

TechBeat is the monthly newsmagazine of the National Law Enforcement and Corrections Technology Center System. Our goal is to keep you up to date on technologies for the public safety community and research efforts in government and private industry.

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The NLECTC System

The Justice Technology Information Center (JTIC), a component of the National Institute of Justice's National Law Enforcement and Corrections Technology Center (NLECTC) System, serves as an information resource for technology and equipment related to law enforcement, corrections and courts and as a primary point of contact for administration of a voluntary equipment standards and testing program for public safety equipment.

JTIC is part of the realignment of the NLECTC System, which includes the Justice Innovation Center for Small, Rural, Tribal, and Border Criminal Justice Agencies, which focuses on the unique law enforcement challenges faced by those types of agencies; the National Criminal Justice Technology Research, Test and Evaluation Center, which provides technology-related research and testing and operational evaluations of technologies; and the Forensic Technology Center of Excellence, which supports technology research, development, testing and evaluation efforts in forensic science. In addition, a Priority Criminal Justice Needs Initiative exists to assess and prioritize technology needs across the criminal justice community.

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Study Surveys

By Becky Lewis

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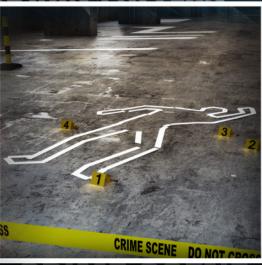
Suppose you could purchase a new technology for your department that both promoted traffic safety and saved time for your forensics department. Sound good?

But suppose that same technology came with a high price tag and continuing maintenance costs. Now what?

The technology in question is 3D laser scanning, a mature technology used for a number of years in fields such as surveying, and now coming into more common use for scanning accident and crime scenes. The National Institute of Justice's Forensic Technology Center of Excellence (FTCoE), in an effort to help public safety departments make decisions about its implementation, has released

CRIME SCENE DO NOT ENTER











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Landscape Study on 3D Crime Scene Scanning Devices, a January 2016 report that provides a basic understanding of 3D laser scanning instruments; their uses, benefits and limitations; and an impartial comparison of the features and capabilities of commercially available devices. FTCoE landscape study reports provide a broad view of issues and products identified as having value and usefulness in forensic applications.

Project Director Jeri Ropero-Miller says that the FTCoE undertook this project for the same reason it has carried out several other landscape studies: "To provide the general forensics community with an informative, but not overly technical, overview of a useful product. We see a lot of confusion about 3D scanning products, and it's challenging for departments to compare features from different manufacturers. We tried to find the commonalties and present an impartial overview of the advantages and disadvantages."

To that end, the report presents a chart comparing available devices, and offers profiles from both manufacturers and users, including lessons learned in the field. It also includes a list of subject-matter experts and stakeholders consulted, a glossary of commonly used terms and a sample methodology for use.

CRIME SCENE DO NOT CROSS

According to the report, significant benefits to using 3D laser scanning technology include accuracy, precision and objective data collection, and it also may find relevant evidence or patterns not otherwise visible. Crime scene units use 3D laser scanning instruments to gain increased speed and efficiency with obtaining data for bloodstain pattern analysis, shooting incident reconstruction, traffic collision data collection and general crime scene reconstruction. The technology captures the entire geometry of the scene, ensures longevity in scene preservation and provides crime scene analysts with capabilities to evaluate the scene and evidence in a holistic manner. In addition to decreasing the time required on-scene at traffic accident investigations, the technology may also be used to promote first responder safety in HazMat events by allowing collection of evidence from a safe distance.

"In the past, crime scene reconstructions were hand drawn, and creating them was very labor- and time-intensive," Senior Project Manager Rick Satcher says. "The 3D scanning technology saves time and labor, and provides for longevity and preservation in a virtual manner. Because of this, the evidence collected through these instruments is readily accepted in courts of law and is not subject to the sort of questioning that happens with other types of evidence."



Sample image captures of outdoor scene. (Created by Brett Bromberg-Martin, Virginia Commonwealth University.)

Offsetting all these advantages are ongoing considerations about the price. Although the technology may be obtained for prices in the neighborhood of \$50,000, Satcher says, devices with extensive features may still cost in excess of six figures. Smaller agencies that may not require day-to-day use of 3D laser scanning might consider sharing a device with other smaller jurisdictions nearby, or possibly even looking into leasing devices as needed.

In addition to looking for ways to save on purchase costs, smaller agencies might also consider train-the-trainer programs to help offset costs in those areas. Although the majority of users are trained crime scene investigators, in a smaller agency it may be necessary to train non-forensic officers on how to collect data for future analysis by CSI staff. Yearly maintenance fees are another cost consideration, the report says.

"Another key issue is post-processing requirements. The software is cutting-edge and you need a computer that has the power and graphics capabilities to render these images. Be sure to check what computing capabilities are required before purchasing a 3D scanner," Satcher says.

"It's like a car: you can get the deluxe sports version with all the bells and whistles, or you can get the economy model. You have to balance your desires against your budget, and we tried to indicate that," he adds. "The field is quite mature because the devices have been used for surveying and other purposes for a long time. These are expensive, advanced instruments that are rugged and work well. Because of all of these considerations, trying to decide what will work best for a particular agency may be challenging, and we hope the report will help."

Download Landscape Study on 3D Crime Scene Scanning Devices, a 56-page pdf from https://rti.connect-solutions.com/p43i2d67cjb/. For more information on the project, contact Rick Satcher at (919) 491-0015 or email rsatcher@rti.org. For information on the projects and programs of the National Institute of Justice forensics technology portfolio, contact Gerald LaPorte, Director, Office of Investigative and Forensic Sciences, at Gerald.LaPorte@usdoj.gov.







Institute of Justice (NIJ) and conducted in late 2014, researchers included a case study on the experiences of Washington State, which used an outside vendor to install and operate the system. Survey results are explained in a 2016 report, A New Role for Technology? Implementing Video Visitation in Prison.

At the time of the survey, 15 states used video visits in their prison systems, but degree of use varied. For example, video visitation is allowed in nearly all facilities in Indiana, Ohio, Oregon and Washington, but in seven states it is available in fewer than 20 percent of facilities. Prisons can deny the use of the technology to certain categories of inmate, such as those in solitary confinement.

Differences in video visitation accessibility and availability are often based on the needs of the state, the report noted. For example, Maryland implemented video visitation only in facilities that are not accessible by public transportation.

Video visitation can provide a form of face-to-face interaction with family members for inmates housed in a facility a long distance from home or if family members cannot physically visit the prison for other reasons, and it can be available outside of visiting hours required for in-person visits. However, use of the technology can be expensive for families and problems with connectivity can prove frustrating for users.

Washington allows video visits in all 12 of its adult prison facilities. A video visit lasts 30 minutes and costs the visitor \$12.95; visitors can extend the time to an hour for an additional \$12.95. Of the 15 states that allow video visits in prisons, 10 charge users a fee.

Researchers also surveyed 211 inmates at three Washington prisons about their use of the technology. Of those, 78 percent reported some direct experience with video visits.

"What struck me was how many incarcerated people wanted additional ways to maintain contact with loved ones," says researcher Léon Digard. "The video technology did not always live up to what they wanted it to be, but it provides

another way to connect and see people back home. Some incarcerated people had the impression that their children preferred the video visits to in-person visits because the children did not have to go through the experience of being in the prison."

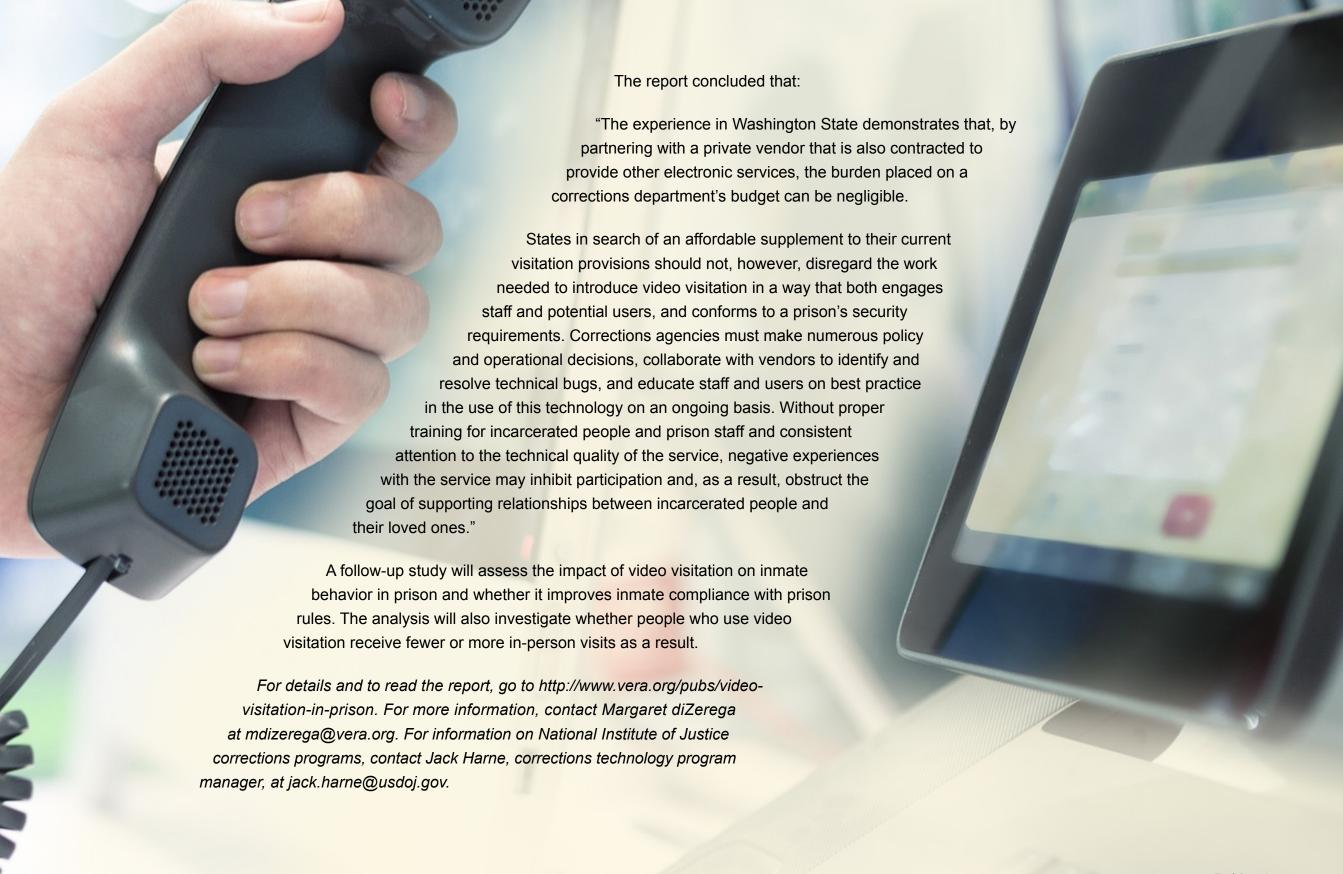
"When Washington began providing email service to people in prison, they did not see any decrease in letter writing. People on the inside want more contact and more venues for contact. They will want to use as many different options as possible to connect," adds project lead Margaret diZerega.

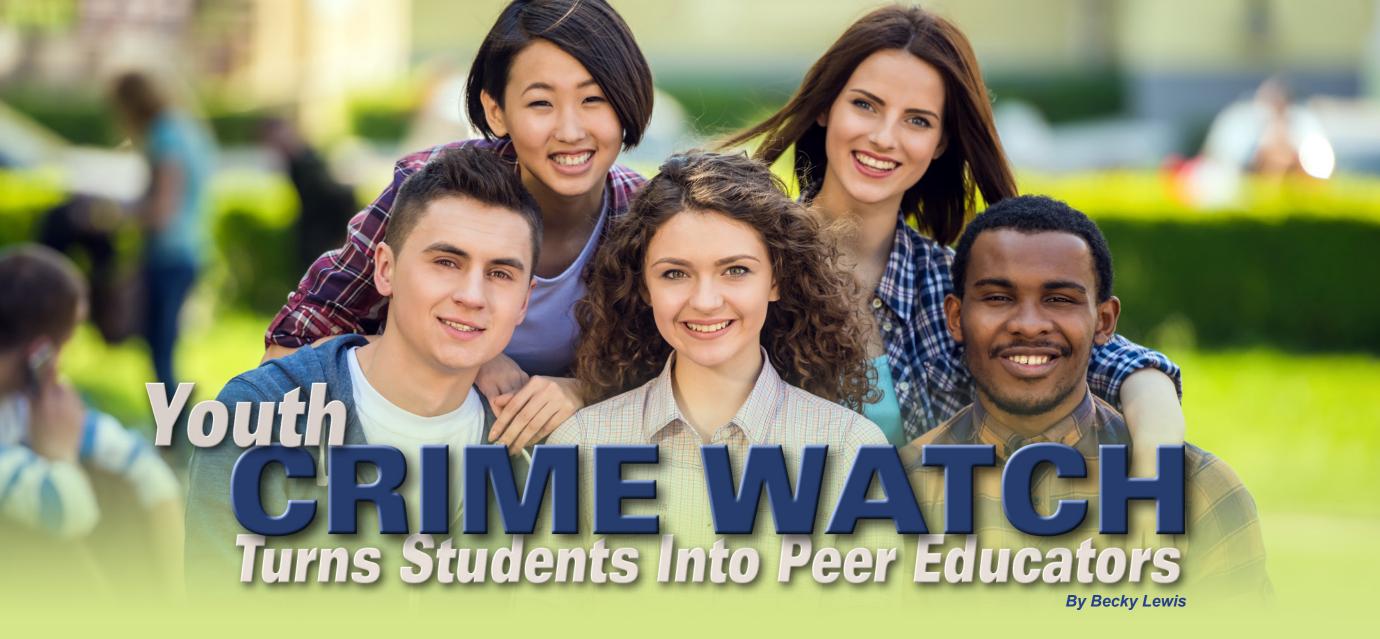
Implementation

A prison's dense walls can require that a wired Internet be in place, rather than wireless connections, for a system to work reliably. When investing in video visitation, departments of correction can chose a self-owned, installed and operated system, or a contracted system in which the vendor installs, maintains and manages the system, which can save on cost.

Implementation and operational costs of a video visitation system can be minimal when an agency uses a full-service provider that bundles a video visitation system with other services such as email and money transfer, such as the Washington system, the report said. Washington's vendor paid for the system's infrastructure and maintains the prison computer kiosks used for video visits and other services. The vendor is contractually required to cover nearly all the cost associated with the operation of video visitation, including installation and maintenance of the kiosks, network fees and customer service.







Come up with a catchy acronym and matching shirts and jackets, and soon you have a club that everyone wants to join.

That was the strategy adopted by now-Lt. Raul Correa of the Miami-Dade Schools Police Department, back in the day 26 years ago when he served as school resource officer at Citrus Grove Middle School. He dubbed his school's Youth Crime Watch club COP (Citrus on Patrol), the young members took ownership of the club's efforts and soon everyone wanted to join.

The Youth Crime Watch program, part of the Citizens' Crime Watch of Miami-Dade, is still going strong after more than 30 years in existence, serving nearly 30,000 students every school year with youth crime prevention presentations, safety projects, rallies, assemblies, special events and Youth Crime Watch club meetings. Youth Crime Watch school coordinators conduct more than 500 presentations per school year at various Miami-Dade County schools, and approximately 20 of those schools sponsor successful club programs like the one Correa helped mentor at Citrus Grove.



"The members are not junior cops. They educate their peers about youth crime prevention through positive peer pressure and peer-to-peer education," says Joel Mesa, education director and school coordinator for Citizens' Crime Watch. Participation in the club program takes place at the individual school level, with the Youth Crime Watch program providing training and ongoing support. "We provide materials and resources, but the youth serve as the educators."

Mesa says schools receive a lot of leeway in implementing the program and in selecting the topics on which they focus. (For two examples of the program's flexibility, see sidebars "Crime Educators Help Others, and Themselves, Make Better Choices" and "Involving Even the Youngest in Educating Their Peers.") Potential topics for presentations and club focus areas include (but are not limited to) bullying prevention, social media concerns such as cyberbullying and sexting, stranger danger, violence prevention and gun safety awareness. Youth Crime Watch often partners with the Miami-Dade Schools Police Department and other local law enforcement agencies in developing and giving presentations.

"We use Youth Crime Watch as, so to speak, a 'jack of all trades,' " says Public Information Officer Correa. "Our officers are actively involved in gun safety presentations, in character presentations, in anything and everything we can do when it comes to youth safety. We work hand-in-hand with Joel, we help him out and he helps us out. Wherever there is a Youth Crime Watch Club, we are actively involved."

Correa says that Youth Crime Watch was initially forged out of a partnership between the school system and local law enforcement, including the Miami-Dade Police Department as well as the 200-officer school police department. Mesa recalls that the umbrella Citizens' Crime Watch program started with citizens concerned about a particular incident of violence more than 40 years ago, and that when that program became successful, the program launched the first Youth Crime Watch Club at North Miami Beach Junior High in 1979. The school board and the police departments came up with funding to continue its success and expand the program (although in recent years that funding has faced competition from other priorities).

Mesa says school crime statistics and survey assessments have continuously demonstrated that schools with YCW programs have lower crime rates and safer school environments, which in turn contribute to academic success. In addition to academic success in school, the program also can generate life success, according to Correa: "We instill safety lessons and they remember them when they're adults. Because of that, this is a program that the whole community should support."

Although the program has strong support in the community and in the school system, Mesa says Youth Crime Watch faces two obstacles to implementing clubs: One is finding a teacher or administrator willing to act as a club adviser, the other is facing the misperception that having a club means there is crime in the school. However, although not all schools want to have clubs, many more do want presentations from Youth Crime Watch and from law enforcement. These schools often also participate in activities such as Blue Ribbon Week to celebrate a violence-free lifestyle, Stop the Violence walks and marches, the Youth Crime Watch poster and essay contest, and many others.

Youth Crime Watch of Miami-Dade is a past recipient of the National Crime Prevention Program of the Year from the National Crime Prevention Council. For more information, contact Joel Mesa at (305) 468-1302, email Joel@citizenscrimewatch.org, or to learn more about law enforcement involvement, contact Lt. Raul Correa at rcorrea@dadeschools.net.





Dr. Michael M. Krop High School: Crime Educators Help Others, and Themselves, Make Better Choices

"Preventing Crime In and Out of School Through Education and Volunteering."

That's the slogan which the students at Miami's Dr. Michael M. Krop Senior High School originally came up with to describe their Crime Educators program, and it's still the slogan for that school's Youth Crime Watch chapter 15 years later.

Kim Ferreira, co-chair of the school's Special Education Department, says that from the beginning, Krop students wanted to emphasize the educational component of the program by referring to their group as Crime Educators, and Youth Crime Watch (YCW) of Miami-Dade supported the school's efforts in that direction from the onset. As part of its emphasis on education, the Krop program sponsors numerous guest speakers throughout the year who present in a variety of venues ranging from multiple presentations to individual classrooms to assemblies in the auditorium for some 700 students.

"Some of our presentations are purely educational, but many of our speakers are just sharing their experiences. Students are so tired of being told over and over again by adults 'don't do drugs,' 'wear your seat belt,' and so on, but when you have a former gang member who is now a pastor or even a special agent from Homeland Security who makes his presentation on human trafficking real by telling stories about high school and middle school kids they can relate to, it makes a difference," Ferreira says.

Because Youth Crime Watch gives Ferreira and her students the freedom to choose the topics they want to address and how to address them, the school has been able to bring in speakers such as a woman who told about being valedictorian of her class and deciding on a military career, and, "A week before she was supposed to leave, she went out drinking with her friends, and she got so trashed she doesn't remember getting into her car. She doesn't remember around 4 or 5 in the morning hitting someone who was selling newspapers and pinning that person's body under her car. She does remember the time she spent in prison for vehicular manslaughter. That's very different than someone just standing up and saying 'Drinking and driving kills.' "

Youth Crime Watch also supports the Krop Crime Educators in taking field trips to their feeder middle and elementary schools, where the high school students present to the younger children. Ferreira says both groups benefit from the shared activities and, "It's eye-opening for the older kids. They can't believe the questions they get and what the younger children know and have been exposed to."

One of the students involved in these presentations as president of the Crime Educators group has gone on to graduate from college and become director of an aftercare program; he likes to occasionally return to Krop and act as an adult chaperone on field trips. Ferreira explains this young man was an elementary school bully — not just someone who called other children names but someone who got physical and forced younger children to give him money. It turns out, she says, that he in turn was being bullied by a physically abusive older brother, and he turned his life around in high school and won numerous awards for his part in Youth Crime Watch and the Crime Educators.

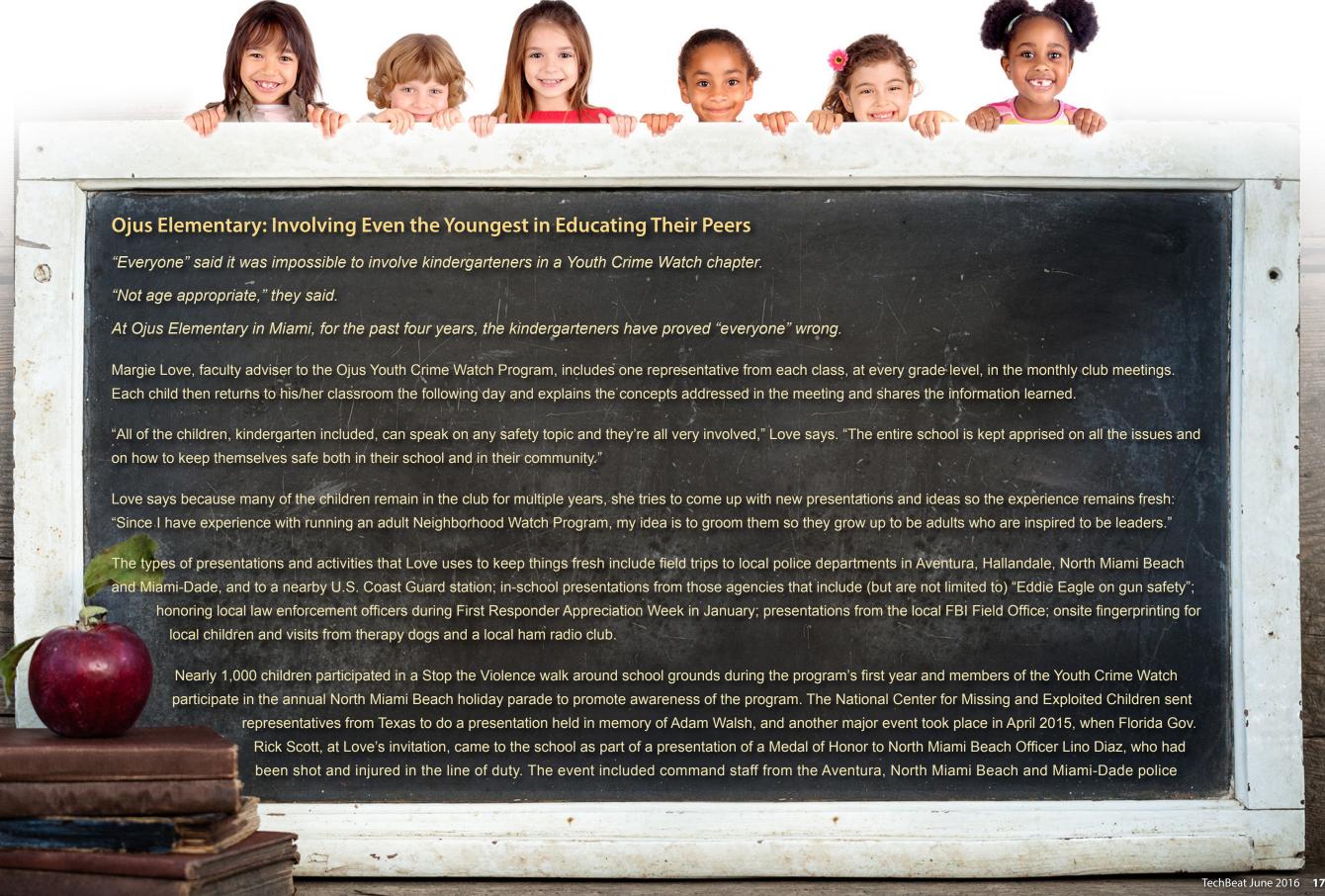
"When he went with us as a chaperone to his former elementary school, the teachers there were shocked because every single one of them told me he was the worst kid they had ever seen in all their years of teaching, and to me he's just a gentle giant," she says. "A lot of times as teachers, you think you have a bully and you have a victim, and you have to help the victim, but if you find out where the bully is coming from, it may be that he needs help too."

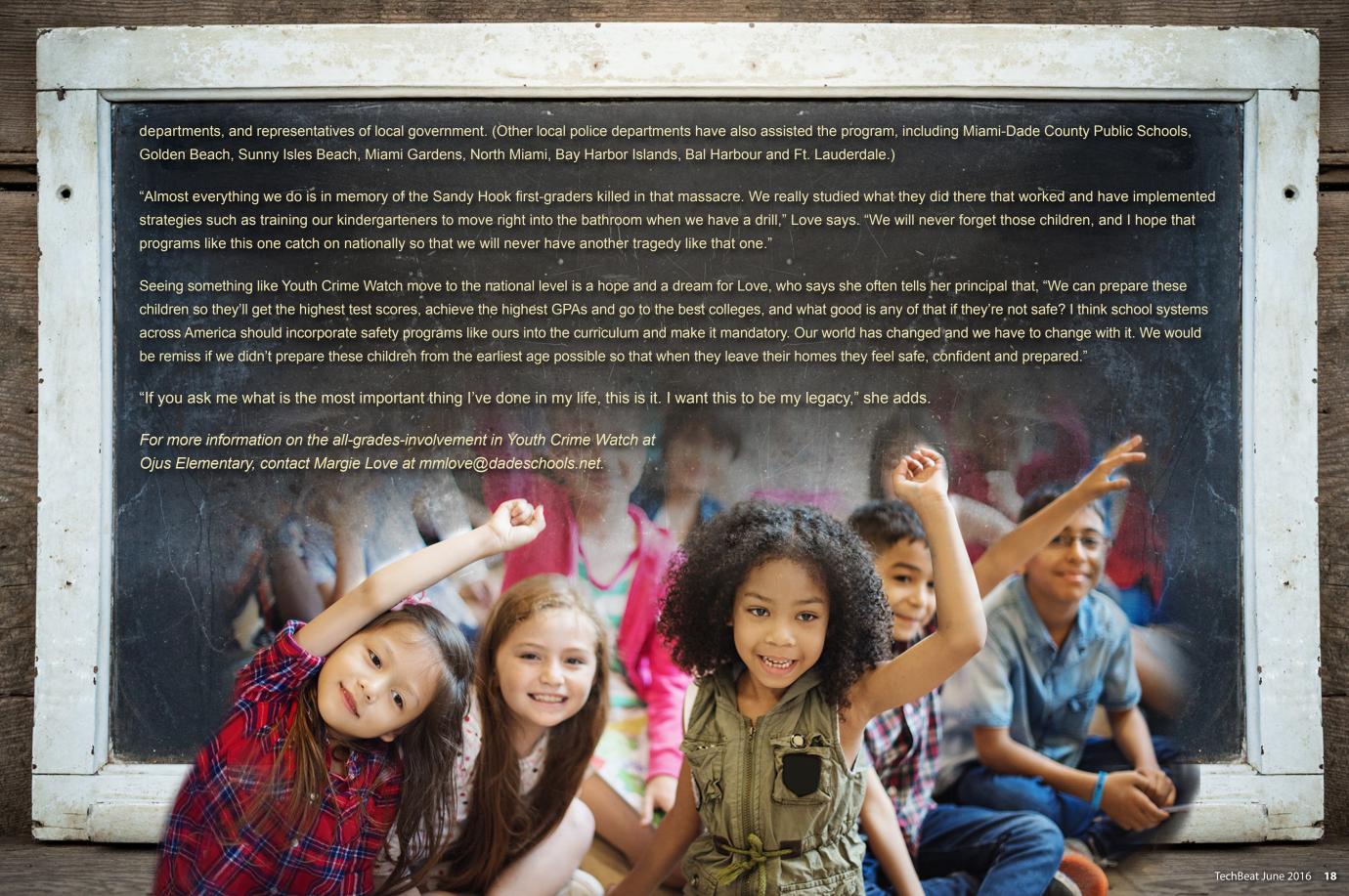
In addition to sponsoring speakers and going into the field to give presentations, the Youth Crime Watch Crime Educators participate in the national Red Ribbon Week against alcohol and drug abuse with posters and simple lunchtime activities like musical chairs as a way of showing students they can have fun without drugs and alcohol. The program has also benefitted from extremely strong support from the Krop High administration.

"The program has helped the students make better choices themselves, and it's helped them recognize other students that need help. There have been students that I didn't realize were involved with drugs and alcohol, either through their own activities or the activities of a family member," Ferreira says. "I think being involved has helped many of these students not only in the short-term, but it has also helped them to take on leadership roles in their adult lives."

To learn more about the Crime Educators program at Dr. Michael M. Krop High School, contact Kim Ferreira at kferreira@dadeschools.net







Shorts Technology News Summary

TECHshorts is a sampling of the technology projects, programs and initiatives being conducted by the Office of Justice Programs' National Institute of Justice (NIJ) and the National Law Enforcement and Corrections Technology Center (NLECTC) System, as well as other agencies. If you would like additional information concerning any of the following TECHshorts, please refer to the specific point-of-contact information that is included at the end of each entry.

In addition to TECHshorts, JUSTNET News, an online, weekly technology news summary containing articles relating to technology developments in public safety that have appeared in newspapers, newsmagazines and trade and professional journals, is available through the NLECTC System's website, www.justnet.org. Subscribers to JUSTNET News receive the news summary directly via email. To subscribe to JUSTNET News, go to https://www.justnet.org/app/puborder/subscribe/subscribe. aspx, email your request to asknlectc@justnet.org or call (800) 248-2742.

Note: The mentioning of specific manufacturers or products in TECHshorts does not constitute the endorsement of the U.S. Department of Justice, NIJ or the NLECTC System.

Report on Technology and School Safety

National Institute of Justice and RAND Corporation

A report funded by the National Institute of Justice focuses on school safety technologies. The report, The Role of Technology in Improving K–12 School Safety, summarizes existing research on school violence. It also categorizes school safety technologies and describes the available research about them. It presents six case studies of innovative technologies as used in schools, summarizes experts' views of technologies and safety problems based on interviews, and presents experts' rankings of technology needs to improve school safety produced during two panel discussions.

Panelists gave high ranking to two types of technology to meet school safety needs: improved data collection and analytics, and easier and faster access by staff to information on school safety. Some other pressing needs identified include (1) enabling two-way communication between teachers and emergency responders; (2) "all-in-one" applications that would integrate currently fragmented and outdated school safety policies, procedures, and training for school staff and parents; (3) advances in social media monitoring; and (4) improved tip lines.



To read the report, go to http://www.rand.org/pubs/research reports/RR1488.html.

Report: Indicators of School Crime and Safety

National Center for Education Statistics and Bureau of Justice Statistics

Indicators of School Crime and Safety: 2015, presents data on crime and safety at school from the perspectives of students, teachers and principals. This annual report, a joint effort by the Bureau of Justice Statistics and the National Center for Education Statistics, provides the most current statistical information on the nature of crime in schools.

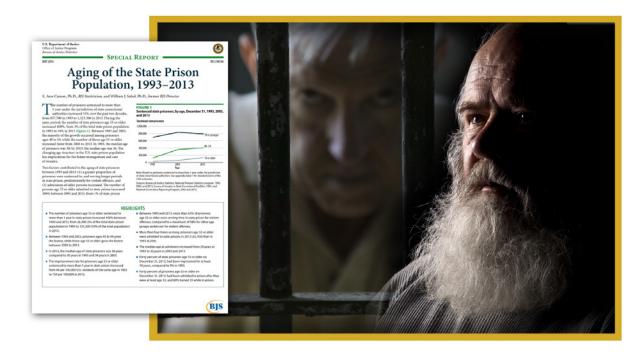
This report contains 23 indicators of crime and safety at school from a number of sources, including the National Crime Victimization Survey (NCVS), the School Crime Supplement to the NCVS, the Youth Risk Behavior Survey, the School Survey on Crime and Safety,



and the School and Staffing Survey. Topics covered include victimization at school, teacher injury, bullying and cyber-bullying, school conditions, fights, weapons, availability and student use of drugs and alcohol, student perceptions of personal safety at school, and crime at postsecondary institutions.

Findings include that in 2014, among students ages 12 to 18, there were about 850,100 nonfatal victimizations at school, which included 363,700 theft victimizations and 486,400 violent victimizations (simple assault and serious violent victimizations).

To read the report, go to http://www. bjs.gov/index.cfm?ty=pbdetail &iid=5599.



Report Highlights Aging Prison Population

Bureau of Justice Statistics

The number of prisoners age 55 or older sentenced to more than one year in state prison increased 400 percent between 1993 and 2013, from 26,300 (3 percent of the total state prison population) in 1993 to 131,500 (10 percent of the total population) in 2013, according to a report from the Bureau of Justice Statistics.

The report, Aging of the State Prison Population, 1993–2013, discusses factors that have contributed to the growing number of older offenders in state prison, and examines changes in the sex, race, current offense and sentencing characteristics of these offenders over time. Two main factors contributed to the aging of state prisoners: a greater proportion of older prisoners were serving longer sentences, predominantly for violent offenses, and the number of admissions of older persons increased. Data are from the Bureau of Justice Statistics' National Corrections Reporting Program, National Prisoner Statistics program, and Survey of Inmates in State Correctional Facilities (1991 and 2004), and from the FBI's Uniform Crime Reporting program.

To read the report, go to http://www.bjs.gov/index.cfm?ty=pbdetail&iid=5602.



PUBLIC SAFETY TECHNOLOGY JUSTNET In The News

Following are abstracts on public safety-related articles that have appeared in newspapers, magazines and websites.

Police Departments in Smaller Cities Getting Real-Time Street Surveillance Centers

Digital Trends, (05/24/2016), Bruce Brown

The new Real-Time Crime and Data Intelligence Center in Hartford, Conn., has a wall of high-resolution flat screens with live video feeds from the streets, license plate scanning and automatic gunshot detection. Sgt. Johnmichael O'Hare says in just a few months the center has already provided information that has assisted in hundreds of cases. Such centers once were the province of larger agencies only, but an increasing number of small cities have opened their own.

http://www.digitaltrends.com/computing/police-surveillance-tech-center/

Dutch Firm Trains Eagles to Take Down High-Tech Prey: Drones

Alaska Dispatch-News, (05/29/2016), Stephen Castle for the New York Times

In the Netherlands, eagles and other birds of prey are being trained to intercept and take down small, off-the-shelf unmanned aerial vehicles. Such small UAVs are being used to drop contraband into correctional facilities and conduct unwarranted surveillance; they also pose a danger to aircraft. The birds are trained to bring UAVs to the ground, eliminating risks of falling debris that occur with other, more destructive methods.

http://www.adn.com/nation-world/2016/5/28/dutch-firm-trains-eagles-to-take-down-high-tech-prey-drones/

North Carolina Prisons Moving Away From Solitary Confinement

The News & Observer, (05/26/2016), Taylor Knopf

North Carolina has decreased the number of offenders kept in solitary confinement by nearly 50 percent as the state moves away from broad use of the practice. State Prison Commissioner David Guice said staff members are assaulted more often in locked-down units, and other states that have decreased the practice have seen a corresponding decline in assaults.

http://www.newsobserver.com/news/politics-government/state-politics/article80166717.html

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We are actively seeking ideas to help us identify technology needs and requirements as part of the National Institute of Justice's Research, Development, Testing, and Evaluation process.

Click here for recent public safety-related articles from the news media.



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JUSTNET News. Includes article abstracts on law enforcement, corrections and forensics technologies that have appeared in major newspapers, magazines and periodicals and on national and international wire services and websites.

Testing Results. Up-to-date listing of public safety equipment evaluated through NIJ's testing program. Includes ballistic- and stab-resistant armor, patrol vehicles and tires, protective gloves and more.

Calendar of Events. Lists upcoming meetings, seminars and training.

Social Media. Access our Facebook, Twitter and YouTube feeds for the latest news and updates.

Tech Topics. Browse for information on law enforcement, corrections and courts technologies.

Public Safety Technology in the News. Click here for recent public safety-related

articles from the news media.





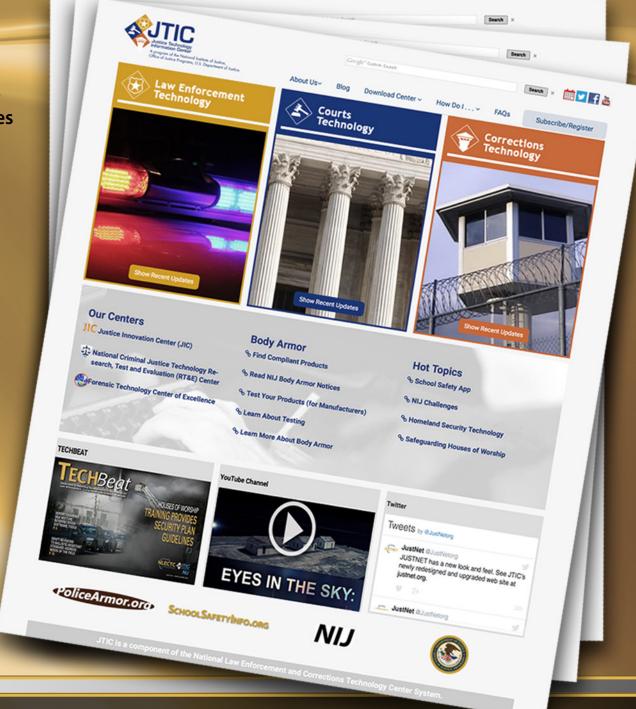




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