 15016, May 2009, <http://www.nber.org/papers/w15016>. See also a summary of the research in *The Economist*, “Questioning the Hawthorne Effect: Light Work” (June 2009), at <http://www.economist.com/node/13788427>.

Notes

1. Placement into AS or general prison conditions occurred as a function of routine prison operations. General population comparison participants included those at risk of AS placement due to their institutional behavior.
2. Lovell, David, L. Clark Johnson, and Kevin C. Cain, “Recidivism of Supermax Prisoners in Washington State,” *Crime and Delinquency* 53 (October 2007): 633-656.

For more information:

- Read the final report, “One Year Longitudinal Study of the Psychological Effects of Administrative Segregation,” at <http://www.ncjrs.gov/pdffiles1/nij/grants/232973.pdf>.
- For more discussion of the Colorado study and some of the challenges involved in prison research, see the June 21, 2011, issue of *Corrections & Mental Health: An Update of the National Institute of Corrections* at <http://community.nicic.gov/blogs/mentalhealth/archive/tags/Colorado+Supermax+Study/default.aspx>. The issue includes nine commentaries about the study, including a response by the study authors.



Applying Carbon-14 Dating to Recent Human Remains

by Philip Bulman with Danielle McLeod-Henning

Measuring carbon-14 levels in human tissue could help forensic scientists determine age and year of death in cases involving unidentified human remains.

Archaeologists have long used carbon-14 dating (also known as radiocarbon dating) to estimate the age of certain objects. Traditional radiocarbon dating is applied to organic remains between 500 and 50,000 years old and exploits the fact that trace amounts of radioactive carbon are found in the natural environment. Now, new applications for the technique are emerging in forensics, thanks to research funded by NIJ and other organizations. In recent years, forensic scientists have started to apply carbon-14 dating to cases in which law enforcement agencies hope to find out the age of a skeleton or other unidentified human remains.

The new method is based on the fact that over the past 60 years, environmental levels of radiocarbon

have been significantly perturbed by mid-20th-century episodes of above-ground nuclear weapons testing. Before the nuclear age, the amount of radiocarbon in the environment varied little in the span of a century. In contrast, from 1955 to 1963, atmospheric radiocarbon levels almost doubled. Since then they have been dropping back toward natural levels. Over the past six decades, the amount of radiocarbon in people or their remains depends heavily on when they were born or, more precisely, when their tissues were formed.

Forensic anthropologists at The University of Arizona took advantage of this fact in a recent study funded by NIJ. The researchers wanted to find out if they could identify a person's year of birth or year of

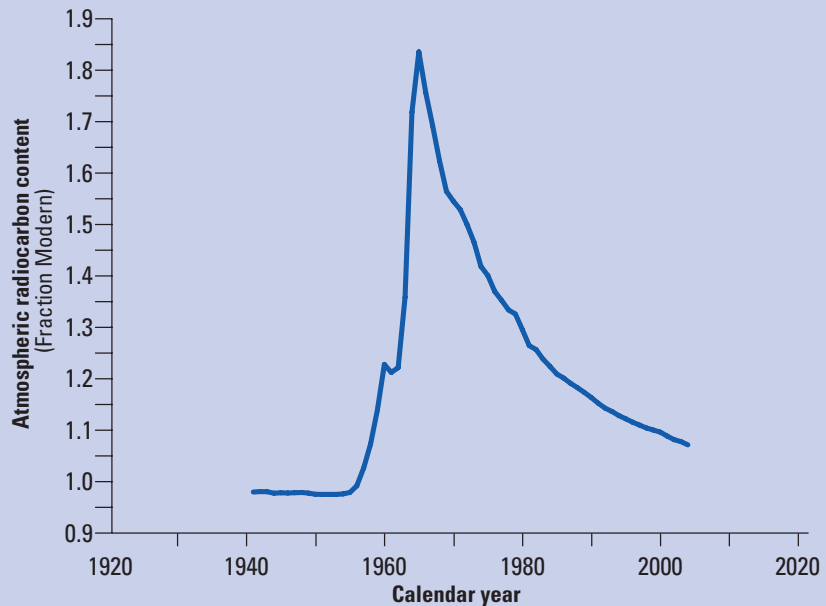


What Is Carbon Dating?

Standard carbon-14 testing, as used by archaeologists, is based on the natural process of radioactive carbon formation that results from cosmic ray bombardment of nitrogen in the earth's upper atmosphere. The radioactive carbon is taken from the atmosphere and incorporated into plant tissues by plant photosynthesis. It is then incorporated into all living organisms by means of the food chain. After an organism dies, its level of carbon-14 gradually declines at a predictable pace, with a half-life of about 5,730 years. Archaeologists precisely measure levels of the isotope in organic remains. Knowing the half-life, they back calculate how much time must have passed since the remains had levels identical to living organisms. Radiocarbon measurement can date organic remains up to about 50,000 years old. Objects younger than 500 years old are rarely radiocarbon dated. Natural and anthropogenic fluctuations in environmental radiocarbon levels mean that organisms living in different centuries within the past 500 years can have identical radiocarbon contents.

Forensic scientists use carbon-14 measurement in a subtly different manner. A large increase in atmospheric carbon-14 occurred when the United States and several other countries tested nuclear weapons aboveground during the 1950s and 1960s (see Figure 1). The Nuclear Test-Ban Treaty of 1963 effectively ended the era of atmospheric testing for most nuclear powers. Since then, atmospheric carbon-14 levels have been declining as the radiocarbon is soaked up by the oceans and

Figure 1: Northern Hemisphere Atmospheric Radiocarbon Levels 1940 to 2003 A.D.



The radiocarbon levels are expressed in terms of Fraction Modern (FM), where 1.0 FM represents the level of atmospheric radiocarbon in 1950 A.D. without anthropogenic influence. Archaeological material 5,730 years or one half-life old contains 0.5 FM radiocarbon by definition; two half-lives, 0.25 FM, etc. The scale is used for expressing recent radiocarbon measurements because 1950 A.D. was selected as the "zero year" by convention. Using FM avoids the paradox of expressing radiocarbon dates from the past 60 years in terms of negative years. The curve is a composite of data sets from Stuiver et al.¹ and Levin and Kromer,² and it has been annually smoothed.

the biosphere. The radiocarbon created by the thermonuclear explosions is identical to naturally created radiocarbon, and its route into plant and animal tissues is the same. It has resulted in artificially high levels of carbon-14 in plants and animals living in the past 60 years.

The forensic use of carbon-14 measurement does not rely on the slow decay process. Instead, tissue carbon-14 levels are directly compared to levels in a rapidly changing atmosphere. Using biological knowledge of the timing of a particular

tissue's formation, one calculates the year of birth or death of the organism from which the tissue was derived.

Notes

1. Stuiver, Minze, Paula J. Reimer, Edouard Bard, J. Warren Beck, G.S. Burr, Konrad A. Hughen, Bernd Kromer, Gerry McCormac, Johannes Van Der Plicht, and Marco Spurk, "INTCAL98 Radiocarbon Age Calibration, 24,000-0 cal BP," *Radiocarbon* 40 (1998): 1041-1083.
2. Levin, Ingeborg, and Bernd Kromer, "The Tropospheric ¹⁴CO₂ Level in Mid-latitudes of the Northern Hemisphere (1959-2003)," *Radiocarbon* 46 (2004): 1261-1272.

death using precise measurements of carbon-14 levels in different post-mortem tissues. They measured carbon-14 levels in various tissues from 36 humans whose birth and death dates were known.

To determine year of birth, the researchers focused on tooth enamel. Adult teeth are formed at known intervals during childhood. The researchers found that if they assumed tooth enamel radiocarbon content to be determined by the atmospheric level at the time the tooth was formed, then they could deduce the year of birth. They found that for teeth formed after 1965, enamel radiocarbon content predicted year of birth within 1.5 years. Radiocarbon levels in teeth formed before then contained less radiocarbon than expected, so when applied to teeth formed during that period, the method was less precise.

To determine year of death, the researchers used radiocarbon levels in soft tissues. Unlike tooth enamel, soft tissues are constantly being made and remade during life. Thus, their radiocarbon levels mirror those in the changing environment. The researchers found that certain soft tissues — notably blood, nails and

Over the past six decades, the amount of radiocarbon in people depends heavily on when their tissues were formed.

hair — had radiocarbon levels identical to the contemporary atmosphere. Therefore, the radiocarbon level in those tissues post-mortem would indicate the year of death. The researchers found that year-of-death determinations based on nails were accurate to within three years.

The generally poor post-mortem preservation of soft tissues would be a limiting factor to this approach. However, the researchers suggested that soft tissue radiocarbon content would be transferred to, and preserved in, the pupal cases of insects whose larvae feed on these tissues. Such insects are simply another link in the food chain. Thus, pupal case radiocarbon content would serve as a decay-resistant proxy for the tissues, yielding the year of death.

The spike in atmospheric carbon-14 levels during the 1950s and early 1960s makes this approach possible, but it also means it will have a limited period of utility because the amount of carbon-14 in the atmosphere is slowly returning to its natural level. Barring any future nuclear detonations, this method should continue to be useful for year-of-birth determinations for people born during the next 10 or 20 years. Everyone born after that would be expected to have the same level of carbon-14 that prevailed before the nuclear testing era.

All the people whose tissues were tested for the study were residents of the United States. Atmospheric dispersion tends to create uniform levels of carbon-14 around the globe, and researchers believe that these would be reflected in human tissues regardless of location. However, more testing is needed to confirm that belief.

About the authors: Philip Bulman is a writer and editor at NIJ. Danielle McLeod-Henning is a program manager and physical scientist at NIJ.

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For more information:

- Read the full report: Hodgins, Gregory W. L., "Measuring Atomic Bomb-Derived ¹⁴C Levels in Human Remains to Determine Year of Birth and/or Year of Death," Final report to the National Institute of Justice, grant number 2005-IJ-CX-K013, August 2009, NCJ 227839, available at <https://www.ncjrs.gov/pdffiles1/nij/grants/227839.pdf>.

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The National Institute of Justice congratulates its 2011 Fellowship recipients:

W.E.B. Du Bois Fellowship Recipients

Bersani, Bianca E., Ph.D., Department of Sociology, University of Massachusetts Boston, and **DiPietro, Stephanie, Ph.D.**, Department of Criminology and Criminal Justice, University of Missouri-St. Louis. "An Examination of the 'Marriage Effect' on Desistance From Crime Among U.S. Immigrants."

Mitchell, Ojmarrh, Ph.D., Department of Criminology, University of South Florida. "Race and Drug Arrests: Specific Deterrence and Collateral Consequences."

Graduate Research Fellowship Recipients

Butler, Katherine. "Ancestry/Phenotype SNP Analysis and Integration With Established Forensic Markers," Dr. Daniele Podini (Chair). Ph.D. expected January 2013, The George Washington University.

Henderson, Jaime. "SORNA's Potential Effects on the Pennsylvania Juvenile Justice System," Dr. Philip W. Harris (Chair). Ph.D. expected May 2012, Temple University.

Legg, Kevin. "The Development and Testing of a Rapid Multiplex Assay for Identification of Biological Stains," Dr. Phillip B. Danielson (Chair). Ph.D. expected December 2012, University of Denver.

Patterson, R. Bradley. "Advancing the Use of Receiver Operating Characteristic (ROC) Curves to Measure Performance of Forensic Methods," Dr. John J. Miller (Chair). Ph.D. expected May 2012, George Mason University.

Pyrooz, David. "The Long-Term Consequences of Gang Membership," Dr. Scott Decker (Chair). Ph.D. expected May 2012, Arizona State University.

NIJ For more on NIJ fellowship programs, go to <http://www.nij.gov/nij/funding/fellowships/welcome.htm>. To learn more about the W.E.B. Du Bois Fellowship Program, email nadine.frederique@usdoj.gov or call 202-514-8777 and for the Graduate Research Fellowship Program, email marie.garcia@usdoj.gov or call 202-514-7128.





Being Smart on Crime With Evidence-based Policing

by Chief Jim Bueermann (Ret.)

A former police chief reflects on how law enforcement agencies can do a better job of using science to reduce crime.

Cities face a growing number of fiscal challenges, among them balancing the need to combat crime with the cost of policing. Decreases in funding for public safety mean that police departments cannot support an ever-increasing number of law enforcement officers — or, in many cases, even the status quo. Therefore, police officials must shift their attention to the science of controlling crime and disorder. That model is called evidence-based policing, and it represents the field's “most powerful force for change,”¹ according to criminologist Lawrence Sherman.

In his seminal work on the topic, Sherman defines evidence-based policing as “the use of the best available research on the outcomes of police work to implement guidelines and evaluate agencies, units and officers.”² Evaluation of ongoing police operations is important because it

can link research-based strategies to improved public safety outcomes, allowing police agencies to move beyond a reactive, response-driven approach and get smarter about crime control.³

Evidence-based policing leverages the country's investment in police and criminal justice research to help develop, implement and evaluate proactive crime-fighting strategies. It is an approach to controlling crime and disorder that promises to be more effective and less expensive than the traditional response-driven models, which cities can no longer afford. With fewer resources available, it simply does not make sense for the police to pursue crime control strategies that science has proven ineffective. As U.S. Associate Attorney General Thomas Perrelli states, “We simply can't be spending money on what doesn't work.”⁴



Facing Economic Reality

The cost of policing today has become problematic for cities all across America. Bernard Melekian, Director of the Office of Community Oriented Policing Services (the COPS Office), remarked at the 2011 COPS Conference that cities have furloughed and laid off more law enforcement officers, or left more vacancies unfilled, than contemporary police leaders have ever witnessed. At the same time, he said, law enforcement officer salary and benefit reductions are becoming the norm.⁵

Historically, law enforcement officer layoffs and severe police budget reductions have been off-limits for most local politicians. But the recession's dramatic impact on cities, coupled with escalating police personnel costs, has engendered a more pragmatic political view of policing's affordability.

An October 2011 report released by the COPS Office demonstrated the tremendous changes local law enforcement agencies have undergone as a result of strained budgets in the current economy.⁶ The COPS Office found that an estimated 10,000-12,000 law enforcement officers and sheriff's deputies were laid off in 2011; that approximately 30,000 law enforcement jobs were unfilled; and that 53 percent of counties had fewer staff than they had in October 2010. Agencies reported changes in the delivery of law enforcement services, including not responding to motor vehicle thefts, burglar alarms and motor vehicle accidents that do not result in injuries; decreasing investigations of a variety of crimes, including property and white collar crimes; and reducing investments in technology, communications and officer training.

Even officials who have been highly supportive of the police are struggling to maintain their funding level when doing so comes at the expense of other necessary and popular public services. According to Melekian, for many cities, the question of affordability has become the driving force behind what many are referring to as the "new normal" in policing. Melekian believes that reduced public safety budgets will fundamentally change American policing over the next five to 10 years.⁷

Evidence-based policing offers a practical solution to the need to balance public safety, community service needs, available funds and taxpayer expectations. It blends the science of controlling crime and disorder with the principles of community policing and problem solving. It helps communities focus on meaningful, achievable public safety outcomes without breaking their budgets. Evidence-based policing can be implemented without adding law enforcement officers, disrupting police organizations or offending community members. It can also help police departments strengthen their legitimacy with the diverse communities they serve.

The Value of Science in Policing

The science of what really works to control crime can help local officials better craft and implement effective strategies to make their communities safer. But if helping police departments get smarter is such a good idea, why hasn't a science-driven approach to crime control already become commonplace in American policing?

Unlike medicine and food, no governmental standards exist for the "production" of policing services or

public safety. As a result, policing practices are implemented based on organizational culture and political and community expectations rather than scientific findings.⁸ Obviously, legal remedies are available when the police threaten the public's civil rights, but there are no statutes or regulations mandating the use of science to drive crime control strategies. Despite the efforts of the U.S. Department of Justice, professional organizations and a variety of academics, there still is no widespread understanding and agreement about how policing strategies should be crafted and implemented.⁹ Evidence-based policing offers a framework for developing a coherent approach through the application of sound scientific concepts and standards.

One factor that contributes to the lack of agreement about how to design policing strategies is the disconnect between the evidence researchers uncover and the approaches taken by many police departments.¹⁰ This disconnect has varied causes, and it leads many practitioners and policymakers to view science as "a luxury that can be useful but can also be done without."¹¹ Conducting social science research is time-consuming, which runs counter to community demands for a quick response and to political realities facing police chiefs. And sometimes, even after months or years of study, researchers simply do not know why certain crime phenomena occur and their call for further inquiry is common.

However, incomplete answers about crime should not keep police departments from using the best available science to inform their strategies. Mayors and police chiefs should embrace the potential of science and add it to the toolbox they use to solve crime problems.

If the onus for adopting evidence-based approaches to controlling crime is on the police, the responsibility for disseminating evidence-based police practices rests with the research community. Researchers can fulfill this responsibility by producing timely, readable reports of their work. Most researchers author lengthy technical reports full of scientific jargon, more suited for academics than practitioners and policymakers. If they want practitioners to use their findings, they must make their research easier to understand. John Laub, Director of the National Institute of Justice, touched on this point in a presentation to the Office of Justice Programs when he said, "If we want to prevent, reduce and manage crime, scientific discoveries must be translated into policy and practice."¹² If every crime control research effort resulted in a short, readable and accessible summary that was effectively marketed, perhaps local leaders would start to demand that police pursue evidence-based approaches. Each summary could outline the issue studied, the method used in the study, the study's findings, and their application to policing and crime control.

Inherent in connecting science to the development and evaluation of crime control strategies is the understanding that local knowledge and experience counts and must be blended with scientific evidence to create operationally — and politically — realistic strategies. Police and community members' knowledge of local conditions, expectations and social dynamics that contribute to crime and disorder are important and should not be ignored.

Evidence-based policing does not replace community-specific knowledge, and it does not remove a police department's authority or responsibility for crime control

decisions. It is intended to inform decision-makers about the best scientific evidence regarding strategies to realize desired outcomes. This evidence helps them create or refine their approaches and provides structure for evaluating their efforts. It cannot and is not intended to replace the wisdom and judgment of policing officials and those to whom they report.

Putting Evidence-based Policing Into Action

Police chiefs do not have to wait until all questions related to a particular crime topic are answered. Tremendous resources exist today that can help them craft smart policing strategies. Using these resources, they can point to the evidence about what works to help explain to communities why, for example, they are shifting resources and directing officers to focus on problem places,¹³ increasing the number of civilian crime scene technicians,¹⁴ using surveillance cameras,¹⁵ employing foot patrols,¹⁶ or confronting low-level offenders rather than arresting them.¹⁷

Police departments can increase their institutional knowledge about the science of crime control by forming partnerships with local universities or colleges to use the services of professors, graduate students or interns. They can also hire their own in-house criminologists. For about the same cost as a patrol officer, the Redlands (Calif.) Police Department hired a Ph.D.-level criminologist to translate existing research findings, help craft new evidence-based strategies and evaluate existing ones. Departments wanting to replicate this effort but lacking the financial resources to do it on their own can form partnerships with other police departments and academic institutions to minimize the

costs and maximize the benefits of having a criminologist "embedded" within their organization.

The police departments in Boston, Mass., High Point, N.C., Redlands, Calif., Philadelphia, Pa., and Sacramento, Calif., and the FBI National Academy are promising examples of organizations adopting some aspect of science-based approaches to controlling crime and evaluating strategies.¹⁸

A shift of the "ownership" of the science of crime control from academic

Resources for Practitioners

- Center for Problem-Oriented Policing: <http://www.popcenter.org>
- Coalition for Evidence-Based Policy: <http://www.evidencebasedprograms.org>
- CrimeSolutions.gov: <http://www.crimesolutions.gov>
- Fight Crime: Invest in Kids: <http://www.fightcrime.org>
- George Mason University's Center for Evidence-Based Crime Policy: <http://gunston.gmu.edu/cebcp>
 - Evidence-Based Policing Matrix: <http://gemini.gmu.edu/cebcp/matrix.html>
- International Association of Chiefs of Police: <http://www.theiacp.org>
- National Criminal Justice Reference Service: <http://www.ncjrs.gov>
- National Institute of Justice: <http://www.nij.gov>
- Office of Community Oriented Policing Services: <http://www.cops.usdoj.gov>
- Police Executive Research Forum: <http://www.policeforum.org>
- Police Foundation: <http://www.policefoundation.org>

institutions to police agencies may be needed to implement evidence-based policing.¹⁹ To facilitate this shift, those who hire and fire police chiefs — mayors and city managers — can change the reward systems for police chiefs to encourage them to pursue evidence-based practices. As a consequence, police departments will, as Sherman advocates, become more conversant with the science of crime control and increasingly use the “best evidence to shape the best practice.”²⁰

By encouraging police departments to adopt a community-oriented, problem-solving philosophy and to use the best available evidence to drive crime control strategies, policymakers and taxpayers alike can help law enforcement officers make our cities safer. They can also help law enforcement officers become more responsive to all the communities they serve, increase their legitimacy with these communities, and, in the process, become safer themselves.

Implementing evidence-based policing requires reframing how policymakers, practitioners, researchers and citizens-at-large think about public safety outcomes and the process of crafting and evaluating strategies intended to make our communities safer. We have proven we know how to be tough on crime. Now it's time to prove we can be smart about crime, too.

About the author: Chief Jim Bueermann (Ret.) served with the Redlands (Calif.) Police Department for 33 years, the last 13 as the chief of police. Following his retirement in June 2011, he joined NIJ as an Executive Fellow, and he is currently a Senior Fellow at George Mason University's Center for Evidence-Based Crime Policy.

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HOPE: A Swift and Certain Process for Probationers

by Kevin McEvoy

NIJ and the Bureau of Justice Assistance are collaborating to find out if a successful probation violation deterrence program from Hawaii can be implemented in other jurisdictions.

For those involved with Hawaii's Opportunity Probation with Enforcement (HOPE) program, HOPE is not just an acronym — it is a reflection of the program's sentiment. By addressing probation violations in a swift, certain and proportionate manner, HOPE has reduced both violations and revocations of probation, allowing probationers to break the cycle of recidivism.

NIJ's evaluation of HOPE found that the program produced dramatic, positive results. But can Hawaii's success be duplicated? NIJ and the Bureau of Justice Assistance (BJA) are collaborating to find out through a demonstration field experiment.

In 2004, then-First Circuit Court Judge Steven Alm brought criminal justice stakeholders together to

design and implement HOPE. He believes that having swift and certain consequences allows probationers to "tie together the behavior that's bad, whether it's testing positive for drugs [or] not going to see their probation officer, with a consequence and learn from it."¹ By addressing each violation immediately, HOPE sends a consistent message to probationers about personal responsibility and accountability. The program reflects the deterrence philosophy that a certain punishment for a probation violation will influence future offending behavior.

An NIJ-funded evaluation of HOPE found that, compared with probationers in a control group, after one year the HOPE probationers were:

- 55 percent less likely to be arrested for a new crime.



The evaluation of HOPE found that the program produced dramatic, positive results. But can Hawaii's success be duplicated?

- 72 percent less likely to use drugs.
- 61 percent less likely to skip appointments with their supervisory officer.
- 53 percent less likely to have their probation revoked.

As a result, HOPE probationers served 48 percent fewer days in prison, on average, than the control group.

Procedural Steps

HOPE begins with a direct, formal warning delivered by a judge in court to offenders enrolled in the program. The warning explicitly states that any future probation violations will result in an immediate, brief jail stay.

Probationers with drug issues are assigned a color code at the warning hearing and are required to call the HOPE hotline each weekday morning to find out which color has been chosen for that day. Probationers whose color is selected must appear at the probation office before 2 p.m. the same day for a drug test. Non-drug-involved offenders must comply with their conditions of probation and may be required to attend treatment. When probationers violate the conditions of probation, they are arrested or an arrest warrant is issued. As soon as a probation officer detects a violation, he or she completes a "Motion to Modify Probation" form and sends it to the judge, who promptly holds a violation hearing.

A probationer found to have violated the terms of probation is sentenced to a short jail stay. Upon release, the probationer reports to his or her probation officer and resumes participation in HOPE. Each successive violation is met with an escalated response (i.e., longer jail stays).

Replication

BJA has selected four sites to implement a strict replication of HOPE: Clackamas County, Ore.; Essex County, Mass.; Saline County, Ark.; and Tarrant County, Texas. NIJ selected RTI International to conduct process, outcome and cost assessments using randomized controlled trials. In addition, BJA awarded training and technical assistance funds to Pepperdine University and a team lead by Angela Hawken, who was the lead evaluator of the Hawaii program, to assist the sites in setting up and managing their programs.

The sites have agreed to follow strict procedural implementation in accordance with the original

HOPE program. For example, sites must use the color code system, bring probation violators in front of a judge within 72 hours and use a uniform warning script during all initial hearings. The counties have made adjustments to their usual procedures to ensure that the HOPE replication will be as accurate as possible.

Despite these adjustments, the sites have some inherent differences from the original site and from each other. Hawaiian culture and climate differ from those of the mainland sites participating in the study. Moreover, the population sizes, the percentage and types of crimes committed, and the judges' personalities are all different. These differences, however, will be useful in evaluating whether the HOPE model is transferrable to other jurisdictions.

The original HOPE program was shown to reduce probation violations. The current experiment will help evaluators compare and analyze how the program works in different jurisdictions and determine whether other locales can achieve the same success by replicating Hawaii's HOPE program.

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Learn more about HOPE on NIJ.gov. Keyword: HOPE program.

Read a summary of the two evaluations of Hawaii's HOPE program at <http://www.nij.gov/journals/266/hope.htm>.



Watch an interview with Judge Alm at <http://nij.ncjrs.gov/multimedia/video-nijconf2009-alm.htm>.

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Improving Access to Services for Female Offenders Returning to the Community

by Marie Garcia with Nancy Ritter

An evaluation of re-entry services for female offenders shows that increasing access can lead to modest improvements in key areas.

In a single decade — 1999 to 2009 — the number of adult women incarcerated in U.S. prisons grew by 25 percent. Adult women now make up about 7 percent of the total inmate population, and they face many challenges upon release from prison. For example, women experience barriers to obtaining housing, greater difficulty in obtaining and sustaining employment, less family support, and more substance abuse than men.¹ The programming offered to women while incarcerated, however, is usually modeled after the programs for male prisoners.

As a group, women are often overlooked with regard to re-entry programming, and results from the recent evaluation of the Serious and

Violent Offender Reentry Initiative (SVORI) showed that adult females reported a significantly higher need for services than men. This finding highlights a thread running through the re-entry literature that suggests a disconnect between the services individuals *need* to facilitate a successful re-entry into their community and the services they *receive*.

Through SVORI, funding was provided to state and local jurisdictions to develop re-entry strategies for offenders returning to their communities. (See sidebar, “The Serious and Violent Offender Reentry Initiative: The Basics.”) NIJ funded a multi-year, multisite evaluation of SVORI to examine the effect its programs had on access to re-entry services



and programs and on housing, education, employment and criminal behavior. This evaluation, one of the largest NIJ-funded evaluations to date, included a sample of 357 adult females in 11 states who were returning to their communities.² These women are the focus of this article.

Forty-three percent of the adult female sample (153 women) were included in the experimental group and received services funded by SVORI ("SVORI women"); 57 percent of the sample (204 women) did not receive SVORI services and instead received "treatment

as usual" from their institutions ("non-SVORI women"). SVORI programming varied by the services provided and the approach each institution took to implementation³

The SVORI and non-SVORI women were interviewed at four intervals: at 30 days pre-release and at three, nine and 15 months post-release.

When measuring need, researchers "bundled" services into five categories:

1. Services to help with the transition from prison to the community

2. Health care services (including substance abuse and mental health)
3. Employment, education and life-skills services
4. Intimate partner violence-related services
5. Child-related services

Women in both groups indicated that their needs were highest in the third category, employment, education and life skills (79 percent), and the first category, transition services (73 percent).

The Serious and Violent Offender Reentry Initiative: The Basics

SVORI was an unprecedented national response to the challenges of prisoner re-entry.¹ Funded by the U.S. Departments of Justice, Labor, Education, Housing and Urban Development, and Health and Human Services, SVORI provided \$100 million in funding to improve the criminal justice, employment, education, health and housing outcomes for people returning to the community after prison.

Beginning in 2003, 69 agencies in the U.S. received \$500,000-\$2 million over a three-year period. There was little federal guidance for the development of re-entry programs, although the agencies had to offer a three-phase continuum of services beginning during incarceration, intensifying just before release and during the first few months post-release, and continuing for several years. Therefore, the 89 programs developed under SVORI varied

considerably in approach, services provided and target populations.

NIJ funded RTI International and the Urban Institute to evaluate the impact of SVORI. The evaluation assessed:

- Whether SVORI programs, compared with "treatment as usual," increased prisoners' access to pre-release services.
- Whether SVORI participants continued to receive more services than non-SVORI participants upon release.
- Whether SVORI participants experienced better outcomes than non-SVORI participants on measures of employment, education,

housing, relationships, substance abuse, physical and mental health, and recidivism.

The multi-year, multisite evaluation included an implementation assessment, impact evaluation and economic analysis. The final report was published in 2009 in six volumes, all of which are available at the National Criminal Justice Reference Service website, <http://www.ncjrs.gov>.

In fiscal year 2010, NIJ awarded \$401,670 to RTI to reexamine data collected in the original SVORI evaluation and supplemental data. The project will attempt to determine what worked and for whom. Findings are expected in 2012.

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During the pre-release interviews, the women reported that their greatest employment, education and life-skills needs were education (95 percent), employment (83 percent) and job training (83 percent). Their reported greatest transition service needs were public health insurance (91 percent), financial assistance (87 percent), a mentor (83 percent) and obtaining a driver's license (79 percent).

Because of their high level of need, female offenders are likely to encounter tremendous obstacles when they re-enter the community after serving time in prison. "The women in the SVORI study had numerous physical and mental health problems, extensive substance abuse histories, significant criminal histories, serious exposure to drug or criminally involved family members and peers, and substantial housing challenges," said Pamela K. Lattimore, a nationally recognized expert on prison re-entry and one of the principal investigators for NIJ's SVORI evaluation.

Lattimore, a principal scientist with RTI International, worked with co-principal investigator Christy A. Visher, professor at the University of Delaware and former principal research associate with the Justice Policy Center at the Urban Institute, on the evaluation.

Outcomes for SVORI Women and Non-SVORI Women

Findings regarding the impact of the additional SVORI services on women's outcomes were mixed. The SVORI women showed significant improvement in the areas of employment and substance use compared with non-SVORI women. There were no significant differences, however, in housing, family and peer relationships, physical and mental health, and recidivism.

Because of their high level of need, female offenders are likely to encounter tremendous obstacles when they re-enter the community.

Employment

At 15 months post-release, SVORI women were more likely than non-SVORI women to report they were supporting themselves with a job, receiving formal pay, and experiencing stable employment.

The researchers believe the impact of SVORI services on employment outcomes was not surprising because employment was the most common programmatic focus among all the SVORI programs. What was somewhat surprising was that, for many dimensions of employment, these differences were not statistically significant until 15 months post-release.

"This pattern may have emerged because, although employment outcomes steadily increased for the SVORI group, it dropped off for the non-SVORI group at the 15-month post-release point," Lattimore said. "Overall, we believe that the SVORI programs were effective in improving employment outcomes for the women."

Substance Use

Approximately two-thirds of the women in the SVORI study had used illicit drugs during the 30 days before incarceration. More than half (55 percent) reported they had received

professional treatment for a drug or alcohol problem at some point in their lives. On average, the women reported they had been in a treatment program three times. At the time of their pre-release interview, 65 percent of the women reported needing substance abuse treatment.

The SVORI women received a higher level of treatment services for substance abuse than non-SVORI women. At three and 15 months post-release, the SVORI women were significantly less likely to have used drugs during the post-release period and during the 30 days prior to assessment than the non-SVORI women. This finding suggests that consistent monitoring of drug use is an important tool to provide during post-release services because holding women accountable may help them keep clean longer.

It is important to note, however, that in both groups, substance use increased the longer the women were out of prison.

"These findings are particularly important because of the extensive substance abuse histories reported by the women," Lattimore said. "For all of the women we studied — the SVORI participants and those in the control group — abstinence from substance use became increasingly more difficult throughout the post-release follow-up period."

Although the SVORI programs positively influenced women's employment and substance use outcomes, women who received SVORI services did not do better than their non-SVORI counterparts in the areas of:

- Housing (which gradually improved over the study period for all women)

The Second Chance Act and Other Ongoing NIJ Research Projects

The Second Chance Act (SCA) was signed into law in 2008. The SCA authorizes federal agencies to award grants to state and local agencies and nonprofit organizations to provide employment assistance, substance abuse treatment, housing, family programming, mentoring, victims support and other services to people returning to the community from prison or jail. The goals of the SCA are to increase re-entry programming and improve outcomes for offenders returning to their families and communities. (For more information about the SCA, visit the National Reentry Resource Center at <http://nationalreentryresourcecenter.org>.)

The SCA directs NIJ to evaluate the effectiveness of demonstration projects funded by the Bureau of Justice Assistance (BJA). In fiscal year 2010, NIJ awarded \$10 million for re-entry-related research:

- Evaluation of the BJA Second Chance Act Adult Demonstration Projects**
 Social Policy Research Associates will perform a \$3 million, multi-year, multi-site evaluation of seven SCA adult demonstration sites. The evaluation will include impact, process, outcome and cost assessments of re-entry services. It also will include an implementation study of three adult demonstration sites that are not included in the full-scale evaluation.

- Evaluation of the BJA Reentry Courts Program**

Northwest Professional Consortium, Inc., is performing a \$3 million, 42-month, multisite evaluation of BJA's Reentry Courts Program. A process evaluation will document and compare program models and implementation. An impact evaluation will examine re-arrests, reconvictions, violations and returns to incarceration. Cost-benefit analyses will look at the cost to the public of program interventions versus "business as usual."

- Evaluation of the Multisite Demonstration Field Experiment: What Works in Reentry Research**

In an effort to provide rigorous evidence of what works in re-entry, NIJ awarded \$3 million to MDRC to conduct tests of promising re-entry interventions, strategies or programs. Re-entering offenders will be randomly assigned to

receive the experimental treatment or to receive "business as usual" re-entry services (or some other clearly defined control treatment).

NIJ has also given additional funding for Alfred Blumstein and Kiminori Nakamura's research on hiring ex-offenders. The \$247,000 project continues their previous research into calculations of "redemption time," the amount of time that an individual with an arrest record has stayed "clean" (i.e., no additional arrests) and could be considered "redeemed" with respect to his or her criminal record. The researchers are testing the robustness of the previous findings, and looking at out-of-state arrests and racial differences. The work is increasingly relevant because of the large number of people who are handicapped in finding employment by stale criminal records.



- Family and peer relationships (which remained relatively stable throughout the study period for all women)
- Physical health and mental health (which remained relatively stable for all women)

“The bottom line,” Visher said, “was that, although the women who received SVORI services showed modest improvements in several key areas — particularly employment and drug use — their high level of need far outweighed the services they received.”

Implications for Policy and Practice

Findings from the SVORI evaluation suggest the provision and delivery of pre- and post-release services is a difficult task. The evaluation results can be used by corrections professionals and service providers to improve evidence-based planning and service delivery.

Overall, both SVORI and non-SVORI women faced challenges including mental and physical health problems, extensive family responsibilities, and lack of employment experience.

“Appropriate identification of needs, treatment planning and follow-up may be particularly important for women,” Lattimore noted, adding that the coordination of a range of services should be considered one of the guiding principles when developing strategies for female offenders.

The researchers also observed some temporal patterns that may have implications for supervision and service delivery. Some outcomes, such as substance use, criminal behavior and recidivism, worsened over time for both SVORI and non-SVORI

women. For other outcomes, however, improvements over time seem to be the predominant pattern.

“For example, women’s housing situation, employment, resumption of primary care responsibility for their children and community involvement appear to gradually improve over time,” Visher said. “This could indicate that many women find their footing in these dimensions.”

“Overall, we believe that the SVORI programs were effective in improving employment outcomes for the women.”

The SVORI findings also could be used to help identify the appropriate point at which to intervene to address particular needs. The period around nine months post-release appears to be a particularly challenging time for women.

Both self-reported drug use and housing challenges — including homelessness — were higher at nine months post-release than at three months or 15 months.

The SVORI program was successful in delivering important re-entry services to women returning to their communities. SVORI women received a substantially higher level of overall services than non-SVORI women. Indeed, where services were provided, the women generally did better, such as in employment and substance use.

In the areas of housing, family and peer relationships, and physical and mental health, however, women enrolled in SVORI and women receiving “treatment as usual” had similar outcomes.

“Frankly, the fact that the SVORI women and those in the control group had similar outcomes in these areas did not surprise us, because we did not have a significant difference in the level of services to both groups, such as assistance in finding a place to live, medical treatment, domestic violence services and child services,” Visher said.

The low level of services provided under SVORI that might have improved re-entry outcomes related to housing, relationships, and mental and physical health was confirmed by the SVORI directors, who said that such services were not a major focus of the programs. “This is unfortunate,” said Visher, “given the emphasis that previous research has placed on the importance of familial relationships in the re-entry process — and the high levels of both physical and mental health problems reported by returning women.”

Where to Go From Here

For policymakers and practitioners who are faced with doing more with the same or less in the crucial area of offender re-entry, there is a need to understand why, in looking at findings as a whole, there were only significant differences between the 153 women who received SVORI services and the 204 women who did not in two service areas — employment and substance abuse. The delivery of services for SVORI women, although greater overall, failed to match their level of need with respect to mental and physical health problems, family

responsibilities, and lack of work experience.

Mixed findings, however, do not equate to no findings, nor do they equate to failure. If there is one crucial “take-away” from the NIJ evaluation of SVORI, it is that women returning to the community after serving time in prison have extremely high levels of need. In addition, although these needs declined over time, levels of unmet need remained high even at 15 months.

“It is important that practitioners and policymakers keep this in mind when planning and coordinating

re-entry services,” Lattimore said. “On the basis of the limited research on female offenders — and the even more limited evaluations of re-entry programs — the factors that appear most important for the successful re-entry of women include establishing suitable housing, finding gainful employment, and reuniting with children and family.”

In addition, she added, women’s re-entry programs need to emphasize post-release treatment and counseling for infectious diseases and substance abuse as well as protection from abusive relationships.

“The bottom line of the evaluation is that women returning to the community after prison need so much,” said Visher. “The SVORI study showed that women are receiving so few services, compared to what they need, that it’s little wonder they don’t do better when they re-enter society.”

About the authors: Marie Garcia is a social science analyst at NIJ. Nancy Ritter is a writer and editor at NIJ.

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For more information:

Read the SVORI evaluation reports for:

- Adult females: <https://www.ncjrs.gov/pdffiles1/nij/grants/230420.pdf>
- Adult males: <https://www.ncjrs.gov/pdffiles1/nij/grants/230419.pdf>
- Juvenile males: <https://www.ncjrs.gov/pdffiles1/nij/grants/230423.pdf>

Notes

1. Mallik-Kane, Kamala, and Christy Visher, *Health and Prisoner Reentry: How Physical, Mental, and Substance Abuse Conditions Shape the Process of Reintegration*, Washington, DC: Urban Institute, 2008, available at <http://www.urban.org/publications/411617.html>.
2. Indiana, Iowa, Kansas, Maine, Missouri, Nevada, Ohio, Oklahoma, Pennsylvania, South Carolina and Washington.
3. Although services varied, the research design (treatment versus control) was the same for all sites.



Data from the SVORI Multi-site Impact Evaluation is available in the National Archive of Criminal Justice Data. Learn more and apply for access to the data at <http://www.icpsr.umich.edu/icpsrweb/NACJD/studies/27101/detail>.

To learn more about re-entry into society, visit NIJ’s Web topic page at <http://www.nij.gov/nij/topics/corrections/reentry/welcome.htm>.



Watch an interview of Pamela Lattimore on SVORI at <http://nij.ncjrs.gov/multimedia/video-nijconf2009-lattimore.htm>.



Law 101: Legal Guide for the Forensic Expert

by Doris Wells

A new course helps forensic specialists prepare for testifying in court.

In 2009, the U.S. Supreme Court ruled in *Melendez-Diaz v. Massachusetts* that defendants have a right to cross-examine forensic laboratory analysts in criminal cases.¹ Before *Melendez-Diaz*, it was common for analysts to submit reports of forensic findings without appearing in court. The *Melendez-Diaz* decision, however, determined that a laboratory report could not be admitted into evidence in place of live testimony. The Court ruled that under the Confrontation Clause of the Sixth Amendment, forensic scientists who perform laboratory testing and analysis for the prosecution and submit a report must be made available for testimony in court.²

Melendez-Diaz has far-reaching implications for the forensic and legal communities, but one of its practical outcomes is that forensic experts who conduct testing and analysis for criminal cases must be prepared to testify in court on the results of the testing.

The prospect of giving expert testimony can be intimidating, and preparation is critical. A new self-paced, online training course from

NIJ, “Law 101: Legal Guide for the Forensic Expert,” is intended to help specialists prepare to give testimony in court. Although designed for forensic experts, it can be helpful to any witness who has limited experience testifying in court. It is particularly useful for specialists who have little knowledge of the criminal justice process.

Forensic experts who conduct testing and analysis for criminal cases must be prepared to testify in court on the results of the testing.

In the first three months after it was released, approximately 500 people took the training, putting it on track to become one of NIJ’s most popular online courses.

The content is divided into modules that can be used as a broad overview

of the judicial process, as individual chapters on specific aspects of analyses and testimony, or as a primer or refresher on a particular topic.

The Role of a Forensic Expert

Forensic experts can be employed by a variety of entities, such as federal, state or local laboratories or academic institutions. They may be called on to be expert witnesses or hired as consultants to contribute specialized knowledge and advice on scientific or technical issues. Forensic experts may be subpoenaed or appointed by the court to assist the judge or jury in a criminal or civil case, to help an indigent criminal defendant, or to provide a third opinion on information and evidence previously reviewed by the prosecution and defense experts.

Regardless of how or why expert witnesses are called to testify, they must be prepared. They must test evidence or gather technical information related to the case. When testing evidence, they must follow standard lab protocols and procedures. They must proceed step-by-step, in an orderly and



logical way, to obtain the test results, facts and information on which conclusions are based.

After gathering information, expert witnesses must develop that information into effective reports that are written in plain English, reflect use of the scientific method and include valid documentation. Expert witnesses and the attorneys or courts who request them must work together to stay focused on the most important issues in the case and to help each other understand technical and legal terms.

Being prepared and organized helps expert witnesses add a sense of professionalism to their testimony. It also helps during the crucial — and sometimes laborious — pretrial discovery process undertaken by opposing attorneys to learn the underlying facts surrounding a matter in dispute. Discovery involves providing requested information to members of the opposing side that may help them prove their case. It is structured and driven by deadlines imposed by the court or by procedural rules.

Tips for Testifying in Court

Expert witnesses must convince the judge or jury that their testimony is sound and truthful. They must be highly knowledgeable, organized, alert, unflappable and ethical:

- **Knowledgeable** — Show that you are up to date, have command of the subject matter in your field, and are knowledgeable about the Federal Rules of Evidence and any state or jurisdictional laws relevant to the case. Know how to use such things as demonstrative evidence (an item not from the crime scene that is used to illustrate a point).
- **Organized** — Be able to easily reference and locate key pieces of

Modules in “Law 101: Legal Guide for the Forensic Expert”

1. Sources of Scientific Evidence
2. Report Writing and Supporting Documentation
3. Importance of Case Preparation
4. Subpoenas vs. Promises to Appear
5. Affidavits
6. Being a Court-appointed Expert
7. Discovery
8. General Testifying Tips
9. Depositions
10. Pretrial
11. Trial
12. Post-trial, Presentencing
13. Ethics for Experts

evidence. Reports should always be updated to include results of retesting, further testing of previous evidence or testing of new evidence.

- **Alert** — Answer questions promptly and intelligently. How you respond could affect your credibility. Recognize the unauthorized appearance of evidence denied through motion in limine (a pretrial motion that bans evidence from trial for various prejudicial, irrelevancy or constitutional reasons).
- **Unflappable** — Do not appear combative or annoyed during questioning, especially during

cross-examination (questioning by the opposing attorney).

- **Ethical** — Know the ethical standards of conduct. Do not be persuaded into presenting false testimony. Display objectivity, not advocacy.

Testifying as an expert witness can be daunting, but the legal roadmap of procedures and advice offered by the “Law 101” training can be an invaluable tool.

About the author: Doris Wells is a writer and editor at NIJ.

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Notes

1. 129 S. Ct. 2427 (2009), available at <http://www.supremecourt.gov/opinions/08pdf/07-591.pdf>. For additional information on the case, including amicus briefs and analysis of the opinion, see <http://www.scotusblog.com/case-files/cases/melendez-diaz-v-massachusetts>.
2. The issue of whether the accused has the right to confront the particular analyst who did the laboratory testing (as opposed to an analyst who testifies as an expert witness regarding results obtained by another analyst) was argued before the Supreme Court in *Williams v. Illinois* on December 6, 2011.

For more information:

- To take the free online course “Law 101: Legal Guide for the Forensic Expert,” visit <http://www.dna.gov/training/law101>.



Solving Crime Problems With Research

The Office of Justice Programs' CrimeSolutions.gov offers practitioners and policymakers a practical tool for finding information about evidence-based criminal justice programs.

“We already know a great deal about what can be done to prevent and control crime,” then-University of Pennsylvania professor Laurie Robinson told Congress in 2007. “But we have done a poor job — especially at the federal level — in getting information out.” Robinson was testifying to encourage the development of a “what works clearinghouse,” a centralized repository of information on evidence-based criminal justice programs and practices that would be specifically designed to meet the needs of policymakers and practitioners.

Her vision became a reality in 2011, two years after she returned to the Office of Justice Programs (OJP) for her second stint as Assistant Attorney General, with the launch of CrimeSolutions.gov.

Policymakers and practitioners face a number of challenges when trying to find out what works in their field. First, the body of knowledge on any particular topic can be difficult to access. Information may be scattered across numerous publications, including academic journals found almost exclusively in university libraries. Second, most research articles are not written with practitioners or other non-researchers in mind. The structure, presentation and content of most research publications are designed for consumption by trained scientists. Thus, reading and understanding research can be a daunting task for the uninitiated. Third, most practitioners and policymakers are not trained as scientists, so they often cannot assess the scientific merits of one study relative to another.



A Tool for Practitioners and Policymakers

CrimeSolutions.gov organizes evidence on what works in criminal justice, juvenile justice and crime victim services in a way designed to help inform program and policy decisions. It is a central resource that policymakers and practitioners can turn to when they need to find an evidence-based program for their community or want to know if a program they are funding has been determined to be effective.

On CrimeSolutions.gov, users can find answers to essential questions, such as:

- Is there a program that meets my needs?
- Did the program work?
- How was the program designed and implemented?
- Where can I get more information about the program?

The site currently contains information about more than 150 programs, and it will be updated with additional programs as new research becomes available. All of the programs are listed under at least one of eight topic areas: Corrections & Reentry, Courts, Crime & Crime Prevention, Drugs & Substance Abuse, Juveniles, Law Enforcement, Technology & Forensics, and Victims & Victimization.

One of the primary goals of CrimeSolutions.gov is to encourage practitioners to replicate programs with a track record of success. Replicating programs that have been shown to work and that fit a community's needs can save valuable time and resources compared with implementing untested programs that

Policymakers and practitioners face a number of challenges when trying to find out what works in their field.

may or may not address the same problems as effectively. In addition to helping practitioners find programs to replicate or adapt, the information in CrimeSolutions.gov can help guide funding priorities.

Determining What Works

Because many practitioners and policymakers are not trained to assess the scientific rigor of research, merely making information about

programs available on a website may not help them determine whether or not a program was effective. To do that, OJP decided to call in the experts — literally.

Each topic area is assigned a lead researcher who is an authority in the field, and every program in the CrimeSolutions.gov database goes through a rigorous, eight-step process that includes an expert review.

The review is conducted by two trained subject matter and research methods experts, assigned by the lead researcher, who analyze the most rigorous evaluation research available for the program and independently assess the program's effectiveness.

The reviewers then sort each study of the program into one of five classes based on the program's conceptual framework and the quality,

CrimeSolutions.gov at a Glance

At CrimeSolutions.gov, users will find:

- Research on program effectiveness reviewed and rated by expert reviewers.
- Easily understandable ratings based on the evidence that indicate whether a program achieves its goals:



Effective — Programs with strong evidence indicating they achieve their intended outcomes when implemented with fidelity.

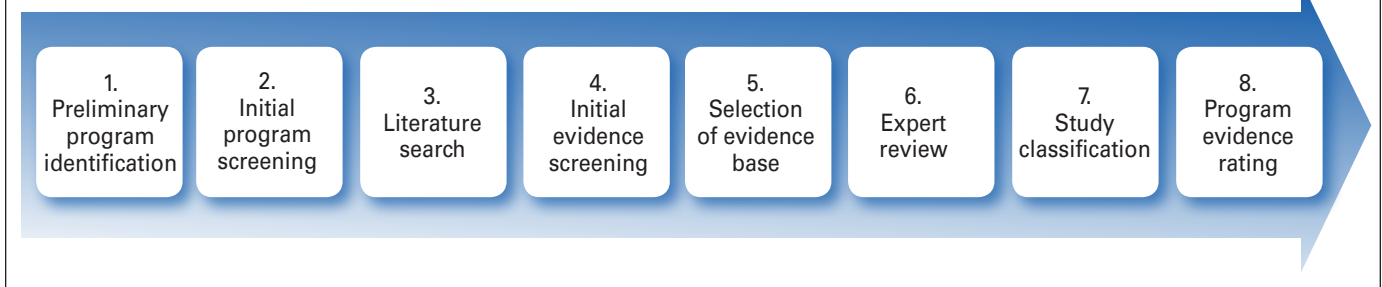


Promising — Programs with some evidence indicating they achieve their intended outcomes. Additional research is recommended.



No effects — Programs with strong evidence indicating they do not achieve their intended outcomes when implemented with fidelity.

- Key program details, including findings, contact information and, when available, information about program costs.

Figure 1: CrimeSolutions.gov Program Review and Rating Process

CrimeSolutions.gov presents the best evidence currently available for the programs listed and is meant to inform, not replace, decision-making.

outcomes and fidelity of the study. Finally, the program is assigned one of three evidence ratings:

- **Effective programs** have strong evidence that they achieve their intended outcomes when implemented with fidelity.
- **Promising programs** have some evidence that they achieve their intended outcomes.
- **No effects programs** have strong evidence indicating that they have no effects or harmful effects when implemented with fidelity.

Edward Latessa, professor and director of the School of Criminal Justice at the University of Cincinnati, is

the lead researcher for the Courts and the Corrections & Reentry topic areas. "Translating research into practice is not an easy process," he said at the 2011 NIJ Conference. "The process for reviewing and rating programs will give the field more confidence in research."

CrimeSolutions.gov is not a list of the only programs OJP will fund in the future or a definitive list of programs that work. New programs still need to be developed and tested. CrimeSolutions.gov presents the best evidence currently available for the programs listed and is meant to inform, not replace, decision-making.

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Visit [CrimeSolutions.gov](http://www.crimesolutions.gov) at <http://www.crimesolutions.gov>.



Watch Edward Latessa talk about the impact of CrimeSolutions.gov on NIJ.gov. Keyword: 2011 Latessa.

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Photo Sources: Photo of Chief Jim Bueermann (Ret.) by Marc Piron; iStock; Veer; and Maureen Berg, Palladian Partners, Inc.

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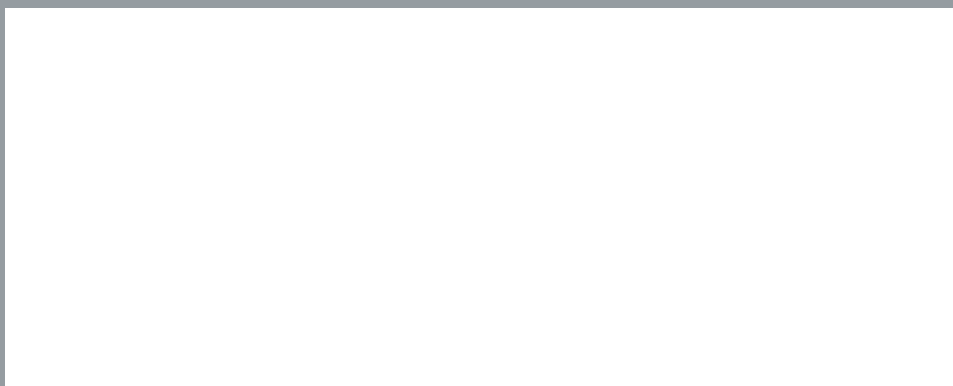
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