

FEATURE ARTICLE



Genetic Privacy in the Justice System: Issues Surrounding DNA Collection and Analysis

On March 11, Attorney General Ashcroft announced a \$1 billion initiative, *Advancing Justice Through DNA Technology*, proposed by President Bush to improve the use of DNA in the criminal justice system. Stretching over five years, the initiative would provide funds, training, and assistance to local, state, and federal forensic labs to improve their technology, increase their efficiency, and, as a result, reduce a backlog of untested samples that many see as impeding the ability of law enforcement to apprehend offenders. The initiative also calls for the use of DNA to protect innocent people, such as those wrongfully convicted or those who might be wrongfully accused, and supports the use of DNA analysis in cases of missing persons.

In its "Report to the Attorney General on Delays in Forensic DNA Analysis" published in March of this year, the National Institute of Justice (NIJ) says that "there is a significant backlog of casework samples that has been caused by a massive demand for DNA analyses without a corresponding growth in forensic laboratory capacity" (p. 2). The report offers six recommendations as part of a broader strategy for increasing the effectiveness of DNA analysis in the justice system.

1. Improve the DNA analysis capacity of public crime laboratories
2. Help state and local crime labs eliminate casework backlogs
3. Eliminate existing convicted offender DNA backlogs
4. Support training and education for forensic scientists

5. Provide training and education to police officers, prosecutors, defense attorneys, judges, victim service providers, medical personnel, and other criminal justice personnel
6. Support DNA research and development

While many in the justice community would surely consider a decrease in the backlog of untested DNA samples a positive occurrence, others have pointed

out that some serious issues are raised by the collection, analysis, and, perhaps most troubling, long-term storage of such personal information. What statutes or regulations are in place regarding usage of these samples, now or in the future? Does the individual have control over how his or her genetic information is used? Is our right to genetic privacy protected by the U.S. Constitution as are other types of privacy?

(See **DNA COLLECTION**, p. 8)

BOOK REVIEW



Complexity and Criminal Justice

Sir Thomas Gresham, a successful English merchant and financier of the sixteenth century, is best remembered today as the man who coined the phrase "bad money drives out good." The implications of "Gresham's Law" for human behavior are that the easy drives out the hard, the simple drives out the complex. This is certainly seen in criminal justice, where easy policies drive out hard choices, and simple slogans drive out complex explanations. Although criminal justice research and modeling have traditionally taken the "simple" paths of linear statistics and proximate causes for effects, fortunately a number of books on complexity and complex adaptive systems (CAS) have appeared, touching on criminal justice directly and indirectly and laying a foundation for more realistic and mature understanding and policymaking.

The Rule of Epidemics

One of the most recent and popular of these books is Malcolm Gladwell's *The Tipping Point: How Little Things Can Make a Big Difference*. Gladwell includes the "ebb and flow of crime waves" (p. 7) as an example of what he calls "the rule of epidemics" (p. 9). According to Gladwell, epidemics have three characteristics: "one, contagiousness; two, the fact that little causes can have big effects; and three, that change happens not gradually but at one dramatic moment" (aka "The Tipping Point") (p. 9). As he explains, "[e]pidemics are a function of the people who transmit infectious agents, the infectious agent itself, and the environment in which the infectious agent is operating. And when

(See **BOOK REVIEW**, p. 6)

JRSA ACTIVITIES 

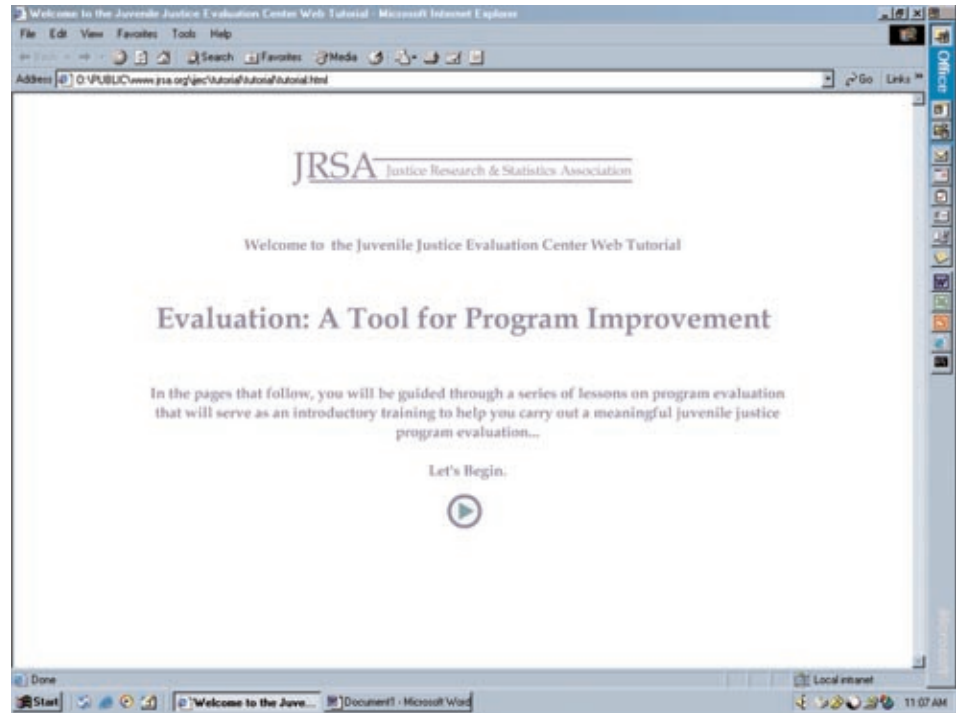
JJEC Introduces a Web-Based Tutorial on Evaluation

One of the primary methods that the Juvenile Justice Evaluation Center (JJEC) uses for training is traditional, in-person, classroom-style presentations. Over the years this has been a very useful means for teaching about evaluation. However, the demand for introductory trainings on evaluation and a desire to meet requests quickly and economically led JJEC to develop an online tutorial based on the training. The tutorial, "Evaluation: A Tool for Program Improvement," will not replace all in-person trainings, but will reduce the need to conduct introductory trainings.

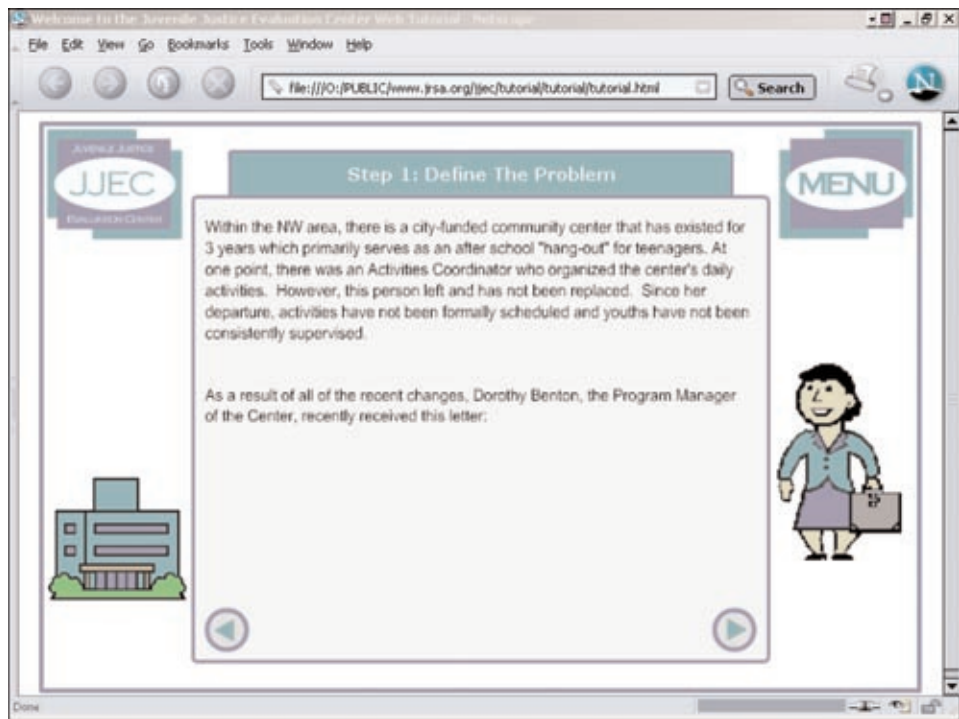
The tutorial was developed in Macromedia Flash. It can be taken by anyone with access to the Internet or a computer with a CD-ROM. It simply requires users to have access to Flash


Player, which can be downloaded for free. It is approximately one-hour long and covers the basics of evaluation using the JJEC 7-step evaluation process. Users

follow the experiences of a fictional program manager, Dorothy Benton, on her quest to evaluate a community-based juvenile justice program.



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Progressing through the tutorial feels like going through a PowerPoint presentation with some added enhancements. Users click on arrows at the bottom of the screen to work through the tutorial or they can go directly to certain topics by accessing the menu at the upper right-hand corner of each page. Pre- and posttests allow JJEC to track how well users performed on the tutorial. Anonymous test results are emailed automatically to JJEC, but users can request a copy of results by providing their e-mail address. At the end, users can fill out and print a certificate to document that they completed the tutorial. To access the tutorial or learn more about it, go to the JJEC Web site: www.jrsa.org/jjec. 

BJA Evaluation Web Site Gets New Look

The Justice Research and Statistics Association is completing implementation of its newly designed evaluation Web site for the Bureau of Justice Assistance (BJA). The Web site has been managed by JRSA since its inception.

Program-specific topic areas were added to provide easily accessible resources for evaluating specific criminal justice programs. The topic areas will provide information on evaluation studies conducted in that area as well as other useful information relevant to the topic. The first area to be developed on the site will be on multijurisdictional task forces. Other areas will be determined by BJA and JRSA.

Another new feature of the Web site is an evaluation library, which will include information evaluators can use to guide them through the program evaluation process. Users will be able to obtain information in areas such as "Benefits of Evaluation" or "Considerations Before Beginning an Evaluation." The goal of the evaluation library is to provide a comprehensive guide to program evaluation that will assist state and local criminal justice planners, practitioners, State Administrative Agencies, researchers, and evaluators in conducting evaluations that will address the effectiveness and efficiency of their projects. 


TJSAC Examines Crime Data Issues Among New Mexico Tribes

Reliable and representative crime statistics from Indian Country have been lacking on both the local and national levels. At the inception of JRSA's Tribal Justice Statistics Assistance Center (TJSAC) project, it was thought that the lack of reliable and representative crime statistics was a problem at the local tribal level. However, numerous meetings with both tribal and federal representatives suggests that the real problem with acquiring reliable crime statistics stems from a lack of communication, manpower, and resources among and between the federal and tribal governments.

The American Indian Development Associates (AIDA), a 100 percent American Indian-owned organization whose primary focus is research-guided program development for tribal justice systems and programs, informed TJSAC of an interest in New Mexico in developing a strategy for addressing the issue of crime data sharing and use with the New Mexico tribes and pueblos.


Through a combined effort with AIDA and the New Mexico Indian Affairs Department (NMIAD), a meeting was held at the Santa Ana Pueblo to discuss crime data issues. All 22 tribes and pueblos of New Mexico were invited to attend and were requested to bring a representative who would be, or who is, involved in collecting or using crime statistics. In addition, the FBI's Criminal Justice Information Services Division (CJIS), the FBI Indian Country Unit, the Bureau of Indian Affairs (BIA), the Bureau of Justice Statistics (BJS), and the Assistant United States Attorney's (AUSA) Office were invited to attend and participate at this meeting. This preliminary meeting was designed to bring

together those people involved in collecting and/or using tribal crime statistics in order to provide information on crime data use and to gather information from the tribes that would facilitate the design and implementation of a data management plan.

The meeting brought together 15 of the 22 pueblos and tribes, along with FBI's CJIS and Indian Country Unit, a representative from the AUSA, the NM State SAC Director, and other state program representatives interested in helping to resolve the tribal crime data management problem. After a brief presentation on what can and is being done with crime statistics on both the local and national levels, attendees broke into three smaller groups to engage in an open dialogue about the barriers to data collection, management, and sharing. From the information collected in these break-out sessions, a strategy for the next step in the process will be developed. This will entail a second meeting of key personnel from the state, federal, and tribal governments to discuss and fashion a method to address the concerns brought out in the first meeting. In addition, TJSAC will take what tribal crime data are already available in the form of the BIA's Annual Law Enforcement Reports and fashion reports that could be useful to the meeting participants. The meetings and reports will serve as a foundation on which to begin fashioning a solution to the problem of a lack of reliable and representative crime statistics from Indian Country. With the help of all of the meeting participants, TJSAC hopes to develop a system that will improve communication and information flow between all three of the sovereign governments located in the state of New Mexico. 

New JJEC Publication on Evaluating Mental Health Programming

The first publication in a new JJEC Guidebook Series, "Evaluation Issues in Mental Health Programming in the Juvenile Justice System," was released in August. Targeted to juvenile justice program administrators or state-level juvenile justice personnel, the guidebook gives readers an overview of mental health issues facing the juvenile justice population, reports on the state of evidence-based mental health programming

in juvenile justice, and emphasizes evaluation issues of particular concern for juvenile programs delivering mental health services. It considers how to approach evaluating the effectiveness of mental health services in a juvenile justice setting by presenting a running example of the design and implementation of an evaluation. A copy of the publication can be downloaded from www.jrsa.org/jjec. 

JRSA Conducts Focus Groups for Improving Crime Data Project

As described in the April 2003 *JRSA Forum*, the Justice Research and Statistics Association (JRSA) is partnering with the Great Cities' Universities (GCU) consortium on an Improving Crime Data (ICD) project. The GCU has a multiyear grant to develop technical capacity and statistical indicators in criminal justice that will serve the same function for policymakers, particularly in urban jurisdictions, as indicators in other policy areas, such as economic policy. JRSA has a one-year sub-contract to gather data and information on current sharing/integration efforts and their uses for policymaking. In August, JRSA staff conducted focus groups in Illinois, Oklahoma, and Pennsylvania to gather perspectives for national surveys of law enforcement and policy participants to assess the efforts and their use or nonuse.

The Illinois and Pennsylvania focus groups, organized by the state Statistical Analysis Centers, convened participants from broad cross-sections of their states' criminal justice community. Participants included representatives of information technology, policymaking, line agencies

such as state and local police and parole and probation offices, prosecutors, and academics. These focus groups discussed topics concerning the types of data used for policy and program planning; data users and obstacles to data use; relationships between data providers and policymakers; examples of cross-jurisdictional use of data; use of data to explain actions to citizens, interest groups, media, academics, and others; specific policy and program crime problems helped by data analysis; and design of an ideal system of data provision for policy and program planning. The observations from these two groups included:

- Identification of four basic problems of law enforcement "buy-in" in data collection efforts: (1) inadequate resources, (2) increased demands on time, (3) fear of bad publicity as a result of new data not strictly comparable to old data, and (4) continual changes in direction in collection and use of data (from police pursuit to profiling to hate crimes to next high visibility problem)
- Identification of four potential benefits to emphasize to improve buy-in: (1)

improved administration of warrants, (2) identification of frequent offenders in records checks, (3) better recording and publicizing of crimes against officers, and (4) division of data collection along more points in the justice process (incident, booking, etc.) to cut amount done by field officers

- Emphasis on criminal justice "activity," not just "crime," and on data more timely than UCR
- Importance of common offender identifiers (biometrics, standard fingerprints, etc.) to track offenders from booking through corrections
- Use of disinterested sources of data (such as from emergency rooms or treatment programs), despite possible difficulties, for inclusion in triangulated index or indicator system
- Development of longitudinal data, rather than current "snapshot" data, on both offenses and offenders, including outcome information such as associated costs (which is always a great concern of policymakers)
- Improvement of availability and accessibility of all the incident-related data recorded by all law enforcement agencies, not just that required by NIBRS
- Lack of a mission statement for all system participants to guide in the collection and reporting of data relevant to all of them
- Encouragement of the use of criminal justice advisory boards
- Importance of having alternative analysis resources (such as university statistics and policy classes)
- Fear of more sophisticated systems "taking a step back" if/when forced to integrate with less sophisticated systems
- Fear of more sophisticated systems not investing in newest technologies due to legacy systems
- Possible politicization of results and competition of data sources
- Problem of multiple systems with multiple vendors lacking enforceable standards
- Ambiguous bases for comparisons of statistical data, that is, deciding whether large jurisdictions compare best to other state jurisdictions or to other large jurisdictions or whether small jurisdictions are similar enough to those of similar size to make comparisons meaningful

Justice Trivia

Test your knowledge of recent justice facts. These questions are based on information found in the Bureau of Justice Statistics reports "Prevalence of Imprisonment in the U.S. Populations, 1974-2001," "Prisoners in 2002," "Intimate Partner Violence, 1993-2001," and "Money Laundering Offenders, 1994-2001." See page 8 for answers.

1. At the end of 2001, what percentage of adult black males were current or former inmates?

<input type="checkbox"/> a. 12.7%	<input type="checkbox"/> b. 15.1%	<input type="checkbox"/> c. 16.6%
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2. As of December 31, 2002, women made up 6.8% of all federal and state prison inmates.

<input type="checkbox"/> True	or	<input type="checkbox"/> False
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3. During 2001, how many females were victims of intimate partner violence?

<input type="checkbox"/> a. 333,524	<input type="checkbox"/> b. 588,490	<input type="checkbox"/> c. 601,219
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4. What percentage of the 10,600 defendants charged with federal money laundering from 1994 through 2001 were convicted?

<input type="checkbox"/> a. 76%	<input type="checkbox"/> b. 86%	<input type="checkbox"/> c. 96%
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5. If the 2001 rates of incarceration remain consistent, a white male would have a 1 in 12 chance of going to prison in his lifetime.

<input type="checkbox"/> True	or	<input type="checkbox"/> False
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- Inadequate recognition of data integration as an ongoing process, not an end
- Increased interest presently in data integration, as a result of 9/11 and other factors, that may make it easier to accomplish than in the past.


JRSA held two focus groups with the Oklahoma Criminal Justice Resource Center, one organized by the managers of the Oklahoma Data Information System (ODIS) and the other by the state SAC. The first meeting was with county sheriffs and small-town police chiefs who use the Oklahoma Criminal Justice Resource Center's ODIS program (not all jurisdictions use it and none of the urban ones do). This program evolved from a jail management program created with a Byrne grant into an integrated data-sharing system incorporating the officials' particular needs (jail logs, profiling, pawn shop data, wandering cattle, etc.) and NIBRS record keeping. It partially pays for itself through the tracking of outstanding warrants on offenders who show up in checks done on the system. The law enforcement users were unanimous in their praise for the system and expressed little concern about having to compile and report NIBRS data. Most important to the users was the ability to obtain real-time data sharing practical to their daily operations. (Readers can find a greater description of the program at the ODIS Web site, www.odisok.net). The discussion demonstrated that models exist linking the smaller jurisdictions to the grander scale reporting that the ICD project is considering without bringing on many common implementation problems. In a prior interview, the ODIS program director stressed being proactive with his "customers," encouraging their input to alert him to program needs, and taking their requests for new elements seriously. Users have acted as willing pilots for system changes to troubleshoot and refine new applications. This has allowed ODIS to evolve constantly toward user applications and has built a constituency with "buy-in" willing to contact funders for its continued life.

The second Oklahoma focus group was with staff from the Oklahoma Criminal Justice Resource Center (which houses the state SAC), some members of the state sentencing commission, and a retired director of the state department of corrections' research and evaluation section. They talked in depth about the

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translation of data from the field into policy based on their experiences, what policymakers are looking for and how they use it, and the problems that the ICD project might encounter moving improved data and indicators into meaningful decisionmaking. They pointed out how important these kinds of data are now for communities seeking grants (not

just criminal justice grants) and the unintended consequences when better knowledge about offenders and offenses is available. For example, if "three strikes" provisions are more applicable due to better data recording and sharing, that may have an impact on offenders (and their victims) when they commit new offenses, change the context of plea bargaining, and mean longer sentences, with obvious effects on prison beds. Above all, they emphasized the importance of resources as incentives to participate and as means to afford to do so.

With the insights and information gained from these focus groups, JRSA staff will coordinate with the ICD project managers to develop survey instruments for police chiefs and their top policy and information staff. JRSA may also follow up previous SAC call-arounds to identify exemplary projects in data sharing and integration and to seek SAC director responses to the group results and those from the surveys after they are administered. The surveys will be sent in early fall, with the final report due around the beginning of 2004. 

Veronica Puryear Joins JRSA Staff

Veronica Puryear returned to JRSA in July 2003 after completing her Ph.D. in criminology and criminal justice at the University of Maryland, College Park (UMCP) in May 2002. She was hired as a research associate on the Bureau of Justice Assistance Evaluation Web site project and the Juvenile Justice Evaluation Center project. Dr. Puryear previously was a program assistant with JRSA from May 1997 to May 1998, assisting with various research projects, publications, and the annual JRSA conference. While completing her Ph.D., she worked as a research assistant with the Strengthening Families Program, which was an empirically based, family-focused substance abuse prevention program. The Strengthening Families Program was a collaborative research project between the University of Maryland, University of Utah, and the Metropolitan Washington, DC Council of Governments designed to reduce drug abuse and precursors of drug abuse in high-risk children.

Dr. Puryear also worked as a research associate with the Bureau of Governmental Research at the University of

Maryland, College Park. While with BGR, she spent the majority of her time working on a process evaluation of Maryland's Intensive Aftercare Project (IAP), which required her to work with the Maryland Department of Juvenile Justice (DJJ) Headquarters and jurisdictional offices to conduct focus groups with staff and juveniles assigned to IAP. Dr. Puryear managed intake data for juveniles committed to the Maryland Department of Juvenile Justice. She also monitored completion and submission requirements for a classification tool used by Maryland's DJJ case managers and investigators to determine risk levels and placement decisions for adjudicated juveniles in the state of Maryland.

Dr. Puryear's research interests include field research, program evaluation, and family factors related to the development of problem behaviors. Her interests while completing her Master's degree at UMCP were in sentencing and corrections. She has delivered several presentations relating to these areas at professional conferences. 

(BOOK REVIEW, from p. 1)

an epidemic tips, when it is jolted out of equilibrium, it tips because something has happened ... in one (or two or three) of those areas" (pp. 18-19).

Gladwell identifies three agents of change in "epidemics" such as crime waves. The first deals with the Law of the Few (symbolized by the famous 80/20 rule in which 80% of something is done/caused/created/etc. by 20% of the actors). Epidemics are driven by a few agents proliferating actions profligately. These "few" include "connectors" (who link people to people), "mavens" (who link others to ideas and information), and "salesmen" (who persuade others who might be uncertain about the people or ideas and information) (pp. 30-88).

The second agent of change is referred to as the Stickiness Factor: what is once "infected" stays "infected." As Gladwell explains, in social "epidemics," people are moved to action through memorable ("sticky") messages, usually simple messages delivered distinctively (pp. 89-132).

The third agent of change is the Power of Context, featuring the exquisite human sensitivity to environment. Epidemics, Gladwell says, are sensitive to conditions and circumstances of the time and place in which they occur. He uses the "broken windows" theory to illustrate behavioral change as a function of and dependent on context. According to Gladwell, a criminal is "someone acutely sensitive to his environment, who is alert to all kinds of cues, and who is prompted to commit crimes based on his perception of the world around him" (p. 150). Therefore, crime waves feature a small group of people committing the bulk of crimes; simple, contextual motivators; and threshold points at which disorganized behavior leaps to a new level of activity and order. This is not news to people in criminal justice, but it demonstrates the relevance of CAS to crime.

The Critical State

Rather than "tipping points," Mark Buchanan emphasizes "critical states" and "upheavability" in his more academic *Ubiquity: The Science of History ... or Why the World Is Simpler than We Think*. As he indicates, upheavability

Books Reviewed

Barabási, A-L. 2002. *Linked: The New Science of Networks*. Cambridge, MA: Perseus Publishing.

Buchanan, M. 2001. *Ubiquity: The Science of History ... or Why the World Is Simpler Than We Think*. New York: Crown Publishers.

Gladwell, M. 2000. *The Tipping Point: How Little Things Can Make a Big Difference*. Boston, MA: Little, Brown and Company.

Ormerod, P. 1998. *Butterfly Economics: A New General Theory of Social and Economic Behavior*. New York: Pantheon Books.

Watts, D. J. 2003. *Six Degrees: The Science of a Connected Age*. New York: W.W. Norton & Company.

ty (Gladwell's tipping point) "clearly has something to do with the way things work when out of equilibrium. . . . The key idea is the notion of the *critical state*, a special kind of organization characterized by a tendency toward sudden and tumultuous changes, an organization that seems to arise naturally under diverse conditions when a system gets pushed away from equilibrium" (p. 16, emphasis in original), that is, into complexity. He, too, cites epidemics, along with traffic jams and organizational information flows, as examples of systems that reach a critical state, then tip into upheavability.

Essential to understanding the impact of critical states and subsequent upheavability is knowing that, "if the world is organized into a critical state . . . then even the smallest forces can have tremendous effects" (p. 23). This leads to unpredictability and the same 80/20 power law (wherein most of what happens is related to a few agents or events) referred to by Gladwell, but applied throughout the book to earthquakes, forest fires, deaths in wars, measles epidemics, solar flares, price changes, species extinction, city sizes, wealth distribution, and research publication references. In other words, the principle cuts generally across the working of the world and underlies all complex, wave-like behavior.

Connections and Networks

The linkage of CAS to social behavior is made by Albert-Laszlo Barabasi in his book *Linked: The New Science of Networks*. In it he echoes "connectors," "power laws," and "phase transitions" (aka tipping points or critical states and upheavability). He explains that "[t]he construction and structure of . . . networks is the key to understanding the complex world around us" (p. 12). In a similar recent work, *Six Degrees: The Science of a Connected Age*, Duncan Watts defines a network as "a collection of objects connected to each other in some fashion" (p. 27), "an integral part of a continuously evolving and self-constituting system" (p. 28). His work also stresses "cascades" and "epidemics," non-linear history, and interconnectedness, particularly the famous "six degrees of separation." He reiterates and expands on Barabasi's key points, including how, as Barabasi states, self-organized networks "offer a vivid example of how the independent actions of millions of nodes and links lead to spectacular emergent behavior" (p. 221). However, according to Barabasi, they "are only the skeleton of complexity, the highways for the various processes that make our world hum. To describe society we must dress the links of the social network with actual dynamical interactions between people" (p. 225).

Society as a Living Organism

The effort to "dress the links" has been best made by Paul Ormerod in *Butterfly Economics: A New General Theory of Social and Economic Behavior*. Ormerod's basic point is that society is not "a machine, whose behaviour, no matter how complicated, is ultimately predictable and controllable. On the contrary, human society is much more like a living organism . . . whose behaviour can only be understood by looking at the complex interactions of its individual parts" (p. vii). According to Ormerod, "[t]he key to a better understanding of many economic and social phenomena lies in a seemingly innocuous observation Namely, that the behaviour of an individual can be directly affected by the behaviour of others" (p. xi). Recognizing society as a "complex, living system," we can understand better why "much of the control which governments believe they exercise over the economy and society is illusory" (p. xi).

Ormerod does not believe that governments are helpless; "[t]here is regularity

and self-organization, but not in the conventional ways" (p. xiii, emphasis in original). He denigrates the "check-list mentality" of policymakers—"Do A, B, and C, and the consequence *will* be X"—as "the illusion of control rather than the reality" (p. xiii, emphasis in original). As a result, he says that a change in perception of the role and power of government is needed. "Much government intervention is motivated by specific, short-term ends, and depends crucially on the idea that the ... society is a predictable machine. But accurate short-term prediction is at best difficult and at worst impossible" (p. xiii). Understanding the organic and complex nature of society, however, will increase government's powers while reducing its role.

Central to these organic CAS is feedback, positive ("the initial impact of actions or events tends to be magnified over time") and negative ("initial effects are dampened and smoothed away"), with positive feedback generally dominating (p. 3). This feedback affects individual choices of action in a particular situation, and those choices consist of three basic types—staying with a current course, changing course of one's own accord, or changing course due to the influence of others (p. 6). As agents influence each other, the familiar concept of "epidemics" fed by positive feedback loops among agents comes once more into play.

Ormerod explicitly ties all this to criminal justice, equating crime with disease, and crime waves with epidemics, since, he says, crime is "in part a social process." Given the power of influence, "the more criminals there are in a given population, the higher the probability that any particular individual will also decide to be a criminal" (p. 34). He then presents a model of "the process by which people become criminals" (p. 37). He divides the population into three discrete groups differing in their crime potential—not susceptibles, susceptibles, and active criminals. He asserts that "an individual at any point is in one or other [sic] state, defined by the propensity to carry out criminal acts" (p. 38).

"The key ingredient" of the model, he states, "is to describe the flows between these groups, the overall effect of which describes the evolution of crime rates" (p. 38), that is, the proportion of people in each group at different points in time. He realizes that the flows "depend upon

factors such as demographics, the impact of negative incentives such as the deterrent effects of the criminal justice system, and general social and economic conditions" (p. 39). The difference between his and other economic models is "the influence of social interaction on the behaviour of agents" (p. 39). He proceeds to demonstrate how, in different contexts, initial proportions of population in each of the three groups will move into high or low crime behavior. He concludes that "even if individual rules of behaviour are known exactly, the resulting behaviour of the system still cannot be predicted and controlled in a precise manner" (p. 182).

“Indeed, a major theme in criminology is the complexity of interactions among four elements in a criminal event—the offender(s), the contextual opportunity, protectors/defenders, and the victim(s)....”

This does not mean that government can have no impact. It means, rather, that it "should develop much less in terms of detailed, short-term intervention [and] ... much more thinking about the overall framework of whatever particular problem is at issue" (pp. 183-184). Particularly, but less helpfully, Ormerod says government should focus on influencing individual decisions toward the low-rather than high-crime paths through creating effective environments (p. 186). While policymakers and practitioners may be nonplussed by this ending, they should appreciate the demonstration both of CAS's relevance to their activities and of why so much criminal justice policy seems like *déjà vu*.

CAS and Criminal Justice

The signs of CAS illuminated in these books are evident and familiar to all associated with criminal justice. We see

"tipping points" in prosecutorial or judicial decisions when one more offense on a prior record justifies prison rather than probation, in minority communities that begin steep declines with the loss of one more professional or that actually see crime rise with the incarceration and loss of one more adult male, in the one additional "broken window" that tips a neighborhood into disorder or, when fixed, restores order. We see complex networks of adapting individuals with every case of crime displacement or substitution of offenses or drugs in response to law enforcement crackdowns. We are certainly aware of CAS as we try to improve our anti-terrorism networks against adaptive, networked terrorists; take out one node, a new one sprouts; we fortify buildings against rental trucks, they use planes, we defend air perimeters, they use ... ? We seek the benefits of positive feedback through community policing and prosecution and attempt to avoid potential disadvantages, such as escalating gang violence or drug abuse. We punish to implement negative feedback, but try to inhibit any unintended consequences, such as effects on plea bargaining success when altering sentencing penalties or practices.

Indeed, a major theme in criminology is the complexity of interactions among four elements in a criminal event—the offender(s), the contextual opportunity, protectors/defenders, and the victim(s)—a characterization that closely resembles Gladwell's "rule of epidemics." The offenders and the protectors, at least, usually operate in networks that constantly adapt to the actions of the other. The (potential) victims themselves, while not generally well networked, often adopt preventative responses to possible offenses. Property and drug offenders must have buying/selling networks, and the law enforcement community often must network and develop strategies to disrupt them, which in turn cause adaptations in the offenders' networks. Predator-prey relationships hallmark offenses such as stalking and domestic violence. Some sex offenders are strange attractors, literally and figuratively, demonstrating repetitive patterns of behavior that tend to be triggered by confluences of particular factors and require external disruptions of their "equilibrium." Finally, much of the discussion of crime generally speaks of "waves" and their rises and falls, inexplicable using current theories

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and explanations due to the interconnectedness and tight coupling of all the influences on them.

What does a greater awareness of CAS mean for criminal justice decisionmaking? For one thing, policies intended to be effective cannot be considered in isolation from the overall CAS in which they operate. "Check-list" policies are certain signs of CAS ignorance and inadequate attention to context. For example, more prisons and "do the crime, do the time" will not mean greater long-term crime reduction if the offender's contexts do not change when released or if the money for them comes from law enforcement, prosecution, and courts, much less from other social functions necessary for a minimal-crime environment, such as education, mental health, or economic development. While individual agencies or interest groups may profit, as Ormerod notes, it is a short-term benefit and even then tenuous.

Secondly, greater attention to CAS should utilize Gladwell's Law of the Few. Researchers and practitioners already know the "power law"—that most offenses committed will be committed by only a few offenders—and a similar power law may hold for those people or locations victimized. Identification of the "few" offenders has not yet been successful, even if technology, such as DNA testing and better computerized record keeping and sharing, does seem to be making progress, but greater focus on "connectors," "mavens," and "salesmen" might produce more direct results. Incapacitating extreme "habitual" offenders is promising and may be responsible for incarceration's contribution to the 1990s "crime drop." Removing "idea and information" sources for crimes ("who thought up robbing the convenience store?") or hardening targets against being included in shared, linked information might be a better, less costly strategy. Certainly, counteracting messages of successful crime "salesmen" can have an impact, as indicated by anecdotes of crime effects in communities in which females stopped fraternizing with thugs, and younger children and siblings saw the results of drugs and prison on relatives.

Finally, greater attention to CAS should be a high priority for education and training. Criminal justice programs in

higher education should include courses on CAS and on non-linear statistics and modeling. Practitioner training should illustrate all the concepts discussed here, including the possibilities of feedback, tipping points, and unintended consequences from their actions. Any program planning should be based on CAS and not on limited analyses of proximate causes and stereotyped situations.

Study of CAS has grown dramatically in academia, business, and applied sciences in the last decade. The book on complexity in criminal justice has yet to be written. When it is, it will revolutionize the field. It will heed Gresham and drive out the cheap, the easy, and the simple that have dominated policy and thinking and brought such limited success and déjà vu experience. Until then, these books will give those who want to understand CAS a good lead on everyone else. 📖

— Mike Connelly

ANNOUNCEMENTS

New BJS Publications Available Online

The Bureau of Justice Statistics has two new publications on its Web site that are available for downloading. *Criminal Victimization, 2002*, can be accessed at <http://www.ojp.usdoj.gov/bjs/abstract/cv02.htm>. This report presents national levels and rates of personal and property victimization for the year 2002. The *Census of State and Federal Correctional Facilities, 2000*, is available at <http://www.ojp.usdoj.gov/bjs/abstract/csfcf00.htm>. The report provides information on facilities, inmates, programs, and staff of state and federal correctional facilities throughout the nation, and of private correctional facilities housing state or federal inmates. 📖

Quiz Answers

(The quiz is on page 4.)

1. c 2. True 3. b
4. b 5. False; 1 in 17

(DNA COLLECTION, from p. 1)

DNA Collection in the States

Collection and analysis procedures and policies for DNA samples within the justice system differ by state. When a DNA profile is prepared, it is entered into a CODIS (combined DNA index system) database. Most states use a three-tiered system in which samples are processed by forensic labs at the local level and entered into a local database. The profile is then forwarded to a state database, and eventually to the national database maintained by the FBI. Other states have only two tiers, the state and national.

Legislative or legal requirements govern which profiles are allowed to be included in the state databases, and who is included differs widely from state to state. The National Conference of State Legislatures has compiled a list of state requirements for the collection of DNA samples (see Table 1). Some states collect samples from all convicted felons. Some collect samples from certain juveniles or certain classes of misdemeanants. All 50 states collect samples from sex offenders.

Genetic Privacy Issues in Society

The use of DNA technology by law enforcement and others in the justice system has aided in the solving of crimes and the exoneration of innocent people. It is also a useful tool in the identification of remains when searching for missing people. But the question of how to balance the legitimate use of DNA profiles, such as by law enforcement, and the right to individual privacy is a subject of some debate.

The National Institute of Justice held its annual Conference on Criminal Justice Research and Evaluation on July 28–30 of this year. One of the plenary panels, "DNA and Privacy Issues: What's the Balance?" examined many of the issues related to genetic privacy both within and outside of the justice system.

Patricia Roche, an Assistant Professor of Health Law at the School of Public Health, Boston University, considered the concept of privacy from a broader personal and societal perspective rather than its application in criminal justice contexts. She defined privacy as "a state

or condition of our life...free from unwanted exposure and intrusion. Simply put, it means being left alone." While we may have an "intuitive or moral sense" that our right to privacy is legally protected in the United States, in fact that protection is dependent on statutes and other regulations, each of which protects some aspect of our privacy, Professor Roche pointed out. "We have what is often referred to as a bundle of privacy rights or a patchwork of protection in the United States," she said. On the issue of genetic privacy, she resists the move to think of it as a subset of medical privacy: "I think genetic privacy really is a label for private, personal, sensitive aspects of our lives...that are affected by our genetic makeup." Among her concerns are "things like collecting identifiable samples, storage of identifiable samples, analyzing those samples, storing the genetic information from them, and disclosure and access to that information. I think that all of those activities need to be addressed if laws are going to protect genetic privacy."

At least in the short term, the U.S. Constitution cannot be relied on as a source of protection for genetic privacy. Edward Imwinkelried, Professor at the University of California, Davis, Law School, and also a speaker at the plenary session, gave an overview of court activity on this issue. He cited a 1993 poll in which 85% of American respondents said they thought protection of genetic privacy was essential. "Can we rely on a supposed constitutional right to informational privacy," he asked, "to protect that sort of information? Simply stated, my answer is no." He advised using statutes and regulations to protect genetic privacy for a variety of reasons. Any protection from the Bill of Rights, for example, will be enforceable only against government actions. As a member of the

National Commission for the Future of DNA Evidence, he learned that there are over 200 million existing tissue samples, the vast majority of them in the possession of medical entities, not the government. While some states have passed laws to protect informational privacy, the U.S. Supreme Court grappled with the issue in the 1977 case, *Whelan v. Roe*. Most now agree that the opinions issued in that case should not be construed as recognizing a constitutional right to information privacy, Professor Imwinkelried said.

“ But the question of how to balance the legitimate use of DNA profiles, such as by law enforcement, and the right to individual privacy is a subject of some debate. ”

Sixteen states have passed laws that require informed consent to perform genetic testing, according to the National Conference of State Legislatures. (See Table 2 for a list of state genetic privacy laws.) Four states – Colorado, Florida, Georgia, and Louisiana – define genetic information as personal property, and Oregon repealed its property right to DNA in 1991. Only 17 states, however, have established specific penalties for violating genetic privacy laws.

Unresolved Issues

While collection and use of DNA tissue samples in the justice system is widespread and subject to some regulation, standards for inclusion of a profile in a CODIS database vary. During her presentation during the plenary session panel, Cecilia Crouse, Supervisor of the Serology and DNA Section of the Palm Beach County Sheriff's Office Crime Laboratory, one of Florida's local-level forensic labs, said that there is no universal written standard for including profiles in the database. The national database standards are very restricted, she said, while inclusion criteria vary from state to state. Some profiles retained at the state level are not allowed in the national database. Similarly, some profiles retained at the local level are not eligible for the state.

One of the more troubling issues seems to be related to the storage of samples, and who has, or will have, access to them. Professor Roche expressed concern that years from now a sample could be tested for some reason unrelated to that for which it was collected. Professor Imwinkelried added that the U.S. Supreme Court has not yet said that samples must only be used for the reason for which they were collected, and, in fact, in Indiana, the court ruled that once samples are collected, they can be used for any legitimate law enforcement purpose.

One of the recommendations included in the "Report to the Attorney General on Delays in Forensic DNA Analysis" is that a national forensic science commission be created as an ongoing resource of knowledge and considered opinion. NIJ also recommends the development of a national strategy to inform and guide the use of DNA evidence in the criminal justice system. It is clear that as in so many areas, regulation of this emerging technology is necessary to protect the rights of the citizens it is intended to benefit. ¶

— Nancy Michel

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Table 1

State Laws on DNA Databanks: Who Must Provide Samples

(Source: National Conference of State Legislatures, www.ncsl.org/programs/health/genetics/DNAoffenses.htm)

State	All Felonies	Other	Juveniles	Connected with NDIS (National DNA Index System)
Alabama	X			X
Alaska			X	X
Arizona	X (by 2004)	Includes residential and criminal burglary	X	X
Arkansas		Includes those persons committed for mental defect or disease for qualifying offense.	X	X
California		Includes those not guilty by reason of insanity for qualifying offense; includes those convicted of terrorist activity in violation of weapons of mass destruction provisions and those convicted of a qualifying offense in another state.	X	X
Colorado	X	Includes any person who has a duty to register as a sex offender, including probationers, habitual offenders as condition of parole, and those released without parole supervision.	X	X
Connecticut		Includes those not guilty by reason of mental disease or defect for qualifying offense.		X
Delaware	X	Includes offenders convicted of child endangerment or abandonment.		X
Florida	X	2001 legislation incrementally adds crimes in 2002 and 2003 and, effective 2004, includes all forcible felonies, contingent on appropriations. Includes those excluded from penal responsibility due to mental disorder, defect. Also includes persons on probation, parole, release or supervision following conviction of certain offenses.	X	X
Georgia	X		X	X
Hawaii		Includes people who are mentally unfit.		(waiting on compliance)
Idaho			X	X
Illinois	X	Includes people held under civil commitment under sexually dangerous law, those found guilty but mentally ill for a sex offense, persons seeking transfer to state under interstate compact, stalking and residential burglary.	X	X
Indiana		Includes qualifying offenders on probation or parole.		X
Iowa	X	Includes qualifying parolees and offenders on work release.		X
Kansas	X	Includes any crime covered under offender registration law, many serious felonies, some drug offenses and certain misdemeanors in which the victim is under age 18.	X	X
Kentucky		Includes those convicted of unlawful transaction with a minor, promoting sexual performance of a minor, burglary I and II and class A and B felonies involving death or serious injury to the victim.	X	X
Louisiana		1999 resolution delayed implementation of 1997 act that extends profiling to those arrested for a felony sex offense.	X	X
Maine	X			X

State	All Felonies	Other	Juveniles	Connected with NDIS (National DNA Index System)
Maryland	X	Includes some misdemeanors.	X	X
Massachusetts			X	X
Michigan	X		X	X
Minnesota	X		X	X
Mississippi		Includes any person having duty to register as a sex offender.		(waiting on compliance)
Missouri				X
Montana	X		X	X
Nebraska				X
Nevada		Includes all class A or B felonies, or a category C felony that involved use or threatened use of force; also includes some drug offenses.		X
New Hampshire		Includes violent crimes.	X	X
New Jersey		Includes those found not guilty by reason or insanity for a qualifying offense.	X	X
New Mexico	X		X	X
New York		Includes many serious felonies and some controlled substance offenses.		X
North Carolina				X
North Dakota		Many serious felonies, including burglary.		X
Ohio	X		X	X
Oklahoma	X	2001 law requires planning to incrementally add qualifying felonies to the database, to include all felony offenses by 2006.		X
Oregon	X		X	X
Pennsylvania		Includes violent and sexual offenders.	X	X
Puerto Rico	NA			X
Rhode Island		Includes any violent crime and serious felonies including burglary, and some drug offenses.		(waiting on compliance)
South Carolina			X	X
South Dakota			X	X
Tennessee	X	Includes those persons seeking transfer to the state under interstate compact who have committed qualifying offense.	X	X
Texas	X	Expanding collection to all felons is contingent upon federal funding. A 2001 law provides for post-indictment samples of those charged with certain sex crimes.	X	X
Utah	X	Includes persons convicted in another state or under federal law and those committed as mentally incapable, both with a qualifying offense.	X	X
Vermont				X
Virginia	X		X	X
Washington	X	Includes those who have been convicted out of state or under federal law of a violent offense.	X	X
West Virginia	X			
Wisconsin	X	Includes those found not guilty or responsible by reason of mental disease or defect for a qualifying offense.	X	X
Wyoming	X		X	X

	Personal Access to Genetic Information Required	Informed Consent Required to				Define as Personal Property		
		Perform/Require Genetic Test	Obtain Access Genetic Information	Retain Genetic Information	Disclose Genetic Information	Genetic Information	Genetic DNA Samples	Specific Penalties for Privacy Violations
Nebraska § 71-1, 104.1		√						
Nevada §629.101 to §629.201	√		√	√	√			√
New Hampshire §141-H:2					√			
New Jersey §10:5-43 to §10:5-49			√	√	√			√
New Mexico §24-21-1 to §24-21-7	√	√	√	√	√			√
New York CVR §79-L		√		√	√			√
North Carolina								
North Dakota								
Ohio								
Oklahoma								
Oregon §659.700, §659.715, SB114	√		√	√	√			√
Pennsylvania								
Rhode Island §27-18-52, 52.3, §27-19-44, 44.1, §27-20-39. 39.1, §27-41-53, 53.1					√			
South Carolina §38-93-10 to §38-93-60		√			√			√
South Dakota SB1		√						
Tennessee								
Texas Vernon's Civil §9031					√			
Utah¹ HB 56								√
Vermont §18:9331 to §18:9335		√			√			√
Virginia §38.2-508.4					√			
Washington² SB 5207					√			
West Virginia								
Wisconsin								
Wyoming								
Total	4	11	5	6	25	4	0	17

1 Limits disclosures of and access to genetic information by employers and insurers

2 Requires written authorization only

SAC NEWS



West Virginia SAC Names New Director

Stephen Michael Haas became the new SAC Director at the West Virginia Statistical Analysis Center in August. His most recent academic appointment was as Associate Professor and Graduate Director for the Criminal Justice Department at Marshall University, where he also served as a Faculty Senator. Prior to his position at Marshall University, Dr. Haas held several academic positions at different universities, including Northern Kentucky University, the University of Cincinnati, East Tennessee State University, and California State University, Bakersfield. He is a current member of both the Academy of Criminal Justice Sciences (ACJS) and the American Society of Criminology (ASC). He recently served on the ACJS Membership Committee

and as a technical reviewer on grant applications submitted to the National Institute of Justice, Technical Assistance and Support Program, and is currently a peer reviewer for the journal *Crime and Delinquency*. Although he has published in the area of community-based corrections, he has dedicated the past few years to the study of educational issues and the criminal justice system. Building upon his doctoral research, his current research continues to focus on testing criminological theory and its capacity to explain school-based aggression, violence, and delinquency. In addition, Dr. Haas is interested in the use of technology and student outcome assessments among higher education criminal justice faculty. His most recent work on the use of technology among higher education criminal justice faculty will appear in a forthcoming issue of the *Journal of Criminal Justice Education*. He has B.A. degrees in political science and psychology from Ohio State University and M.S. and Ph.D. degrees in criminal justice from the University of Cincinnati. ♣

Mississippi SAC Announces Two New Reports

The Mississippi SAC, directed by Alan Thompson, is in the process of completing two new reports:

- 1) a study of child abuse and neglect-related homicides over the past ten years;
- 2) a survey of all law enforcement agencies in the state regarding workload, resources, equipment, and personnel. The survey is modeled upon the Law Enforcement Management and Administrative Statistics Survey conducted by the Bureau of Justice Statistics.

The SAC intends to conduct a statewide survey next year of residents' beliefs, perceptions, and attitudes about various dimensions of crime and justice.

The JRSA Forum is supported by the U.S. Department of Justice, Bureau of Justice Statistics. JRSA is a national nonprofit organization. For membership or other information, call (202) 842-9330, e-mail cjinfn@jrja.org, or visit our Web site: <http://www.jrja.org>.

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