

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.



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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.

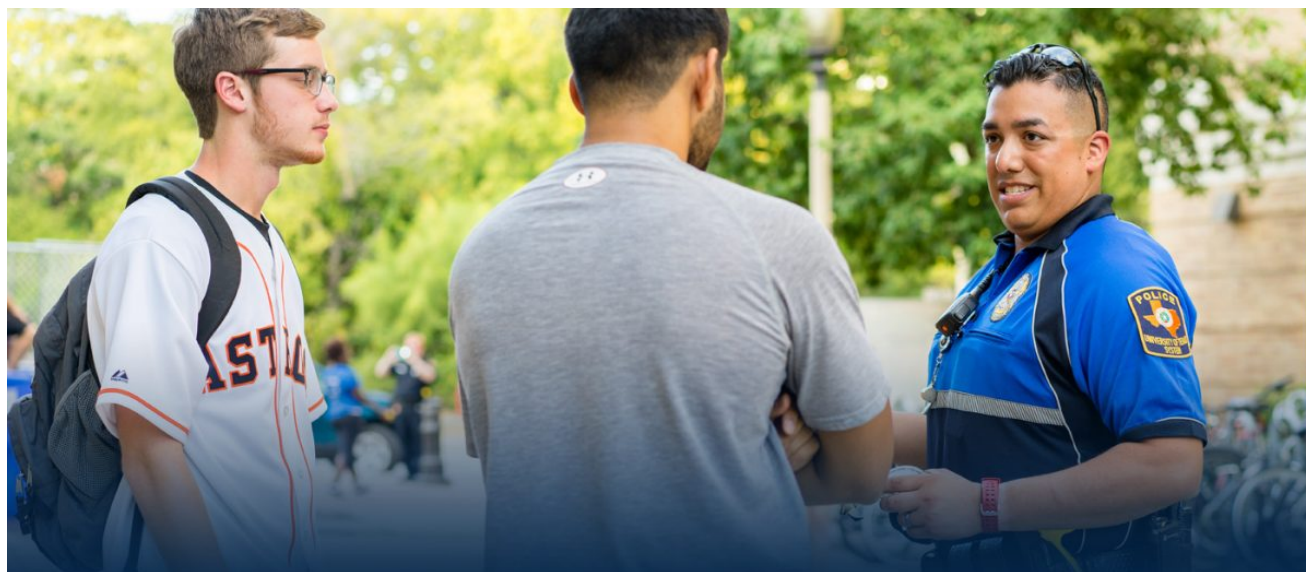
Testing Results. Up-to-date listing of public safety equipment evaluated through NIJ's testing program. Includes ballistic- and stab-resistant armor, patrol vehicles and tires, and more.

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

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

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

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COPS Office and Police Foundation Release Reports on Averted School Violence

COPS Office and Police Foundation Release Reports on Averted School Violence

After years of listening to warnings that school shootings can happen anywhere, there's some newly released research to back them up.

With funding from the Office of Community Oriented Policing Services, the Police Foundation has recently produced two reports based on information from its [Averted School Violence \(ASV\) database](#): [A Preliminary Report on the Police Foundation's Averted School Violence Database](#) and [A Comparison of Averted and Completed School Attacks from the Police Foundation Averted School Violence Database](#). Both reports offer case studies, statistical analysis, findings, recommendations and conclusions, and key among them are two from the [Preliminary Report](#): 1) Never assume that a school attack won't happen in a small, tight-knit community, and 2) Never discredit any threat because a student does not "fit" a stereotype; there is no one profile of an attacker.

The 51 incidents drawn from the ASV for



analysis in the 40-page report were selected based on the amount of information available in open sources and also were drawn from a wide range of states. Analysis covers demographics and grade level, school security measures, who discovered the plot and more. It lists a number of key findings, including:



- Most potential school attacks were averted because students reported their concerns about another student's threat, plot or other concerning behavior.
- When students heard information that concerned them and did not report it, it was primarily because they did not take the threat seriously.

The 42-page companion [*Comparison Report*](#) evaluates the same 51 averted incidents along with 51 completed attacks, with a goal of providing lessons learned about how to prevent school violence. It includes statistical analysis of school safety features, geography, type of school, school size, age of attacker, number of victims, gender, ethnicity and more. It presents a number of recommendations for schools, parents, law enforcement and the general public, and notes that although school attacks are often described as if they are part of a homogeneous group, analysis makes it clear there are many different types of attacks, which present different challenges in terms of prevention.

Frank Straub, director of the Center for Mass Violence Response Studies for the Police Foundation and co-author of the [*Comparison Report*](#), says he finds the presence of leakage to be one of the most important pieces of information to come out of the research.

“Nearly all of the perpetrators of completed attacks, as well as individuals whose plans were averted, talked about the fact that they were going to carry out an act of violence,” Straub says. “This suggests an opportunity to prevent these type of attacks. There’s a lot of talk about whether social media monitoring can be successful, and this indicates it could be a valuable tool to prevent not only attacks, but also suicide and bullying.”

Another important conclusion, he says, is that often, before an individual began plotting an attack, he/she experienced a life-changing event, such as parental divorce, a relationship breakup or a family move. Such events led to issues like depressed mood, impaired social-emotional functioning, hypersensitivity to criticism and social withdrawal.

“We’re very focused on the physical security of schools, and that’s very important, but the hard work really is around identifying youth in school settings who are beginning to withdraw or have withdrawn, who are either self-isolated or isolated by their peers, and who may be challenged by life events,” Straub says. “These findings suggest the need to have mental health practitioners engaged in the school community and to have threat or behavioral assessment teams working to identify not just individuals who are acting aggressively but also those who we need to identify and re-engage. And school resource officers can play a key role on the behavioral assessment team and in engaging with the student body.”

“It’s easy to see things like locks, ballistic windows, access control and so on. It’s more challenging to quantify results from identifying children in need and getting them to appropriate resources. We may never be able to know whether we’ve prevented an act of violence, but we do know we’ve gotten them the help they need,” he adds.

Straub also stressed the importance of schools having a good relationship with their SRO or local law enforcement, and in having an anonymous reporting system and working to build trusting relationships so students feel more comfortable in sharing their concerns.

“There was a student who had been ostracized and bullied, and who decided to bring a gun to school. Another student reported it to an assistant principal, and the student was brought to the office and the gun was recovered without an incident,” he says. “The important part of this particular story is the student returned to the school a year later and successfully graduated. All this happened because she received the help that she needed.”

Download *A Preliminary Report on the Police Foundation’s Averted School Violence Database* [here](#) and *A Comparison of Averted and Completed School Attacks from the Police Foundation Averted School Violence Database* [here](#).

About the Averted School Violence Database

Launched in 2014, the goal of the Averted School Violence (ASV) database is to encourage school personnel, law enforcement officers, mental health professionals and others involved in school safety to share case studies and lessons learned to help improve school safety and prevent future attacks. Submissions are anonymous and confidential. The database serves as a resource that shares how school attacks from across the country have been identified and prevented.

The ASV project defines an incident of averted school violence as a violent attack planned with or without the use of a firearm that was prevented either before or after the potential perpetrator arrived on school grounds but before any injury or loss of life occurred.

Frank Straub, director of Strategic Research, stresses the importance of reporting averted attacks to the database. Reporting is anonymous and allows the Police Foundation to increase the robustness of the information and improve the quality of the research.

“We started the database because we believe there are many more averted cases than completed in this country,” Straub says. “If we continue to build the database, we can increase our ability to learn what we can do to improve the safety of our children. We believe it has great potential for saving lives.”

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Autism FYI Offers Free Training, App and More to Law Enforcement

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The caller had told dispatch about a man who had been wandering around her neighborhood for hours, not responding to anyone who spoke to him, seemingly disoriented. He didn't answer the officers who responded to the call either. However, because they had just completed online Autism Spectrum Disorder training from Autism FYI, they recognized the symbol on his bracelet and knew why he didn't answer, and how they could get the resources they needed to help them help him.

The online training and the easily recognizable symbol are just part of the services offered to first responders by Autism FYI and its Immediate Recognition Increase Safety (IRIS) program. A nonprofit organization started in 2014 by the parents of two adult sons on the autism spectrum, Autism FYI developed IRIS to promote autism awareness among first responders in addition to other services it offers.

Parents or guardians of individuals on the autism spectrum can register them for free through IRIS,



and at that time, IRIS notifies first responders in the individual's community about the registration. Participants receive a unique ID number, an ID card and a bracelet marked with the organization's recognition symbol, as well as a PDF file of the symbol so they can make copies to attach to backpacks, jackets and so on. The bracelet also uncoils into a USB that can connect to a computer and provide a direct link to the individual's information. However, if linking to a computer is not feasible, officers can also call the IRIS toll-free number (printed on the bracelet and the ID card) to receive help in reaching the individual's emergency contact and in providing an appropriate response.



Autism FYI co-founder Joyce Benjamin says she and her husband were moved to start the organization after reading news accounts of an encounter between law enforcement and a young man with autism that did not go well. In addition to IRIS and other resources offered on the organization's website, Autism FYI provides a free roll-call training module through a training site called [FirstForward](#).

"The training can be taken by an officer on their own, or an instructor could make it required training for an agency. In the latter case, there's an option to go back and make sure they actually took the training," Benjamin says. In addition, Autism FYI offers basic information and resources for individuals [here](#).

"Even if officers take the training, if they're not exposed to individuals with autism on a frequent basis, they may forget, so we've created a free app for both iPhone and Android," she says. "It gives them tips for immediate use and not only provides characteristics of autism, it also provides assistance with the characteristics of other neurological disorders, such as Huntington's Disease or stroke."

The app also includes de-escalation techniques and five key strategies for dealing with someone having "a meltdown." Autism FYI encourages its use by first responders and by teachers and school administrators.



On a limited regional basis (near its headquarters in suburban Washington, D.C.), Autism FYI also provides train-the-trainer programming with the



assistance of a retired police sergeant. The organization has reached out to local police departments, businesses and restaurants through the training, which also touches on dementia and other cognitive and communicative disorders.

The expanded training includes the addition of a second symbol to indicate that a person has some type of neurological disorder. Both symbols are available in a variety of formats, including window decals and seatbelt covers, for a nominal fee. Restaurants that provide training for their staff members can receive a special window decal indicating they are an autism-friendly business.

“This is not [running a nonprofit] something we originally set out to do, but the need is really there. We have more people with autism integrating into the community and we need the community to be able to support them,” Benjamin says. “We go to conferences and I’m surprised at how many officers have no training at all. To their credit, they do understand that it’s an issue and they need training, and our hope is that we can reach some of them through the online resources. And we do hope to be able to grow and eventually expand our in-person training as well.”

To find out more about Autism FYI, click [here](#).

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Following a Map to Efficient Lab Practices

Following a Map to Efficient Lab Practices

To help criminal justice practitioners, the National Institute of Justice Forensic Technology Center of Excellence (NIJ FTCoE) creates publications, webinars, podcasts, toolkits and even a roadmap. [*Development of a Lean Facility Design Roadmap for Design-Bid-Build Forensic Facilities*](#) contains a roadmap for agencies to follow when planning for a new or upgraded forensic laboratory.

Now a new publication from the NIJ FTCoE takes a look at how one agency followed that roadmap to plan its lab of the future and along the way, help the lab of the present function more efficiently.

[*Technical Note: Conducting a Forensic Facility Needs Assessment Using Lean Facility Design: A Case Example*](#), published in January 2019, outlines the steps for using lean facility design (LFD) to conduct a needs assessment and presents a case study in which the Midwest Forensics Resource Center and the NIJ FTCoE collaborated on an LFD needs assessment with the Broward County Sheriff's Office (BSO) in Ft. Lauderdale, Fla.

“The FTCoE creates various resources for practitioners to access and implement themselves, but in this case, we worked alongside Broward County while they put it into play,” says FTCoE Chief Scientist Jeri Roper-Miller. “It was important for us to bring back a message to the community on how the resource worked. BSO was able to determine that a renovation would not work for them; instead, they developed a plan for a new facility in four years. In the meantime, BSO identified some bottlenecks in their system that they could address to improve efficiency in the current facility short-term.”

According to the report, using a lean approach means eliminating all steps that do not add value to a process. It uses the following principles (p. 2):

- Identify and focus on the customer’s needs.
- Assess laboratory processes to identify and address wasteful steps.
- Manage the workflow and standardize processes around best practice.
- Manage by fact and reduce variation.
- Continuously strive to achieve optimal process flow.

The partners used those principles in evaluating the BSO facility’s condition, limitations and challenges. They assessed both facility space, to determine whether to renovate or build a new facility, and operational procedures, to identify areas where efficiency could be improved. The needs assessment followed the six steps illustrated in Figure 1 (derived from the actual report) and outlined below (adapted from pp. 4-8.)

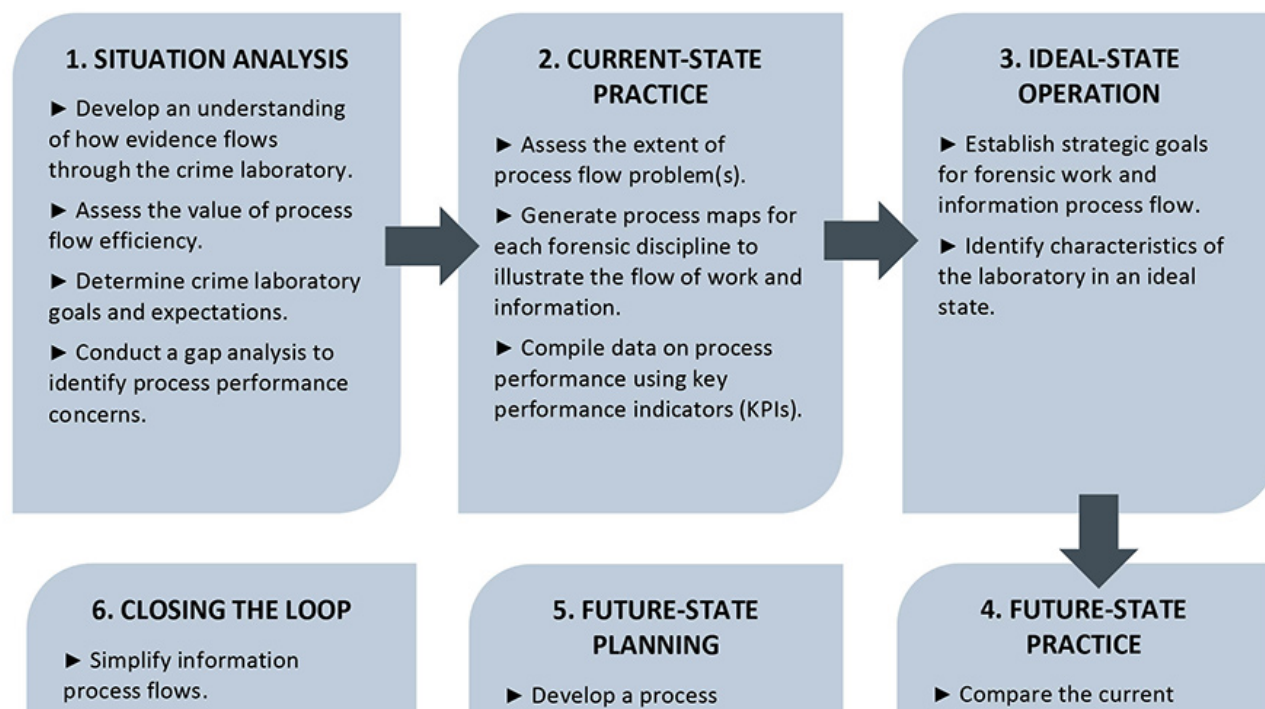




Figure 1. This figure demonstrates the methodology created to assess the operational needs of a forensic facility. Each stage plays an important role in improving operational performance. “State” refers to the way in which a facility operates.

1. **Situational analysis** examines the flow of evidence through the laboratory and identifies process performance concerns. BSO discovered four key issues: (1) ineffective external communication and information flow, (2) understaffed and underfunded laboratory, (3) little to no space for work or storage and (4) poor air quality.
2. **Current-state practice** evaluation considers all workflow steps and constructs a process map. This review uncovered several critical issues for BSO, including the lack of space for additional instrumentation in their DNA unit.
3. **Ideal-state operation** evaluation establishes a vision statement that reflects the laboratory’s goals to improve workflow and function, and assesses the laboratory’s future.
4. **Future-state practice** compares current practices to ideal operations and identifies bottlenecks and activities that add no value such as interruptions, equipment failure and rework. BSO mapped its processes in the current-state practice step to these bottlenecks to identify possible solutions.
5. **Future-state planning** calls for eliminating waste and increasing efficiency. For example, BSO identified delays of up to 27 days due to poor communication of court schedules, court interruptions and poorly scheduled property receipt clerks. The time delays related to these events could be avoided with improved communication and sample and case submission policies.
6. **Closing the loop** turns operational needs into facility space requirements, and the laboratory implements operational improvements or makes design and construction decisions.

“It’s very important to look at the lifetime of the facility. Projecting five years into the future isn’t enough,” Roper-Miller says. “You’re designing to be in a facility for 30 years or more. And the project isn’t complete unless you look at processes too. Lean design marries the concepts together so you’re looking at this holistically.”

A year after the original needs assessment, the NIJ FTCoE returned to Broward County to check on project status. At that point, BSO had determined to build a new facility within the

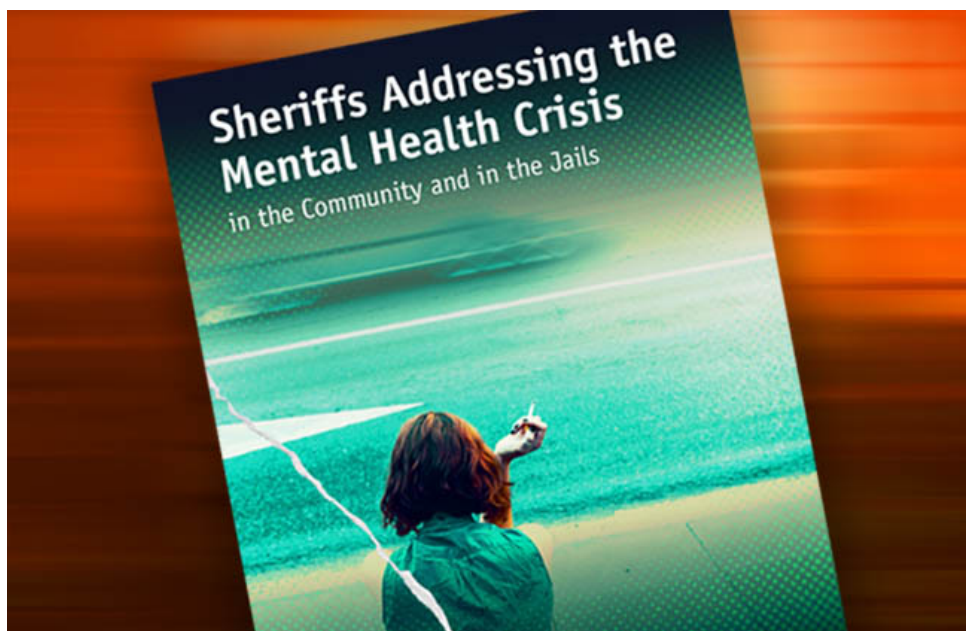
next four years, and is currently in the bidding process for a project manager and an architect.

“We checked back in so we could see how BSO was following through on what the needs assessment determined and to see the lessons learned. We captured those lessons learned in the technical note of the case report, and we expect that practitioners should find that information helpful,” Roper-Miller says.

For more information, click [here](#). To read the *TechBeat* article on the prior publication, see “Roadmap Leads to Increased Efficiency, Improved Function in Forensics Labs” in [TechBeat July/August 2016](#).

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Report: Sheriffs Addressing the Mental Health Crisis in the Community and in the Jails

Major County Sheriffs of America and Office of Community Oriented Policing Services

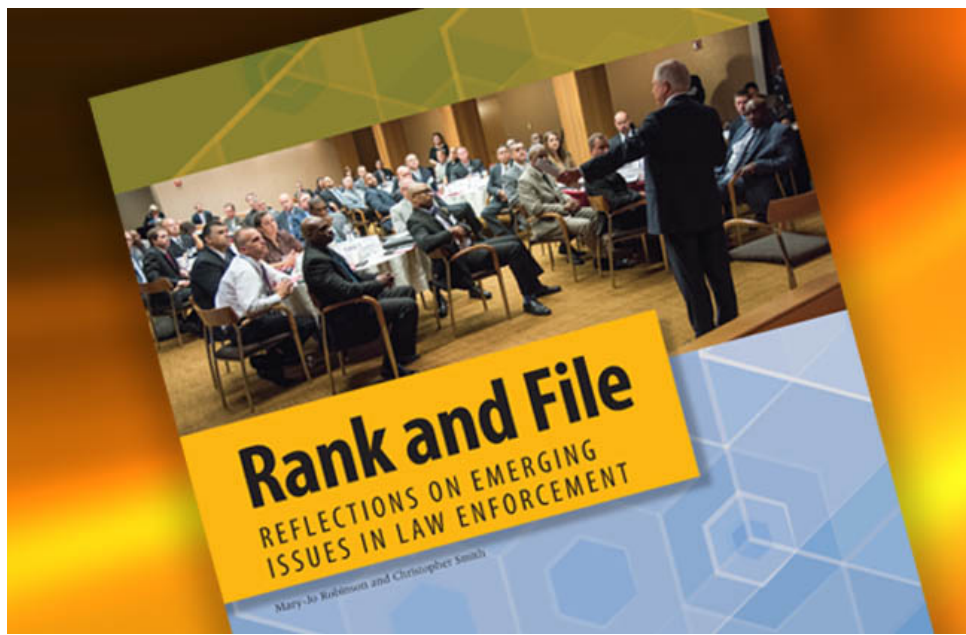
This [report](#) identifies innovative practices that have proven successful in reducing the arrest and incarceration of individuals living with mental illness in jurisdictions across the U.S.

The report was developed by the Major County Sheriffs of America with support from the Office of Community Oriented Policing Services. The programs have shown promise in several areas: diverting those who live with mental illness away from the criminal justice system, supporting individuals in the court system, identifying and treating those who have been incarcerated, and helping individuals successfully re-enter their communities after discharge.

The report includes case studies of seven jurisdictions and resources developed by law enforcement executives and experts in the field.

To read the report, click [here](#).

Main photo: Major County Sheriffs of America



Rank and File: Reflections on Emerging Issues in Law Enforcement

Office of Community Oriented Policing Services

This [report](#) highlights contemporary policing issues discussed during a meeting of 40 rank-and-file law enforcement officers.

The participants were officers, deputies and troopers from a wide range of law enforcement agencies. The meeting in August 2017 provided insights and recommendations for ways in which officers, law enforcement leaders, and communities can work together to reduce crime — in particular illegal immigration, drug trafficking and violent crime. They also discussed the need to support officer morale, safety and wellness, and explored emerging issues such as the growing opioid epidemic.

To read the report, click [here](#).

Main photo: Office of Community Oriented Policing Services