TechBeat

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 by JTIC

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About TechBeat

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 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.

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

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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, 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.

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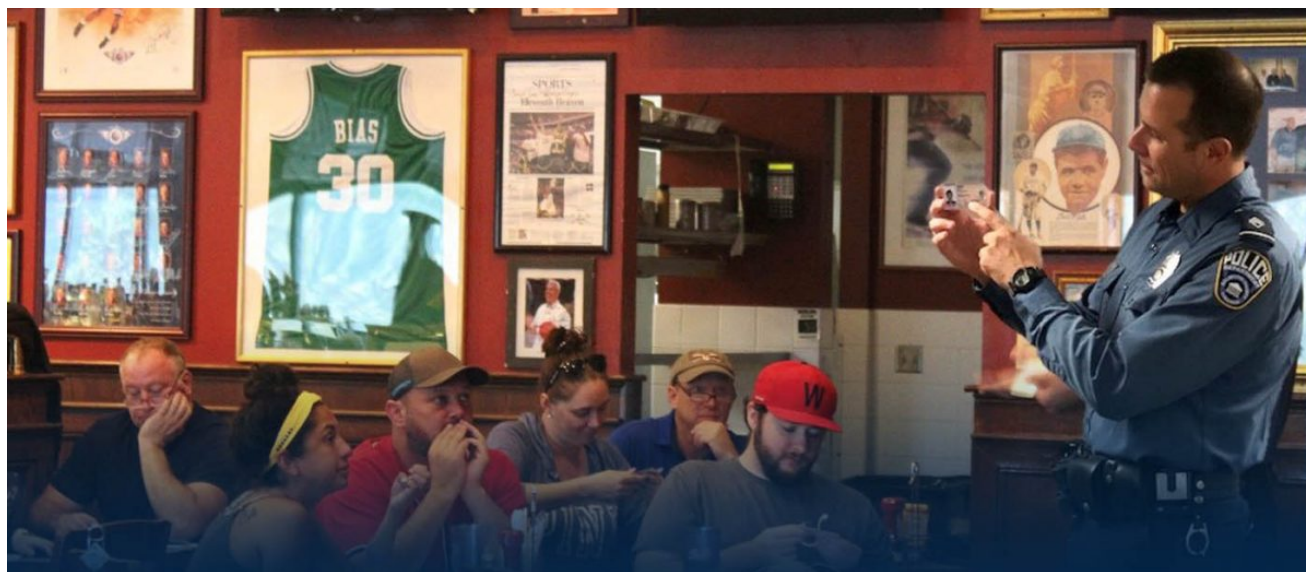
Arlington Restaurant Initiative Partners Work Together for Safety

While working his way through another busy Friday evening, he's quietly kept an eye on a couple at one of the bar tables. Something seems off; she looks nervous, he leans in too close. When the woman picks up her purse and nods toward the restroom, he reaches for her arm as if to stop her, then grudgingly lets her go. As the woman heads toward the back, she quickly leans in and says to the bartender: "Is Angela here tonight?"

His instincts were right. When the woman comes out of the restroom, there will be a staff member ready to walk her to the Uber waiting for her in front of the restaurant.

The "Ask for Angela" sexual violence prevention campaign is just one aspect of the Arlington Restaurant Initiative (ARI), which seeks to raise the standards of restaurants that serve alcohol and keep Arlington County, Va., a safe destination for nightlife and entertainment in

suburban Washington, D.C.

The Arlington County Police Department coordinates the program, which offers accreditation to participating restaurants and coordinates training that includes fake identification detection and deterrence; conflict de-escalation; what to do if a crime occurs; active shooter training; and hands-only CPR provided by Virginia Hospital Center staff. A number of other Arlington County public service agencies partner in the initiative and assist with training. Since the program's origin as the Clarendon Initiative in 2016, the county's main restaurant and nightlife area has seen a marked decrease in several types of violence, including assaults against officers and malicious wounding.

"The area had gotten a lot of negative coverage in the local media, and we had to put a lot of time and effort toward overcoming restaurants' initial reluctance," says Master Police Officer Dimitrios (Jim) Mastoras, the department's restaurant liaison officer. "I think they thought it would be over in six months and then I would go away. When they saw it was working, they became more engaged and more open to my trying new things."

Mastoras says that initially, Arlington County sought not just to hold restaurants accountable, but also to establish a good relationship that would generate long-term solutions. He researched a number of programs in use in other areas of the United States and the world, and chose to model ARI after Best Bar None, a United Kingdom initiative that has the backing of that country's Home Office. Mick McDonnell, the program's coordinator, gave him access to Best Bar None's policies, standards and checklists, and Arlington County subsequently became the first jurisdiction in the United States to adopt a similar program.

Mastoras says ARI continues to look for ways to be innovative, and without the relationships developed among restaurant management, community agencies and the public, the program would not be able to succeed: "Our actions over the past three years show that we care about the success of these businesses, because it's a reflection on our community. Restaurants take a great deal of pride in being able to display the sticker of participation in their windows and they're starting to self-promote their accreditation. It's quite a change from the 'us vs. them' mentality of 2015."

Instead, in 2019, participating restaurants have access to guidance on standards here, and all officers assigned to that area receive training on the same policies and standards. Mastoras says that among restaurant staff, there's no longer a fear of calling police, and officers

understand there's an expectation they'll be asked to intervene early and defuse situations before they become violent.

"We've proven the program's worth through its longevity and consistency, and that's how we've earned our partners' trust," Mastoras says. "If another jurisdiction is looking to start something similar, its staff members need to have that patience, along with commitment from leadership. When I started working on the initiative, everyone was skeptical. It took just as much work to convince the department of its value as it did the restaurants. We tend to stay focused on the traditional police response, and we also can't force restaurants to participate, we need them to comply voluntarily. It's given me a whole new view of law enforcement."

To learn more about the Arlington Restaurant Initiative, visit here. To obtain more information from Arlington County Police Department staff, email here or call (703) 228-7423. Also, a toolkit for agencies looking to create a similar program, produced by the Office of Community Oriented Policing Services, will be released later in 2019.

Article photo: Arlington County Police Department

Main photo: Arlington County Police Department

Tip Line Blueprint Offers Help to Schools

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In the present climate, school districts often find themselves considering which options to pursue in implementing a safety plan. Hire school resource officers? Install metal detectors? Implement a tip line? All are viable options, and each is accompanied by its own set of questions to answer and issues to consider.

For schools considering a tip line as part of a safety plan, the recently released *School Tip Line Toolkit: A Blueprint for Implementation and Sustainability,* offers help in considering the issues and navigating key decisions.

According to the *Blueprint* (p. 1), tip lines provide students, parents, school personnel and community members with a "safe and anonymous or confidential way to report a threat or potential threat to student or school safety, thereby equipping authorities with the information needed to respond to threats and avert tragedy …. Tip lines are promising, but much is still unknown about their effectiveness."

A key advantage of tip lines is that they provide a way to tap into students' knowledge of, and information about, potential threats and problems, including bullying, suicidal tendencies and substance abuse. They give students a way to reach out and try to obtain help for themselves or others without breaking the "code of silence" that often causes them to keep information to themselves.

"We created this blueprint to examine the multiple factors that anyone considering implementing a school tip line, or enhancing an existing one, needs to consider," says Michael Planty, Center Director for Community Safety and Crime Prevention at RTI International, which produced the *Blueprint* with National Institute of Justice funding. "It's not just putting a number up and you're done. In order to effectively harvest information from students, parents and others, you need to have a tip line that is multi-faceted and uses multiple forms of media such as Instagram, Facebook and texting. The *Blueprint* also addresses what to do with the information once you have it."

Some of the issues school districts need to consider include the mechanics of setting up a tip line, training for those who process the information, responding to tips, archiving and maintaining data, determining best practices, obtaining funding and risks to consider. A key feature, Planty says, is deciding where to house the tip line: should it be based with local law enforcement or based in the school?

"If it's school-based, you might not have immediate access to some of the other information that law enforcement has at its disposal, but on the other hand you don't want a law enforcement response to every tip that comes in. We often think about school shootings and other violent threats when we think about school safety, but consistently, more than 50 percent of tips received are about self-harm or suicide ideation. In that case, law enforcement might need to conduct a wellness check to make sure someone is not in immediate danger. There are other instances when the school needs to find another solution for a student's issues," Planty says, adding that school districts also need to plan how to respond to bullying and of course, plan what to do in the case of a threat of imminent danger to the school.

How to weed out the actionable information and how to deal with false tips is another

concern, Planty says: "You don't want to use a response that is disproportionate to the potential harm."

Building awareness of the importance of providing accurate and timely information can help cut down on false tips, and an effective education program for students, parents and teachers can help them recognize signs and know when to report.

"When I talk about awareness programs, I'm talking about things like an Awareness Day once a quarter or at least twice a year, announcements at the beginning of every school week, putting up posters and giving away trinkets. Once people become aware of the tip line, they will be more comfortable in using it and it can contribute to a safe climate for the school," Planty says.

Showcasing those contributions through vehicles such as reports on the number and type of tips, along with sanitized case studies that show its impact, can help get decision makers to buy in to the need to commit to continuing use of the tip line and ensure sustainable funding sources.

"It's also important to be aware that this is not the solution," Planty says. "It can be an important part of a comprehensive school program, and a way of attempting to prevent threats from becoming reality, but you are never going to be able to stop every threat. For example, there can be an external actor that students or other school partners don't know about. Schools still need to have proper target hardening and response plans in place as part of a comprehensive school safety plan."

Download School Tip Line Toolkit: A Blueprint for Implementation and Sustainability here.

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Syracuse University Team Uses Input From the Field to Develop New Technology

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Criminal justice practitioners, faced with what seems like an overwhelming amount of information on technology research and innovation, may often wish for additional materials that answer the question: What's in it for me?

With its review of technology developed under National Institute of Justice (NIJ) grants and follow-up success stories, the NIJ Forensic Technology Center of Excellence (NIJ FTCoE) attempts to produce quick-read publications that do exactly that.

One such recent publication, *NIJ and Syracuse University: Improving DNA Mixture Interpretation with the Help of Machine Learning*, focuses on the Probabilistic Assessment for Contributor Estimation (PACE^{TM}) tool, which uses machine learning as a method of DNA mixture interpretation that runs on standard computers and provides an estimate of individual contributors to a DNA sample at a 98-percent accuracy rate in a few seconds.

As the success story explains, DNA samples often are a mix of material from multiple individuals. The first step in interpreting such a mixture is determining how many individuals contributed to the sample; the more individuals, the harder it is to make that determination, which previously relied on human interpretation. The research team, Dr. Michael Marciano and Jonathan Adelman of Syracuse University's Forensic and National Security Sciences Institute, collected feedback from several agencies and practitioners to help inform the design and development of the software, and are currently training end users of the tool in workshops.

"The development of a commercially available software from NIJ-funded research is truly a success story," says FTCoE Innovation Analyst Rebecca Shute, "and there are three important factors that contributed to the successful transition of this technology. First, the team engaged with the Syracuse University Technology Transfer Office, which supported the team through the process of licensing their technology. Second, Dr. Marciano was a casework analyst before he became a researcher, and that helped bring the end-user perspective into software development. And finally, the team engaged a lot of development partners, whose input ultimately added value to the project."

That approach will continue as the Syracuse team uses additional NIJ funding to apply PACE to next generation DNA sequencing, the cutting edge of sequencing techniques that provides higher and faster throughputs. (The current version of PACE works with STR-based sequencing, the method currently used in most laboratories). Other efforts involve investigating the use of machine learning to enhance current methods of latent print analysis and drug identification.

The current version of PACE is currently licensed through NicheVision Forensics, LLC, as is training in its use.

"The key takeaway for criminal justice agencies about this and other similar research projects is that their participation is crucial to getting technologies from research to practice in the field. Even though practitioners aren't the ones inventing the technologies, they play a vital

role in validation and testing," Shute says.

Download *NIJ and Syracuse University: Improving DNA Mixture Interpretation with the Help of Machine Learning* from the NIJ FTCoE here.

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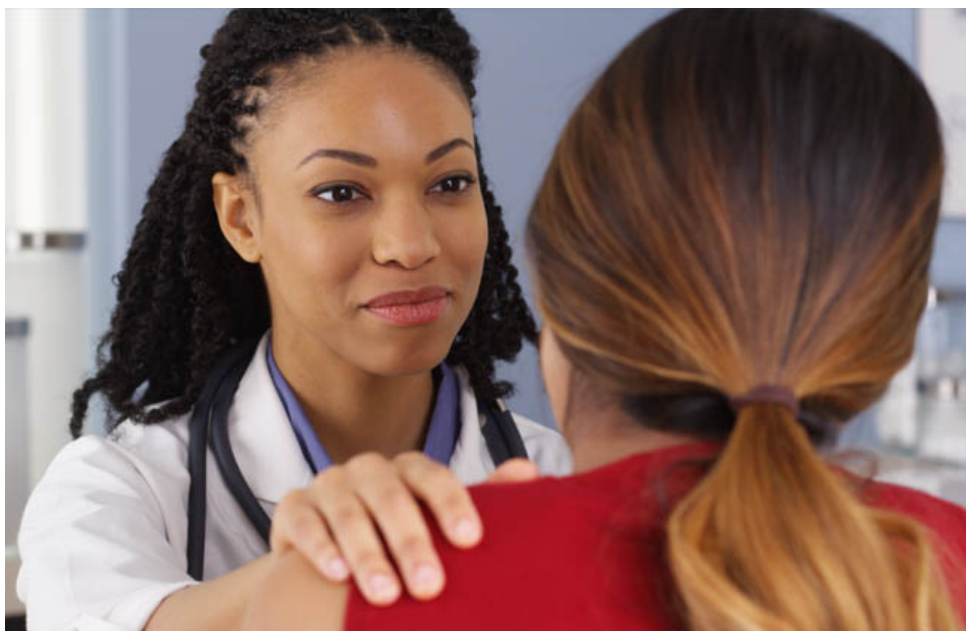
Sexual Assault Response Team Toolkit

Office for Victims of Crime

This toolkit supports the work of sexual assault response teams (SARTs), which are multidisciplinary, interagency teams that promote collaboration in supporting victims of sexual assault and holding offenders accountable.

This SART Toolkit is designed to support SARTs in all aspects of their work, including practical tips for effective teamwork, ideas for expansion, tools for identifying what is most important in each community, evidence-based practices, and connections to technical assistance providers who can guide development and improvement.

The toolkit has been written and reviewed by survivors of sexual assault, current or past SART members, subject-matter experts, organizations that provide technical assistance and training to SARTs, and individuals and organizations that research SARTs. Examples and resources are provided to increase knowledge of and skill in practices that improve the effectiveness of SARTs. The sections that compose the toolkit review SART functions, how to develop a SART program, the logistics of SART meetings, steps in responding to sexual

assault victims, and the role of SARTs in sex offender management.

Access the SART Toolkit here.

(Abstract taken from here.)

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BOLO Project Bulletin: Development and Validation of a Resilience Training Model at the Academy

Office of Community Oriented Policing Services

The BOLO series supports the publication and dissemination of experiences and implications discovered during ongoing research in the field with the goal of regularly communicating these resources to the law enforcement community. "Be on the lookout" for these field-driven, evidence-based resources that will help illuminate the nature, function, context, costs and benefits of community policing innovations.

This study follows recruits in a resilience training program at the Milwaukee (Wisconsin) Police Department Police Academy as they develop strategies and techniques to enhance its members' ability to cope with stress and maintain their physiological and psychological health.

To read about the study, click here.

Main photo: COPS Office