

The Compiler

Illinois Criminal Justice Information Authority

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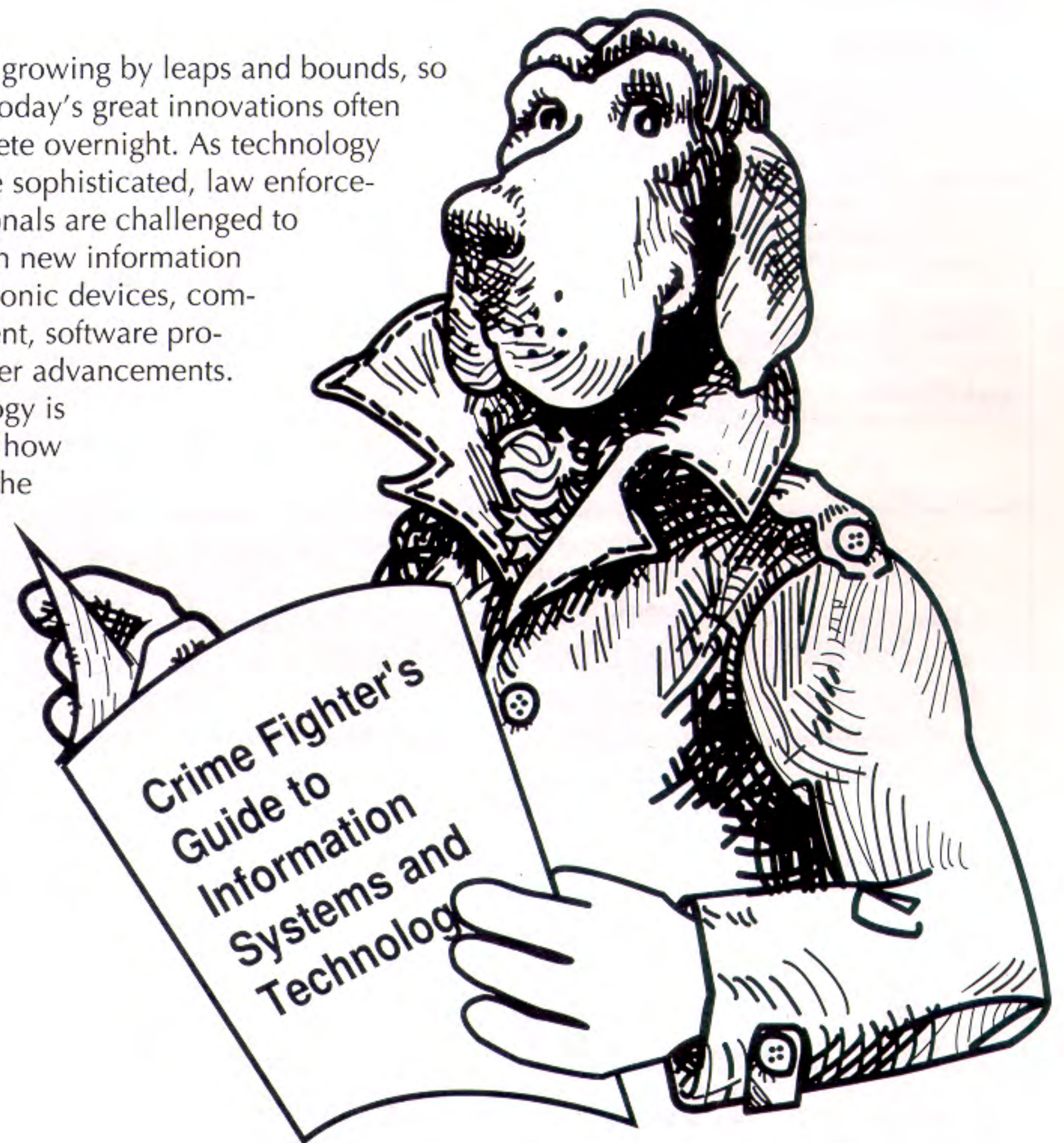
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Technology for law enforcement

Technology is growing by leaps and bounds, so much so that today's great innovations often become obsolete overnight. As technology becomes more sophisticated, law enforcement professionals are challenged to keep pace with new information systems, electronic devices, computer equipment, software programs and other advancements. What technology is available, and how can it help in the fight against crime? What can we expect in the future? Our look at law enforcement technology begins on page 4.



New McGruff publications available ... see p. 8 for details.

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Created in 1983, the Illinois Criminal Justice Information Authority is a state agency dedicated to improving the administration of criminal justice. The Authority works to enhance the information tools and management resources of state and local criminal justice agencies, and it serves as a statewide forum for criminal justice coordination, planning and problem solving. It also is responsible for research, information systems development and administration of federal anti-crime funds. The Authority's specific powers and duties are spelled out in the Illinois Criminal Justice Information Act [20 ILCS 3930/1 et seq.].

The Illinois Criminal Justice Information Authority is governed by a 15-member board of state and local leaders from the criminal justice system, plus experts from the private sector. Authority members help develop priorities and monitor their progress. The agency's day-to-day work is carried out by a full-time professional staff working out of the Authority's Chicago office.

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CHRI audit reveals need for improvement in collecting criminal history data

While there has been progress over the past three years in the way the Illinois Criminal History Record Information system operates, the way that data is collected, maintained and disseminated still could be improved. That is the conclusion of the recently released study, *A Comprehensive Examination of the Illinois Criminal History Records Information System: Final Report of the 1993-94 Criminal History Records Audit*, performed by Authority analysts. The study was conducted as part of a federal-funded program to improve the collection of criminal history record information nationwide.

In an 18-month study of the CHRI system, auditors examined 14,000 records from more than 110 criminal justice reporting agencies for timeliness, accuracy and completeness. Data from this audit will be used to measure system changes and improvements.

Other reports about Illinois' CHRI system are also available, including *An Overview of the Illinois Criminal History Record System* and *The Final Report of the 1992 CHRI Audit*. All three reports can be obtained by writing to the Authority's Information Resource Center, 120 South Riverside Plaza, Suite 1016, Chicago, IL 60606-3997, or by calling (312) 793-8550.

Weapons offenses increase dramatically

Between 1982 and 1992, the number of federal defendants sentenced to prison for weapons offenses increased 175 percent, according to a recent Bureau of Justice Statistics *Crime Data Brief*. In addition, during federal fiscal year 1993, firearms were involved in the offenses of more than one-sixth of all sentenced federal defendants.

The report, *Federal Firearms-Related Offenses*, also notes that the presence of a firearm severely affects a prison sentence being ordered upon conviction. Of those federal defendants sentenced in FFY 1993, offenses committed with a firearm resulted in prison sentences 93 percent of the time, compared to 73 percent for nonfirearm-related offenses.

This report, and all other recent Bureau of Justice Statistics reports, can be obtained by contacting the National Criminal Justice Reference Service at (800) 851-3420.

IDOC adult population up again in 1994

For the 12th consecutive year, the average daily population of the Illinois Department of Corrections increased over the previous annual totals. While the 1994 average daily population increased 6 percent from 1993, the growth was less than the 9 percent increases experienced during both previous years.

During the 10-year period from 1985 to 1994, the IDOC's average daily adult population increased 117 percent, from 16,854 to 36,543. While violent offenders increased 84 percent during this period, their proportion of the total adult population decreased from 61 percent to 55 percent. This is primarily due to the growth in the number of drug offenders within the IDOC population. In 1985, drug offenders accounted for less than 5 percent of the population; in 1994, more than one out of five IDOC adults was serving a drug sentence.

While not increasing at as great a level, according to the Administrative Office of the Illinois Courts Probation Division, the number of active adult probation caseloads increased 1 percent between 1993 and 1994. In 1994, 73,520 adults were under supervision in Illinois; of these probationers, 57 percent were sentenced felons. While the number of active adult cases decreased slightly between 1985 and 1994, the number of felony probationers increased 61 percent during the same period.

Founder of Authority-funded VOICES program receives award for aiding crime victims

The creator of an Authority-funded program received the 1995 national Eleanor Clark Award from the American Hospital Association for outstanding efforts to aid victims of violent crime. Paula Edwards-Wills, the director of Social Services at St. Mary's Hospital of East St. Louis, heads Victims of Individual Crime Empowerment Services, known as VOICES.

The program provides counseling, advocacy, empowerment and referral services to victims of violent crime. Social service workers at St. Mary's help victims and their families cope with the difficult aftermath of crime, including health care and legal matters, and encourage them to file police reports and cooperate with the arrests and prosecutions of assailants. Wills received this award for the VOICES program, specifically "for its innovative approach to patients, its cost effectiveness and its replicability," said Thomas E. Bryden of the Social Work Administrators in Health Care branch of the AHA.

"VOICES has proven to be a highly effective and innovative program that meets a real need in our community," said Richard Mark, CEO of St. Mary's Hospital and an Authority member. "This recognition is justly deserved by Paula—not just for VOICES but for the dozens of programs she has created to help the lives of the people of the East St. Louis area."

OJJDP predicts severe increase in juvenile crime

If juvenile crime continues at the same pace of recent years, the Office of Juvenile Justice and Delinquency Prevention predicts that the number of juveniles taken into police custody for violent offenses will double by the year 2010. In addition, if increases similar to those of the past 10 years continue to occur, the number of juvenile arrests for homicide will increase nearly 150 percent by that same year. These and several other findings on juvenile violence are presented in the recent OJJDP report *Juvenile Offenders and Victims: A Focus on Violence*.

Besides presenting information on the amount of violence perpetrated by juveniles, the report also discusses the high victimization rates of juveniles. The OJJDP points out that juveniles between the ages of 12 and 17 are more likely to be victims of violence than people in their mid-20s or older, and have nearly as high a rate of violent victimization as young adults between the ages of 18 and 24. Juveniles also are more likely than older victims to know the offenders who committed crimes against them. In 1991, only 22 percent of juvenile victims of violence did not previously know their assailant.

This report and other recent juvenile justice reports can be obtained by writing the Juvenile Justice Clearinghouse, P.O. Box 6000, Rockville, MD 20849, or by calling (800) 638-8736.

Authority researchers analyze Chicago's intimate partner homicides

Intimate partner homicides committed in Chicago between 1965 and 1993 differed from other types of Chicago homicides in the type of weapon used, according to Authority research analysts Carolyn Rebecca Block and Antigone Christakos.

In an article published in the October 1995 issue of *Crime and Delinquency*, Block and Christakos report that while nearly the same proportion of intimate partner versus other homicide types involved handguns, knives were more frequently used in partner homicides. During the 29-year period, in which more than 2,500 intimate partner homicides occurred in Chicago, 37 percent of the intimate partner homicides involved a knife, vs. less than 20 percent in other homicides.

The analysis also indicates that the gender of the offender was almost evenly distributed between males and females, and that in the 1990s African-Americans have a greater risk of domestic homicide victimization than whites and nonwhite Latinos in Chicago. The authors discuss intervention strategies for both victims and offenders, and detail the prevalence of liquor within the examined cases.

Copies of *Crime and Delinquency* can be purchased by writing Sage Publications, 2455 Teller Road, Thousand Oaks, CA 91320, or by calling (805) 499-9774.

Research Bulletin studies Chicago homicides

Low homicide levels came to an abrupt end in the early 1990s, concludes Authority research analysts Carolyn Rebecca Block and Antigone Christakos, authors of the recently-released *Research Bulletin*, "Major Trends in Chicago Homicide: 1965-1994."

Chicago-area murders rose from 661 in 1988 to 939 in 1992, and remained high at 928 in 1994. The escalation of violence continues to be a major concern, say the authors. Before implementing strategies to effectively fight lethal violence, the problem must be thoroughly understood.

The *Research Bulletin* explores the issue of lethal violence from a theoretical perspective. There are different types of homicide, and each requires different strategies for prevention. The bulletin also identifies patterns of risk for becoming a victim or offender, as well as for specific types of homicide for the population as a whole and for certain high-risk groups. The research is expected to serve as the foundation for developing more effective intervention strategies.

To receive a copy of the *Research Bulletin*, contact the Information Resource Center at the Illinois Criminal Justice Information Authority, 120 South Riverside Plaza, Suite 1016, Chicago, IL 60606-3997.

Pryzbylski elected JRSA president

Roger K. Przybylski, research director for the Illinois Criminal Justice Information Authority, recently was elected president of the Justice Research and Statistics Association.

In Brief continues on page 15

One-stop booking: Corrections technology boosts efficiency

Authority-developed advanced technology helps correctional officers book and process offenders more smoothly.

by Ben Hulse

Michael is picked up one morning by the Springfield police for allegedly committing a class A theft offense. Like everyone who is arrested in Sangamon County, he is escorted to the Sangamon County Jail, which is located just two blocks from the Abraham Lincoln Home Visitor Center and connected to the new county building in downtown Springfield. Michael is then escorted to a holding cell to await booking before his arraignment later that afternoon.

At 2:03 p.m., Sangamon County corrections officer Carla Carey pushes a button on her computer and calls Michael out to the booking counter. Carey asks if he's been jailed recently; he recalls a stay in April. Carey runs a "29" from her console—a check for outstanding warrants—then positively identifies him, and calls up his complete personal, medical and criminal records, which were updated during his previous visit. Within 3 minutes, Carey and Michael have updated and completed his entire multi-page computer specification sheet. The record is ready to be relayed electronically from the Correctional Institution Management Information System (CIMIS) to the state's attorney and the circuit court clerk. Michael is then shown to an adjoining room where his mug shot and fingerprints will be taken electronically.

CIMIS was developed and is supported by the Information Systems Unit of the Illinois Criminal Justice Information Authority. The Sangamon County Sheriff's Department is one of eight CIMIS sites statewide.

Centralized booking improves efficiency

The booking system at the Sangamon County Jail has become a model for automation throughout Illinois. The facility, which opened in October 1991, is the first of its kind in Illinois to have a computerized booking, monitoring and security system. What makes it more unique, however, is its "centralized booking" operations. The centralized booking system processes the arrests of anyone charged with a class B or higher offense in the county, including all local and state offenders, as well as inmates assigned to prison by the U.S. Immigration and Naturalization Service, the federal marshal and the Bureau of Prisons. "We've got just about any kind of inmate (on the system) you'd care to describe," said Lt. Sam Huston, the daytime shift supervisor.

The advantage of centralized booking is that all local criminal records are entered and maintained in one centralized computer system. Although the computerized facilities are relatively new, centralized booking has been the policy of Sangamon

County and its municipalities since the city of Springfield closed its holding facility 15 or 20 years ago.

"Our CIMIS computer has recently been upgraded to one of the industry's most technically advanced processors," said Sangamon County Sheriff Neil Williamson. "We are now in a position to take full advantage of the interfaces CIMIS offers, including those which will allow us to share data with other systems that constitute our county's criminal justice system."

Officials at the jail, which has a capacity of 285 inmates and a payroll of 78 officers and staff, said that CIMIS has boosted efficiency significantly. Carey and Huston both estimate that the time it takes to process a record has decreased by 80 percent. Even more crucial, the system has helped reduce paperwork. "Before, we would have been drowning in a sea of forms in triplicate," Huston said, "but now the computers do all that for us—the system generates its own forms."

Record-keeping errors reduced

While advanced technology at Sangamon County has boosted the speed and accuracy of processing arrestees who are from the Springfield area, it serves a larger purpose in statewide law enforcement. The improved accuracy and efficiency of computer record entry and the centralized booking model supplement a number of strategies implemented by the Illinois criminal justice community to reduce record-keeping errors in the CHRI files.

Initiatives taken by Sangamon County officials, as well as similar endeavors across Illinois, were spurred in part by results of CHRI system audits performed during the 1980s and early 1990s by analysts at the Authority. For example, the 1990 audit team discovered that nearly two-thirds of the examined arrest records lacked final court disposition information. (It should be noted that a recently-completed audit of the system found much improvement in disposition reporting.)

Andrew Krok, CIMIS project director with the Authority's Information Systems Unit, described centralized booking as "a catalyst for improving CCH (the computerized criminal history system)." Computerized record entry from a single source in a county, he said, "virtually eliminates the number of duplicate arrest records sent to the central repository for a single arrest." Krok added that CIMIS' edit functions eliminate the number of arrest cards rejected by ISP and returned to booking agencies because of typing and coding errors.

Additionally, built-in features of CIMIS help criminal justice officials keep records complete and coherent and help auditors continue to track records as they progress through the sys-

tem. Sangamon County is using CIMIS to generate a document control number the first time a booking record is entered; the DCN subsequently is used to connect each arrest to the state's attorney's and court's disposition records.

CIMIS was developed to not only improve the management and operation of correctional facilities, but also to play a part in improving the quality of data contained in the state's repository of criminal history information.

Combining CIMIS and centralized booking makes Sangamon County's system one that could serve as a model for most of the state. CIMIS also is the vehicle that is driving information sharing among various agencies in Sangamon County because of its ability to generate document and process control numbers for arrest records that are shared with other automated criminal justice systems. Combining automation and information sharing is one key to increased accuracy of dispositions that are reported to the state CHRI system.

Sharing information also decreases duplicated work and is helping improve the quality and accuracy of data that are contained in all the criminal justice records systems.

Electronic fingerprinting and livescan technology

Huston cited two key supplemental systems as particularly effective: the DBI Tenprinter digital fingerprinting machine, which relies on livescan technology, and a mug shot photo imager. According to Officer Scott Loftus, who

mans the livescan/photo imaging center, the Tenprinter gives twice the print quality of the manual, smear-prone ink-based system. The Tenprinter improves the successful identification rate for prints relayed to the Illinois State Police's AFIS (Automated Fingerprint Identification System) database over telephone lines. Identification time takes less than 30 minutes, and has an extremely high rate of success, Loftus added. Additionally, the Tenprinter directly downloads CIMIS records and uses them, eliminating record duplication errors.

The photo imager snaps high-resolution color pictures of the arrestee's head and upper torso and displays them on a television-size monitor. Both the fingerprints and mug shot are electronically linked to the arrestee's CIMIS record. The record then is sent to the CHRI repository maintained by the ISP, where it is then accessible to criminal justice officials through the Law Enforcement Agencies Data System.

DBI is one of two major vendors supplying livescan equipment in Illinois; CORTECH, which sells Identix products, is the other one. CIMIS technology works with either company's equipment.

System failures infrequent, but staff prepared

Loftus points out that the jail has not become overly reliant on technology. It has old-style fingerprinting and photo equipment ready in the event of technical failure. In fact, said Huston, the entire jail runs on a "double system;" in case the jail's separate computer system complete-

ly shuts down, cell blocks can be opened with a key.

Computer crashes, although infrequent, have tested the jail staff's responsiveness and adaptability. There have been no major problems, said Huston, except for one occasion when staff inadvertently locked themselves out of the main control room. How did they get back in? "That's a trade secret," said Huston. "There's no way anyone else could have figured it out."

Other jail operations, such as prisoner classification and placement, still are handled manually; however, they also will be automated under the newest version of CIMIS. It has been the experience at other CIMIS sites that automation has allowed scarce resources to be allocated more efficiently while also improving productivity.

Technology in other counties

Adams County in west-central Illinois is the only other jail with as complete a system as Sangamon, although it only acquired its livescan machine last summer. The Adams system does slightly surpass Sangamon in ease of interface; it uses the CIMIS-compatible mug shot program so images can be viewed directly through CIMIS.

Although Adams County is not hooked up yet to the state system, Sheriff Robert Nall is enthusiastic about how technology has increased the speed and efficiency of identifying and booking suspects. "We can call up any other CIMIS county in the state, and in some cases, get a color photo on screen, print it out, and make a positive ID almost immediately," said Nall.

Technology, he added, takes away a lot of the human error element that plagues older identification methods, including poor-quality photos and smudged fingerprints, that can lead to misidentified suspects. Nall thinks using livescan and other automation techniques will lower error rates substantially. "We've got a long way to go, but technology will help us get there."

Other counties operating CIMIS include Lake, Cook, Will, Knox, Madison and St. Clair. CIMIS' modular design gives counties the capability to use any or all of its software components,

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Photo by Kristi Turnbaugh

Advanced technology has made it possible for Carla Carey, corrections officer with the Sangamon County Jail, to update records and process arrestees with a push of a few buttons.

On the cutting edge: law enforcement technology

The director of science and technology at the National Institute of Justice, U.S. Department of Justice, discusses technological breakthroughs designed to help protect police and citizens.

by David G. Boyd

In 1972, a researcher from the U.S. Department of Justice's National Institute of Justice (NIJ) stumbled upon heavy-duty military tires made from a fiber that could stop bullets. This material, perhaps best known by its trademark Kevlar, weaved its way into the soft-body armor worn by law enforcement personnel. Since 1975, when NIJ first conducted field tests in 15 cities across the country, bulletproof vests have saved the lives of thousands of police officers. Today, discoveries like this do not happen by accident. Rather, an agreement between the Department of Justice and the Department of Defense ensures that the high-tech wizardry once employed solely by the military will be used to enhance the capabilities of law enforcement. As a sign of their commitment, the departments have formed an office whose mission is to move law enforcement into the 21st century.

The National Law Enforcement and Corrections Technology Center

DOJ made a commitment to develop new technologies for law enforcement long before its April 1994 Memorandum of Understanding with DOD. Under the auspices of the NIJ, the Technology Assessment Program Information Center had been setting performance standards for equipment, testing new products, and disseminating test results to criminal justice agencies since 1968.

TAPIC eventually changed its name but not its basic mission. The new National Law Enforcement and Corrections Technology Center will continue to help develop the technology that law enforcement officers need to stay several steps ahead of criminals.

Less-than-lethal technology

Developing less-than-lethal technologies represents a top priority for law enforcement. In a 1985 landmark decision, the Supreme Court ruled that deadly force is unjustified against an escaping, nonviolent felon and called for the law enforcement community to develop appropriate equipment to apprehend suspects safely.¹

In 1986, the Attorney General's Conference on Less-Than-Lethal Weapons characterized the law enforcement officer's most common tools — the nightstick and the gun — as inappropriate in many instances, especially in hostage and barricade situations, which require equipment that can stop a dangerous subject without endangering innocent hostages or bystanders. Clearly, criminal justice professionals need new approach-

es to capturing, subduing and detaining subjects.

Sticky foam

One product under development is restraining or "sticky" foam, a taffy-colored, gel-like substance that, when dispersed from a pressurized shoulder-slung "gun," expands and turns into a glue that sticks on contact. The Department of Energy developed it to help secure nuclear weapon facilities by tripping up and entangling trespassers. It originally was believed that police officers could shoot the foam from a safe distance to stop fleeing suspects or to disable violent individuals armed with weapons other than guns.

Unfortunately, laboratory tests on volunteer subjects showed that the fairly large quantities required to achieve disabling effects made cleanup difficult.

Illinois law enforcement window-shopping for new technologies; some products don't deliver

Law enforcement agencies in Illinois are eager to check out new technology, even if budget constraints are making it hard for them to pull out the checkbook. One of the growing areas of interest is less-than-lethal technology.

Chicago Police Superintendent Matt Rodriguez was intrigued by some technology he saw recently while at a conference in California. As a result, he set up an open house on Feb. 8 at the Chicago Police Department's Training Academy featuring vendors of new items on the market.

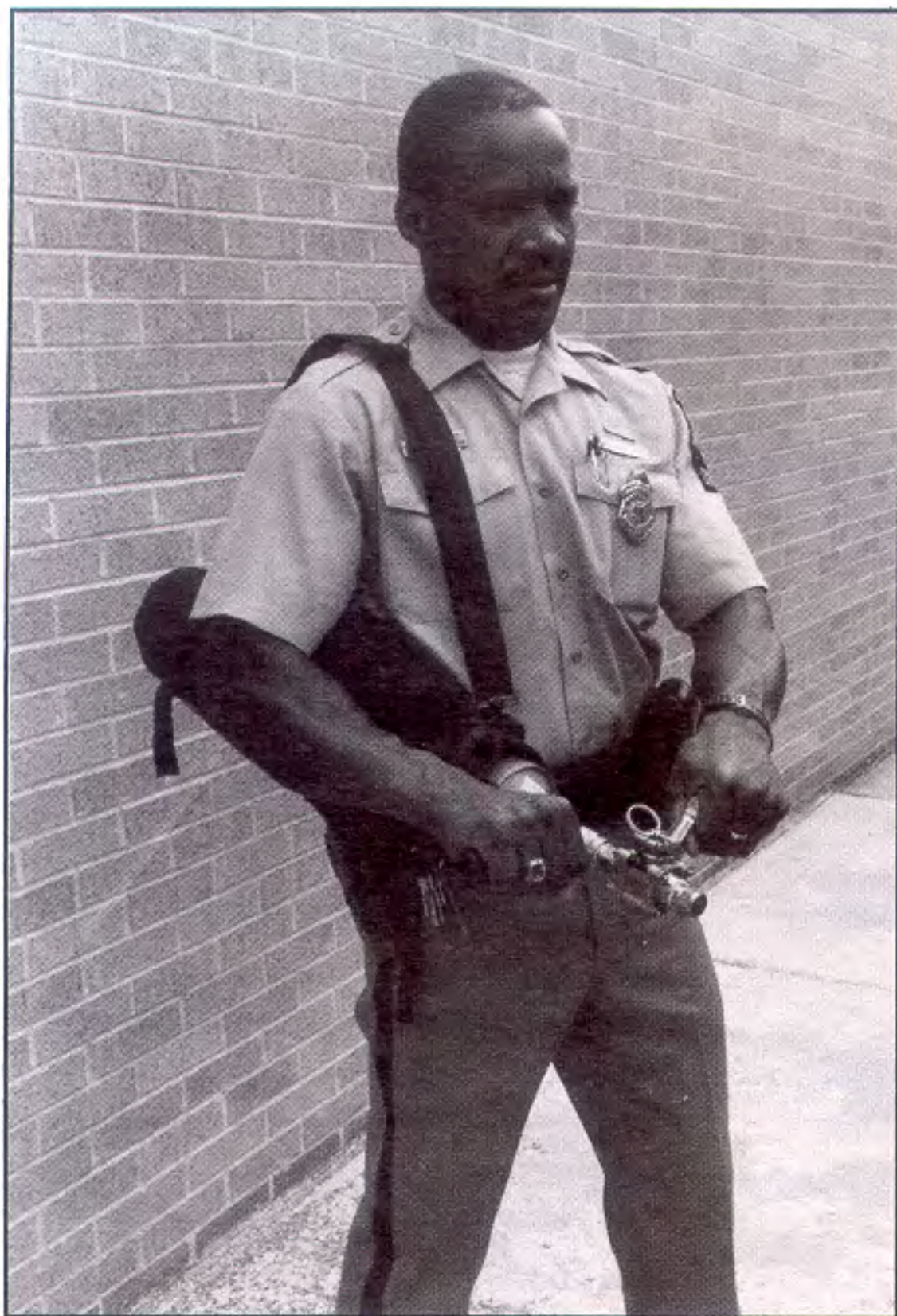
"Police are trying to find ways to safely apprehend and subdue people without hurting them and without hurting police," said the CPD's Lt. Barbara Frost, who organized the event.

Frost said her department is in the very early stages of research on less-than-lethal technology, and factors such as cost and identifying what would be useful for a particular department are big considerations.

"Superintendent Rodriguez sponsored the open house as an opportunity to examine where we are at and what products are out there," she said.

The Illinois State Police has been conducting tests on puncture strips as a means to stop cars during chases. Placed across a roadway by an officer who gets in front of the

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(Far left): Sticky foam is sprayed from a pressurized shoulder-slung "gun," then turns into a glue that sticks on contact (left). Experts believe the foam can disable armed individuals safely.

Despite this drawback, the U.S. Marines expressed an interest in sticky foam and have used it successfully during peace-keeping operations in Somalia.

In addition, the foam may prove effective in quelling prison disturbances by denying inmates access to certain areas, as may aqueous foam, a kind of thick, artificial fog. Tests and evaluations continue on these products, as NLECTC explores their safety and effectiveness.

Strobe-and-goggle technology

Already in the prototype stages, strobe-and-goggle technology employs a bright flashing light to blind and disorient subjects during drug raids or assaults on barricaded structures, allowing officers to enter the premises. In the past, these pyrotechnic flash-light generators, or "flash-bang" devices, had limitations. They sometimes generated extreme amounts of heat and light. Most often, they disoriented subjects for too brief a time. Worse, the officers who used them experienced the same effects as the criminals.

The new prototype includes goggles that protect law enforcement officers from the light's effects. In this case, the technology needed to make the goggles

already existed. Both military pilots and commercial welders wear goggles designed to darken when exposed to bright light.

Remote-control barrier strips

Law enforcement agencies face a myriad of potential liability situations. Many such lawsuits spring not from the use of firearms but from high-speed vehicular chases. In California last year, more than 7,000 high-speed pursuits occurred. One out of five ended in accidents, resulting in more than 1,200 injuries.² About 1 percent of all high-speed chases end with a fatality.³ In response to the need for safe ways to stop fleeing suspects, a national laboratory is developing technology to allow police to activate, by remote control, strips of needles that pop out of the road and puncture the tires of fleeing vehicles. Then, the police will retract the needles to chase the subject. The ability to activate the system remotely will prevent injury to law enforcement and to innocent civilians. NLECTC anticipates evaluating a prototype strip sometime in 1995.

Fleeing vehicle tagging system

Ultimately, if law enforcement cannot find a harmless way to stop a pursued vehicle, it happily will settle for a way of

definitively marking the vehicle to locate it at a later time. The same laboratory developing retractable spiked strips is at work on a projectile launcher system, which would allow officers to fire a "tagging" projectile at a fleeing vehicle. Equipped with a tiny radio transmitter, the object would stick to the car and allow police to track the vehicle from a safe distance without endangering lives or allowing the suspect to escape.

Officer safety

Less-than-lethal technologies that save the lives of innocent people and protect agencies from liability lawsuits represent an important area of research. However, officer safety remains a top priority, and NLECTC continues to sponsor projects designed to save officers' lives.

Smart gun

One-sixth of all law enforcement officers killed each year are shot with their own weapons.⁴ A national laboratory is testing a variety of sensors, which, when placed in the handgrip of a weapon, would "recognize" the authorized user and refuse to fire for anyone else. The resulting "smart gun" never could be used against its owner.

In addition to saving the lives of law enforcement officers, smart guns might save the lives of children who kill themselves, either accidentally or intentionally, with their parents' weapons. Finally, criminals who obtain weapons illegally could not fire them.

Personnel monitoring system

Technology soon may make the standard police walkie-talkie obsolete. Originally developed for Army medics, a personnel monitoring system will enable law enforcement and other public service personnel to remain in direct contact with their departments at all times. A miniature camera transmits full-color video of the scene; wireless networks allow audio communication and data transmissions; a global positioning system provides the officer's exact street location; and a personal status monitor tracks the officer's vital signs. As a result, an agency could locate and monitor an officer in distress, quickly assess the situation, and respond accordingly.

Investigative tools

The "perfect crime" becomes harder to commit every day. Emerging technology allows law enforcement officers to piece together crime scene clues where little evidence appears to exist.

The magic wand

In only 18 months and with a research grant of less than \$100,000, the Alaska

Crime Laboratory, together with a nationally known private firm, developed and distributed the Fingerprint Visualization System, named the "Magic Wand." It allows investigators to lift prints from nonporous surfaces at the scene of the crime, not in the lab. It helps police identify and apprehend suspects quickly.

The Fingerprint Visualization System allows prints to be developed on site in a matter of seconds using a portable, hand-held device that combines a superglue with a dye and reduces the procedure to one simple step. With prints in hand, the investigator need only link them to a suspect, a process that one day will be accomplished from the officer's patrol vehicle.

Smart car

Firefighters and mail carriers use specially designed trucks on the job; yet, no vehicles have been designed specifically for police work. Even cars with "police packages" usually come equipped only with different paint, special lighting packages, and other accessories. With limited buying power, law enforcement could not even persuade Detroit automobile manufacturers to produce cars without passenger-side airbags, which, if deployed, could turn equipment mounted on the passenger side into dangerous projectiles.

Still, some private firms that once held DOD contracts now have focused their creative energies on law enforcement. Police vehicles have become fertile ground for the seeds of science and technology. The "smart car," already being used by the Anne Arundel County, Maryland, Police Department and the Maryland State Police, is ready to merge onto the information superhighway with computer hardware and software designed to link officers on the street with data bases all over the country.

These systems allow officers to do more than write reports on computers. They provide immediate access to wants and warrants information, letting officers know what dangers they might face before they even step from their patrol cars.

The computers also permit on-the-spot transmission and retrieval of arrest records, fingerprints and mug shots. Some day, they will hold voice samples, giving



The "smart gun" (above) has sensors that would allow only the authorized user to fire it.

law enforcement officers a complete offender profile from the street. As departments acquire more smart cars and network them so that they communicate with one another, a trip to the station may be a rare occurrence for police officers in the future. ■

For information on products or services offered by the NLECTC, call 1-800-248-2742, or write NLECTC, Box 1160, Rockville, MD 20849.

Endnotes

1. Tennessee v. Garner, 471 U.S. 1, 105 S.Ct. 1694.
2. Unpublished report by the California Highway Patrol.
3. Studies have produced fatality estimates ranging from about .38 percent to 3 percent. See Geoffrey P. Alpert, "Police Pursuit and the Use of Excessive Force," unpublished paper; and Tim Grimmond, "Police Pursuits," *Police Chief*, July 1992, 43-47.
4. Author-calculated average of Uniform Crime Reports data for the past 12 years.

—This article originally appeared in FBI Law Enforcement Bulletin, July 1995. It was reprinted with permission and edited for space. Photos courtesy National Law Enforcement and Corrections Technology Center.

About the cover

The Illinois Criminal Justice Information Authority is pleased to announce the return of its crime prevention campaign featuring McGruff the Crime Dog.

Through funding provided by the U.S. Department of Justice, the Authority is offering several brochures that local police and sheriff departments can use as part of their crime prevention efforts.

Already, more than 450 local agencies have requested materials. For more information, or to order brochures on conflict resolution and/or child safety, contact the Federal and State Grants Unit at the Authority, 312-793-8550.

Law enforcement and the information highway

How can law enforcement take advantage of technology? Here's a brief tour of the information highway.

by Sal Perri

Computer-aided dispatch systems, onboard computers, in-car video systems, personal computers for report writing and other computer technologies are becoming part of the mainstream in law enforcement. The cyberworld of the information highway also has become part of the law enforcement technological age. Law enforcement agencies around the country are using the Internet, electronic bulletin boards and commercial information services. The underlying question is, what can the information highway do for law enforcement? The answers lie in what you are seeking to accomplish.

Many law enforcement agencies use the information highway to research various topics, including: how to draft a K-9 policy; the successes or failures of sponsoring a citizen police academy; and the type of shift schedule (12-hour shift, 10-hour shift, and so on) an agency uses. Others may use the information highway as a communication tool to disseminate information to the public or to share knowledge with other law enforcement agencies around the country.

Community policing and crime prevention programs also have found the window of opportunity through the cyberworld. Recently, *FBI Law Enforcement Bulletin* published its Internet e-mail address and received an overwhelming number of messages. The consensus of messages stated that "many members of the criminal justice community — police chiefs, dispatchers, patrol officers, students, and professors — have been exploring the Internet to find useful information. Some focus on researching the databases and documents available on the global network. Others concentrate on discussing current trends in law enforcement and exchanging information with criminal justice practitioners and researchers around the world."¹

What is the information highway?

The information highway is basically composed of three different levels of information services: the Internet; bulletin board systems (BBSs); and commercial information services.

The Internet

The Internet is an international network of local area networks tied together by a high-speed backbone of data connections called NSFNet, which is operated by the National Science Foundation. NSFNet ties together thousands of university computer systems and high-technology firms nationwide. The primary interest in Internet connections revolves around a growing web

of gateways and connections that allows people with e-mail access to send messages. Users can send messages to anyone with an Internet e-mail box or a connecting network. CompuServe, MCI Mail, AT&T Mail, America Online, GENie, Dialog, Sprintmail, other commercial information services, bulletin board systems and networks in Europe, the Soviet Union and Japan, and more than 40 other countries have Internet connections.

Bulletin Board Systems

An electronic BBS is a local on-line information system operated by people who own a computer, a bank of modems and phone

PAVNET announces new service

The Partnerships Against Violence Network (PAVNET) is a working partnership between the U.S. departments of agriculture; education; health and human services; housing and urban development; justice; and labor. The PAVNET on-line system needs more community involvement in its direction and wants to host discussions both nationally and internationally on anti-violence issues. A new listserv, Pavnet-mg, will be offered to the public as a mail group on the following topics: sharing local anti-violence initiatives; prevention program/curricula implementation and problem solving; resource sharing for anti-violence programs/funding/curricula; and future direction and improvements to Pavnet-Online.

To subscribe, send a message to: <almanac@ace.esusda.gov>. In the body, type "subscribe pavnet-mg." To unsubscribe: send a message to: <almanac@ace.esusda.gov>. In the body, type "unsubscribe pavnet-mg."

Questions should be sent to: <almanacadmin@ace.esusda.gov>.

You will receive a welcome message when your subscription is processed that explains in greater detail the functions and topics of the list.

For more assistance, write John Gladstone, National Agricultural Library, 10301 Baltimore Blvd., Beltsville, MD 20705-2351; call (301) 504-5462; or e-mail <jgladsto@nalusda.gov>.

Authority unveils Internet Web site

Visit the Illinois Criminal Justice Information Authority's World Wide Web site on the Internet to get information about the agency's programs, research, publications, crime information systems and other criminal justice-related resources. The Authority's home page address is

<<http://www.icjia.org>>.

Law enforcement bulletin board services

Sheriff's On-Line Information System (SOLIS) BBS

Phone number: (408) 741-8012

Location: Saratoga/San Jose, Calif.

Maximum baud rate: 14,400

BBS software: Wildcat

Number of phone lines: 3

Additional access number: (408) 971-2301 (San Jose)

Operated by the Santa Clara Co. Sheriff's Office

Sysop: Deputy Ron Levine

Local & networked conferences:

NLEMS, WCLAWNET, SEARCHnet, WildNet.

Public and secure LE access are available.

The Police Information Network

Phone Number: (708) 859-0529

Location: Aurora, Ill.

Maximum baud rate: 14,400

BBS software: Spitfire

Number of phone lines: 1

Located at Aurora Police Department Gang Intervention Unit

Co-sysops: Sgt. Jim DuMont and Sgt. Larry Skaggs

Street- and biker-gang database files are available.

FOPNet

Phone Number: (202) 547-1522

Location: Washington, D.C.

Maximum baud rate: 14,400

Number of phone lines: 1

FOPNet is sponsored by the Fraternal Order of Police, which has two boards.

One is open to the public; the second is an 800-number, restricted to verified FOP members. For more details, call FOPNet at (202) 547-7544 or FAX (202) 547-8190.

lines that allow people to dial into their system. BBSs provide information for one or more select audiences of people who have some kind of common interest. Some systems are designed for micro-computer hackers; some are designed for business users and/or to sell products; some provide computer games; and some cater to a very specialized interest. The range of information runs the gamut of human activities and interest. Many BBSs are free to use, while others charge a monthly, quarterly or annual fee.

Uses by law enforcement

Law enforcement agencies from cities such as Chicago, Phoenix and Sacramento have established Internet World Wide Web home pages as another avenue to communicate with the public. Chicago's WWW site was designed to explain CAPS, its community policing strategy, to the public. It also gives detailed information about how the public can participate, the location of police district beats, a schedule of community beat meetings, success stories, and other information about the Chicago Police Department. The Chicago WWW page address is <<http://www.ci.chi.il.us>>.

The Phoenix Police Department uses its WWW site to publicize the Police Community Relations Bureau Program. It has some unique features that enable citizens to access the Silent Witness area or the Graffiti Hotline area to report crimes and earn cash rewards. It also highlights such programs as Gang Resistance Education and Training, Police Activities League, Drug Abuse Resistance Education, Crime Prevention Tips, Block Watchers on Patrol, Law Enforcement Explorer Program, Hate Crimes Advisory Committee, Police and Residents Organized Against Crime, and Citizens Offering Police Support. The Phoenix WWW page address is <http://www.getnet.com/silent/phx_police.html>.

The Sacramento (Calif.) Police Department Web page is dedicated to assisting the city's citizens. It contains crime statistics with "clickable" maps, neighborhood crime alerts, reward information for wanted people with photos, crime prevention tips, home protection tips, a personal crime-risk assessment test and fraud prevention information. In

the near future, they plan to provide this information in Spanish, provide more detailed listings of crime statistics according to neighborhoods and make other additions. The Sacramento Police Department WWW page address is <<http://www.quiknet.com/~spdcau/>>.

Police personnel are using bulletin board systems that are geared toward discussing a number of topics, issues and disciplines associated with law enforcement. For example, the Aurora (Ill.) Police Department sponsors a BBS that assists law enforcement professionals who investigate and combat gang-related crime. The substation sponsored by the Solano (Calif.) County Sheriff's Department is an on-line BBS designed to provide public safety and law enforcement information with conference areas set aside just for users in those fields.

Other law enforcement agencies have designed diversified BBSs, such as the Santa Clara (Calif.) County Sheriff's Office, which sponsors the Sheriff's On-Line Information System. It offers an assortment of conferences that cater to law enforcement professionals and the public. The Sheriff's Office Crime Prevention Unit provides citizens with safety tips and announcements about the unit's activities. The Missing Children Conference has been set up with the cooperation of Child Quest International, Inc., a non-profit organization devoted to the recovery and protection of missing, abused and exploited children. Information regarding missing children and digitized photos also are posted in the conference area. Law enforcement users have access to several special interest areas where they can discuss issues related to patrol, investigation, traffic and K-9.

Commercial/other services

IACP NET, an electronic bulletin board sponsored by the International Association of Chiefs of Police, began operating in January 1992 and has steadily grown over the years. More than 425 law enforcement agencies are members (including more than 40 in Illinois). Many users consider IACP NET a vital link to law enforcement research due to the extensive information available in the data bases, the exchange of information

and ideas in the Quest-Response Service, and the quality of its news updates in the current affairs section. A number of other electronic services also are available to law enforcement, such as the National Criminal Justice Reference Service BBS (NCJRS*BBS), SEARCH BBS, the CompuServe Safetynet Forum, the COPS Forum on Prodigy, and the FOPNet for members of the Fraternal Order of Police.

The Internet also supports many law enforcement-related areas. The Office of International Criminal Justice at the University of Illinois at Chicago, which has a World Wide Web home page, highlights its publications, seminars and conferences relat-

ed to criminal justice issues, and features many Internet gateways to other criminal justice and law enforcement sites. CopNet is another useful Internet area since it is the central repository gateway to law enforcement, criminal justice, government and other related Internet resources.

The Internet also has mailing lists, or discussion groups, where a subscriber communicates with other users by sending e-mail messages that are addressed directly to a distribution list of subscribers. For example, the United Nations Criminal Justice Information Network (UNCJIN-L) is an international network that provides information exchanges between more than 600

Authority lays groundwork for statewide criminal justice communications network

When police investigated an armed robbery and attempted murder a couple of years ago at a Galesburg home, they realized a key part of their search for suspects hinged on identifying people who had been associated with the place in the past.

At one time that could have involved a tedious search through past incident reports or time-consuming interviews with witnesses. It could have taken days. But through a computer information system developed by the Illinois Criminal Justice Information Authority, the task was finished moments after the search request was punched out on a keyboard.

The Galesburg officers quickly got a list of 11 names of people who, according to previous complaints, were in some way connected with the residence, Police Chief John Schlaff said.

Ultimately, four people were arrested, all of whom were on the list generated by the Authority's Police Information Management System. "We've had some success utilizing the advantages PIMS gives you," Schlaff noted.

It may not be the stuff of television crime dramas, but police agencies of all sizes are realizing the benefits of having advanced communications technology that allows them to gather, analyze and exchange information.

PIMS is one such tool. A records management system developed and maintained by the Authority, PIMS gives police immediate access to critical

law enforcement information, including details on arrests; the location and rate of criminal incidents; vehicle and property information; and crime analysis data. Another advantage is that the information is shared with other agencies on the system. Fifty-one agencies use PIMS.

Schlaff, whose department has used PIMS since 1988, said that considering the mobility of today's population — with criminals no exception — "networking becomes even more critical."

PIMS is being updated and will soon have expanded capabilities, including image scanning, which will allow the user to transmit mug shots and other pictures. It is but one of the computer systems the Authority is using to facilitate the work of law enforcement agencies statewide.

"Our biggest area of focus is pushing the cause of sharing information and communicating digitally," said Daniel Spees, manager of technical development and support in the Authority's Information Systems Unit.

The idea of various agencies sharing information on a statewide criminal justice network is a major focus of the work being done by the Authority, Spees said.

"We really do believe the state needs one unified network for all of criminal justice," he said. What he envisions is a system that eventually will link the computers of agencies physically located all across the state through inexpensive local telephone connections. Agencies would have a phone line to a regional hub, from which they could gain access to the state-

wide network.

"Of course, people committing crimes don't have a tendency to pay attention to jurisdictional boundaries, so certainly it helps if your information system doesn't either," he said.

The Authority is taking a leadership role in digital communications as a fast, secure method of exchanging information. Digital not only lightens the load on increasingly crowded voice channels, but also gives an officer the ability to access information at his or her convenience.

Digital readouts can provide more detail and provide it quicker than a dispatcher talking on a radio. Still, it is intended to supplement, not supplant, voice communications between police dispatchers and officers on patrol, Spees said.

One of the most widely known digital communications tools developed by the Authority is ALERTS, the Area-wide Law Enforcement Radio Terminal System. This system, which can be linked to PIMS or computer-aided dispatch systems, uses mobile data terminals to create an in-car mobile radio network.

The digital communication of ALERTS is faster than voice communication and helps cut down on voice radio traffic. ALERTS users can access LEADS (Law Enforcement Agencies Data System), and the FBI's National Crime Information Center for informa-

continued on page 17

members within the criminal justice community, such as universities, police departments, criminal justice organizations, policymakers, planners, practitioners, scholars and other experts worldwide. Subscribers to this group can communicate with one another to express views, locate research information, and exchange ideas and information. UNCJIN-L users also are permitted access to the UNCJIN-L Gopher, a mini-library of information dedicated to providing crime and justice information that is administered by the School of Criminal Justice-Nelson A. Rockefeller College of Public Affairs and Policy, University of Albany-State University of New York. The beauty of the UNCJIN-L Gopher and other Gopher systems is that the hard work of searching the Internet for information is done by the Gopher and the systems operator.

The CJUST-L is another criminal justice discussion list meant to serve as a forum for free and open discussion of criminal justice issues and problems, whether they be theoretical or real, from one's own experiences or the newspaper's front page. It is meant primarily to be an academic discussion list, although all subscribers are encouraged to participate regardless of their backgrounds. Subscribers of the CJUST-L list come from all walks of life. POLICE-L also is associated with the CJUST-L with one difference — it is a discussion group restricted to law enforcement personnel.

The National Criminal Justice Reference Service recently has been made available on the Internet. Established by the National Institute of Justice, a branch of the U.S. Department of Justice, NCJRS provides users with reliable, comprehensive and current information about the latest criminal justice studies and projects from around the world. The NCJRS Gopher provides criminal justice professionals with an overview of the NCJRS, as well as information from DOJ's Office of Justice Programs agencies.

The National Institute of Justice, the Office of Juvenile Justice and Delinquency Prevention, the Office of Victims of Crime, the Bureau of Justice Statistics Clearinghouse, and the Bureau of Justice Assistance Clearinghouse are some of the agencies that have information available through NCJRS. It also provides press releases and conference information, information from the Drugs and Crime Data Center Clearinghouse, information about justice publications, products and services, direct connection to the NCJRS*BBS, and access to other criminal justice and government resources on the Internet.

Conclusion

The information highway expansion within the field of law enforcement has just begun. With new user-friendly, Windows-based software being developed every day and the competition between electronic service providers increasing, the number of cyberworld users from the general population will grow each year.

Law enforcement will face a new challenge to develop innovative policing methods to deal with the public and the growing criminal element within this new world.

Several law enforcement agencies also are facing daily budget crunches and have neither the funds nor the manpower to support a large research staff. The Internet, bulletin board systems and commercial information services are a very inexpensive, time-saving and useful alternative. The information highway also provides law enforcement with the opportunity to communicate and expand access to the public and other professionals who participate within the cyberworld.

This article only highlights a tiny cornerstone of data and uses of the information highway. Many areas exist with vast amounts of information, while new areas continue to be developed. Exploring this new frontier has just begun. ■

Endnote

¹"On the Line E-mail Responses," *FBI Law Enforcement Bulletin*, July 1995.

— *Sal Perri is an information specialist in the Research and Analysis Unit at the Illinois Criminal Justice Information Authority. He is a very active information highway user.*

For more information about the Internet or BBS services available to law enforcement, please contact Sal by calling (312) 793-8550; by faxing (312) 793-8422; or by e-mailing: <73244.2726@COMPUSERVE.COM>.

IACP Net links law enforcement leaders nationwide

IACP Net is sponsored by the International Association of Chiefs of Police and is the premier on-line service linking leaders in law enforcement nationwide. IACP Net consists of three major components: IACP services; communication services; and IACP data base services.

• **IACP services:** Frequently updated information from IACP headquarters is disseminated to network members. Information includes news and announcements of key developments nationwide and from within IACP; legislative news; special briefing papers about hot topics; a calendar of events; and model policies and directories.

• **Communication services:** A national network designed to encourage and facilitate information exchanges among law enforcement professionals. It includes electronic mail and the Quest-Response service, which permits users to post ques-

tions or ask for assistance from network members.

• **IACP data base services:** unique data bases of law enforcement information that focus primarily on problem-solving and management data that are of particular interest to police chiefs. These include innovative programs such as National Night Out; Adopt-A-Cop Program; Model Community Policing Programs; Revenue Generation and Human Resource Data; ordinances and policies affecting law enforcement such as massage parlor licensing; pit bull restrictions; National Institute of Justice policy research; personnel policies; park and special events enforcement policy; and pursuit, force and other law enforcement policies.

For more information or a free demonstration, write IACP Net, 125 S.E. Main St., Suite 341, Minneapolis, MN 55414, or call (612) 331-5672 or (800) 227-9640. ■

BJA program assists states' fight against criminal aliens

CAIP grant from Bureau of Justice Assistance will help Illinois assess its criminal alien problem.

by Todd Czapski

Criminal aliens are neither citizens nor nationals of the United States, but they have been convicted of committing a crime here. While the criminal alien problem in states such as Florida, Texas and New York has been widely publicized, activities of these criminal aliens are just beginning to receive national media attention.

Because of the nature and complexity of the criminal alien problem, federal and state agencies have had to develop specific approaches to deal with foreign-born offenders. Under certain circumstances, criminal aliens are deportable. The U.S. Immigration and Naturalization Service, however, needs assistance from states to identify criminal aliens subject to deportation. Through a grant from the U.S. Department of Justice's Bureau of Justice Assistance, an assessment of the problem in Illinois recently was conducted.

BJA responds to cry for help

The BJA began the Criminal Alien Identification and Intervention Program in response to recent federal legislation and states' increased requests for federal assistance to fight growing problems with criminal aliens. The program addresses issues in-depth and devises strategies to confront some of the problems unique to foreign-born offenders. Specifically, the CAIP was developed to assess and improve the identification and deportation of criminal aliens. Additionally, the CAIP will help implement and evaluate the INS' Law Enforcement Support Center, which will provide federal, state and local agencies

24-hour access to INS resources to identify aliens within the criminal justice system.

Currently, only law enforcement agencies in Arizona — the pilot test site — have LESC access. When pilot testing is complete, LESC access will be expanded to California, Florida, Illinois, New Jersey, New York and Texas.

CAIP grant awarded to Illinois

The BJA awarded CAIP pilot grants to states that incarcerated the most foreign-born offenders. The BJA selected Illinois, through the Illinois Criminal Justice Information Authority, for a CAIP assessment grant because the Illinois Department of Corrections houses more than 1,600 foreign-born offenders. The Illinois CAIP assessment focuses on the descriptions of the criminal alien population within the Illinois criminal justice system (particularly in the IDOC) and the steps in the criminal justice process at which criminal aliens can be identified so the INS can intervene. Additionally, the assessment describes the procedures used by the INS and by Illinois criminal justice agencies in handling (and deporting) criminal aliens and provides information about how to connect with and use the LESC.

Illinois CAIP work group

To assist in the assessment, the Authority formed the Illinois CAIP Work Group, which is, in effect, the "steering" committee for Illinois' CAIP project. The work group comprises representa-

tives from various criminal justice and law enforcement agencies in Illinois, including: the INS; the Cook County Circuit Court Clerk's Office; the Chicago Police Department; the Illinois State Police; the Illinois Department of Corrections; the Cook County Adult Probation Department; the Cook County State's Attorney's Office; and the Elgin Police Department.

The assessment was crucial for pinpointing the extent and nature of Illinois' criminal alien population. One revealing assessment statistic highlights the severity of the criminal alien problem in Illinois: More than 72 percent of foreign-born offenders in the IDOC were incarcerated for one of the three most serious offense classes (Class M, Class X or Class 1 felonies). Such statistics provide a clearer picture of the problem's magnitude, so that criminal alien-related issues can be dealt with more effectively.

In the initial planning phase of Illinois' CAIP assessment, the work group responded to research findings and proposed strategies for improving criminal alien processing and identification. The work group also provides assistance in establishing policies, procedures and practices for efficient communication with the LESC. In 1996, the Authority will begin to set forth some of the strategies and LESC protocols identified by the work group. ■

— Todd Czapski is a staff assistant with the Illinois Criminal Justice Information Authority.

Automated disposition reporting one key to improving criminal record completeness

Research finds that states using automated disposition reporting have a better rate of record completeness than states that don't.

by Mark Myrent

Criminal history record completeness is an important concern in Illinois and many other states. When rap sheets do not reflect final dispositions of subjects' arrest events, the ability to conduct criminal background checks is compromised.

The most recent federal survey of criminal history record systems found that only about half the states report that 60 percent or more of their recent arrests (those within the past five years) in the criminal history data base have final dispositions recorded. However, specific states had achieved considerable success in increasing record completeness through various strategies.

In noting these findings, staff of the Illinois Criminal Justice Information Authority's Ad Hoc Committee on Dispositional Reporting identified four of the largest states — Michigan, North Carolina, New Jersey and New York — that have high rates of record completeness. In all four states, more than 70 percent of the recent felony arrests had final dispositions. Officials in those states were contacted so staff could discover which strategies were most responsible for the improvements in record completeness. Significantly, officials in each state attributed much of their success to a single factor—the automated reporting of court dispositions to their criminal history record data bases.

Other initiatives

Since 1990, North Carolina has had electronic disposition reporting in 99 of its 100 counties. The dispositions are automatically transmitted over telecommunications lines to the computerized criminal history system daily. Unfortunately, Mecklenburg County, the state's largest (which also includes its largest city, Charlotte), is the only one not reporting electronically; it has a separate records system from the rest of the state.

Michigan has remote on-line data entry of dispositions by seven felony courts. Another 25 felony courts have software designed by the state's Administrative Office of the Courts. Officials record court dispositions onto a disk, which is then sent to the AOC. The AOC extracts certain statistics, reformats the information and sends it on-line to the criminal history data base. The district courts, which use a separate vendor system, are responsible for submitting misdemeanor case dispositions to the CCH system.

New Jersey has integrated its automated court records system with the CCH system. All 21 of the county courts and about

one-half the municipal courts direct-enter court dispositions into the CCH system this way. The disposition reporting process works unconventionally: Once arrest charges are referred to the prosecutor, the case is entered into the PROMIS/GAVEL system, which contains prosecutorial and court information. When an arrest fingerprint card is received by the New Jersey State Police, it flags the case in the PROMIS/GAVEL system (based on a court disposition reporting number that links the arrest to the court case). When the final case disposition is later entered into the system by court personnel, it is transmitted to the state AOC for editing. The AOC also enters the data from the nonautomated municipal courts. All the information pertaining to the flagged cases is then transmitted to the state CCH system. State officials have indicated that they expect all courts to be reporting on-line within the next two to three years.

In New York, the state CCH system has been receiving some court dispositions electronically since the mid-1970s. In 1985, in response to the findings of a special state commission, officials carried out a comprehensive upgrade of criminal justice information systems. This included developing the Criminal Records Information Management System, which records all stages of court processing, from case initiation through final disposition, and provides very specific disposition data to the CCH system. Information on events such as arraignment, attorney type, and release status, as well as specific data on disposition codes and charge reductions, are all collected through CRIMS. This information is reported continuously to the CCH system, even before the case is finished.

Automated disposition reporting in Illinois

A few Illinois counties report court dispositions to the Illinois State Police in an automated fashion — but on electronic media rather than over telecommunications lines. A committee called the Automated Disposition Reporting Users Group — which includes staff from circuit court clerks' offices, the Administrative Office of the Illinois Courts, the ISP and the Secretary of State's Office — have helped facilitate this process by developing a standardized data dictionary for court events, as well as standard formats for the electronic transmission of these data elements. Consequently:

- Cook County sends court dispositions directly to the ISP on tape.

- DuPage County reports court dispositions on disk to the AOIC. Kane, Kendall and DeKalb counties all transmit dispositions to the AOIC on-line through a modem hookup. The AOIC inspects and cleans the data from all four counties and then sends them to the ISP on tape.

Additionally, 59 circuit court clerks' offices in Illinois use the Judicial Information Management System, an automated court records system developed by a private vendor. That software recently has been upgraded so that its users will soon be able to transmit court dispositions on disk. Marshall County has served as the test site for this upgrade and is now reporting its dispositions to the ISP in this format. Approximately one-half the JIMS sites have the upgraded software and are expected to begin reporting electronically in the near future. Other sites must acquire the upgrade.

Illinois' initiatives have limitations

Although these automated disposition initiatives will help increase the reporting of court dispositions to the ISP, and therefore enhance the completeness of CCH records, they are limited in that the data transmission is by tape or disk, rather than an on-line transmission process. Besides allowing for more expeditious transmission of the data to the criminal history data base, a telecommunications line allows two-way communication. This means that if and when data errors are identified by ISP staff, the clerks' office may be notified immediately while the case is still active — that is, before the case file is archived. This greatly facilitates the correction process and the retransmission of the corrected data back to the ISP.

Through the Ad Hoc Committee, the Authority plans to use federal funds to develop on-line disposition reporting projects as part of its Criminal History Record Improvement Program. A prototype project is now being developed with the Office of the Cook County Circuit Court Clerk. Following the successful implementation of this prototype, the Authority plans to facilitate the expansion of on-line disposition reporting to other parts of the state. One possible way to accomplish this would be to convert those sites that already report on tape or disk to an on-line reporting process.

The future of on-line reporting

The implementation of on-line disposition reporting in Illinois will undoubtedly face certain challenges that other states did not need to confront. Each of the four states surveyed, for example, had unified court systems. This means that the management of court operations was centralized under one state authority. This facilitated the installation of a single software package for each of the court sites. In Illinois, however, many circuit court clerk offices have existing, "stand-alone" court record systems that were not originally designed to communicate with other data systems. Additionally, Illinois does not yet have a statewide criminal justice telecommunications network to accommodate specific types of electronic data sharing and to help minimize the line charges associated with these transactions.

However, given the experiences of the surveyed states, it may be worth the effort to develop such a network. Under cur-

rent federal guidelines, each state must annually use 5 percent of its formula block grant funds awarded through the Edward Byrne Memorial State and Local Law Enforcement Assistance program to improve criminal justice records. In its criteria for waiving these set-aside requirements, the Bureau of Justice Assistance, a division of the U.S. Department of Justice, mandated that Illinois achieve 95 percent completeness within an unspecified time period for the recent felony arrests currently on its criminal history data base. ■

—Mark Myrent is a senior research analyst at the Illinois Criminal Justice Information Authority.

In Brief, from page 3

JRSA is a national professional association of criminal justice analysts, researchers and practitioners. Its mission is to promote the development, analysis and dissemination of objective and accurate information to support sound policy development.



Roger Przybylski

secretary/treasurer; Kim English, Colorado, delegate; and Pablo Martinez, Texas, delegate. ■

Also elected were: Tim Bynum, Michigan, vice president; Roy Holt, Arizona, secretary/treasurer; Kim English, Colorado, delegate; and Pablo Martinez, Texas, delegate. ■

Elections were held at the U.S. Department of Justice, Bureau of Justice Statistics, annual conference in Atlanta, Ga., this past fall. Statistical Analysis Center directors from the 56 states and territories were eligible to cast votes.

Also elected were: Tim Bynum, Michigan, vice president; Roy Holt, Arizona,

New products, from page 6

car being pursued, the expandable strips have spikes designed to puncture car tires. Officials have been encouraged by the tests of the strips and their potential for reducing injuries.

At around \$400 each, however, it may be a while before the puncture strips are standard equipment in the ISP's 1,700 cars, they said.

With all the new products being advertised, agencies should be aware that not everything lives up to manufacturers' claims.

In January, a product marketed nationwide to law enforcement agencies and schools as a nonintrusive means of locating illicit substances such as drugs, weapons and explosives was denounced as a fraud by the FBI and the National Institute of Justice, the research arm of the U.S. Department of Justice.

This "divining rod," which was marketed under the name Positive Molecular Locator, or Quadro Tracker, by the Quadro Corp., was found in a laboratory examination to be nothing more than plastic and air, according to the NIJ's National Law Enforcement and Corrections Technology Center.

The NLECTC strives to be a kind of "Consumer Reports" for the law enforcement community, said Lance Miller, NLECTC equipment testing technician. The Quadro Tracker was the first bogus product he has encountered, Miller said, "but I'm sure it won't be the last." ■

—Daniel Dighton

STAC version 4.0 released

After a year of design and testing, a more user-friendly version of Spatial and Temporal Analysis of Crime software has been developed and released.

by Dan Higgins

Since its inception in 1985, the Authority-developed Spatial and Temporal Analysis of Crime software has undergone many changes in an attempt to make sense of vast amounts of crime data. STAC, which locates clusters of crime, currently is used by 135 organizations, including 78 police departments. It is provided at no charge to law enforcement organizations that have some in-house expertise in computers and mapping software. (*STAC is not a mapping package; rather, it is used in conjunction with mapping software.*) Highlights of STAC's newest version, 4.0, follow.

Improved user interface

A lot of time was spent on improving the interface between all STAC programs and functions. They are now accessible through menus, meaning that for the first time, users can choose between the spatial and temporal programs from one main menu.

Results of analyses are viewed on new one-page report files in STAC 4.0. Even more importantly, reports include statistics on the hot clusters that were detected by STAC; the number of crimes in each cluster; the area and the number of crimes inside the ellipse (see drawing); and the density of each ellipse. Report printouts enable users to have a permanent record of their analysis and to compare results from different hot spot area searches.

Version 4.0 also provides methods of handling data and controlling files that are more user-friendly than earlier formats.

Program enhancements

STAC 4.0 comes with two new statistical tools to assist people in determining how

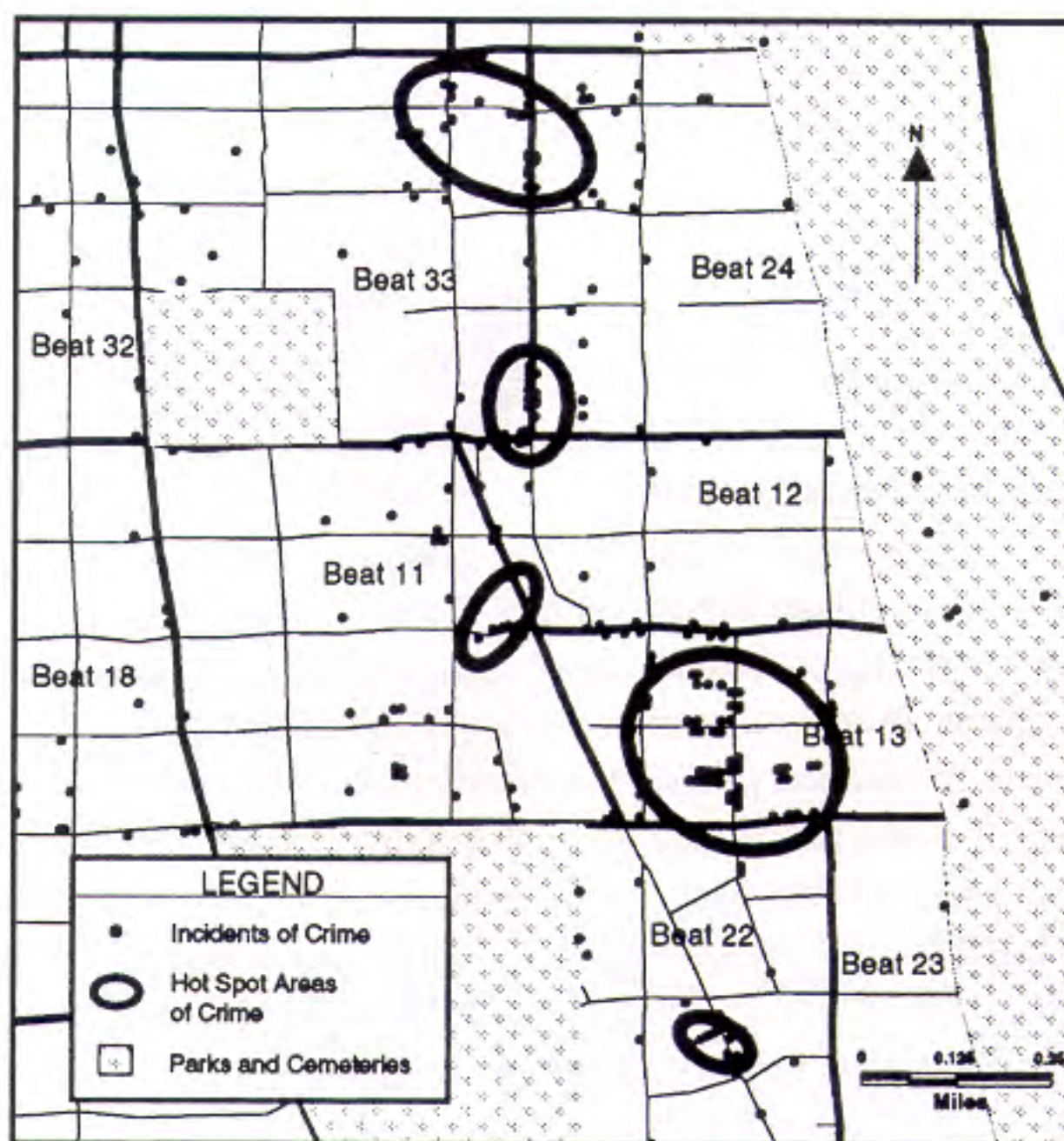
hot their hot spots of crime really are. Nearest Neighbor Analysis, an optional selection, tests for the significance of spatial clustering. While STAC can identify and locate clusters, NNA determines whether or not that clustering is significantly nonrandom. The second technique, automatically performed on every data run, produces statistics related

illustrations, such as flow charts that sequentially show the steps to running STAC successfully; and separate user and technical manuals. Only the information necessary to run the program is included in the user manual. A technical manual is available for users who want to learn more about a particular analysis or function of the program.

A decade of progress

Version 4.0 is another major step forward in the improvement of STAC's accessibility and capability. "It's much quicker and easier to use," said Carolyn Rebecca Block, senior research analyst at the Authority. "It's more accessible to those who don't have a lot of time. STAC 4.0 takes in vast amounts of data and quickly summarizes them for quick decision making that involves, for example, intervention strategies, violence prevention, investigations and crime analysis," she said. "Ultimately, the goal is to reduce crime and hopefully save lives."

This update of STAC reflects contributions and feedback from the network of STAC users, beta testers and Authority computer programmers and analysts. Programmers Lynne Barton and James Spring made significant contributions to this latest version, Block added.



This map shows how STAC calculates naturally-occurring clusters without regard to artificial boundaries.

to density. STAC calculates crimes per 1 million square units (feet, meters, etc.) for each ellipse, as well as for the study area outside any ellipse.

More instructive user manuals

Some of the ways STAC manuals are now more user-friendly include: complete log-on instructions, including procedures for installing STAC; more

For more information or to receive a copy of STACNews, the newsletter for STAC users, call Dan Higgins, research analyst and editor of STACNews, at the Authority, (312) 793-8550. ■

Authority to implement federal program aimed to stop violence against women

An implementation plan designed to help stop violence against women in Illinois has been approved by the U.S. Department of Justice. At press time, the Illinois Criminal Justice Information Authority was waiting for first-year funding of \$426,364 to be released by the department. The Authority is the state agency chosen to carry out the program in Illinois.

The funds come from the Violence Against Women Act, part of the federal crime bill that was passed by Congress in 1994. Each state was eligible to receive the same amount of first-year funding, which can be used to develop anti-

violence strategies that draw on the experience of all players in the criminal justice system, including the advocacy community.

The Authority awarded two grants at its December 1995 meeting, for \$85,012 each, as part of the VAWA program. The awards will be used by the Illinois Coalition Against Domestic Violence and the Illinois Coalition Against Sexual Assault to expand services in underserved areas of the state, particularly the southern regions.

Illinois' plan was developed by an ad hoc committee of the Authority, chaired by Authority member Barbara Engel, a

well-known advocate for women's and victims' rights. As part of the development process, the committee held public hearings in Springfield and Chicago on the issue of violence against women.

The goals of the Illinois plan are: to build an effective and accountable criminal justice system that responds to the needs of sexual assault and domestic violence victims; promote victim safety and freedom from violence through collaboration of criminal justice agencies and victim service providers; and to ensure that victims of sexual assault and domestic violence have access to services that are appropriate for their needs. ■

CIMIS, from page 5

including the latest innovation—bar code input. As mentioned previously, Adams and Sangamon counties are using both the electronic mug shot and fingerprint interface modules; Lake, Cook and Knox counties are using the mug shot option. The fingerprint interface has been available for three years; the mug shot module, seven.

The Cook County Jail is the largest and most complex CIMIS site. To comprehend the magnitude of this system, consider that there are more than 10,000 incarcerated inmates and more than 130,000 digitized mug shots accessible (with the proper equipment) to 130 computer users at the jail. Staff at Cook County use CIMIS to process more than 80,000 bookings annually. Additionally, every day, there usually are more than 1,000 inmates awaiting court call; staff use CIMIS to move these inmates to the appropriate location and to maintain records of their court actions.

The use of CIMIS at the Cook County Jail doesn't stop there, however. Its data transfer module has been used for more than 10 years to send records on about 300 offenders per week to the Illinois Department of Corrections. This electronic transfer allows the IDOC to begin processing inmates prior to their arrival at a state prison, which means inmates can be identified quickly and information on people with special needs can be gathered beforehand. Other CIMIS modules track all inmate trust moneys, commissary purchases, medical records, personal property and inventories.

Recent upgrades

In the past year, six of the eight CIMIS sites have upgraded their computers to much faster and powerful machines. With these upgrades, CIMIS users will be in a position to take advantage of

all the CIMIS features, as well as to add livescan and mug shot modules as needed. ■

— *For more information on CIMIS, contact Andrew Krok at the Authority, 312-793-8550.*

— *Ben Hulse was an intern in the Office of Public Information at the Illinois Criminal Justice Information Authority. Additional reporting by Regina Ludes, editorial consultant.*

Information network, from page 10

tion on warrants, as well as the secretary of state's office for vehicle and driver's license information.

"I think it's the best technological invention for police services in a number of years," said River Forest Police Chief Joe Bopp, whose department signed on to ALERTS about a year ago. "The big thing is the safety of the officer," he added.

One of the system's most popular features allows an officer making a traffic stop to find out, before he even gets out of his car, if the car he has stopped has been reported as stolen or if the owner is wanted. Another safety feature is an emergency button on the terminals that immediately sends a message that the officer is in trouble.

Bopp estimated that getting car registration information digitally instead of by speaking with a dispatcher reduces air traffic by about 40 percent.

ALERTS also can be connected to an agency's CAD system. Among other advantages, this allows police officers in River Forest to automatically obtain a shift summary indicating every call they went on and the disposition of those calls, Bopp said.

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Motor Vehicle Theft Prevention Act extended another four years

When Gov. Jim Edgar and the Illinois General Assembly passed legislation to extend the Illinois Motor Vehicle Theft Prevention Act, they reaffirmed their support of the Council's fight against vehicle theft in the state.

by Gerard Ramker

On Aug. 10, 1995, Gov. Jim Edgar and the Illinois General Assembly passed legislation that extended the Illinois Motor Vehicle Theft Prevention Act through the year 2000. By taking this measure, state legislators have affirmed the success of the Illinois Motor Vehicle Theft Prevention Council's fight against vehicle theft in the state.

The Council's statewide strategy

The Act, which took effect on Jan. 1, 1991, established the 11-member Council and gave it the responsibility for managing a unique cooperative venture between business and government to curb motor vehicle theft in Illinois. Each year, the Council adopts a statewide motor vehicle theft prevention strategy based on information gathered from public hearings and data analyses. The strategy describes the nature and extent of the theft problem in Illinois, the areas of the state where the problem is the

most serious, problems the Council should address, and the types of programs that are eligible to receive the Council's support. The Council then awards grants from a special trust fund to state and local agencies that implement programs consistent with the Council's strategy.

To fund these awards, every insurance company that writes private passenger motor vehicle coverage in Illinois pays \$1 for each policy they sell in a given year that carries comprehensive insurance coverage. These funds are deposited annually into a special trust fund. This translates into about \$5.2 million each year.

Funded programs

Since March 1992, the Council has made 70 separate grant awards. About \$21 million, or 90 percent of all the funds awarded, have been designated for law enforcement programs that increase the

investigation and prosecution of vehicle theft, insurance fraud and related crimes.

Funded programs have included:

- Multi-jurisdictional task forces, special investigative activities and specialized prosecution efforts in Cook, DuPage, Kane, Lake, Will, Kankakee, Grundy, Winnebago, Boone, Peoria, Tazewell, Madison and St. Clair counties;
- Statewide programs that improved the collection, analysis and sharing of criminal intelligence information regarding motor vehicle theft;
- Statewide training for hundreds of patrol officers and investigators covering vehicle theft and insurance fraud; and
- Statewide public awareness programs such as "Park Smart" and "Beat Auto Theft."

How grant funds are used

The grant funds awarded to date have been used chiefly to fund law enforcement personnel. A total of 165 individuals are currently supported in the Council's grant programs, including 114 special agents and auditors that perform sworn and civilian investigative functions; 15 assistant state's attorneys who prosecute motor vehicle theft cases; and 36 support personnel, including criminal intelligence analysts, data operators, paralegals, and clerical support staff.

Positive results

- Counties with funded programs experienced no increase in thefts in 1993 or 1994, while counties without programs experienced a 15 percent increase in vehicle thefts.



Left: Some high-priced vehicles were recovered in a Council-funded undercover operation dubbed "Operation White Path." The vehicles were about to be exported to Eastern Europe.

- Based on motor vehicle theft rates per 100,000 people, Illinois' rate has decreased since 1991. Among the 50 states, Illinois dropped from 13th to 15th between 1991 and 1992. In 1993, the state dropped to 18th on the list.
- Since 1991, the number of reported motor vehicle thefts in Illinois has steadily declined. In 1993, 6,600 fewer stolen vehicles were reported than in 1992, a decrease of 10 percent and a savings of nearly \$32 million. Similarly, there were 4,400 fewer reported motor vehicle thefts in 1992 than in 1991, a 6 percent decrease and a savings of \$21 million. For the two years Council-funded programs have been in operation, the motor vehicle theft problem in Illinois has been reduced by 16 percent.
- Council-funded programs have initiated 3,967 criminal investigations and 8,145 audits and inspections of vehicle-related businesses.
- Funded programs have resulted in 1,898 arrests.
- Between 1988 and 1992, arrests for motor vehicle theft rose from 9,863 to 10,428, a 6 percent increase statewide. In Chicago, where four out of five arrests for motor vehicle theft are made, arrests increased by more than 5 percent between 1988 and 1992. Illinois' urban counties experienced the largest increase; arrests went up 80 percent.
- Council-funded programs have resulted in 671 convictions.
- The number of offenders receiving prison sentences for motor vehicle theft and related crimes increased dramatically. In 1993, 15 percent of all property crime admissions to state prison were for motor vehicle theft; in 1984, it was only 4 percent.
- The average prison sentence for motor vehicle theft doubled between 1984 and 1993.
- In 1993, 1,641 sentences to the Illinois Department of Corrections (IDOC) Adult Division were for motor vehicle theft, up from only 272 in 1984 (a 500 percent increase). By comparison, sentences to IDOC for all property offenses increased by 58 percent during the same period.
- Council-funded programs have result-

ed in the recovery of 4,655 stolen and contraband vehicles, valued at over \$32 million.

- The average number of days between the theft and recovery of vehicles dropped from 24 to 15 between 1993 and 1994. In 1992, the average was 30 days.

More highlights

As a result of Council-funded programs:

- More than 600 law enforcement officers have received training;
- The Auto Theft Handbook was published and distributed to 40,000 law enforcement officers throughout the state;
- Law enforcement agencies are sharing criminal intelligence regarding vehicle theft with the insurance industry;
- Through the Illinois Anti-Car theft Committee's Project Park Smart campaign, the public continues to be advised and educated about how to avoid becoming victims of motor vehicle theft;
- The number of criminal investigations, arrests, prosecutions, convictions, and sentences for vehicle theft, insurance fraud and related crimes have increased;
- The quality of complex cases prosecuted has improved;

- The inspection and audit of vehicle theft-related businesses has increased;
- The frequency and quality of vehicle theft investigation training has increased;
- Public awareness about vehicle theft and insurance fraud and their impact on consumers has improved; and
- The infrastructure supporting law enforcement efforts, including access to intelligence information, crime analysis, mapping, and federal, state and industry databases has improved.

Looking ahead

The complex problems of vehicle theft and insurance fraud require a comprehensive, multi-faceted approach. The insurance industry-public sector partnership embodied in the Motor Vehicle Theft Prevention Act fosters such a strategy. The Council has funded a variety of programs designed to support this strategy to ensure its continued success. With the extension of the Act, the Council's strategy is expected to produce positive results through Jan. 1, 2000.■

—Gerard Ramker is program director for the Motor Vehicle Theft Prevention Council.

Network, from page 17

ALERTS was launched in 1989 with the Hillside Police Department and has expanded to 218 agencies. The major problem with the system is keeping up with demand. ALERTS is limited by the number of relay towers, or base stations, that are available. The Authority is working with the Illinois State Police to acquire funding to expand the system statewide.

Currently, ALERTS is used in Chicagoland and in the Rockford, Galesburg, Peoria, Springfield and Champaign-Urbana areas.

The latest technological advance developed by the Authority is a computer software shell linking systems such as PIMS, ALERTS and the Automated Law Enforcement Communications System under one umbrella. The Illinois Crime Information System, or ICIS, uses client-server technology to provide an in-

terface between those systems as well as LEADS, dispatch ticket (the method used to send incident reports out to ALERTS cars), unit status (which indicates the status of an ALERTS vehicle) and E-911 services.

Now being used by 41 agencies, ICIS runs on Windows-based computer systems and also can be used to gain access to the Internet.

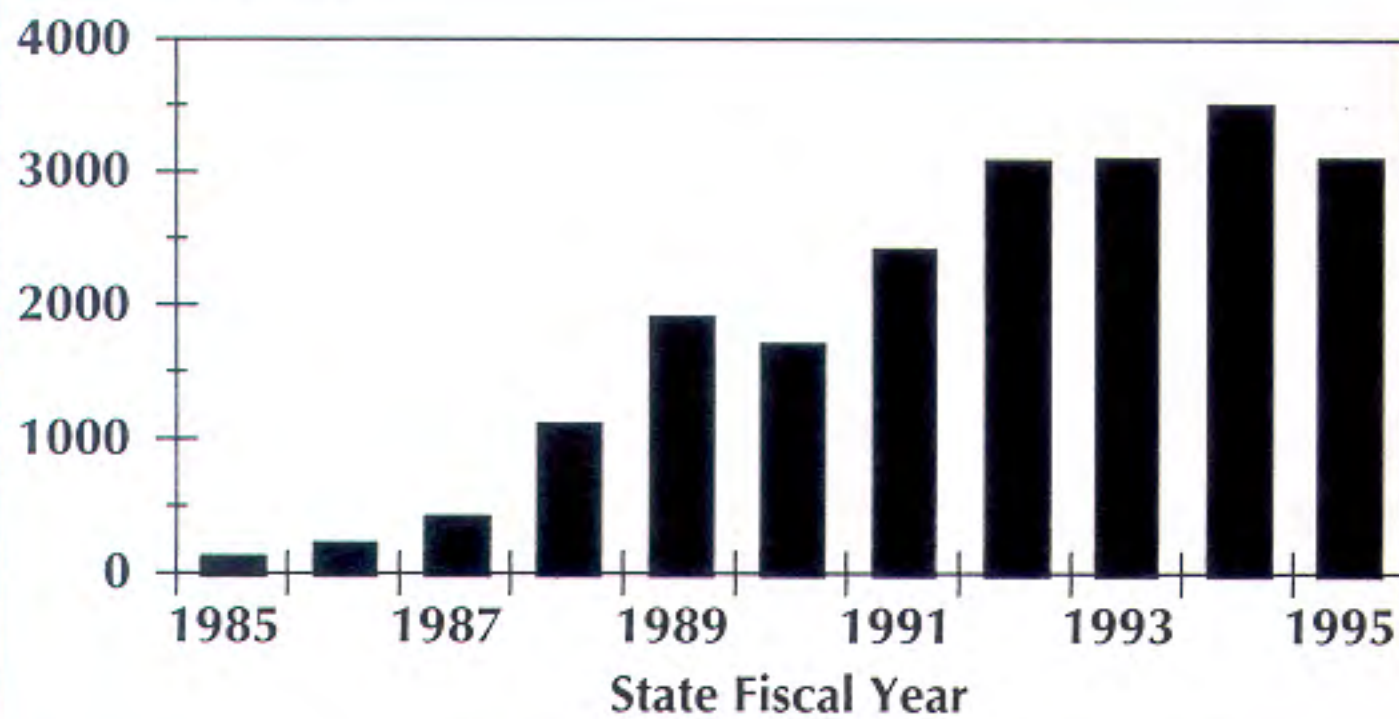
ICIS runs across a wide area network, or WAN, that joins together all the users of the Authority's information systems, thus facilitating the exchange of various types of criminal justice data.

With ICIS and its related components, the Authority hopes to have laid the cornerstone for what will one day be a statewide criminal justice information network, Spees said.■

—Daniel Dighton

Verified cases of child abuse and neglect in Illinois

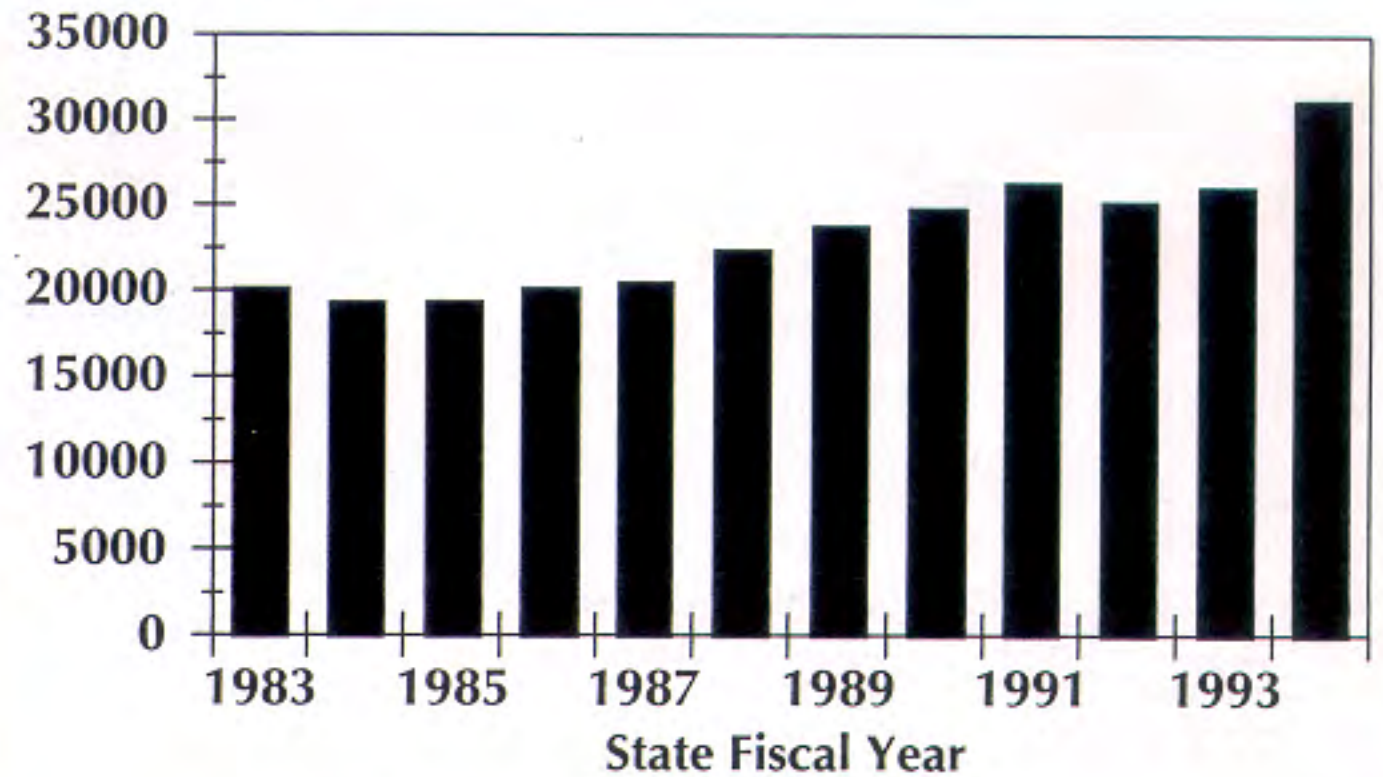
Verified cases



Source: Illinois Department of Children & Family Services

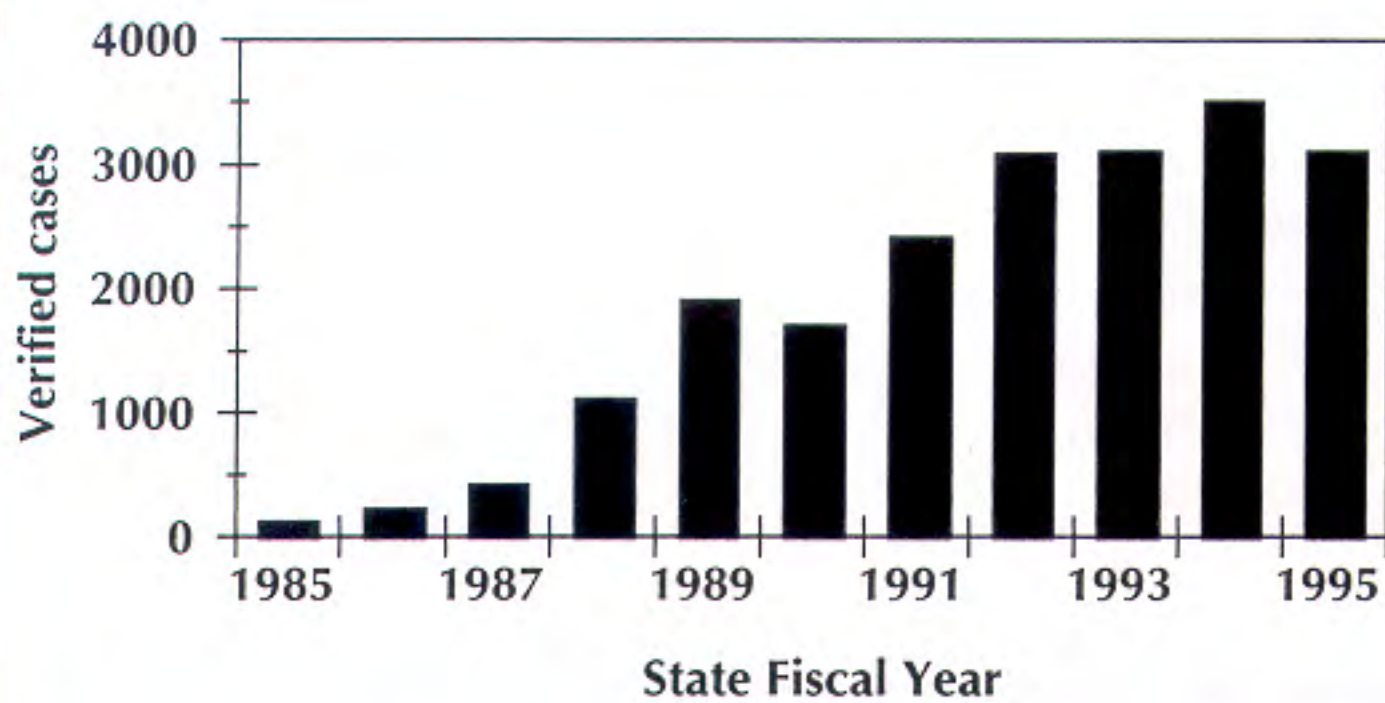
Delinquency petitions filed in Illinois

Petitions filed



Source: Administrative Office of the Illinois Courts

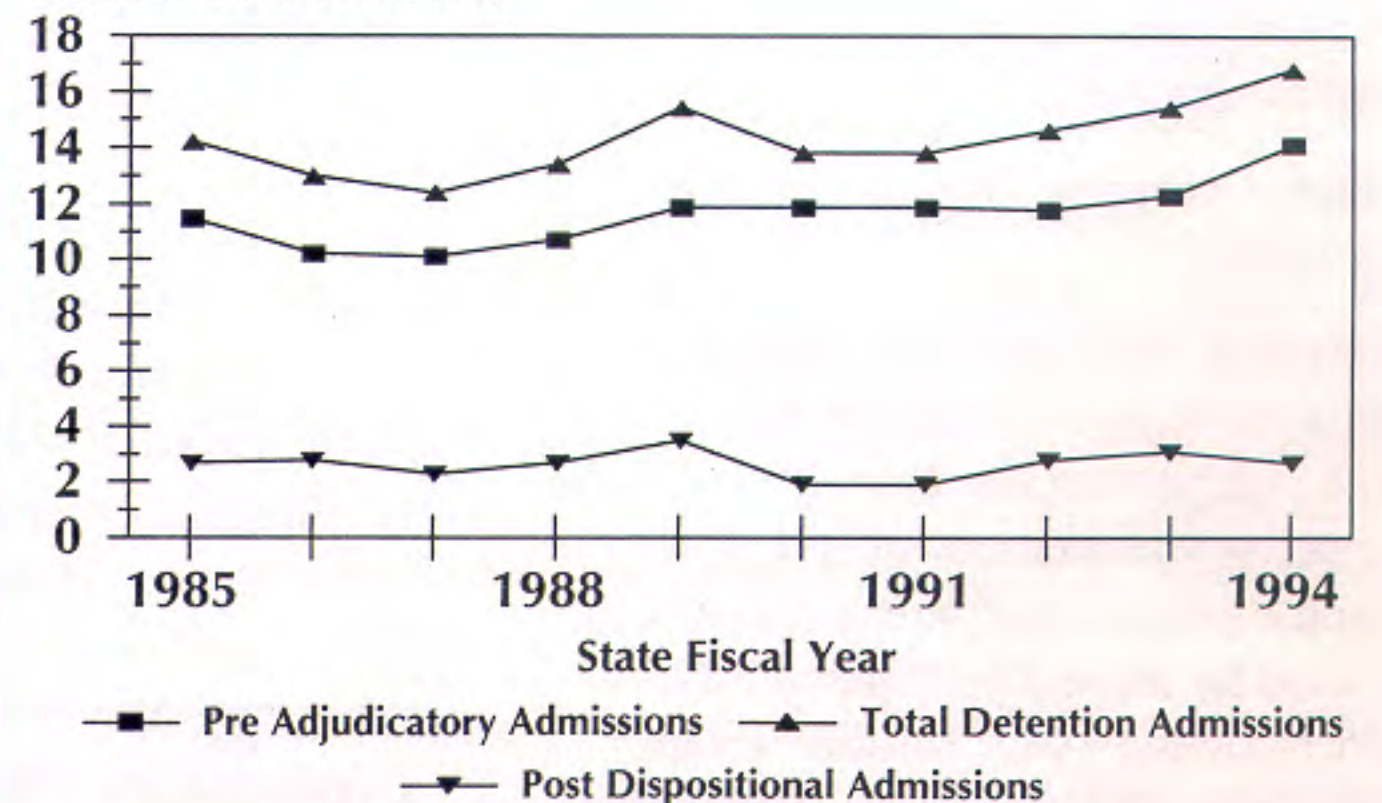
Verified cases of substance-affected births in Illinois



Source: Illinois Department of Children & Family Services

Juvenile admissions to Illinois temporary detention centers

Admissions in thousands



Source: Administrative Office of the Illinois Courts



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