NATIONAL INSTITUTE OF JUSTICE

EVIDENCE-BASED POLICING
IN 45 SMALL BYTES

Gary Cordner, Ph.D.
Academic Director
Education and Training Section
Baltimore Police Department

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Contents

Introduction

This guidebook presents a practical framework for understanding evidence-based policing (EBP). The framework is practical in the sense that it is understandable, feasible, and directly tied to making policing more effective. In other words, it isn't about collecting data for its own sake, or about doing research for its own sake. Rather, it is about serving and protecting the public as effectively as possible.

That said, this EBP framework is demanding because the police mission is demanding.[1] The framework identifies data that should be collected, analyses that should be conducted, and research that should be carried out — all for the purpose of making policing better. Improving policing depends on producing and then using the best available evidence when making decisions, developing policies, and designing programs and practices.

The framework is presented in 45 small "bytes." The number is arbitrary, but it illustrates the fact that policing is a broad function in a society that expects a lot from the police. The people who manage police organizations need a lot of information in order to know how well (or how poorly) things are going and what problems need attention. In addition, the public and political leaders want information by which to judge how well their police are performing, as reflected in the growing emphasis on transparency and accountability.

Byte 1 dives right into the question, "What is evidence-based policing?" Before getting to that, three comments are in order:

1. The guidebook is mainly written with chiefs, sheriffs, and commanders in mind because the people in charge of police agencies are most responsible for making them as effective as possible. They have the strongest need for data, analysis, research, and evidence to help them make decisions that will produce the best possible organizational results. They have to answer to the public and governing officials, and they are the ones who might lose their jobs if things don't go well. When a councilperson asks, "Chief, how are we doing?," an off-the-cuff, vague response may not suffice. The framework presented here will help the chief respond with a well-documented, full-fledged answer.

   Although the guidebook is primarily aimed at high-ranking law enforcement officials, it should be useful to a wide range of others. Within police agencies, middle managers, supervisors, and officers all make decisions and need to be as well-informed as possible. Also, civilian law enforcement personnel, especially analysts and planners,

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[1] The terms *police* and *policing* are used throughout this guidebook for simplicity but are intended to refer to all kinds of general-purpose law enforcement agencies, including sheriff's departments and state police.

are often the ones most directly involved in collecting and analyzing data and evaluating programs. Outside of police, city managers, local and state elected officials, public interest groups, and concerned citizens all have a role in holding police agencies accountable; they will all find the framework helpful in judging how effectively their police are performing.

2. The guidebook emphasizes *what* data, analysis, and research capabilities police agencies should have and explains *why* those capabilities are important, with examples. However, it does not go into as much detail about *how* to carry out all the various data collection, analysis, and research tasks required to implement EBP. This is partly because that would take multiple books and courses, and partly because many police agencies already have personnel with the necessary knowledge and skills. What seems most important is to articulate a clear and workable framework that shows how things can fit together logically and contribute to more effective policing.

3. This guidebook does not distinguish between large and small police agencies. At first glance, the EBP framework and its 45 bytes might seem tailored for large agencies only, but they aren't. As an example, both large and small agencies need to know about crime patterns and hot spots — it just takes more work and a more formal process to identify them in a bigger jurisdiction. Similarly, any chief or sheriff needs to have a good understanding of officer morale, stress, and turnover. In a large agency, that is likely to require formal data collection and analysis, whereas, in a small agency, such conditions might be readily observed. The *what* and *why* of the framework are equally applicable to small and large agencies; they just differ in how they achieve the level of information and evidence needed to make well-informed decisions.

The EBP framework presented in this guidebook is meant to stand on its own and be easily understood. As such, references and footnotes are kept to a minimum, but a small number of suggested readings are identified throughout the guidebook for readers interested in source documents, important studies, and key thinkers.

One last word: This introduction is longer than many of the 45 bytes, so do not despair.

Evidence-Based Policing

The four bytes in this first section explain what evidence-based policing (EBP) is, and what it isn't. They emphasize that it is about using data, analysis, and research, but it *isn't* about dismissing or marginalizing police experience and professional judgment. EBP is simply about informing police decisions and practices with the best available knowledge — much as doctors, nurses, engineers, counselors, teachers, and other professionals are informed by their own bodies of scientific information.

It is important to recognize that doctors and engineers, despite working in well-developed professions, usually cannot just "look up" or "calculate" the right answer for each situation they face. Rather, they have to draw on their experience and judgment — the skills of their craft as well as whatever scientific knowledge may be applicable — to diagnose and respond to the situation. Often, careful trial and error is still required before a satisfactory outcome is achieved. The same is true with EBP.

To put it another way, there isn't an app, and there isn't going to be an app.[2] The complexity and unpredictability of policing guarantee that it won't all boil down to an algorithm. But there are lots of reasons to believe that making policing as evidence-based as possible will make it more effective, thus contributing to a safer and more just society.

Evidence-Based Medicine

"The mission of 'evidence-based medicine' is surprisingly recent. Before its arrival, much of medicine was based on clinical experience. Doctors tried to figure out what worked by trial and error, and they passed their knowledge along to those who trained under them."

"The benefits of evidence-based medicine, when properly applied, are obvious. We can use test characteristics and results to make better diagnoses. We can use evidence from treatments to help people make better choices once diagnoses are made. We can devise research to give us the information we are lacking to improve lives. And, when we have enough studies available, we can look at them together to make widespread recommendations with more confidence than we'd otherwise be able."

Source: Carroll, A.E. 2017. "What we mean when we say evidence-based medicine." *New York Times* (December 27).

SUGGESTED READING

Tilley, N., and G. Laycock. 2016. "Engineering a safer society." *Public Safety Leadership: Research Focus* 4 no. 2. Manly, NSW: Australian Institute of Police Management. https://www.aipm.gov.au/sites/default/files/header/Research-Focus-Vol-4-Iss-2-Engineering.pdf.

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[2] Actually, there is an evidence-based policing app at http://www.evidence-basedpolicing.org. It provides a great deal of useful information but doesn't cover all of the "bottom-line outcomes" of policing or present the information in the kind of broad, systematic framework used in this guide.

What Is Evidence-Based Policing?

Although the term *evidence-based policing* (EBP) has become well known, we need to be clear about how it is being used. First, it is important to understand that it refers to scientific evidence, not evidence in the legal or investigative sense. EBP is the policing parallel to evidence-based medicine and fits within the broader categories of evidence-based practice, evidence-based decision-making, evidence-based management, and so forth.

Lawrence Sherman is credited with coining the term *evidence-based policing* in a 1998 Police Foundation paper, arguing that "police practices should be based on scientific evidence about what works best."[3] Similarly, Cynthia Lum and Chris Koper recently asserted that "research, evaluation, analysis, and scientific processes should have a 'seat at the table' in law enforcement decision making about tactics, strategies, and policies."[4] Their "seat at the table" analogy helps clarify that the best available evidence should inform policing while acknowledging that there are other seats at the table, too — experience, judgment, and law, for example.

Here's how evidence-based policing is defined in this guidebook:

> Using data, analysis, and research to complement experience and professional judgment, in order to provide the best possible police service to the public.

This definition says that law enforcement agencies and personnel should be informed by the best available scientific evidence as they go about identifying and understanding issues and problems, choosing responses, making decisions, setting policies, allocating resources, and enhancing employees' well-being. Looked at this way, EBP is a no-brainer. It would be foolish and harmful for police to utilize practices that don't work — and unethical to knowingly disregard more effective ones.[5] It is safe to say that every right-minded law enforcement official always makes what they believe are the best decisions.

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[3] Sherman, L.W. 1998. "Evidence-based policing." *Ideas in American policing*. Washington, DC: Police Foundation, 2. https://www.policefoundation.org/publication/evidence-based-policing.

[4] Lum, C., and C.S. Koper. 2017. *Evidence-based policing: Translating research into practice*. Oxford: Oxford University Press, 3-4.

[5] Johnson, J.P. 2016. "A Hippocratic oath for policing." Blog post. Washington, DC: National Police Foundation. https://www.policefoundation.org/a-hippocratic-oath-for-policing.

What EBP suggests, however, is that sometimes police agencies do things a certain way because "we've always done it that way," without any particular evidence that this is the best way. Likewise, law enforcement agencies don't always devote much energy toward analyzing and evaluating their practices in order to figure out just how effective (or ineffective) they really are. Thus, it is quite possible that policing isn't as evidence-based as it could be, and to the extent that is true, police agencies aren't as effective as they could be.

Which is not to say that everyone in policing has to don a lab coat and become a research scientist. The approach to EBP taken in this guidebook is practical, reasonable, and balanced. For the most part, it's not rocket science. It is about how to make policing more effective.

Evidence-Based Policing in Eau Claire, Wisconsin

The Eau Claire Police Department did a study testing the impact on back pain of the traditional duty belt versus the load-bearing vest. The police partnered with local researchers to carry out the six-month study in which 30 officers rotated between the two equipment options. Participants reported less pain wearing the vests, so the department made the switch. Besides the relief for officers, a deputy chief noted, "Lost time due to injury or medical cost related to back injuries are significant and the entire community shares that cost."

Source: Adapted from Schwieters, B. 2018. "Study aims to improve health of local police officers." *WEAU News* (October 30).

Practical EBP: Data, Analysis, Research, and Evidence

Some versions of evidence-based policing (EBP) put all their emphasis on determining "what works," which leads them to push experimental research (randomized controlled trials, or RCTs) to the near exclusion of everything else. That approach has the virtue of what researchers call *internal validity:* A carefully done experiment produces the most valid conclusions about causation — in other words, whether A caused B (e.g., whether a particular patrol strategy caused an observed decrease in street crime).

Experiments are quite useful in policing, but the perspective on EBP needs to be broader, for several important reasons:

1. Effective policing and police administration depend on knowing much more than just "what works." Information is needed to identify problems, analysis is needed to spot patterns and trends, and research is often needed to figure out why a new program wasn't implemented correctly — not just that it didn't work.

2. An important aspect of evidence-based policing is *using* the best available evidence. EBP is as much about properly utilizing research (and data and analysis) as it is about *doing* research.

3. A disadvantage of experimental studies (as well as quasi-experimental studies) is that their external validity is generally limited or unknown. Consequently, for places other than where the experiment was conducted, it is usually a guess whether the study's results would be the same in one's own jurisdiction.

4. Experimental studies can be fairly complicated, expensive, and time-consuming. They aren't always practical for many law enforcement agencies, although rapid RCTs like the ones supported by New York University's BetaGov are making it easier to study a research question quickly and efficiently without sacrificing experimental rigor.

The broad EBP framework presented in this guidebook rests on four equally important components — data, analysis, research, and evidence. A law enforcement agency wanting to be more evidence-based needs all four components:

- **Data** are needed about a wide array of conditions — both in the community and inside the agency — so that issues and problems can be identified and performance can be monitored.

- **Analysis** is needed to figure out why issues and problems are occurring, and to identify patterns and trends that the agency needs to address.

- **Research** is needed to evaluate the effectiveness of the agency's programs and strategies, including ongoing practices as well as newly implemented ones. Research is also needed any time an important question comes up and the answer can't simply be Googled.

- **Evidence** is derived from the agency's own data, analysis, and research as well as studies done elsewhere. A law enforcement agency needs to cultivate its ability to find and produce evidence, weigh its credibility and relevance, and then use the evidence appropriately to best inform decisions and practices.

Most of this guidebook, specifically Sections 3-8, is organized around these four EBP components — data, analysis, research, and evidence.

SUGGESTED READING

Knutsson, J., and L. Tompson, eds. 2017. *Advances in evidence-based policing*. London: Routledge.

The Limits of EBP

Before getting any deeper into evidence-based policing (EBP) and its components — data, analysis, research, and evidence — it is important to reiterate and emphasize that research and science don't have all the answers for policing and are not the only sources of bona fide knowledge. Police decision-makers have to balance research and data with experience and professional judgment.

The issue of context was mentioned in byte 2 — it is hard to know whether the results of a study done in one place are transferable elsewhere. Another limitation is that science never "proves" anything. Rather, it tests theories (formal explanations about how something works) by confirming or disconfirming hypotheses, a fancy way of saying that all scientific knowledge is tentative. Even principles and "facts" that are relatively well-established are periodically subjected to further testing, and sometimes overturned.

A more philosophical issue arises because policing is a function of a government that is "of the people," not "of data" or "of science." As a society, we choose to have guilt or innocence decided by a judge or jury, not a computer algorithm. Science and technology continually advance, but "we the people" are the ones who decide how to use it. For example, brain scanning may someday accurately detect human deception, but whether and how police are allowed to use that technology to identify liars will be determined by public opinion, politics, and the U.S. Constitution — not research.

One further complication is that police agencies have to juggle competing interests, priorities, and outcomes. A study may determine that a particular strategy is more effective than another at reducing crime, but police must also consider its effects on fear of crime, public trust, efficient use of resources, and equitable use of force and authority — not to mention key values such as legality, transparency, and accountability. Researchers often have the luxury of focusing their studies on one isolated outcome (the "dependent variable"), but law enforcement executives have to juggle multiple outcomes, all of which matter.

Not surprisingly, law enforcement needs to follow the middle way. Using data, analysis, and research to inform policing will pay huge dividends in increased effectiveness and better public service. At the same time, everyone needs to recognize that police policies and practices are inevitably influenced by law, values, politics, and public opinion. One of the responsibilities of police leaders is drawing on wisdom and experience to make their agencies as evidence-based as possible, given the multitude of challenges and considerations that inevitably constrain their real-world decision-making.

Science or Craft?

"By itself, evidence-based knowledge is not enough. We need the partisans arguing for scientific evidence but we need also other types of knowledge. Craft knowledge, political knowledge, and research-based knowledge, all warrant a place at the table. These several strands need to be woven together. Craft knowledge not only needs to be treated as evidence in this weaving, but we need to recognize that it provides also the basis for choosing between the available sources of evidence."

Source: Fleming, J., and R. Rhodes. 2017. "Experience is not a dirty word." *Policy & Politics Journal Blog.* https://policyandpoliticsblog.com/2017/06/20/experience-is-not-a-dirty-word.

SUGGESTED READING

Fleming, J., and R. Rhodes. 2017. "Experience is not a dirty word." *Policy & Politics Journal Blog.* https://policyandpoliticsblog.com/2017/06/20/experience-is-not-a-dirty-word.

EBP vs. Intelligence-Led, Problem-Oriented, and Community-Oriented Policing

I t is necessary to emphasize that evidence-based policing (EBP) is not the latest hyphenated strategy of policing; in fact, it is not a policing strategy at all. Consequently, it will not replace intelligence-led policing (ILP), problem-oriented policing (POP), community-oriented policing (COP), or any other policing strategy. Rather, EBP can help a law enforcement agency identify which strategy might be the best fit for its situation, help the agency implement that strategy, and then help determine how effectively the strategy is working.

ILP depends heavily on data to identify priority targets (offenders, locations, behaviors) most deserving of police attention. Thorough analysis helps uncover crime patterns, connections between offenders, and other dynamics that can help police figure out how to intervene most effectively. The driving principle of ILP is that an agency's actions should always be guided, day by day if not hour by hour, by the latest and best information (intelligence) about crime and offenders in its jurisdiction.

POP relies on (1) data to identify emerging crime and disorder problems; (2) analysis to describe the problems and figure out why they are occurring; (3) implementation of tailor-made responses; and (4) assessment (evaluation) to determine whether the problems have been reduced, and if not, why not. The selection of responses to a problem (after it has been analyzed) should be wide-ranging and should draw on both evidence and previous experience from within the agency and elsewhere.

COP is generally perceived as less data-driven and analytically based than intelligence-led or problem-oriented policing, but where it really differs is in its priority outcomes. COP puts its greatest emphasis on improving police-community relationships, reducing fear of crime, and providing quality services — not to the exclusion of reducing crime and disorder but on the premise that increasing public trust and cooperation will lead to longer-lasting decreases in crime. Often overlooked is that data and analysis are needed to correctly identify a jurisdiction's particular public trust and police-community relations issues and problems. Also, research is needed to determine whether COP initiatives that are undertaken succeed in making those issues and problems better, and if not, why not.

The takeaway is that there's no "versus" between EBP and any of these, or other, policing strategies. EBP represents the most logical and rational approach for a law enforcement agency to adopt as it considers, implements, evaluates, and refines its strategies of policing, whatever they are.

POP and EBP

"Problem-oriented policing and EBP … are prescriptions for figuring out what to do, not prescriptions for what to do. This is important because determining whether POP and EBP are viable policing approaches depends not on whether their application reduces crime and disorder directly, but on whether they enable police to figure out how to handle their business effectively and fairly."

Source: Scott, M. 2017. "Reconciling problem-oriented policing and evidence-based policing." In J. Knutsson and L. Tompson, eds., *Advances in evidence-based policing*. London: Routledge, 29.

SUGGESTED READING

Sparrow, M. 2016. *Handcuffed: What holds policing back, and the keys to reform.* Washington, DC: Brookings Institution.

SECTION 2:
Effective Policing

Remember, the purpose of evidence-based policing (EBP) is to make policing as effective as possible. The methods of EBP — data, analysis, and research — are the methods of science, but the point of EBP is to use these methods to achieve real-world practical results, not to do science for its own sake.

A word about effectiveness: Organizations and systems of all kinds are expected to operate in an effective manner. By definition, an activity is effective to the extent that it achieves its intended outcomes. To oversimplify just a bit, a company is effective if it maximizes its profit (its "bottom line"), and a sports team is effective if it finishes in first place.

One or both of two errors are common when thinking about police effectiveness: (1) mistaking an output, such as number of arrests, for an outcome, such as reducing crime, and (2) choosing one outcome while ignoring others. Focusing on outputs is understandable but insufficient, since the output (e.g., number of arrests) may or may not produce the outcome (e.g., reducing crime) that really matters. Focusing on only one outcome is risky if there are multiple outcomes that matter, which is usually the case for government agencies, and always true for police organizations.

Here, in Section 2, this guidebook identifies and explains the outcomes of policing — emphasis on the plural *outcomes* because policing does, in fact, have a multifaceted bottom line. Policing and police administration would be a lot simpler if there was a single important outcome, but there isn't.

Outputs vs. Outcomes

"The *desired outcomes* of policing differ from the *observed outputs* of a police organization in that *desired outcomes* occur farther down a chain of causation than *organizational outputs.* They are more distant in space and time from the police activities that occur right at the boundary of the organization. *Organizational outputs* are the specific things that the police do; *desired social outcomes* are the valuable results that occur in society as a *consequence* of what the police do."

Source: Moore, M.H., and A. Braga. 2003. *The "bottom line" of policing: What citizens should value (and measure!) in police performance.* Washington, DC: Police Executive Research Forum, 3. http://www.policeforum.org/assets/docs/Free_Online_Documents/Police_Evaluation/the%20bottom%20line%20of%20policing%202003.pdf.

BYTE 5

The Bottom Line(s) of Policing

Since at least the 1960s, experts and commentators have suggested alternative ways of expressing the true purpose or ends of policing. Mark Moore and Anthony Braga produced a practical and useful framework in 2003 that incorporates seven dimensions of the policing "bottom line." This framework is favored because it seems to capture the key outcomes that people expect the police to try to achieve, without being too detailed and complicated. The seven dimensions, or outcomes, are as follows:

- Reducing serious crime

- Holding offenders to account

- Maintaining safety and order

- Reassuring the public

- Providing quality services

- Using force and authority fairly and effectively

- Using financial resources fairly, efficiently, and effectively.

Visible patrolling, responding to emergency and nonemergency calls, enforcing the law, taking reports, investigating crimes, checking into suspicious situations, interacting with people — these are the means and methods of policing. They are not ends in themselves, but they are important aspects of police performance that are intended to achieve the seven bottom-line outcomes listed above, which include preventing crime, solving crimes, helping people feel safe and secure, and delivering services to people who need them.

The importance of this framework, a kind of "balanced scorecard," cannot be overstated. The whole point of evidence-based policing is to use data, analysis, and research to make policing more effective — i.e., to help achieve the seven dimensions of the policing bottom line as completely as possible.

An alert reader might wonder, what about police legitimacy? Legitimacy is best understood as the ultimate desired end of policing — when people are satisfied that the police are capable, trustworthy, and performing as effectively as possible. In other words, the legitimacy of the police institution is best protected and enhanced when the

police are as effective as possible at reducing crime, holding offenders accountable, maintaining safety and order, providing reassurance, delivering quality services, and using force, authority, and financial resources fairly and efficiently.

The next few bytes address these bottom lines of policing, and then police legitimacy, one by one.

Balanced Scorecard

"The 'balanced scorecard' [in the private sector] includes measurements that focus on the efficiency of operational methods and the quality of customer and employee relations, rather than single measures of financial performance. They focus on these measures because the measures help them look behind their financial performance to find the reasons for their success, and keep them focused on the things they need to do to ensure their success in the future. Presumably, there are all kinds of complicated, unknown tradeoffs among these different measures. But the important thing about each of these measures is we know in which direction we would like them to move."

"Following the lead of the balanced scorecard in the private sector, I think that we could use the seven dimensions of policing as a 'public value scorecard' with which citizens could monitor police performance. The ideal performance measurement for a police department does not record performance on only one dimension, but reliably measures multiple, nonfinancial dimensions of performance."

Source: Moore, M.H., and A. Braga. 2003. *The "bottom line" of policing: What citizens should value (and measure!) in police performance.* Washington, DC: Police Executive Research Forum, 30. http://www.policeforum.org/assets/docs/Free_Online_Documents/Police_Evaluation/the%20bottom%20line%20of%20policing%202003.pdf.

SUGGESTED READING

Moore, M.H., and A. Braga. 2003. *The "bottom line" of policing: What citizens should value (and measure!) in police performance.* Washington, DC: Police Executive Research Forum. http://www.policeforum.org/assets/docs/Free_Online_Documents/Police_Evaluation/the%20bottom%20line%20of%20policing%202003.pdf.

BYTE 6
Reducing Serious Crime

Right away, most people would think of reducing or controlling crime as a main purpose of policing. This purpose was emphasized long ago in the well-known Peelian principle that "the test of police efficiency is the absence of crime and disorder, not the visible evidence of police action in dealing with it." In other words, what matters most is less crime and victimization, not more arrests and stops. It follows that preventing crime is preferable to merely reacting properly after it occurs.

Most of the focus of evidence-based policing has been on conducting studies to determine the crime-control effectiveness of police strategies and programs. The first major study, published in 1974, was the Kansas City Preventive Patrol Experiment.[6] Since then, many experimental and quasi-experimental studies have been conducted. The most consistent finding has been that policing efforts that are targeted — whether at locations (hot spots), specific categories of crime, or prolific offenders — tend to be more effective at reducing crime than efforts that are diffuse or generic.

A law enforcement agency should carefully track crime in its jurisdiction, not just to be aware of increases or decreases but also to identify specific patterns, trends, and crime problems — preferably sooner rather than later to prevent as many future crimes as possible. Accurate targeting isn't feasible without this kind of information. Because this is so important, later sections of this guide focus on crime data and crime analysis.

From the standpoint of overall agency effectiveness, measuring the amount of crime is essential. Unfortunately, yet understandably, most agencies only have data on reported crime, which vastly undercounts the actual amount of crime, making it impossible to know the size and scope of the real crime problem. It can also distort apparent changes in crime if, for example, residents become more likely to report crimes that occur (which sometimes happens when police engage in trust-building initiatives) or are less likely to report them (which may happen when police staffing is low, causing longer response times that exceed victims' patience).

Another impediment to measuring crime in a meaningful way is the longstanding reliance on the FBI's Uniform Crime Reporting (UCR) program. The seven UCR Part I crime categories were a more useful measure of crime 50 years ago than they are today. They do not include cybercrime or other types of fraud (no matter how big the loss), simple assaults (which means they do not count most domestic violence), vandalism (no matter

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[6] Kelling, G.L., T. Pate, D. Dieckman, and C.E. Brown. 1974. *The Kansas City preventive patrol experiment: A summary report.* Washington, DC: Police Foundation. https://www.policefoundation.org/wp-content/uploads/2015/07/Kelling-et-al.-1974-THE-KANSAS-CITY-PREVENTIVE-PATROL-EXPERIMENT.pdf.

how much damage), and many other offenses, but they do include each and every physical theft regardless of dollar value, such as shoplifting a pack of gum. Efforts are now underway to develop more meaningful crime measures, but progress is slow.

Despite these limitations, a law enforcement agency is expected to measure and report the level of crime in its jurisdiction so that residents can be informed and aware. Besides using standard existing measures, the best advice is to focus on the most serious crime, along with what matters most to residents. In big cities, murders and shootings often deserve the closest attention. Agencies have recently recognized that it is particularly important to count shootings, which could easily have been murders, had the bullets struck a vital organ or had medical attention not been effective. In a small town, by contrast, vandalism/criminal mischief might be the most common and costly crime and, therefore, one that would be important to measure, analyze, and report, even though it isn't a UCR Part I crime.

Measuring Crime

"Measuring overall levels of criminal victimization, and observing how those levels are changing over time, at both the city and the district level, is probably the single most important performance measure for police departments to collect. Currently, police departments rely heavily on reported crime numbers to accomplish this goal. These numbers have the great *advantages* of being inexpensive to collect, and of providing a continuous series that can be observed at citywide, district, and street address levels. They have the great *disadvantage* of revealing only the criminal victimization that victims and witnesses decide to share with the police. To get at the 'dark figure of crime,' one must go to victimization surveys, or to public health data systems."

Source: Moore, M.H., and A. Braga. 2003. *The "bottom line" of policing: What citizens should value (and measure!) in police performance.* Washington, DC: Police Executive Research Forum, 38. http://www.policeforum.org/assets/docs/Free_Online_Documents/Police_Evaluation/the%20bottom%20line%20of%20policing%202003.pdf.

Holding Offenders to Account

When crimes occur, police are expected to try to solve them. Identifying offenders, arresting offenders, and collecting evidence to support prosecution are all part of holding offenders to account. Of course, it is more directly the responsibility of the rest of the criminal justice system (prosecution, courts, corrections) to actually hold offenders accountable, but without effective police performance on the front end, little else happens.

Police effectiveness in holding offenders to account is important for several reasons. One is general deterrence, which helps reduce crime. Many offenders weigh the risk of getting caught, so when police are better at catching offenders and solving crimes, some offenders will desist from committing crimes, or at least commit fewer. A related benefit is specific deterrence — those offenders who get caught are deprived of the opportunity to commit more crimes as long as they are incarcerated or under close supervision.

Holding offenders accountable is also a service to victims and their families. Even when they have suffered harms that cannot really be repaired, victims often get some comfort from knowing that the person who offended against them was caught. In some cases, they may even get some compensation in the form of restitution from the offender.

More generally, victims and the larger society benefit when they see that those who commit crimes are held accountable. To put it another way, when the perception is that crime pays and offenders get away with their crimes, the public may lose confidence in the police, in the justice system, and in the government's ability to protect the people. This can feed cynicism and weaken the social bonds that hold communities together. In the worst case, lack of confidence in law enforcement leads to vigilantism, when people feel they need to take the law into their own hands.

Police have traditionally measured their *clearance rate,* which is the portion of reported crimes that have been solved. This is a key metric of police effectiveness that deserves to be tracked and reported, although the definition of "solved" is open to some interpretation and therefore has to be looked at carefully. Agencies usually track their number of arrests, especially for crimes that are typically discovered through proactive policing rather than reported by a victim — such as disorderly conduct, intoxicated driving, and drug offenses.

The real outcome of interest is holding offenders to account. To measure their effectiveness in relation to this bottom line, agencies need to look beyond identifying the offender and making arrests. They should also examine the degree to which their cases contribute to prosecutions, convictions, and appropriate sentences. This is a challenge; it is true that police might build a strong case only to have a witness disappear, or a victim recant, or a prosecutor drop the charges in return for a guilty plea to some other offense. Thus, the prosecution rate or the conviction rate can be deceiving. But, at the same time, if a police agency is making a lot of arrests that are not leading to prosecutions or convictions, a problem needs to be addressed, because the outcome — holding offenders to account — is not being achieved.

Measuring arrests, crime clearances, and judicial outcomes are all discussed in later sections of this guide.

Investigative Effectiveness

"The police ought to be interested in and held accountable for the quality of their investigations and arrests as well as for the ultimate results of these activities. By quality, I mean three somewhat different things: first, the professional skill the police show in developing evidence and making arrests; second, the extent to which their methods of investigating and arresting can stand up to legal scrutiny, and therefore count as a 'good bust'; and third, the extent to which the investigation and arrest can be expected to produce a conviction."

Source: Moore, M.H., and A. Braga. 2003. *The "bottom line" of policing: What citizens should value (and measure!) in police performance.* Washington, DC: Police Executive Research Forum, 42. http://www.policeforum.org/assets/docs/Free_Online_Documents/Police_Evaluation/the%20bottom%20line%20of%20policing%202003.pdf.

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Scott, M.S. 2017. *Focused deterrence of high-risk individuals.* Tempe, AZ: Arizona State University, Center for Problem-Oriented Policing. https://popcenter.asu.edu/sites/default/files/spi_focused_deterrence_pop_guide_final.pdf.

BYTE 8
Maintaining Safety and Order

A century or more ago — before the advent of sidewalks, parking lots, indoor plumbing, sewer systems, and other miracles of modern infrastructure — sanitation and public health were among the responsibilities of police. That is no longer true, for the most part, but police are still expected to protect safety and order in public places.

Today, maintaining safety and order includes such activities as traffic and parking control, crowd management, event security, handling noise complaints and disorderly people, resolving disputes, making sure that parks are safe places for children and families, and intervening in crisis situations involving persons with mental illness. Although some of these situations can and do result in enforcement and arrest, the crimes or infractions involved are generally minor and police often try to handle them informally. The objective is to keep the peace and make it safe for people to use public spaces appropriately.

The traffic component of maintaining safety and order is a core element of policing that often gets overshadowed by crime control. However, the number of people who die each year in traffic crashes is roughly twice the number who are murdered, and hundreds of thousands more are injured. Making roadways safer is thus a crucial dimension of police performance. Less dramatic but equally important are police activities aimed at making streets and highways orderly, so that traffic can flow smoothly, allowing people and merchandise to arrive at their destinations in a timely manner.

The task of policing mass demonstrations illustrates how challenging it can be to maintain safety and order. The First Amendment to the U.S. Constitution guarantees "the right of the people peaceably to assemble, and to petition the Government for a redress of grievances." Yet, demonstrations frequently interfere with the flow of traffic, sometimes escalate into property damage, and often spark counter-demonstrations. Police are charged with protecting the constitutional right of peaceful assembly, but they also have the responsibility to protect people on both sides of the issue, as well as bystanders and property. This is one of those situations in which police are literally stuck in the middle and sometimes cannot be completely successful, no matter how hard they try.

Measuring traffic safety (crashes, fatalities, and injuries) is reasonably straightforward, but measuring the level of order or disorder is not. This is particularly true because there

is no clear-cut standard for the "right" level of orderliness in a community — it can vary by neighborhood, by individual person, and over time. Conditions like loud music, public drinking, and kids on the corner constitute disorder in the minds of some people but not others. Although criminal laws that prohibit disturbing the peace and disorderly conduct are in effect everywhere, using discretion to negotiate the gray area between orderly and disorderly has always been a core function of policing.

Because safety and orderliness have both objective and subjective components, a police agency is likely to need multiple measures to track how it is doing. Later sections offer some suggestions.

Protecting Democracy

"The police have an important, but intermittent and rarely noticed impact on a different kind of public space — the public space in which politics are conducted. Police responsibility in this domain shows up in the vestigial requirement that the police guard polling places on election days to ensure that voters can cast their votes without intimidation, and prevent partisan violence from breaking out. It is often a bit more visible when the police do or do not grant permits for parades and demonstrations, and then police the mass gatherings that occur. It is also apparent when riots occur, and the police are called in both to restore order, and explain the causes of the disorder. The political role of the police is very important when the police deal with extortion or terrorism justified by some political ambitions. A democracy depends on individuals being able to settle their deeply held political disagreements peaceably, and it is among the most important challenges facing police to play an important role in keeping public deliberative spaces open and safe, as well as keeping public physical and recreational spaces safe."

Source: Moore, M.H., and A. Braga. 2003. *The "bottom line" of policing: What citizens should value (and measure!) in police performance.* Washington, DC: Police Executive Research Forum, 47. http://www.policeforum.org/assets/docs/Free_Online_Documents/Police_Evaluation/the%20bottom%20line%20of%20policing%202003.pdf.

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Reassuring the Public

Perception isn't reality, but it does have consequences. Excessive fear of crime can cause people to stay indoors, put bars on their windows, move to a different neighborhood, or relocate their businesses to another city or town. Similarly, if people believe that police can't be trusted, they don't report crimes, step forward as witnesses, or participate in community-based problem-solving.

Because perceptions of crime and of police performance affect people's quality of life and their interactions with law enforcement, they are an important dimension of the policing bottom line. A police agency's effectiveness is highest when the public's fear of crime is commensurate with actual risks, and when the public has trust and confidence in their police.

The traditional approach to reducing fear of crime was to work on reducing crime itself. Likewise, improving police professionalism was the approach taken to improve the public's opinion of the police. However, it has often been the case that fear of crime goes up even as the crime rate goes down, and that the very people least at risk of being victimized are the most fearful. It is also common for improvements in police performance to go unrecognized by the public, and for an agency's constituents to be influenced by policing incidents that occur hundreds or even thousands of miles away. Consequently, it makes sense for police to intentionally engage in reassuring the public rather than assuming that people will be well-informed on their own. Today, in the age of social media, this has become even more important.

There are two key elements of reassurance policing, both of which require good data. The first is that reassurance must be based on accurate information in order to have credibility. If crime is largely unreported, for example, or if reported crime information isn't up to date, then the public might be given a false sense of security, or people might realize that the police aren't actually on top of the situation. For example, if the police were to rely on their own perceptions in assuring the community that there was no racial disparity in vehicle stops, only to be contradicted by data, credibility and trust would be lost.

The other element of reassurance policing is that, like most policing practices, it should be targeted. Consider fear of crime. Fear might be out of proportion to risks in some neighborhoods but not others, some demographic groups (such as older adults) might be more affected by fear of crime, and the particular causes of fear might vary between

groups, such as women's fear of sexual assault. By the same logic, people's perceptions of whether police behave properly might vary geographically and demographically. Thus, intentional police efforts to reassure the public should be tailored and calibrated to be as effective as possible and to avoid wasting energy where it isn't needed.

Sometimes, it is possible to observe the consequences of public perceptions, such as families not using a neighborhood park or protesters appearing at a city council meeting. More often, surveys and interviews are used to gauge fear of crime and perceptions of police, providing data that can then be used to target their reassurance efforts.

Fear Matters

"Enhancing personal security, including the subjective experience of how safe people feel against the threat of criminal attack, is surely one of the most important goals of a police department. Indeed, one can reasonably argue that producing a widespread sense of security against criminal attack is the true outcome of policing — the result that comes from arresting offenders and reducing crime, and that constitutes the ultimate purpose of the police. To be rid of the fear of a criminal attack is to live much more happily than to live with an ever-present or intermittent fear."

Source: Moore, M.H., and A. Braga. 2003. *The "bottom line" of policing: What citizens should value (and measure!) in police performance.* Washington, DC: Police Executive Research Forum, 44. http://www.policeforum.org/assets/docs/Free_Online_ Documents/Police_Evaluation/the%20bottom%20line%20of%20policing%202003.pdf.

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Providing Quality Services

P olice get contacted for all kinds of reasons — crimes, disturbances, traffic accidents, lost children, suspicious activity, individuals in crisis, alarms, speeders, keys locked in cars and, yes, cats in trees. Formal assistance may also be requested to provide security at sporting events, traffic control for parades, street closures for block parties, and background checks on child care workers. In addition, police often respond to fire and ambulance calls, sometimes taking immediate life-saving measures until other first responders arrive. The range of activities that police engage in is extremely broad.

It is accurate to say that policing is a service, and that police provide a wide array of services. By the same token, it would be deceiving to say that policing is just a service. Uniquely, police have the authority to do something about crimes, disturbances, suspicious people, and speeders. Police lead parades mainly because they can clear the way, not because they have nice cars. In other words, saying that policing is a service doesn't diminish the fact that police have the license and capacity to make people behave, or else.

Some of the services that police provide have little to do with their official authority and could probably be delivered more effectively by others. But the reality is that the police make house calls and are open for business 24/7 year-round, neither of which is true of most other service providers. Also, many social service agencies simply don't have the staff or budget to assist all the vulnerable people who need their help. Consequently, the police end up providing all kinds of services as best they can. Ideally, after completing an initial assessment, police make referrals to the appropriate public or private agency, but referral only works if that agency has the capacity to provide the needed services. Too often, the responsibility to try to help the person or resolve the situation falls back on the police.

Response time was the traditional indicator of good police service and is still important today, but it has two major limitations: (1) It measures how quickly police respond when someone calls but, by itself, does not reveal the quality of service delivered once police

arrive. (2) Studies have shown that an immediate response is not always productive or necessary — quick responses to cold crimes rarely produce arrests, and victim satisfaction is not primarily determined by how quickly the police show up.[7] Modern agencies generally aim for short response times to high-priority calls while offering alternatives in other situations, such as telephone reporting, online reporting, and delayed response. Research has shown that these alternative responses can be satisfying to victims and complainants if they are explained and delivered professionally.

The other principal indicator of good police service is the customer satisfaction survey. Although "customer" is not really the right label for people who receive police services, the logic is the same — following up with people who have had police contact to find out if, according to the people, the police were polite, listened to them, gave good information, and provided satisfactory service. Naturally, not everyone gets what they want from the police, but systematically measuring customer feedback is a logical method for gauging the quality of services delivered and an important way to identify trends, issues, and problems deserving of attention from the agency's managers.

Customer Satisfaction

"The police and those who oversee them should be interested in 'customer satisfaction' for at least two different reasons. First, producing customer satisfaction in those who interact with the police is valuable in and of itself. It is one of the goals toward which the police ought to be working. Second, to the extent that the police are responsive to the concerns of their clients and customers, and give them what they want, the police might well be rewarded with the loyalty and affection of the public. That loyalty and affection may help the police acquire additional resources. It might also ward off a tendency to rely increasingly on private rather than public security. Even more important, the public support and trust earned through quality services may help the police succeed in controlling crime. For all these reasons, in measuring police performance, it would be important to discover something about the experience of those who interact with the police."

Source: Moore, M.H., and A. Braga. 2003. *The "bottom line" of policing: What citizens should value (and measure!) in police performance.* Washington, DC: Police Executive Research Forum, 68-69. http://www.policeforum.org/assets/docs/Free_Online_Documents/Police_Evaluation/the%20bottom%20line%20of%20policing%202003.pdf.

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[7] Spelman, W., and D.K. Brown. 1984. *Calling the police: Citizen reporting of serious crime.* Washington, DC: U.S. Department of Justice, National Institute of Justice. NCJ 82276. https://www.ncjrs.gov/pdffiles1/Digitization/82276NCJRS.pdf.

Using Force and Authority Fairly and Effectively

Technically, using authority and using force are means, not ends, and as such might not seem like valid components of the policing bottom line. Nevertheless, they are included because they represent the core of the police role and because they dramatically affect citizens, both individually and collectively. In a free society, people relinquish some of their liberty and delegate power to police, in return for safety and order. Part of the bargain is that police agree to use that power sparingly and in ways that are lawful, equitable, and fair.

Examples of police exercising their authority include vehicle stops, person stops, frisks, searches, citations, and arrests. Police may also have authority to require people to evacuate a building, to disperse a disorderly crowd, or to take other actions in public safety emergencies. When individuals resist police exercising their authority, or when individuals threaten the police or others, then police may use reasonable force to overcome the resistance or threat. All of these situations surrounding police use of authority and force are heavily regulated by law as well as police policy, yet often a substantial degree of discretion remains.

Today, much of the public discussion about police centers on transparency, accountability, and legitimacy in relation to police use of force and authority. The reality, of course, is that society has police specifically because it needs an institution capable of regulating citizen behavior, by force if necessary — and yet, when police carry out this mandate, it is often controversial. Police leaders are expected to pursue using force and authority fairly and effectively as one of their organization's highest priorities.

Police executives and the public need data on this aspect of the police function in order to judge how well the police agency is meeting the mandate of using force and authority fairly and effectively. The number and circumstances of police shootings are obviously of high interest, but metrics such as the percentage of arrests involving use of force beyond handcuffing, the number and percentage of vehicle pursuits ending in crashes or injuries, and the percentage of searches yielding evidence or contraband are equally important indicators of sound tactics and decision-making.

An important and elusive element of using force and authority fairly pertains to race and ethnicity. It is routine and expected that data on arrests, stops, searches, and use of force will be examined for disproportionate impact on people of color, ethnic minorities, and women. A serious dilemma is that disproportionate impact is often found, but the data rarely provide much insight into reasons for the disparity. Consequently, advocates and police sometimes debate whether there is even a problem, never mind who is to blame and how to resolve it. More positively, though, the data can sometimes spark the kinds of creative and courageous conversations that communities need to have in order to make progress on race, police-community relations, and fair and effective use of force and authority.

Use and Abuse of Force and Authority

"The important measures indicating the overall level of force and authority used by the police must begin with individual instances of abuses of police force and authority. Abuse in an individual case means both that too much force and authority was used, and that it was unjustly used against that individual. If it turns out that excessive force occurs more often to people in a certain group, that group (as well as the individuals) might have reason to be concerned. Thus, a community would want to keep track of citizen complaints against the police."

Source: Moore, M.H., and A. Braga. 2003. *The "bottom line" of policing: What citizens should value (and measure!) in police performance.* Washington, DC: Police Executive Research Forum, 55-56. http://www.policeforum.org/assets/docs/Free_Online_Documents/Police_Evaluation/the%20bottom%20line%20of%20policing%202003.pdf.

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Using Financial Resources Fairly, Efficiently, and Effectively

Hardly anything is more despised in America than government waste, and we taxpayers part with our dollars very reluctantly. Because police are funded by the public's money, it follows that the police are expected to use it wisely. This is so important that it is included as one of the seven bottom lines of policing, even though it is not really an outcome in the same way that reducing crime or reassuring citizens are outcomes. Certainly, one justification for including it is that financial mismanagement can easily cost police chiefs and sheriffs their jobs.

Fairness in resource allocation is a tricky criterion. Which deserves more police time and attention — a big-box retail store that suffers five thefts a week, or a small Main Street shop that gets hit twice a month? Should the police department focus more investigative effort on human trafficking, domestic violence, online child predators, or street gangs? Should every neighborhood get the same level of patrol, or should patrols be distributed according to need (crime and calls for service)? Every police agency has limited resources and therefore has to balance competing issues and demands like these, none of which are straightforward. Fairness is ultimately a subjective standard, open to debate and criticism.

Efficient use of resources is more straightforward. Contracts should be put out for bid to ensure that equipment and services are obtained at the best possible cost. Patrol officers should be allocated to shifts according to workload. Training courses should only be as long as needed to impart requisite knowledge and skills. Agencies should have the number of layers of organization necessary for command and control, and no more. The main focus of efficiency is avoiding wasteful spending so that the best possible policing outcomes are achieved at the lowest possible cost.

Effective use of resources pertains more to using the practices that work best, and not using practices that don't work as well. This dovetails directly with evidence-based policing, the purpose of which is to make policing more effective. For example, following a practice like responding immediately to every reported crime is not an effective use of

resources; studies have shown that it produces neither more arrests nor more satisfied victims. But effectiveness depends on more than just adhering to principles about what works. It also depends on data; targeting works only if efforts are focused on problems that actually exist, and are focused when and where the problems happen. And effectiveness depends on analysis that uncovers the mechanisms and conditions that fuel the problem, giving the police guidance in choosing responses that really fit what's going on.

Police departments have traditionally thought of this dimension of performance — using financial resources — as something technical and mechanical, handled by accountants and bookkeepers. However, much more is at stake. A jurisdiction gives its police agency an amount of money to work with each year, expecting that it will be used fairly, efficiently, and effectively. Accomplishing that high standard requires not only careful tracking and resource allocation but also (1) utilizing only those programs and practices that accomplish the best possible outcomes and (2) convincing people and groups with competing interests that the police are being as fair as they possibly can in how they use their resources.

Efficiency and Innovation

"The police should be engaged in a continuing search for better, lower cost ways to achieve their results. Like other modern, producing organizations, they have to learn how to put a premium on innovation. They have to examine how they do their work in all phases of their operations — how they staff and schedule dispatch operators, how they recruit and train officers, how they respond to a proliferating number of burglar alarms, how they handle domestic violence complaints, and what can best be done to close down street-level drug markets, to describe just a few of the literally thousands of 'business processes' that exist in a modern police department. They have to find out how their current procedures are working, and imagine and test alternative ways of producing the same results. When they find a superior method for performing a particular task, they have to deploy that new method quickly and widely to take full advantage of the opportunity they have created for themselves."

Source: Moore, M.H., and A. Braga. 2003. *The "bottom line" of policing: What citizens should value (and measure!) in police performance.* Washington, DC: Police Executive Research Forum, 65. http://www.policeforum.org/assets/docs/Free_Online_Documents/Police_Evaluation/the%20bottom%20line%20of%20policing%202003.pdf.

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Gascón, G., and T. Foglesong. 2010. "Making policing more affordable: Managing costs and measuring value in policing." *New Perspectives in Policing* (December). Washington, DC: U.S. Department of Justice, National Institute of Justice. NCJ 231096. https://www.ncjrs.gov/pdffiles1/nij/231096.pdf.

Police Legitimacy

The significance of the seven dimensions of the policing bottom line, discussed in the preceding sections and represented in the middle column of figure 1, cannot be overstated. The public and their elected leaders expect the police to achieve all seven of these outcomes, or at least do everything possible to achieve them. Naturally, resources are limited, so priorities have to be established. Also, conditions and public concerns change over time, so priorities may shift. In the end, however, all seven dimensions really matter, which helps explain why policing and police administration are so challenging.

When people are satisfied that the police are doing everything within reason to achieve the entire set of outcomes — the whole bottom line — then they accept the legitimacy of the police and are most likely to cooperate with, assist, and support the police. In a free and democratic society, it is essential for the police to demonstrate that they are worthy of this kind of trust and confidence. That isn't expected in a dictatorship, but in a society in which people self-govern and choose to delegate certain authority to the police, that authority comes with the responsibility to use it wisely and effectively.

Figure 1. Police performance, policing bottom lines, and police legitimacy

| Police Performance — Activities and Outputs | → | Reduce Serious Crime
Hold Offenders to Account
Maintain Safety and Order
Reassure the Public
Provide Quality Services
Use Force and Authority Fairly and Effectively
Use Financial Resources Fairly and Efficiently | → | Police Legitimacy |
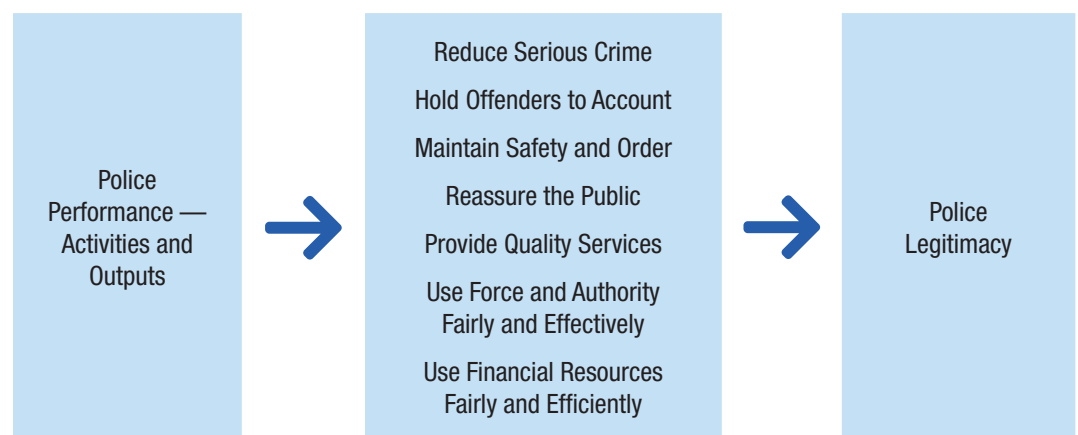
In recent years, studies have pointed to the significant impact of procedural justice on police legitimacy.[8] These studies have demonstrated that how police treat people and whether the public believes that police act fairly in their encounters with people

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[8] Mazerolle, L., S. Bennett, J. Davis, E. Sargeant, and M. Manning. 2013. "Legitimacy in policing." Oslo: Campbell Collaboration. https://www.campbellcollaboration.org/library/legitimacy-in-policing-a-systematic-review.html.

affect how much the public trusts the police. In terms of the policing bottom line, this perspective mainly highlights the importance of using force and authority fairly and effectively.

The bottom-line framework is a good reminder, however, that police legitimacy depends on a range of outcomes, not just one. In some cities, for example, the public's confidence in police is strained because of high levels of violent crime and disorder, along with the belief that the police don't have the willingness or capacity to tackle the situation effectively. In other cities, police legitimacy is threatened not so much by the level of serious crime but because so few murders and shootings are solved. And, in some communities that don't have serious crime problems, because police reassurance efforts have not been implemented or were not successful, residents feel fearful and unprotected even though they may have no reason to be.

The best approach to establishing and maintaining police legitimacy is to recognize that procedural justice is important, but it isn't the only factor. The challenge is to keep the bottom-line framework in mind. Each of its seven dimensions represents policing outcomes that matter to the public and that have the potential to strengthen or weaken police legitimacy.

Police Legitimacy and Police Performance

"In order to build trust and confidence — perceived legitimacy with the public — police must develop more complete performance metrics to measure and manage 21st Century policing. They must use data analytics to measure and manage organizational and individual member performance. They must hold themselves and their members accountable for the performance outcomes of their work, to include the impact of their actions on public perceptions of safety, justice and satisfaction with police service. Perhaps most important, elected officials must understand and embrace their responsibility to ensure their constituents receive the quality of police services they deserve."

Source: McLay, C.S. 2016. "Building police legitimacy through measuring and managing police performance." Blog. National Police Foundation. https://www.policefoundation.org/building-police-legitimacy-through-measuring-and-managing-performance.

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SECTION 3:
Measuring External Conditions

The key aspects of the police mission are mainly focused outward — that is, not within the police organization but toward the community. Reducing crime, solving crimes, and reassuring the public are all examples of this outward-facing mission. A crucial prerequisite to achieving these outcomes is having detailed information about crime, disorder, and related matters. Obviously, the more accurate and timely that information is, the more helpful it is for identifying patterns and problems, diagnosing them, and choosing the best responses.

It is useful to think of this information in terms of *situational awareness*. In policing, this term is most often used in relation to tactical operations and officer safety, but it has broader applicability. To the extent that police officers, supervisors, and commanders are knowledgeable about crime, offenders, hot spots, public concerns, and similar conditions in the community, they are better able to respond with effective tactics, strategies, and programs.

This expanded conception of situational awareness might not be valued in a police agency that only expects officers to handle calls and investigate crimes reported to them. But that kind of limited, reactive policing is not very effective, according to studies. Any agency seeking to be proactive, strategic, community-oriented, problem-oriented, and/or intelligence-led needs to be guided by in-depth information about relevant community conditions.[9] Otherwise, it's operating in the dark.

Information, or data, is essential for evidence-based policing. One shouldn't choose a particular crime-reduction initiative before first knowing as much as possible about the nature of the current crime problem. In other words, identification and diagnosis should occur before choosing a treatment, and that requires information. Furthermore, accurate data are needed in order to figure out whether target crimes were reduced after an initiative was implemented. And if a careful and rigorous evaluation is possible, data are needed to determine whether it is valid to claim that the initiative actually caused a crime reduction, or whether the decrease may have occurred due to some other factor or

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[9] Even small agencies need this kind of situational awareness. They need to be fully aware of what is going on in their communities. The difference, compared to large agencies, is that small agencies may not need formal or elaborate data collection efforts to be well-informed. Everyday observations, conversations, and routine recordkeeping may produce all the information that a small agency needs.

to normal fluctuation in crime rates. These actions — identifying the problem, analyzing it, diagnosing it, searching for its causes, choosing the right responses, and measuring effects — are all elements of an evidence-based approach to policing, and they all depend on accurate, reliable information.

Here in Section 3, this guidebook identifies and explains the key external conditions that any police agency should monitor and measure.

Diagnosing Problems Is Crucial

"The first reason for evidence-based policing relates to the need to understand the problems the police are attempting to address. If a problem is misconstrued, then finding an evidence-based solution to it will be difficult. The clinical counterpart in medicine is diagnosis. The physician needs to recognize the nature of the condition to determine which treatment fits it, and that can be tricky … . The initial identification and analysis of the problem is crucial. Errors at these stages lead to errors in response decisions. Failures in the outcome of interventions reflect errors in analysis."

Source: Tilley, N., and G. Laycock. 2017. "The why, what, when and how of evidence-based policing." In J. Knutsson and L. Tompson, eds., *Advances in evidence-based policing.* London: Routledge, 10-11.

BYTE 14

Crime and Disorder

W ithout a doubt, crime and disorder are among the most important conditions that police agencies need to monitor and measure. The reasons are obvious, but a few can be mentioned anyway:

1. So the agency knows whether these key, bottom-line outcomes are getting better or worse.

2. So the agency knows which particular crime and disorder problems are most serious and therefore deserve the most attention.

3. So the agency has data to analyze when, where, how, and why the crime and disorder problems are occurring, and in order to allocate resources properly and choose the best responses.

Collecting crime data is a well-established practice among police agencies. For monitoring purposes, many agencies systematically examine weekly, monthly, and year-to-date crime numbers, often with comparisons to prior years. The FBI's Uniform Crime Reporting (UCR) categories are typically used, especially the eight Part I crimes (murder, rape, robbery, aggravated assault, burglary, auto theft, theft, and arson).

It is important to avoid being limited to the major UCR categories. The example of shootings is most compelling. Just a few years ago, many cities were experiencing an increase in gun violence, but when asked how many shootings were occurring and how that compared to prior years, they couldn't say. They could cite the number of murders and the number of aggravated assaults, but "shootings" wasn't a crime category they had been using. This came to be seen as an important flaw in the data. The difference between a shooting and a murder is sometimes just an inch difference in where the bullet hits, or a slight delay in medical attention.

Although traditional crime counts are useful, long ago it was recognized that police agencies are best served when they compile incident-based crime data. As an illustration, it is one thing to know that a jurisdiction had 100 burglaries, but it is more helpful to know that it had 20 commercial burglaries and 80 residential ones. Even more useful is the knowledge that all the commercial burglaries happened at night, whereas most of the residential ones occurred during the day. And so forth. When crime data are incident-based, details like these — crucial for spotting patterns and choosing best responses — are easy to identify. But such details are lost, or at best elusive, if the crime data are only in aggregate form.

Incident-based data about disorder are equally useful. An agency might want to track the number of noise complaints, for example, but in doing so, it would be important to distinguish among loud parties, construction noise, car horns, nightclub music, barking dogs, noisy bar patrons, fireworks, and any other frequently occurring irritants. Beyond noise, the types of disorder that should be measured and monitored by any particular agency probably vary. Some cities have squeegee guys (who try to clean your windshield for money) but most don't; and some cities have daily demonstrations and protests, whereas others rarely have any. The principle would be to measure and monitor the most common and significant types of disorder in the jurisdiction, while remaining alert to any new forms of disorder that might crop up.

One challenge in monitoring overall crime from year to year is that aggregate totals can mask changes in crime severity. If an agency had 1,000 reported Part I crimes in consecutive years, for example, it might seem that nothing had changed, but if the second year had 50 fewer aggravated assaults and 50 more thefts, it was really a better year from the standpoint of crime seriousness. One way to handle this is by using a crime harm index that weights crime categories according to established criteria, such as the minimum recommended punishment in sentencing guidelines.[10] Agencies should consider incorporating this kind of index in their ongoing monitoring and measurement of crime, not to replace traditional crime counts but to supplement them with an additional bottom-line indicator that is easy to understand and helpful for tracking changes over time.

Domestic Violence in Chula Vista

Chula Vista, California, is a city of 267,000 residents in the San Diego area. It has a progressive and data-savvy police department that was pleased to observe a 10% decrease in overall calls for service from 2007 to 2014. However, the agency's second most common call type, domestic violence (DV), had not declined at all. In fact, noncrime DV calls had actually increased 18% during that same period.

This is a good example of spotting a trend and problem by looking closely at the data. Careful examination also gave the police agency insight into the specific type of incident that was resisting their previous efforts. That led them to conduct more in-depth analysis and then search for alternative responses, which they subsequently implemented in 2015 and then evaluated over an 18-month period. The result was a 24% decrease in DV crimes and calls after just one year.

Source: Adapted from Chula Vista Police Department. 2018. "Reducing domestic violence in Chula Vista, CA." Presentation at 28th Annual Problem-Oriented Policing Conference. https://popcenter.asu.edu/sites/default/files/chula_vista_2018_pop_conference_presentation.pdf.

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[10] Sherman, L.W., P.W. Neyroud, and E. Neyroud. 2016. "The Cambridge crime harm index: Measuring total harm from crime based on sentencing guidelines." *Policing: A Journal of Policy and Practice* 10 no. 3: 171-183. https://academic.oup.com/policing/article/10/3/171/1753592.

BYTE 15
Traffic Crashes

A s part of "maintaining safety and order," traffic safety has been an important aspect of the police mission since at least the 1890s, when the first automobiles appeared on American roads. It addresses one of the biggest risks people face in modern life — in 2017, there were an estimated 40,100 motor vehicle-related deaths in the United States and almost 4.6 million injuries requiring medical attention.[11] This compares to approximately 17,000 murders and 1.2 million other violent crimes in the same year.[12] Although comparing the relative harm caused by crimes versus accidental crashes is not necessarily straightforward, the statistics certainly demonstrate that the human cost of traffic crashes is very high.

Decades ago, professional policing aimed at traffic safety began emphasizing the "three E's" —engineering, education, and enforcement. Engineering seeks to make roadways, intersections, and vehicles safer. Education tries to influence behavior by improving drivers' knowledge and skills. Enforcement targets driving offenses, to both catch individual bad drivers in the act and create a deterrent effect among the general driving public.

Significantly, data are crucial for effective implementation of all three E's. Basic crash data such as location and time of day are essential for targeting enforcement and may indicate the need for engineering responses such as more lighting, better signage, or additional traffic signals. Data on the causes of crashes, such as speeding, drinking, or distracted driving, can help guide all three approaches of enforcement, education, and engineering.

These types of basic information are not sufficient for careful targeting, however. The causes of crashes at a certain intersection may differ between daylight hours and nighttime hours, for example. The type of crash may be important — rear-end versus head-on versus single-vehicle. The type of vehicle (e.g., trucks, cars, or motorcycles) is certainly relevant, along with the type of roadway (e.g., city street, rural road, highway). The availability and use of safety equipment, like seat belts and child car seats, is relevant. And then there are crashes involving pedestrians or bicycles. Just as with crime, a police agency needs incident-based data on traffic crashes so that it can accurately identify and diagnose problems as a precursor to selecting enforcement, education, and/

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[11] See https://www.nsc.org/road-safety/safety-topics/fatality-estimates.

[12] See https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/topic-pages/tables/table-1.

or engineering responses that are targeted and tailored to the specific characteristics of the traffic crashes. Otherwise, the agency runs the risk of applying the wrong solutions to the wrong problems.

One condition that is related to traffic safety, but not always associated with traffic crashes, is speeding in residential neighborhoods. It is very common for police agencies to get numerous complaints about speeding in neighborhoods, and for residents to identify speeders as one of the top problems where they live. However, crash data often do not support the existence of a problem. Generally, the underlying story is that residents perceive traffic moving faster than it should, they regard it as dangerous, and they fear that crashes will happen as a result. Data can help sort this out; radar can be used to measure average speeds plus the number of cars going above a certain speed, helping both police and residents determine how serious the problem really is and what might be an appropriate response.

Farm Labor Vehicles in California

A tragic vehicle accident in 1999 in California revealed a gap in traffic crash data. Thirteen farm workers died when the van they were being transported in collided with a tractor-trailer making a U-turn on a two-lane road. This incident brought to attention that "farm labor vehicle" was not a category in the state's crash reporting system, making it difficult to determine how common such crashes were and how many fatalities and injuries had occurred over time. The highway patrol subsequently conducted a laborious search by hand of records going back a decade, which revealed a more serious problem than anyone had previously recognized. In response, the data system was updated, important new safety regulations for farm labor vehicles were legislatively imposed (including seat belts and forward-facing seats), and a rigorous education and inspection process was implemented. In subsequent years, fatalities associated with these kinds of vehicles were almost completely eliminated.

Source: Adapted from California Highway Patrol. 2002. *SAFE: A safety and farm vehicle education program.* Sacramento: California Highway Patrol. https://popcenter.asu.edu/sites/default/files/library/awards/goldstein/2002/02-07(W).pdf.

BYTE 16
Vulnerable People

Vulnerable people are those who are at heightened risk of being harmed due to their age, physical or mental condition, or other factors. Police sometimes need to take extra efforts to protect vulnerable people from crime and other safety threats, since these individuals may not be as capable of self-protection as other members of the public.

Young people, the elderly, people in a mental health crisis, individuals with physical challenges, the homeless, substance abusers, immigrants, and members of minority racial and ethnic groups are among those who may be most at risk of being singled out by offenders or hate groups. People involved in abusive personal relationships (couples and children) are also particularly vulnerable. Another at-risk group is sex workers, especially street workers and young persons who are trafficked into these situations.

One form of police data on vulnerable persons is victim data. For example, police may keep track of individual domestic violence victims in order to make risk assessments, conduct follow-up visits, offer shelter or social service referrals, and be alerted in the event of repeat victimization. Similarly, police often track victims of elder abuse who might be at the mercy of unscrupulous caregivers or susceptible to repeat scams and fraud.

Police definitely need data on incidents involving vulnerable people in order to identify trends, patterns, and developing problems. Some of these incidents may be criminal, such as hate crimes or human trafficking, but others may involve less serious behavior such as harassment, intimidation, or just offensive conduct. Police agencies will want to be fully aware of all such incidents, whether they amount to crimes or not, in order to protect the vulnerable and prevent more serious behavior from occurring.

Homeless people, substance abusers, and persons with mental illness are among those who may sometimes need to be protected from themselves as well as others. Police data on people in these circumstances are likely to be limited by privacy considerations, among other factors. Emergency medical and ambulance services, public health agencies, and mental health treatment providers may be able to provide de-identified data to help police be more aware of patterns and trends, such as overdoses attributable to new synthetic drugs.

Information about specific individuals and addresses can be very useful for police decision-making and officer safety. Officers handling domestic and family disputes should be provided with information about prior incidents in order to help them make accurate risk assessments, for example. Officers responding to an incident involving

someone in a mental health crisis can make better sense of the situation, and have a better chance of de-escalating it, when they are aware of the subject's condition and prior history. Otherwise, they may respond to bizarre or threatening behavior in a manner that has the unintended effect of escalating it, sometimes with tragic consequences.

The police need for data related to vulnerable people coincides with situational awareness. Officers, and the agency as a whole, should be well aware of the most vulnerable people in their community, and the specific threats they face, since those people need police protection even more than others.

Homeless Camps in Colorado Springs

In 2008, the police department in Colorado Springs, Colorado, faced a growing homeless situation. The city had 500 people living in tents on public land, and its previous approach of issuing citations and conducting camp clean-ups had come under criticism from community activists and civil liberties groups. In response, police began collecting more data about the problem. They surveyed 100 homeless people and found that, on average, they had lived in the city 7.5 years and had been on the street 3.3 years. Reasons given for being homeless included "lost jobs, family, alcohol/drug addiction, injuries, physical and mental health issues, and legal issues." Other local data indicated that 21% suffered from severe mental illness and 23% had chronic substance abuse. The police systematically got to know each homeless person and also identified locally available shelter, housing, food, employment, and treatment resources. They were able to link many of the homeless people with services and, in some cases, family members. Then, when a new warning-summons-arrest protocol was approved and implemented with substantial notice, they were able to eliminate all the existing public camps without making any arrests for illegal camping.

Source: Adapted from Colorado Springs Police Department. 2010. *Homeless outreach team (HOT)*. Colorado Springs: Colorado Springs Police Department. https://popcenter.asu.edu/sites/default/files/library/awards/goldstein/2010/10-37(W).pdf.

Known Offenders

A 1980s study in Washington, D.C., showed that police could identify prolific offenders, and when they targeted those specific individuals, they were able to make quality arrests that resulted in prosecutions and convictions.[13] Since then, the use of offender-focused strategies has increasingly become an important adjunct to place-based strategies in the police repertoire for reducing serious crime. Today, in addition to targeting active offenders for arrest, police often use focused deterrence to try to convince selected offenders to change their criminal behaviors, and they track gang members with the aim of reducing violent clashes between groups.

Tracking and counting gang members has proven to be a particular challenge for many police agencies for several reasons: not all gangs are involved in serious crime; some people affiliate with gangs for protection or out of peer pressure but do not participate in criminal activity; many gang members join at a young age but leave as they get older; and gangs themselves are sometimes relatively fluid, thus membership is transient. These factors make it difficult for police to distinguish between gang members who are active criminals and those who are not. Agencies have sometimes come under criticism when their gang databases were found to list numerous individuals based on rather flimsy information, a situation that undercuts both operational effectiveness and an agency's credibility with the public.

In larger police agencies, identifying and tracking known offenders is often the responsibility of specialist officers and intelligence analysts. This is particularly true for suspected terrorists, organized crime figures, drug traffickers, and gang members. On a more general level, though, officers should be aware of parolees, probationers, those on offender registries, wanted persons, and suspects in active cases. Part of situational awareness for patrol officers should be beat-specific information about these kinds of known offenders.

At the agency level, it is important to have data on the number of parolees, probationers, convicted sex offenders, and gang members living in the jurisdiction in order to assess risks, make plans, and allocate resources appropriately. Certainly, a significant increase in any of those categories should be cause to look more closely at the situation. While not a proactive example, some years ago, police in Madison, Wisconsin, noticed a significant increase in sex offenses. They eventually determined that the only sex offender treatment programs in the entire state were located in their city. Had they been fully aware of the influx of those offenders, they might have been able to respond to the situation more promptly and effectively.

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[13] See https://www.ncjrs.gov/pdffiles1/Digitization/98821NCJRS.pdf.

It goes without saying that police need to use information about offenders carefully and judiciously. This is especially true for people in two categories: (1) probationers, parolees, and ex-offenders — that is, those who have "paid their debt to society" and are now, hopefully, embarking on a better path — and (2) young offenders, including gang members, who may have made poor decisions but are likely to mature into better behavior. Police have always had to find the right balance between keeping a close watch on known offenders while not standing in the way of the human capacity to grow and change. Since digital data and modern technology have made it easier to track and monitor people, it has become even more important for police to be reasonable and thoughtful in how they carry out their responsibilities.

An important issue related to data and technology is the potential danger of reinforcing past bias and discrimination. If previous stops, arrests, and convictions were affected by prejudice, then current or predictive offender-focused targeting based on existing police records will likewise be flawed and will continue to reproduce unfair decisions and practices. This issue may complicate the development of the kinds of algorithms and other data-driven risk assessment tools that are becoming increasingly popular.[14]

Collecting Intelligence Data

"*Targets create data.* Offender groups are the targets. Citizens might see them. They might act in ways that provoke police stops and arrests. They might write graffiti or create social network pages. They may have bank accounts. They may be recorded by closed circuit television (CCTV). In each of these examples, a person or machine captures data describing group members."

"*Police gather data.* Data from an informant, or on a digital recording device, or in a database needs to be collected to be analyzed. There are data capture processes that are obvious (e.g., police databases of offenders or CCTV footage from cameras near a crime site, confederates of members of an offender group) while other data capture processes require some creative thinking to recognize."

Source: Eck, J.E., and R.V. Clarke. 2013. *Intelligence analysis for problem solvers.* Washington, DC: U.S. Department of Justice, Office of Community Oriented Policing Services, 14. https://cops.usdoj.gov/RIC/Publications/cops-p275-pub.pdf.

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[14] Ferguson, A.G. 2017. *The rise of big data policing: Surveillance, race, and the future of law enforcement.* New York: New York University Press.

BYTE 18
Fear of Crime

B ecause fear of crime is a feeling rather than a tangible event, it is sometimes overlooked as an important community condition worthy of police attention. However, fear has significant effects on individual lives and the health of communities. People often decide where to live, where to work, and where to shop based, in part, on whether they think particular areas are safe. A neighborhood or business district might flourish or fail based on the public's perception of whether it is safe to frequent the area.

It is important to recognize that fear of crime may be well-founded and protective. When it is exaggerated, though, its consequences are harmful. Studies show this is often the case — fear may increase while actual crime is decreasing, for example, and fear may be heightened by faraway events that don't really represent any risk locally. For this reason, the police objective is best understood not simply as reducing fear of crime but, rather, as helping people and communities accurately understand and assess crime threats in their neighborhoods and region. Also, because fear is as much a feeling as a conscious, rational calculation, policing aims to reassure people, not just inform them, when their fears are out of proportion to actual levels of crime and disorder.

Data are essential for identifying and diagnosing fear-of-crime problems. With data, police agencies can tell if fear is exaggerated, whether it is increasing or decreasing, whether it is higher in some neighborhoods than others, and which demographic groups (such as older residents, women, or immigrants) have higher levels of fear. Data can also explore what people say they are afraid of — going out at night, going downtown, having someone break into their home, letting their children play outside, rowdy teenagers on the corner, and so on. Armed with this kind of information, police can target public education at specific audiences and focus on reassurance efforts addressing the specific conditions that most alarm people.

Many police agencies do not have access to fear-of-crime data, unfortunately, and very few have data at the neighborhood level. Agencies that do conduct periodic community surveys should, at a minimum, include items that measure fear and that identify the concerns that likely drive residents' fears and worries related to crime. Such public surveys are more feasible now that online and text-based surveying have become common. Agencies can reach out to many more people without incurring substantial cost. And even though response rates are typically low, studies suggest that results are as reliable as those obtained from more traditional methods such as mail and telephone surveys.

In addition to formal surveys, police can explore people's fears and concerns at neighborhood meetings, and they can monitor community sentiments on social media. Police can also conduct environmental visual audits with residents to identify specific locations or conditions — such as poor lighting or graffiti — that make people worry about their safety. These kinds of methods may provide the most in-depth and actionable information. Of course, it is then important for police to use the information, address the concerns, and follow up with residents to make sure they know that conditions have changed. Otherwise, people might be unaware that something has been done, which prevents them from being reassured and less fearful.

Crime and Fear of Crime in Seattle

Seattle is one city that surveys residents regularly, in support of its Micro Community Policing strategy. Fear of crime has remained fairly steady over the past three years, in the 45-50 range on a scale of 0-100. Results from the 2017 survey of 6,500 residents showed some disconnects between crime and fear of crime among the city's 59 neighborhoods, though. In South Lake Union, for example, the crime rate was about twice the city average but fear of crime was second lowest among all neighborhoods. South Beacon Hill, with the city's lowest crime rate, was 12th highest for fear of crime. Ten other neighborhoods had below-average crime but above-average fear. The survey director pointed to heavy media consumption as one contributor to exaggerated fear and noted, "Fear of crime is as important as actual crime if it decreases a person's feeling of safety and impacts their quality of life."

Source: Adapted from Helfgott, J.B., and W. Parkin. 2018. *2017 Seattle public safety survey results.* Seattle: Seattle University, Department of Criminal Justice. https://www.seattle.gov/Documents/Departments/Police/Reports/2017_CITYWIDE_Seattle_Public_Safety_Survey_Report.pdf; and Balk, G. 2018. "'Mean world syndrome': In some Seattle neighborhoods, fear of crime exceeds reality." *The Seattle Times* (June 28).

BYTE 19
Citizen Complaints

Citizen complaints are an important indicator of the public's assessment of police performance, because they provide data about encounters that citizens felt were unfair. Nevertheless, they shouldn't be taken at face value or assumed to be broadly representative, nor should a lack of complaints be assumed to prove that everything is going great. Some citizens are too intimidated to file complaints. Others complain maliciously, either because they dislike the police or are trying to undercut charges filed against them. Also, many complaints are simply based on misperception, misinformation, or misunderstanding.

Historically, the resolution of many citizen complaints was a finding of "unsubstantiated" or "not sustained" because there was nothing to go on besides the citizen's claim and the officer's contradictory explanation. The usefulness of complaints data is limited when many or even most complaints fall into this unsubstantiated category. However, with increased availability of video from in-car cameras, body-worn cameras, and citizen cell phones, fewer complaints should end up unsubstantiated, with more findings of unfounded (did not occur as alleged), exonerated (occurred but the behavior was acceptable), or sustained (occurred and was not acceptable).

The Commission on Accreditation for Law Enforcement Agencies requires accredited agencies to compile "annual statistical summaries of complaints and internal affairs investigations, which are made available to the public and agency employees" (Standard 26.2.5).[15] Data on the nature of complaints — such as rudeness, failure to take action, harassment, or excessive use of force — can help the agency identify points of conflict with the community, and possibly patterns of officer behavior that should be addressed. Also, since most citizen complaints tend to be about rudeness and other relatively minor alleged misbehavior, publicizing the nature of complaints can help reassure the public that serious misconduct is rare.

Gathering and examining incident-level citizen complaint data is even more useful. It might be the case, for example, that rudeness complaints are more often lodged against younger officers or male officers compared to others. Certain kinds of complaints might arise more frequently from nighttime interactions with police, special unit encounters, or consent searches, or they might be more common in some neighborhoods than in others. Dispositions might follow a pattern, such as complaints from intoxicated drivers more often determined to be unfounded. As long as citizen complaint data are collected

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[15] Commission on Accreditation for Law Enforcement Agencies, Inc. [CALEA]. *Standards for law enforcement agencies: The standards manual of the CALEA law enforcement agency accreditation program.* Sixth edition. 2018. Gainesville, VA: CALEA.

and maintained in an incident-level format, an agency can look for these kinds of patterns, which might help inform its own decision-making and provide a more complete picture for the public, contributing to transparency and accountability.

Citizen Complaints in Detroit

The Detroit Police Department maintains a citizen complaint database that includes the allegation; the finding; officer unit; officer sex and race; complainant age, sex, and race; and several other data fields for each case. Glancing at over 10,000 complaints received during 2½ years shows a fairly steady volume over time, with the majority of complaints alleging violations of procedure or poor officer demeanor. Several precincts clearly account for more complaints than others. With data in this format, further analysis could look more specifically at complaint types by district, by officer sex and race, and so on, as well as the trend over time in regard to specific types of complaints.

Source: Adapted from City of Detroit. 2019. *DPD citizen complaints.* https://data.detroitmi.gov/datasets/dpd-citizen-complaints.

BYTE 20
Client Satisfaction

W henever we purchase something online, stay at a hotel, or fly on an airplane, we get an email or text within a few days asking us for feedback. Sometimes, the companies only ask one question — an overall rating of the experience — although, if we click on that 1-10 response scale, it often takes us to a longer questionnaire. Those surveys can be a nuisance, but enough people reply to give the companies useful information about the quality of the service delivered, and clues to help identify any frequently occurring problems. The email or text is also a very inexpensive way for the company to show its customers that it cares about them.

In this byte, "client" refers to people who are the direct recipients of police services — crime victims, other people who call the police, drivers involved in traffic accidents, people stopped by police — as opposed to the public at large. Although overall public opinion toward police also matters, the interest here is in getting feedback from the people who actually have police contact. This feedback can be useful for identifying both the strengths and weaknesses of officers' performance, providing insight that can help guide supervision, training, and policy development.

It should be emphasized that people who have contact with police are not really customers in the same way that companies like Walmart or Delta have customers, and simply making everyone satisfied is neither a goal of policing nor possible. Rather, the aim is to make people (clients) as satisfied as possible that they were treated fairly — even if they got a ticket, the police didn't solve their crime, or the police didn't take their side in a neighborhood dispute. This corresponds with the bottom line of "providing quality services" as well as the general notion that our government should treat each of us with all due respect.

Similar to what many companies do, the most systematic way to measure client satisfaction is with follow-up surveys. Today, police agencies typically obtain phone numbers and email addresses from people whom they encounter, making it feasible to send short questionnaires by text or email. In these police-contact surveys, individuals are often asked whether the officer explained what was happening and why, whether they were given the opportunity to express themselves, whether the officer listened to them, whether the officer was polite, and whether the officer provided information about what they should do next. These questions correspond with the concept of procedural justice, which holds that people's assessments of police depend heavily on whether they feel they were treated fairly and with respect, even when they didn't get the outcome they wanted.

It is important to collect this kind of feedback proactively and systematically. Traditionally, many police agencies just waited for any complaints from citizens about officer behavior or poor service, and used those as indicators of individual and overall performance. However, many people are not comfortable bringing their complaint about police behavior to the police, and conversely, some people are chronic complainers. Complaints are significant and have to be reviewed, but as a source of data about agency performance, and as a source of feedback for identifying training or policy needs, they should be supplemented with information that is more broadly representative.

Another factor is that complaints are, by their nature, negative. Systematically following up with people to measure their satisfaction with how they were treated gets information from those who were pleased with their police encounter and from those who were not so satisfied. In fact, agencies that regularly solicit this kind of feedback are often pleasantly surprised by how positive the results are.

SUGGESTED READING

Rosenbaum, D.P., J. Escamilia, G. Enciso, T. Christoff, and S.M. Hartnett. 2016. *Results from the police-community interaction (PCI) survey.* Chicago: University of Illinois at Chicago. http://uicclj. squarespace.com/police-citizen-interaction-pci.

Service Quality in Seattle

The Seattle Police Department measures service quality using telephone surveys. Several times a year they contact a random sample of people who recently called 911 and got a police response. According to the September 2018 survey, 97% of people surveyed said the responding officer was professional and courteous, 92% said the officer listened to their concerns, and 92% said the officer answered their questions. A five-year comparison showed increasingly positive ratings on those and several other measures. The department indicates that "results of the surveys have been used to assess service delivery; examine differences between precincts; identify strategies and tactics to achieve specific service objectives; and provide feedback to officers, precinct captains, and watch lieutenants."

Source: Adapted from Seattle Police Department. 2018. *September 2018 service quality update: Feedback from the people we serve.* https://www.seattle.gov/Documents/Departments/Police/Publications/CustomerSurveyReportSep2018Final.pdf.

BYTE 21
Public Trust

I n any given year, 20-25% of people have some kind of contact with police, according to national studies.[16] That means, of course, that most people don't. Yet, people's perceptions of police performance, effectiveness, and fairness still matter, even when they are based on past experiences or second-hand information. The public's trust and confidence in police affects individuals' willingness to step forward as witnesses, taxpayer support for police funding, and also the social climate within which police officers do their work. In the big picture, policing effectiveness depends on the vast majority of the public accepting that the police are a trustworthy and legitimate institution.

The public's trust in police has gotten a lot of attention in the past few years, particularly in response to officer-involved shootings, police handling of mass demonstrations, and other highly publicized events. The 24-hour news cycle and the rapid expansion of social media have undoubtedly made everyone more aware of policing in action and have made many police feel like they are constantly being criticized and second-guessed.

In this kind of environment, it is arguably even more important to regularly assess the public's trust and confidence in the police, in order to know whether the loudest voices are representative of the entire community. Often, they are not. Nationally, confidence in police fell between 2013 and 2015 but, as of mid-2017, it had rebounded to the 25-year average.[17] As of 2018, national public confidence in police was third highest out of 15 institutions, behind only the military and small businesses.[18]

As reassuring as these national figures are, each police agency should conduct its own local assessment to establish situational awareness and to identify any specific problems that should be addressed. Many agencies conduct community surveys on their own or in conjunction with their parent governments. One key consideration is conducting such surveys in a manner that is likely to provide results that reflect the views of the whole community. Posting the survey on the agency's website or distributing surveys at community meetings can provide useful information from the handful of people who fill them out, but those methods are unlikely to reach a representative sample of the whole population.

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[16] See https://www.bjs.gov/content/pub/pdf/cpp15.pdf.

[17] See https://news.gallup.com/poll/213869/confidence-police-back-historical-average.aspx.

[18] See https://news.gallup.com/poll/236243/military-small-business-police-stir-confidence.aspx.

When a well-conducted community survey produces representative data, a police agency can do more than just get an overall measurement of public trust. At the very least, it should also be able to determine whether trust is lower among some demographic groups, which is often the case, and to provide guidance for targeted efforts at relationship building. In addition, the agency may be able to discover whether any particular police practices are harming trust, whether people are well informed about the full range of the agency's services, and where people get their information about their local police. Insight like this can help any agency fine-tune its community engagement and outreach activities. It goes without saying that trust has to be earned; data can help police figure out how best to earn it.

Community Survey in Prince William County, Virginia

The Prince William County, Virginia, government conducts a community survey every two years, including several questions related to its county police department. The 2016 survey reached over 1,500 respondents by phone or online. Respondents were given six positive statements about police performance and asked to rate each statement from 0 (disagree) to 10 (strongly agree). For each of the six police-related items, more than 90% of respondents gave ratings of 5 or higher, indicating agreement or strong agreement. For the item "Police officers are courteous and helpful to all community members," the average rating was 7.83 out of 10, up from 7.73 in 2014. For "The police department treats everyone fairly regardless of race, gender, ethnic or national origin," the average rating was 7.69 out of 10, up from 7.52 in 2014. For "The police department's overall performance meets community needs," the average rating in 2016 increased to 7.84, up from 7.64 in 2014. Survey results can be broken out by region of the county, age, sex, race/ethnicity, and several other personal variables to check for patterns and look for subgroups whose opinions might not be quite as positive as those of the overall population.

Source: Adapted from ORC International. 2016. *2016 citizen survey.* Woodbridge, VA: Prince William County Government. http://www.pwcgov.org/government/dept/budget/Documents/2016_Community_Survey_Report.pdf.

SECTION 4:
Measuring Internal Conditions

Thus far in its development, evidence-based policing (EBP) has been mainly focused outward on what matters most — the bottom-line outcomes of policing. In order to achieve those outcomes, though, the inside of the police organization has to work well, too. In systems terms, a police agency has to acquire the right inputs and then process them into outputs that, hopefully, contribute to accomplishing the results that matter, such as reducing serious crime and reassuring the public. In human terms, a police agency needs good people and needs to treat them well, since it's the people who do the work of policing.

Some years ago, the police chief in Madison, Wisconsin, learned the hard way that he needed to pay more attention to internal conditions in his agency.[19] He was a progressive, community-oriented, and demanding chief, but he wasn't getting as much commitment and buy-in from his officers or commanders as he needed. He eventually came to realize that he wasn't behaving very sympathetically or respectfully toward the people in his police department — yet he was expecting them to become more sympathetic and respectful in the way they dealt with the public. Once he recognized what was happening, he paused his effort to implement community policing and adopted an "inside-out" strategy. He pledged to change his management style and address internal conditions within the agency first, before asking officers to change their behavior and relationships in the community. He kept his pledge, and an independent evaluation showed that the police department's bottom-line outcomes improved significantly after this strategy was implemented.

The logic of an evidence-based approach to the inner workings of an agency is exactly the same as the overall logic of EBP. A police agency's internal practices should be based on evidence about what works. Plus, an agency needs data and analysis to keep track of how things are going within the organization to identify any problems that need to be fixed. An agency needs to monitor officer safety, morale, recruitment, training, technology, and a plethora of other internal conditions that ultimately affect the extent to which it achieves, or doesn't achieve, the bottom-line outcomes the public counts on.

[19] Couper, D.C. 2011. *Arrested development.* Indianapolis, IN: Dog Ear Publishing.

Here in Section 4, this guidebook addresses a few of the most important internal conditions that police managers and executives need to monitor. The section could be much longer, but in the interest of brevity it is kept short. The gist of this section is that internally focused police administration, just like externally focused police operations, should be as evidence-based as possible.

The Inside-Out Approach in Madison, Wisconsin

"I have to admit that when I first came to the department and began to encounter trouble within the ranks, my leadership style became more and more top-down, relying on force to get the job done. I felt threatened, and I fought back in the way I knew at the time — coercion. I now know coercive force might be the *easiest* way for leaders to operate when they encounter resistance. But it isn't the most effective way in the long run."

"Police departments today are complex organizations, and things don't just happen because the chief orders it. Any effort at changing the police must take into account the power of the organization to drag its feet; to resist. That is why any effort to change police must begin *inside* a department and, ultimately, be able to answer this question from the rank and file: 'What's in it for us?' If a change-oriented chief and his or her staff cannot effectively answer that question, what is proposed most likely will fail."

Source: Couper, D.C. 2011. *Arrested development.* Indianapolis, IN: Dog Ear Publishing, 104, 106.

BYTE 22
Officer Safety, Health, and Wellness

There aren't any internal conditions more important than officer safety, health, and wellness. The police field has given substantial attention to officer safety since the 1970s, leading to much improved tactics, training, and equipment. The same level of attention to health and wellness has been harder to build and sustain, perhaps because it encroaches more on officers' personal and private lives as opposed to on-duty behavior. Nevertheless, awareness of the effects of fatigue, burnout, stress, and poor lifestyle choices on both the physical and mental health of police officers has been growing in recent years.

At the national level, data on officer fatalities are collected in three places: the FBI's Law Enforcement Officers Killed and Assaulted (LEOKA) program, the National Law Enforcement Officers Memorial Foundation, and the Officer Down Memorial Page. These collections differ slightly in their criteria for counting line-of-duty deaths, but looking at all three provides a reliable annual count. The LEOKA program also gathers data on officers assaulted. However, as with all aspects of the Uniform Crime Reporting program, reporting is voluntary — making national figures of officers assaulted difficult to validate. Even harder to estimate nationally is the number of officers injured each year, since injuries can result from various causes, including assaults but also, for example, accidents. A study in one city determined that half of police officer injuries were caused by assaults, but half had other causes.[20]

Traffic crashes account for about 50% of police line-of-duty deaths each year as well as many injuries. Sadly, officers involved in fatal or injury crashes often were not wearing their seat belt/shoulder harness. One of the clearest evidence-based steps that can be taken to improve officer safety is to get officers to utilize standard occupant safety equipment and drive more defensively.[21]

Another alarming cause of officer fatalities is suicide. Data on the number of police suicides are particularly hard to collect and verify, but it is widely believed that more officers die from suicide than from any other single cause. Related concerns are depression, burnout, and stress resulting from frequent exposure to trauma, seeing people at their worst, and often being unable to make things much better for victims

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[20] Brandl, S.G., and M.S. Stroshine. 2003. "Toward an understanding of the physical hazards of police work." *Police Quarterly* 6 no. 2: 172-191. https://journals.sagepub.com/doi/abs/10.1177/1098611103006002003.

[21] See https://www.cdc.gov/niosh/topics/leo/toolkit.html.

and others. One potential consequence is post-traumatic stress disorder, which can be a debilitating and career-ending condition. Making matters worse, police officers are typically reluctant to seek help for mental health issues, fearing that their colleagues will lose trust in them, and their agency might find them unfit for duty.

A final set of issues includes fatigue, sleep, nutrition, exercise, and work-life balance. Studies have shown that shift work and night work often lead to inadequate sleep and fatigue. These conditions are sometimes compounded by mandatory court appearances, overtime shifts, extra-duty assignments, and part-time jobs. As a result, police officers may come to work tired, which can affect their on-the-job decision-making. In addition, many officers report poor eating habits, lack of regular exercise, and overconsumption of caffeine. This lifestyle, besides affecting their on-duty alertness and fitness, also puts officers at risk of developing medical conditions such as heart disease and high blood pressure.

A police agency should be monitoring the safety, health, and wellness of all its employees, but especially its officers. If data are routinely collected on assaults, injuries, sick leave, and hours worked, the agency can identify any organization-level trends or problems as well as any troubling patterns involving specific officers. Ideally, annual medical exams and physical fitness tests can also be used, although the details of medical exams may be subject to privacy considerations. It is important to emphasize to officers that the objective of these annual exams is officer health and well-being, not anything punitive.

Officer fatigue is a challenging condition to measure and monitor, but it is widely understood to be a key factor in officer performance and safety.[22] Experts suggest limiting the total number of hours worked in a day or on consecutive days, avoiding rotating shifts if possible, and even permitting short naps when necessary to avoid drowsy driving.

Officer mental health is another condition that agencies find nearly impossible to measure and monitor. Police agencies strongly encourage officers to take advantage of employee assistance (counseling) and peer support programs, but participation is normally voluntary and confidential. For data, sometimes the best that agencies can do is track the stressful incidents that officers encounter so that services or accommodations can be offered, especially when it looks like an officer has been exposed to an inordinate amount of trauma and sadness. Most agencies will take note of specific stress-inducing events, such as an officer-involved shooting or fellow-officer fatality. But more attention should also be given to accumulated stress from handling serious traffic accidents and witnessing child abuse, family violence, and similar incidents that inevitably take a toll on officers' mental health.

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[22] Force Science Institute. 2019. "Study: Officer fatigue raises likelihood of citizen complaints." *Law Officer* (February 1).

Heart Health Screening

"The Cedar Park (Texas) Police Department offers a voluntary heart health screening program as a free benefit to employees. Officers are well informed that in addition to being voluntary, the screening results are protected by HIPAA and thus cannot be shared with the department. Since the department has been running the screening program, it has seen more than half of the officers with identified risk factors proactively make changes to improve their health and reduce their risk."

Source: Spence, D., ed. 2017. *Improving law enforcement resilience: Lessons and recommendations.* Washington, DC: U.S. Department of Justice, Office of Community Oriented Policing Services, 32. https://cops.usdoj.gov/RIC/Publications/cops-p362-pub.pdf.

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Kuhns, J.B., E.R. Maguire, and N.R. Leach. 2015. *Health, safety, and wellness program case studies in law enforcement.* Washington, DC: U.S. Department of Justice, Office of Community Oriented Policing Services. https://cops.usdoj.gov/RIC/Publications/cops-p332-pub.pdf.

Employee Attitudes, Knowledge, Skills, and Talents

Employees' attitudes, beliefs, perceptions, and concerns can influence their behavior and performance, potentially affecting the organization's success in achieving bottom-line outcomes. Although it is important to acknowledge that psychological factors like attitudes and beliefs do not always govern behavior (dissatisfied employees sometimes work just as hard as satisfied ones, for example), it is also naive to think that managers can afford to ignore what employees believe and feel. In policing, officers who have negative attitudes toward a minority group might treat members of that group differently, consciously or unconsciously. Officers who believe agency discipline isn't fair might be less cooperative in internal investigations. Civilian employees who feel like second-class citizens in the police organization might be more likely to leave for other jobs. Potential impacts like these certainly matter.

Part of situational awareness for law enforcement managers and executives, then, is staying in touch with employee attitudes, beliefs, perceptions, and concerns in order to identify any conditions or trends that might be problematic. Some of this can be accomplished informally through first-line supervisors and "managing by walking around," but especially in larger police agencies, focus groups and surveys might be needed to collect information more systematically.

Fortunately, agencies don't need to start from scratch in this regard. Back in 2009, a project called the National Police Research Platform began developing and testing online employee surveys, eventually collecting data in over 100 police and sheriff agencies.[23] This federally funded initiative is continuing under the direction of the National Police Foundation.[24] Law enforcement agencies that participate can track their employees' sentiments over time, with the added benefit of comparison to other similarly sized agencies around the country. This is very helpful — it is one thing to know that job satisfaction among your officers is, hypothetically, 3.7 on a 5-point scale, but it is much more valuable to know how that compares to a relevant national average or benchmark.

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[23] See http://uicclj.squarespace.com.

[24] See https://www.nationallawenforcementplatform.org.

A related consideration within agencies is employees' knowledge, skills, and talents. This is less about how employees feel and more about what they know and can do, which is directly related to their performance. Law enforcement agencies often keep a database of officers' special skills — such as foreign language proficiency or accident reconstruction certification — in case those services are needed on short notice to handle a situation. More generally, though, it is important to have an up-to-date inventory of employee education, training, skills, and talents in order to identify any gaps and weaknesses that could interfere with overall performance and effectiveness. Such an inventory can also help with personnel planning by identifying gaps that will occur due to the anticipated retirement of employees who were depended upon for their particular skills and talents. Not every employee departure can be predicted, of course, but organizations should make an effort to have backup staff prepared for positions and duties that require special skills and talents.

Police Organizational Cultures Vary

There is a tendency to assume that the police occupational culture is so strong and universal that it leads all police to have the same attitudes and beliefs. If this were true (which it isn't), it would be futile for any one agency to try to encourage a more positive outlook among its officers. In fact, officers vary individually. In addition, there are substantial differences between organizations, suggesting that what police managers and leaders do makes a difference in their organizational culture.

One study administered officer surveys in 89 agencies around the country. In response to the item "The disciplinary process in my agency is fair," 87% of officers in one agency agreed versus only 4% in another agency. Similarly, for the item "Most people respect the police," 92% agreed in one agency, but only 23% in another. This shows how widely officer attitudes can vary; it points to how valuable it would be to know if the views of officers in a particular agency are far more negative than the norm.

Source: Adapted from Cordner, G. 2017. "Ideas & insights, part 1: Police culture in the 21st century." *Police Chief* (February): 50-51.

Discipline and Grievances

Within a law enforcement agency, disciplinary actions and grievances are two formal indicators of conflicting expectations, although they come from opposite directions. Disciplinary actions come from the top down, sanctioning employee behavior deemed to be unacceptable. Grievances come from the bottom up, when employees allege that they have been dealt with unfairly by the organization. Both types of actions can serve as flags or warnings that specific employees may need closer scrutiny, but these actions also generate data that may point to broader organizational issues.

It is important to recognize that neither discipline nor grievances are necessarily indicative of significant organizational problems, but it is wise to monitor them. In regard to discipline, a sharp increase in formal actions could signal a growing behavior/performance problem among officers, or it could just be that certain behaviors are no longer being tolerated. Similarly, it could indicate a shift in sergeants' behavior — either lax supervision failing to prevent officer misbehavior or stricter supervision resulting in more formal disciplinary actions being taken. The same is true for the nature of disciplinary infractions. An increase in discipline for rudeness, excessive force, sexual harassment, or any other specific violation might reflect an actual increase in misconduct, or it might simply reflect more enforcement. In other words, data on disciplinary actions in an agency don't necessarily speak for themselves, but they certainly should be carefully monitored, since they might signal serious problems in the organization that need to be addressed.

The same line of reasoning applies to grievances. Many agencies report very few formal grievances, which ideally is a reflection of a positive and supportive organizational climate, but sometimes it is due to employees believing that it is useless to complain, or even that grievances will result in retaliation by management. Other agencies report numerous grievances being filed, which may signal a strained relationship with management, or may merely be an artifact of collective bargaining or a civil service system that tends to formalize processes that are handled elsewhere with a conversation and a handshake. In any of these scenarios, an increase in the number of grievances, or a pattern in the types of grievances being filed, might indicate a worrisome change in conditions within the organization, or just the election of a more confrontational union president, or some other factor. Again, the data on their own won't necessarily reveal the full story, but they can signal a situation that should be looked into more closely.

The Commission on Accreditation for Law Enforcement Agencies (CALEA) Standard 22.4.3 — Grievances

"Annually, the agency conducts an analysis of its grievances, as well as supporting policies and practices, and it is reviewed by the chief executive officer."

"Commentary
The grievance procedure is a valuable method for management to discover agency problems and it is essential the chief executive officer is aware of information discovered through annual analyses. If through analysis the chief executive officer observes a trend in filed grievances, steps may be taken to minimize the causes of such grievances in the future."

Source: Commission on Accreditation for Law Enforcement Agencies, Inc. [CALEA]. *Standards for law enforcement agencies: The standards manual of the CALEA law enforcement agency accreditation program.* Sixth edition. 2018. Gainesville, VA: CALEA.

BYTE 25

Applicants and New Hires

The quantity and quality of a law enforcement agency's personnel have a major impact on its effectiveness. Recruitment and selection are the processes that organizations use to attract the attention of potential employees, get them to apply, and then decide which candidates actually get hired. Tracking and monitoring the recruitment and selection processes is very important for determining whether the agency is ending up with the kinds of people it needs to be successful, and if not, what the problems are that need to be corrected.

The emphasis on police recruiting in recent years has mainly been twofold: attracting a sufficient number of applicants to fill positions, and attracting a diverse pool of applicants that is representative of the community served. Many agencies have struggled on both counts, often blaming the strong economy (there are lots of other jobs for people to consider); the police hiring boom back in the 1990s (many sworn staff are now retiring, creating more than the usual number of vacant positions); and the diminished popularity of a police career (due to controversial police shootings, heightened media/political scrutiny, and strained police-community relations). Only time will tell whether these are permanent trends or simply reflections of a cycle that seems to produce a "recruiting crunch" every decade or so.

Regardless of national trends, each agency has its own challenges and positions to fill. Tracking data on those who apply for jobs can help an agency determine whether its recruiting efforts are reaching the right audiences and generating sufficient interest among potential applicants. To the extent possible, these data should indicate not only the total number of applicants but also important personal characteristics such as sex, age, race/ethnicity, education, and work/military experience, which can reveal whether targeted recruiting is needed to attract particular kinds of applicants. Studies have shown that small changes in recruitment messaging can substantially increase overall applications as well as those from targeted groups.[25]

It is equally important to examine data from the selection process that determine which applicants end up getting hired. One common finding is that more applicants drop out when the process is lengthy, including some of the better applicants, since they are

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[25] See https://www.bi.team/wp-content/uploads/2019/01/BIT-Police-report_MKV5-WEB.pdf.

more likely to have other options. Another typical finding is that particular aspects of the testing process eliminate greater numbers of applicants, or have a disproportionate impact on certain categories of applicants, such as a high percentage of women failing the physical fitness test. In any of these kinds of situations — a long hiring process, or a test that eliminates a lot of applicants or has a disproportionate impact — an agency should take a careful look to make sure that its practices are necessary, legal, and evidence-based. The point to be made here is that law enforcement agencies need the data to know whether they have a situation that should be examined.

Recruitment Messaging

"In Chattanooga, Tennessee, we found that postcards asking 'Are you ready to serve?' were no better at soliciting applications than never sending a postcard at all. In contrast, postcards that asked 'Are you up for the challenge?' or 'Are you looking for a long-term career?' attracted three times more applicants than the no-postcard group and drove a fourfold increase in applications from people of color."

"In South Bend, Indiana … we tested postcards that referred to aspects of a police officer's identity at home and at work to show that there are many sides to being a police officer. This approach was powerful, with recipients of this postcard being seven times more likely to complete an application than those who were not prompted."

"In Tacoma, Washington, a[n] … approach told people 'You Belong Here,' suggesting that there are many types of people that can find a home in policing. This proved to be an effective strategy, boosting applications fourfold compared to the status quo."

Source: The Behavioral Insights Team. 2019. *Behavioral insights for building the police force of tomorrow.* https://www.bi.team/wp-content/uploads/2019/01/BIT-Police-report_MKV5-WEB.pdf, 8-10.

BYTE 26
Training

Compared to other occupations, police rely heavily on training to make sure that employees, particularly sworn officers, have the knowledge and skills necessary to do their jobs. Doctors, nurses, lawyers, teachers, social workers, and others mainly acquire their professional knowledge and skills via higher education, but policing has traditionally relied more on separate institutions (police academies) to provide initial, ongoing, specialized, management, and leadership training. Law enforcement also utilizes field training, a form of coaching, to help new police academy graduates — as well as experienced staff who are newly promoted or reassigned — to properly apply what they have learned in the classroom.

Because training is such an important element of policing, and a costly one, it makes sense that police agencies would want data for tracking and monitoring purposes. One important consideration is meeting state mandates along with requalification and recertification requirements. Besides mandated recruit training, most states require annual or biannual refresher training for sworn officers, and some also have specific training mandates for chiefs, dispatchers, 911 operators, new sergeants, and others. In addition, ongoing training may be necessary to retain certification in specific skill areas, such as first aid, or for specific pieces of equipment. States often require periodic firearms training and requalification as well, and even when they don't, most agencies follow a regular protocol of their own, sometimes as often as quarterly.

Data that help an agency keep on track with training compliance are quite important — they can be useful for demonstrating professionalism and are essential when defending against lawsuits. Beyond that, however, data are needed to identify trends, issues, and problems with the training itself. Data on how well trainees have learned (or haven't learned) key knowledge, how well they have mastered fundamental skills, and how well they are able to apply their training in the field are of crucial importance and may reveal instructors, courses, or whole curricula that need attention. It is also important to make sure that training stays up to date — laws, policies, technology, criminal behavior, social conditions, and public concerns are constantly changing.

Some of the specific types of data that law enforcement agencies can use to track and monitor training include (1) job-task inventories that provide details about how often officers (and other employees) actually perform various tasks; (2) scores on knowledge tests that indicate whether learning in any particular areas is insufficient or slipping; (3) ratings on performance tests that similarly indicate any skill areas in which training is

not bringing students up to a satisfactory level; (4) student evaluations of courses and instructors that provide input about learning conditions, perceived relevance of courses, and similar matters; (5) follow-up interviews or surveys with students to get self-reported input about how they have (or haven't) been able to use the training they received; and (6) interviews or surveys of supervisors and field training officers (coaches) to get their insights, after trainings, about whether staff have demonstrated expected levels of proficiency.

How Evidence-Based Is Police Training?

"It has been suggested that what could be reliably said about police training … would not amount to much, because huge gaps exist in our knowledge of the short and long-term effects of various forms of police training due to the fact that training techniques, courses and/or whole programs are rarely subject to internal or independent evaluation."

"It is somewhat disconcerting that significant public investments are made each year in this area when we know very little about 'what works' in police training, including how effectively training objectives are being met and what particular techniques work best."

"To the extent that police agencies frequently borrow ideas, strategies and programs from each other that may appear to be unsuccessful, we run the risk of replicating programs that are, from an empirical standpoint, untested."

Source: Huey, L. 2018. "What do we know about in-service police training? Results of a failed systematic review." London, Ontario, Canada: University of Western Ontario, 2, 14-15. https://ir.lib.uwo.ca/cgi/viewcontent.cgi?article=1043&context=sociologypub.

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SECTION 5:
Measuring Performance

Measuring performance is an important aspect of evidence-based policing (EBP) because police managers and leaders need to know whether individuals, units, and systems in the organization are doing what they are supposed to do. This involves looking carefully at activities and their immediate outputs. A simple example would be focusing on the number of vehicle stops made by the traffic unit (activities) and the number of citations issued (outputs).

Here are three important considerations related to performance measurement:

1. Quality is usually more important than quantity. In regard to the traffic unit, more stops does not necessarily indicate better performance, and 10 citations for inoperative tag lights is probably not better than 5 citations for texting while driving.

2. A related point is that activities and outputs should not be confused with outcomes. In the traffic example, what ultimately matters are safer roads, safer driving, fewer crashes, fewer injuries, and fewer fatalities — not more stops and tickets.

3. However, saying that outcomes are what ultimately matter is not an excuse to ignore performance. Organizations, including police agencies, operate on an implicit understanding or formal logic model, according to which performing certain activities will lead to better outcomes. This explains why measuring performance is a key ingredient in EBP. If desired outcomes are achieved, the agency needs to know what it did that seemed to work. And if those outcomes are not achieved, it needs to know what it was doing that apparently did not work.

Admittedly, the line between outputs and outcomes is not always clear. For example, a successful burglary investigation might have several results: suspect identified, suspect arrested, case cleared, suspect charged, suspect convicted. Identifying the suspect is presumably just an investigation output, whereas gaining a conviction corresponds to "holding offenders to account," one of policing's bottom-line outcomes presented earlier. Whether to count the middle three results — arrest, clearance, and charges filed — as outputs or outcomes is less clear-cut. Because this dividing line between outputs and outcomes is somewhat murky, the following sections touch on both.

Jobs, activities, and outputs in police organizations vary widely. Personnel assigned to patrol, investigations, tactical units, training, and the communications center do very different things. The next few sections hit some of the high points of measuring police performance but are certainly not exhaustive.

Intelligent Policing

"Why measure? Well, first and foremost, measurement is necessary to enable us to understand how the system is performing, to predict how it will continue to perform into the future, and to identify opportunities for improvement. Measurement is critical for ensuring that activity meets purpose, as well as for alerting us to warning signals about the emergence of hitherto unseen problems which could damage the system."

"When approaching the subject of measurement, the first thing that managers need to ensure is that the right things are being measured. To help identify what these are we need to be absolutely certain about purpose. Appropriate measures must be related to purpose, otherwise they risk becoming perverse incentives for activity that bears no relation to purpose. Non-value activity (i.e., waste) detracts from the system's capacity for value activity."

Source: Guilfoyle, S. 2013. *Intelligent policing: How systems thinking methods eclipse conventional management practice.* Devon, UK: Triarchy Press, 233, 235

Arrests, Citations, Stops, and Searches

One of the most fundamental dimensions of police performance is the use of official authority. A substantial focus of police training is on teaching laws and procedures of arrest, search, and seizure as well as the practical skills needed to carry out such activities safely and effectively. In addition, policies and supervision aim to guide officers when they are deciding whether to exercise their authority to stop, cite, arrest, or search.

Counting numbers of arrests and citations has long been standard practice in policing, made easy by the fact that those activities automatically produce official documents. Traditionally, it has been less common to count stops and searches, for two related reasons: Most do not produce a tangible output (citation, arrest, or seized property) and, at least until recently, most agencies did not require them to be documented on a form or other official record. This has changed over the past 20 years, mainly because of allegations of unjustified person stops (stop and frisk issues) in some jurisdictions, and allegations of disproportionate numbers of vehicle stops and searches based on race or ethnicity (often called racial profiling) in many jurisdictions.

Of crucial importance is that these basic components of police performance correspond to nearly all of the bottom-line outcomes of policing. One way of illustrating the relationships is presented in figure 2.

Figure 2. Exercises of police authority are directly connected to policing's bottom line

Arrests
Citations
Stops
Searches

→

Holding offenders
to account

Using force and authority
fairly and effectively

→

Reducing serious crime

Maintaining safety and order

Reassuring the public

Using financial resources fairly,
effectively, and efficiently

These activities, outputs, and outcomes can be interrelated in a variety of ways. Ideally, stops and searches lead to arrests and citations. These, in turn, result in prosecutions and convictions, directly contributing to holding offenders to account and indirectly helping to reduce crime, maintain order, and reassure the public. When this is accomplished through the fair and effective use of authority, positive outcomes are even more likely to be achieved and supported by the public.

Two other scenarios are less ideal. In one case, underenforcement can result in offenders not being held accountable, which might lead to increased crime, more disorder, and more fear of crime. On the other hand, if police misuse their authority by making unjustified, discriminatory, or excessive stops and searches, they risk losing public trust and support. In addition, this kind of performance might be ineffective if cases fail to result in convictions and would be inefficient if time and resources are wasted on stops and searches of nonoffenders or predominantly minor offenders.

The implication of these scenarios is that police agencies need to monitor both the quantity and quality of enforcement-related activities and outputs. There is no formula or standard for determining how much enforcement is most effective — it's a judgment call. But, at a basic level, a commander needs data that show their agency's trends over time, and that identify individuals and units with particularly low or high levels of arrests, citations, stops, and searches. As always, numbers that are well above or below the norm may have a logical explanation, and may be indicative of good or poor performance. The point is that data can draw attention to unusual levels of performance so that they can be reviewed and assessed.

Obviously, it is also essential to look beyond simple aggregate numbers, such as counts of arrests or tickets. Here are a few examples of the value of more fine-grained performance data:

1. **Arrests** — If the agency has a mandatory arrest or pro-arrest policy for domestic assault (or if it is governed by similar state law), data can indicate how well individual officers, units, and the agency as a whole are in compliance.

2. **Citations** — Data can indicate the degree to which individual officers and units are issuing tickets for the kinds of infractions that are the main causes of crashes in the jurisdiction, and also whether they are targeting the most crash-prone locations.

3. **Stops** — Data can indicate whether any demographic subgroups are disproportionately represented in person stops and vehicle stops. If significant disparate impact is observed, comparing individual officers in similar assignments is one way of exploring what might be causing the differences.

4. **Searches** — Data on the "hit rate" in searches of persons and vehicles can indicate whether some individual officers or units might be more prone to unsubstantiated searches than others. Similarly, some officers might make much greater use of consent searches than others. If the hit rate on these searches is low, questions might be raised about whether the officers are using their authority fairly and effectively — especially if there is demographic disparity of the people they seek consent to search.

Many other indicators of performance quality can be used. An officer who places more charges of resisting arrest than his or her colleagues may need training or counseling. A unit that issues an above-average number of seat belt, texting while driving, or driving under the influence citations may have discovered tactics or techniques that should be shared with others — those are drivers' behaviors specifically connected to risk and harm. Police agencies should be creative in establishing enforcement-related performance measures that guide officers toward the kinds of activities and outputs that are most likely to enhance the achievement of "bottom line" policing outcomes.

Performance Metrics

"The important question for implementing evidence-based policing is not whether performance metrics should exist, but rather what performance metrics are used and do some of them reflect values and knowledge from an evidence-based policing approach? The choice of performance metrics matters and is both a reflection and reinforcement of an agency's philosophical approach to policing and its sought-after outcomes. For example, if the number of arrests and citations that an officer makes are used to judge her performance, then this will reinforce her using arrest and citation as her primary crime-fighting strategy. However, if that same officer is judged by the amount of proactive problem-solving activities she engages in, then her crime-fighting strategy will be different."

Source: Lum, C., and C.S. Koper. 2017. *Evidence-based policing: Translating research into practice.* Oxford: Oxford University Press, 240-241.

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Use of Force and Pursuits

Two elements of police performance that bear directly on the bottom-line outcome of "using force and authority fairly and effectively" are use of force and vehicle pursuits. Both of these police activities are authorized by law and are often necessary in order to protect victims, interrupt crimes in progress, arrest offenders, maintain public safety, and restore order in the face of conflict. However, it is also true that police authority to use force is limited under law, using force and engaging in vehicle pursuits entails risks, and public support for these activities cannot be taken for granted. Although statutory and policy language varies from place to place, it is generally agreed that in any particular situation police should use the least amount of force necessary to accomplish lawful objectives, making it particularly important to track and monitor these elements of performance.

Monitoring performance in this domain is aided by the fact that it is now common practice for law enforcement agencies to require officers to complete use-of-force and vehicle-pursuit reports. Separate from any internal investigations that may be conducted to determine whether specific actions were justified, data from these reports can readily be compiled in order to look for patterns and trends.

Use-of-force reporting generally provides incident-level information that includes the type of encounter, the threat or resistance faced by the officer, the type and level of force applied, the severity of any injuries suffered, and the outcome of the encounter. Agencies have several decisions to make, though, regarding specific details of their reporting system:

1. The minimum threshold for reporting. Most agencies do not count routine handcuffing or mere "hand on the shoulder" touching as use of force, but just where to draw the line for required reporting varies.

2. A related issue is whether to include threats as use of force, such as threatening to deploy oleoresin capsicum (pepper spray) or a conducted energy device (e.g., Taser). Most agencies do not require reporting of mere threats to use force, but there is some concern that flagrant use of threats can have a corrosive effect on police-community relations.

3. Regarding conducted energy devices, some but not all agencies require reporting if the device's laser dot is "painted" on a subject.

4. Regarding firearms, some but not all agencies require reporting if the weapon is displayed and/or pointed at a subject.

Agencies can readily examine their use-of-force data to see, for example, what particular types of force are being used more or less often, whether levels of use vary across geographic areas or organizational units, or whether certain types of suspect resistance are changing. One common metric is the proportion of arrests involving the use of force, and another is the proportion of all police-citizen encounters that include police use of force. For the latter, a national estimate from surveys of the public is that about 1% of encounters result in police using some level of force beyond threats or handcuffing.[26]

Monitoring vehicle pursuits presents similar issues and considerations. Agencies usually collect several pieces of information related to pursuits, such as the initial reason for attempting to stop the vehicle (traffic offense, property crime, violent crime), the duration of the pursuit, vehicle speeds, whether the pursuit was terminated by the officer or a supervisor, and the outcomes of the pursuit (arrests, crashes, injuries, deaths). As with use of force, tracking pursuit-related data can identify any patterns or trends that might deserve further analysis.

Use of Force in the New York City Police Department

The New York City Police Department (NYPD) had 7,369 reportable uses of force in 2017. Of those, 6,071 "involved the minimal amount of reportable force: hand strikes, foot strikes, and forcible subduing of subjects. There were also 728 CEW [conducted energy weapon] discharges, 324 discharges of OC [oleoresin capsicum] spray, 105 uses of impact weapons, 82 uses of mesh blankets to control subjects, 52 firearms discharges, and seven canine bites." A total of 9,213 subjects were involved in the use-of-force incidents, of whom only 372, or 4%, required any hospital treatment. For 2017, uses of force occurred in about 1% of all arrests.

The NYPD's report also provides historical comparisons (e.g., firearm discharge incidents have dropped 95% since 1972) and breaks out the data by use-of-force category, type of incident, police precinct, and officer and subject race/ethnicity.

Source: Adapted from New York City Police Department. 2018. *Use of force report 2017.* https://www1.nyc.gov/assets/nypd/downloads/pdf/use-of-force/use-of-force-2017.pdf.

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[26] Davis, E., A. Whyde, and L. Langton. 2018. *Contacts between police and the public, 2015.* Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics, 17. NCJ 251145. https://www.bjs.gov/content/pub/pdf/cpp15.pdf.

Public Contacts, Community Engagement, and Problem Solving

Most law enforcement agencies expect their officers to make frequent nonenforcement public contacts, collaborate with individuals and community groups, and undertake problem solving to address chronic crime and disorder issues. These kinds of activities correspond to community-oriented policing (COP) and problem-oriented policing (POP), which remain popular policing strategies for good reason. Studies have shown that COP has positive effects on the public's satisfaction with police services and perceptions of disorder,[27] and POP has a significant impact on reducing crime and disorder.[28]

Public contacts, community engagement, and problem solving are not very easy to measure, however, since they don't routinely generate reports, legal documents, or other tangible products that are easily counted. Nevertheless, since these kinds of activities are positively associated with several bottom-line policing outcomes, agency leaders need to know how often these activities are being carried out, how effectively they are being implemented, and whether some units are doing better than others.

Because of their nature, these activities are best measured more qualitatively:

1. **Public contacts** — Supervisors can periodically accompany officers on patrol and/or review samples of body-worn camera footage to observe and rate nonenforcement public contacts. Simple scales can be used to rate officers on a few items such as "takes advantage of opportunities for public contact," "communicates in a positive and friendly manner," and "listens carefully to citizens' concerns."

2. **Community engagement** — Supervisors can elicit examples of community engagement from their officers, rate them on simple criteria such as depth of involvement, and also recontact the citizens involved to get their input on the quality and value of the engagement efforts reported by officers.

[27] Gill, C., D. Weisburd, C.W. Telep, Z. Vitter, and T. Bennett. 2014. "Community-oriented policing to reduce crime, disorder and fear and increase satisfaction and legitimacy among citizens: A systematic review." *Journal of Experimental Criminology* 10 no. 4 (December). https://link.springer.com/article/10.1007%2Fs11292-014-9210-y.

[28] Weisburd, D., C.W. Telep, J.C. Hinckle, and J.E. Eck. 2008. "The effects of problem-oriented policing on crime and disorder." *Campbell Systematic Reviews* (October). https://www.campbellcollaboration.org/images/meeting/1045_R.pdf.

3. **Problem solving** — Some agencies have POP forms that officers fill out when they engage in significant problem-solving activity. The information in those forms, or the verbal reports that officers provide about their problem-solving activity, can be scored using established criteria based on the well-known "scanning, analysis, response, assessment" (SARA) model of problem-oriented policing. Criteria for scoring problem solving could include "evidence that the analysis has in fact influenced the way in which the police and others think about and respond to the problem" and "evidence that at least several alternative responses were considered and an explanation as to why some responses were implemented and others not."[29]

This is a good place to mention how important it is to strike a careful balance in performance measurement. On one hand, an agency's leaders must be provided with reliable information about what activities are being performed by members of the organization, and how well those activities are being performed. This kind of information is crucial for effectively guiding the agency and maximizing its achievement of important outcomes. On the other hand, though, it can be exhausting trying to measure everything all the time. If agency supervisors and other staff are forced to spend all their time measuring performance, other responsibilities will suffer.

In regard to key aspects of performance, especially those that are hard to measure — such as public contacts, community engagement, and problem solving — agency leaders should regularly ask two questions: "How are we doing," and "How do we know?" Consistently posing these questions reinforces the importance of the activities and also challenges members of the organization to demonstrate that they are genuinely attuned to the important high-priority activities.

Beat-Level Problem Solving in Chicago

"Police all over the city — not just officers assigned to special units or with special training and resources — were supposed to get involved in problem-solving at the beat level ... . In too many beats, the same problems persisted year after year even though they had been identified as priorities ... [W]e gave the department a 'C' for its problem-solving efforts."

"Asking both police and residents revealed that most of what the police were up to was extremely traditional. As in other cities, police rarely gathered 'data' of any kind except what they observed in the field, and they mostly applied traditional enforcement tactics, such as driving by more often, stopping cars, and trying to arrest people. But both police and residents reported broader public involvement in a range of problem-solving activities, including organizing block clubs, forming patrols, mobilizing city services, and trying to awaken their apathetic neighbors to the problem."

Source: Skogan, W.G. 2006. *Police and community in Chicago: A tale of three cities.* Oxford: Oxford University Press, 210.

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[29] See https://popcenter.asu.edu/goldstein.

Response Time

Response time is a performance measure that has been used by law enforcement agencies for decades. At one time, a common objective was to keep response time to reported crimes as short as possible, based on the assumption that quick arrival improved the chances of catching the offender. However, an important study in the 1980s revealed a major flaw in this logic — about three-quarters of reported crimes are cold before they are ever discovered. In addition, even when someone (a victim or witness) is aware of the crime while it is happening, they tend to delay several minutes before calling the police or 911. Because of these realities, quick police response to reported crimes results in an arrest at or near the scene in only about 3% of cases.[30]

Despite these rather discouraging findings, rapid response can sometimes make a difference, depending on the circumstances. When a crime is reported while in progress, or right afterward, quick response does significantly improve the chances of an apprehension. Also, many incidents that are not necessarily serious crimes might merit a quick police response, such as a fight, a suspicious person, a traffic crash, or a medical emergency.

The modern approach is to categorize the calls coming into the communications center and set criteria to determine which calls should get an immediate police response and which ones can be handled in other ways, such as delayed response, response by nonsworn personnel, telephone reporting, or online reporting. Performance measures should then be aligned with the categories so that the agency can track its response time to high-priority calls separately from the rest. Median response time to high-priority incidents can be monitored over time for the agency as a whole and can also be examined by time of day and for geographic sections of the jurisdiction. Tracking these measures helps the agency assess its staffing needs and also provides guidance for proper allocation and deployment of existing personnel.

Modern technology, especially computer-aided dispatching systems, makes it relatively easy to measure and track response times. For the data to be meaningful, they should be broken out by call priorities, as mentioned. In addition, three main components of response time should be measured and reported separately:

1. **Answering time** — The elapsed time from when the incoming call rings at the communication center until it is answered.

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30 Spelman, W., and D.K. Brown. 1984. *Calling the police: Citizen reporting of serious crime.* Washington, DC: U.S. Department of Justice, National Institute of Justice. NCJ 82276. https://www.ncjrs.gov/pdffiles1/Digitization/82276NCJRS.pdf.

2. **Dispatching time** — The elapsed time from when the incoming call is answered until it is assigned to a patrol unit for response.

3. **Travel time** — The elapsed time from when the call is assigned to a patrol unit until the unit arrives at the scene of the incident.

The purpose of measuring all three components is to monitor and detect sources of delay, particularly for high-priority calls. Delays can occur for many reasons — overloaded telephone systems, too few staff answering the phones, system breakdowns between phone operators and dispatchers, too few dispatchers, too few patrol units, spikes in patrol workload, traffic congestion, long travel distances for responding units, and so on. Careful measurement can help identify and diagnose the sources of delay, providing clues for how to minimize them in order to keep response times to priority calls as short as possible.

Response Time in Detroit

In 2013, average response time to Priority 1 calls in Detroit was over 50 minutes. After implementing a more rigorous call priority system, reallocating patrol staff based on workload, and adding GPS monitoring of patrol vehicle location, the police department brought the average response time down to 14.5 minutes in 2017, despite a decrease in the overall number of officers. The agency tracks average priority response times in different areas of the city as well, and it is able to keep variation within fairly close limits. Responding more quickly to higher priority incidents, though, means that people reporting lower priority incidents have had to wait longer. The end result, according to an assistant chief, is that "We're just a little bit smarter in how we police."

Source: Adapted from Wilkinson, M. 2017. "Detroit police improve response times. But not all neighborhoods are equal." *Bridge* (October 3).

SUGGESTED READING

Spelman, W., and D.K. Brown. 1984. *Calling the police: Citizen reporting of serious crime.* Washington, DC: U.S. Department of Justice, National Institute of Justice. NCJ 82276. https://www.ncjrs.gov/pdffiles1/Digitization/82276NCJRS.pdf.

Crime Clearances and Judicial Outcomes

W hen crimes against persons or property occur, victims and society at large hope that they will be solved by the police. If police are successful at solving crimes, perpetrators can be held accountable, other offenders may change their behavior based on a heightened expectation of getting caught (i.e., deterrence), and the public may be reassured that justice will be done and crime doesn't pay. Of course, the opposite effects can be anticipated if police are not very successful at solving crimes.

The clearance rate for Part I crimes is the traditional measure of investigative performance. As defined in the FBI's Uniform Crime Reporting (UCR) system, a crime is cleared when a perpetrator has been arrested and charged, or when an identified and located perpetrator can't be arrested through no fault of the law enforcement agency, such as when the perpetrator has died, the victim refuses to cooperate, or another jurisdiction is prosecuting the individual and won't release him or her for extradition. (These are called exceptional clearances.)

The clearance rate is a very useful measure of agency performance because it is well understood, has been used for years, and national averages are published annually, broken out by crime type and size of department. This allows an agency to track its performance over time and in comparison to benchmarks, making it possible to identify trends, areas of strength, and areas in need of improvement.

The clearance rate has shortcomings, however. When a crime is cleared based on the official UCR criteria, it still might be true that other perpetrators (accomplices) were not caught, stolen property was not recovered and returned to its owner, the arrested perpetrator was not prosecuted, and/or the arrested perpetrator was not convicted. If any of these conditions prevail in spite of clearance criteria being met, it is easy to see that success in holding offenders accountable, reducing crime, and reassuring the public has been limited. Police might declare a "win" having cleared the case, but it would be a partial victory at best.

As a result, it is recommended that agencies utilize some additional measures in conjunction with the Part I crime clearance rate, such as the following:

1. The value of recovered and returned stolen property in Part I crimes as a percentage of the total value of Part I stolen property.

2. The clearance rate for selected Part II crimes, such as assault, vandalism, and fraud. These are offenses that occur frequently, have real victims, and therefore matter greatly to the public, even though they don't count as Part I crimes.

3. The prosecution rate for Part I and Part II arrests. These should include drug, disorderly conduct, and DUI offenses, which often represent a high proportion of all arrests. If prosecution (or conviction) rates for these are low, the agency needs to know so that it can look for explanations and possible remedies.

4. The conviction rate for Part I and Part II arrests.

Some agencies may have difficulty obtaining information on prosecution and conviction outcomes, either because prosecutors and courts have antiquated record systems or because they are reluctant to be transparent and collaborative. This information is so significant, though, that law enforcement agencies should be forceful in demanding the data. Without knowing what becomes of arrests, neither the police nor the public can assess how well offenders are being held accountable. Moreover, if there are shortcomings in investigative performance that are interfering with successful prosecution and adjudication, they cannot be identified and corrected without this information.

It can be argued that prosecution and conviction rates are unfair measures for assessing police performance, since they reflect decisions made by other officials. This is true on the surface but misses the point in two important ways. First, these data are needed in order to determine whether there is a problem; if the rates are lower than expected, then the next step is to figure out why. If some of the explanation is poor investigative performance, the agency needs to know that in order to fix it. Alternatively, if the explanation is shortcomings in prosecution or the court, agency leaders need to know that in order to advocate for improvements in those offices. The second reason why the data on prosecution and conviction rates are needed is that, ultimately, they're what matter most. A good clearance rate is not contributing very much to the policing bottom line if offenders aren't being prosecuted and found guilty.

Clearance Rates in Scottsdale, Arizona

In its annual report, the Scottsdale Police Department presents Part I crime clearance rates by crime type for the past 15 years. Clearance rates for the three high-volume crimes of burglary, theft, and auto theft have steadily increased over that period, with the biggest improvement in burglary clearances, which are up from 10% in 2004 to 24% in 2018. The report also compares Scottsdale to national and state averages. The department's overall Part I clearance rate of 26.9% for 2018 exceeded the U.S. and Arizona averages, which were 21.6% and 20.4%, respectively.

Source: Adapted from Scottsdale Police Department. 2019. "2018 Uniform Crime Report highlights." https://www.scottsdaleaz.gov/Assets/ScottsdaleAZ/Police/statistics/2018-spd-ucr-highlights.pdf.

SUGGESTED READING

Federal Bureau of Investigation. 2018. "Clearances." *Crime in the United States, 2017.* Washington, DC: U.S. Department of Justice, Federal Bureau of Investigation, Uniform Crime Reporting Program. https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/topic-pages/clearances.

BYTE 32

Civil Suits and Judgments

I t is not unusual for law enforcement agencies to be sued for actions taken or not taken by their personnel. These civil suits may be brought in state or federal court, with the latter alleging some breach of U.S. constitutional rights. When suits are brought, they generally seek to include the agency and its parent government, not just the individual officer or officers directly involved. Most commonly, suits claim that the agency failed to adequately screen, train, supervise, direct, and/or control the officer(s), which allowed or caused them to engage in the improper behavior, resulting in harm to the plaintiff. Of course, connecting the behavior to agency negligence gives the plaintiff access to "deeper pockets," that is, the parent government's coffers and insurance coverage.

Civil suits like these are relevant to police performance and the policing bottom line in several ways:

1. Since they are potentially quite costly, they may bear directly on "using financial resources fairly, efficiently, and effectively." Funds that have to be paid to successful plaintiffs, even when partially covered by insurance, are essentially wasted (not available to be spent on public services) and may be taken out of the police agency's budget, directly or indirectly.

2. Most civil suits arise out of arrest and use-of-force situations (including vehicle chases). Thus, they reflect on the bottom-line outcome "using force and authority fairly and effectively."

3. When civil suits are successful, and especially if they are well publicized, they may affect the bottom-line dimension of "reassuring the public." Too much news about police misconduct, and about millions of tax dollars being paid out as a result, does not give residents much assurance that their police are performing professionally and effectively.[31]

Agencies are well advised, then, to collect data on civil suits filed against them. Data on civil suits and their costs are directly pertinent to the "using financial resources fairly, efficiently, and effectively" bottom-line outcome; thus, they should be monitored and tracked as a key indicator of how well that outcome is being achieved. In addition,

[31] Gonen, Y., J. Marsh, and B. Golding. 2018. "NYC has shelled out $384M in 5 years to settle NYPD suits." *New York Post* (September 4); and Newman, J. 2019. "Chicago spent more than $113 million on police misconduct lawsuits in 2018." *The Chicago Reporter* (March 7).

tracking the types of performance that give rise to litigation is relevant for identifying patterns and trends in officer behavior that may need to be examined more closely. In this respect, agencies should use data from civil suits in the same way as data from citizen complaints — this information may signal behavior or conditions that need attention, and identifying them sooner rather than later may prevent additional problems from occurring.

Three important points should be emphasized. First, the mere fact of being sued is not necessarily indicative of serious problems. Anyone can file a civil suit, no matter how groundless, and some jurisdictions may have zealous attorneys who further encourage litigation. Second, and related, many civil actions are settled out of court by lawyers for the government or an insurance company — even when the plaintiff's case against the police agency is weak — as a way of minimizing the chances of a big jury award. And third, data on civil suits can be difficult to gather and assess, in part because cases often are not resolved until several years after the disputed event, and also because out-of-court settlements in particular are sometimes sealed and therefore secret.

Despite these limitations, data on civil suits, judgments, and settlements can contribute to tracking and monitoring performance and should not be overlooked.

Judgments and Settlements in New York City

As of 2018, New York City had paid out $384 million over five years in judgments and settlements in civil cases against the police department. During that period, the city settled over half of the 11,404 civil suits brought against the department, most for $20,000 or less in cases alleging false arrest, pushing, shoving, or disrespect. In 2015, the city administration promised a crackdown on "nuisance lawsuits" by refusing to settle. Since 2016, the annual number of suits filed against the police department has dropped by half, while the number taken to trial has increased by 30%.

Source: Adapted from Gonen, Y., J. Marsh, and B. Golding. 2018. "NYC has shelled out $384M in 5 years to settle NYPD suits." *New York Post* (September 4).

SUGGESTED READING

Newman, J. 2019. "Settling for misconduct: Police lawsuits in Chicago." *The Chicago Reporter*.

SECTION 6:
Identifying and Analyzing Problems

The previous four sections emphasized the importance of data — data about the current status of bottom-line outcomes and about external conditions, internal conditions, and performance. Without good information on these matters, evidence-based policing is not possible. With such information, a solid foundation is in place.

The next step is to identify and then analyze gaps, weaknesses, and problems. Identifying problems should be fairly straightforward — as long as the data collection is systematic, up to date, and reliable. Modern information technologies, including record management systems (RMS) and computer-aided dispatching (CAD), have greatly improved data availability in law enforcement agencies. When indicators and metrics are in place, agencies can easily see if crime, arrests, traffic crashes, officer safety, employee turnover, and use of force are up or down. Metrics can also reveal whether fear of crime, public trust, community engagement, and police morale are getting better or worse, although data about such conditions are not routinely produced through RMS, CAD, or other traditional information systems. As discussed, extra effort is required to measure conditions like these, but since they are directly tied to key outcomes and police effectiveness, such effort is worthwhile and should be standard operating procedure.

Compared to identification, analysis is not as straightforward. It is one thing to recognize that robberies are up, or that fewer officers are applying for promotion, but it is usually harder to figure out why. Answering "why" is at the core of analysis. Asking this key question produces insights about what is going on and often provides guidance toward fixing the problem and improving outcomes.

Along the way to diagnosing a problem, analysis also tries for more precision in answering "what" and "how." If thefts of vehicles have increased, for example, figuring out what kinds of vehicles are being stolen, together with when and where, as well as the methods being used to enter and start the stolen vehicles, would be very useful. In this case, why people steal might seem pretty obvious, but determining whether the thefts are for immediate transportation (joy riding), resale, use in the commission of other crimes, or disposal through chop shops would be of definite value when trying to choose the best prevention and investigation responses for stemming the problem.

The next few sections look a bit more closely at analyzing outcomes, external and internal conditions, and performance.

Recognizing Problems

"Some policing problems are readily apparent because the volume of incidents or the harm being caused by them is so great and so public. A sudden spate of violent sexual assaults reported to police, for example, could readily compel police to not only work to solve the cases, but to reexamine the whole community response to preventing and responding to violent sexual assaults. But many policing problems are not so readily apparent. They might be hidden among the many incidents and cases police are handling, perhaps classified in different reporting categories, occurring in a wide range of locations, or affecting different people. Each incident or case might seem relatively minor in its own right, but prove to be more significant when aggregated into a larger problem. Don't assume that if a problem were significant, it would be obvious to everyone. Many police agencies have discovered that their officers have been handling similar incidents for years or even decades, usually with little or only temporary success, without anyone recognizing the persistent nature of the problem and the need to address it as a problem rather than as a string of isolated incidents. Often times, because so many different police officers handle these incidents, no one officer recognizes the persistence of the problem."

Source: Scott, M.S. 2015. *Identifying and defining policing problems.* Problem-Solving Tools Series. Problem-Oriented Guides for Police No. 13. Washington, DC: U.S. Department of Justice, Office of Community Oriented Policing Services, 13. https://cops.usdoj.gov/RIC/Publications/cops-p323-pub.pdf.

Analyzing Bottom-Line Outcomes

As a reminder, these are the bottom-line outcomes of policing:

- Reducing serious crime

- Holding offenders to account

- Maintaining safety and order

- Reassuring the public

- Providing quality services

- Using force and authority fairly and effectively

- Using financial resources fairly, efficiently, and effectively.

An evidence-based law enforcement agency will collect data so that it knows where it stands in relation to each of these important outcomes. With data, whenever any of the outcomes are slipping, or simply not at an acceptable level, the agency will be able to recognize the situation sooner rather than later. Having these data routinely available also helps the agency respond to inquiries and criticism and contributes to both short-term and long-term planning.

Besides looking at changes over time in relation to these outcomes, agencies should seek out relevant benchmarks. Typical sources of benchmarks are national or regional averages and professional standards. For example, a municipal agency serving a population in the 10,000-25,000 range could easily determine from the FBI Uniform Crime Reporting program that similar-sized agencies nationally experienced a 0.3% increase in Part I violent crimes from 2016 to 2017, and in 2017 had an average Part I violent crime rate of 2.68 per 1,000 residents, with a 51.9% clearance rate for those crimes.[32] Naturally, each agency's circumstances are different, but having benchmarks like these provides some basis for comparison and is crucial for recognizing anomalies and problems that deserve closer scrutiny.

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[32] Federal Bureau of Investigation. *Crime in the United States, 2017.* 2018. Washington, DC: U.S. Department of Justice, Federal Bureau of Investigation, Uniform Crime Reporting Program. https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017.

Analysis comes into play when an agency needs to take a closer look at outcomes that aren't being achieved at an acceptable level. If that hypothetical municipal agency in the 10,000-25,000 population range had a big increase in Part I violent crimes when most other similar-sized agencies didn't, for example, analysis would be aimed at figuring out why. One analytical approach would be to disaggregate the problem to see which types of violent crime accounted for the increase. Similarly, analysis would check to see whether the increases occurred across the jurisdiction, or if they were concentrated geographically. Analysis could also consider potential explanations (e.g., increased unemployment, increased drug addiction, turf disputes between gangs) and then examine data to see which explanations could be ruled out in that jurisdiction.

Analysis like this might not be able to pinpoint with certainty the exact causes of a crime increase, but it can usually narrow the range of likely explanations while also producing a richer understanding of the problem. In a recent real-life example, Phoenix, Arizona, experienced a substantial rise in officer-involved shooting (OIS) incidents during 2018, bringing into question whether it was "using force and authority fairly and effectively." Analysts took a detailed look at the shooting incidents and also considered whether anything within the agency — such as training or policies — or within the community could have contributed to the abrupt increase. Comparisons were made to other big cities, and to other jurisdictions in Arizona, to see if the agency's rate of OIS incidents per officer or per violent crime was higher, about average, or lower than in other agencies. The analysis yielded several important insights that helped the police department and community put its situation in perspective. For example, OIS incidents had spiked in Phoenix twice before in the previous decade, so 2018 wasn't a unique year. Also, several neighboring jurisdictions saw sharp increases in 2018, suggesting that it was not simply a Phoenix phenomenon. Finally, analysis revealed "an increase in subjects armed with firearms or simulated firearms involved in OIS encounters, and a significant increase in reported assaults on officers, specifically assaults on officers involving firearms."[33]

Analysis doesn't always lead directly to an obvious answer to why a problem is growing or has stubbornly persisted, nor to a guaranteed solution to the problem. But analysis ordinarily does help the agency diagnose and understand the problem better, which can be the key to moving forward effectively. That was the case in the well-known Boston Gun Project. Facing a significant increase in youth murders (up 230% from 1987 to 1990), Boston officials initially thought they faced a massive citywide challenge. Then, analysis revealed that the number of active shooters and shooting victims was really fairly small, confined to a few gangs. With that discovery, the problem became much more manageable, and a targeted violence prevention approach turned out to be very successful.[34]

[33] Rojek, J., J. Nix, S. Wolfe, G. Alpert, J. Burch, J. Grieco, and T. Robbins. 2019. *Analysis of 2018 use of deadly force by the Phoenix Police Department.* Washington, DC: National Police Foundation, 60. https://www.phoenix.gov/policesite/Documents/NPF_OIS_Study.pdf.

[34] Boston Police Department. 1998. "Operation Cease Fire: Deterring youth firearm violence." https://popcenter.asu.edu/sites/default/files/library/awards/goldstein/1998/98-08(W).pdf.

Asking the Right Question

"Above all, the critical question for strategic products is 'why.' This is in part because investigators generally don't have to answer 'why ecstasy?' in order to secure a conviction or seizure, whereas knowledge of what, when, where and how are essential at the tactical level. Understanding why criminals smuggle particular commodities or commit certain crimes as opposed to others indicates not only the underlying causes of a threat and thus how law enforcement could intervene, but also provides pointers for law enforcement's priorities."

Source: Higgins, O. 2004. "Rising to the collection challenge." In J.H. Ratcliffe, ed., *Strategic thinking in criminal intelligence.* Alexandria, NSW, Australia: The Federation Press, 74.

SUGGESTED READING

Brodeur, J.-P., ed. 1998. *How to recognize good policing: Problems and issues.* Thousand Oaks, CA: Sage.

Analyzing External Conditions

When the term *analysis* is mentioned in law enforcement circles, thoughts immediately go to crime analysis. This is a positive sign that the value of crime analysis has become widely recognized in the policing world. The downside is that other types of analysis sometimes get overlooked. One exception is intelligence analysis, which has gained substantial support and higher priority since the 9/11 terrorist attacks. But it is important to realize that all the external conditions for which police bear some degree of responsibility — including disorder, traffic safety, fear of crime, substance abuse, mental health crises, citizen complaints, client satisfaction, and public trust — are logical targets of analysis. There isn't a generally accepted term that captures the full range of these types of analysis, but some have suggested *problem analysis* as one option for reminding agencies that they need a wider lens than just crime analysis.[35]

If agencies have data on each of these relevant external conditions, as they should, they will be alerted to any troubling changes. Part of analysis is to keep an eye on these data, looking for patterns as well as trends. For example, overall public trust might be steady, yet slipping among some subgroups of the population. Total traffic crashes might be down, masking an increase in pedestrian or bicycle injuries. Overdoses might be decreasing following the peak of the recent opioid crisis, but fentanyl-related methamphetamine and cocaine overdoses might be rising. One job for analysis is to spot these kinds of shifting patterns as early as possible in order to inform agency responses.

When trends and new patterns are identified, the next task for analysis is to figure out what's going on. This goes back to the "why" question — Why is public trust slipping among some segments of the population? Why are traffic crashes involving pedestrians increasing? Answers to these kinds of questions can sometimes be found in the data, but analysts may also find it necessary to make observations out in the community, interview people (including offenders), administer surveys, and use other information-gathering techniques. They may need to use tools such as GIS (geographic information systems), statistical analysis, content analysis, social network analysis, and repeat victimization analysis.

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[35] Boba, R. 2003. *Problem analysis in policing.* Washington, DC: Police Foundation. https://popcenter.asu.edu/sites/default/files/library/reading/pdfs/problemanalysisinpolicing.pdf.

One crucial insight that applies particularly to crime analysis, but is relevant to other analyses too, is to focus carefully on specific problems. Most of the external conditions that police are charged with handling — crime, disorder, fear, safety, and so on — are each fairly broad categories. Crime, for example, includes hundreds of different behaviors, from tax evasion and disorderly conduct to child abuse and murder. Even a single statutory category like robbery includes bank robberies, street robberies, robberies of taxi drivers, robberies of drug dealers, and home-invasion robberies — each type having important differences in how the robberies are carried out, who usually commits them, and how dangerous they are for victims.

Disaggregating problems when analyzing them is essential for really figuring them out. Otherwise, attempts to analyze overly broad categories run the risk of "lumping apples and oranges together," which gets in the way of understanding each type individually. When that happens, a typical consequence is a blended response that doesn't fit any of the component parts of the problem as well as it should and thus isn't very effective. The policing and crime prevention fields now have substantial evidence showing that what works best are targeted responses — and the foundation for these is carefully targeted analysis.

Zeroing In on the Problem

"Breaking down a larger problem of crime into smaller categories is merely the first step in tightening the focus of a POP [problem-oriented policing] project. For example, a recent POP project in Charlotte, NC, originally focused on downtown thefts from cars, became progressively more specific as the analysis of the problem unfolded. First, it became clear that the problem was concentrated in the car parks. Only 17% involved cars parked in residences or on the streets. Then it was found after counting parking spaces that cars in surface lots were six times more at risk than those in parking garages, which were generally more secure. This meant the project could focus on improving security in the surface lots through better lighting and fencing, and more supervision by attendants. This would be much easier than trying to reduce the already low levels of theft in the parking garages. Tightening the focus of a POP project in this way increases the probability of success and uses resources effectively."

Source: Clarke, R.V., and J.E. Eck. 2005. *Crime analysis for problem solvers in 60 small steps.* Washington, DC: U.S. Department of Justice, Office of Community Oriented Policing Services, Step 6. https://www.popcenter.org/sites/default/files/library/reading/PDFs/60Steps.pdf.

Analyzing Internal Conditions

Analyzing conditions inside a law enforcement agency contributes to identifying and diagnosing problems in the same way that crime analysis and traffic analysis help diagnose problems in the community. When left unattended, internal problems can negatively affect employee behavior and prevent organizational systems from performing as well as they should. Analyzing internal conditions — sometimes referred to as policy analysis, administrative analysis, or management analysis — is a necessary component of evidence-based police administration, the natural corollary of evidence-based policing.

Recruitment and selection provide a good example. Many police agencies are currently unable to fill existing sworn officer positions, and in addition their ranks are not as diverse as the communities they serve. Although in some respects this is a national problem, not all agencies experience it to the same degree or for the same reasons. Most agencies have data from monitoring their situation, but analysis needs to go a few steps farther to figure out just where the problems are, and what might be causing them:

1. **Recruitment** — If the number of applicants has decreased over the years, it may be that agency marketing/advertising is not reaching or attracting potential recruits, the application process is too lengthy or cumbersome, or salary and benefits are not competitive. If applicant diversity is not sufficient, it may be that the agency's prevailing image is not one of inclusion and fairness, or that recruiting is not conveying messages that resonate with all kinds of potential applicants.

2. **Selection** — It is possible that the number and diversity of initial applicants are sufficient, but the selection process is too slow, too restrictive, or has disparate impact. Analysis should look at each step in the selection process (e.g., written test, physical fitness test, interview, background check) to determine where applicants drop out and to check for differential impact on candidates who are women or members of minority groups. Analysis by itself cannot determine whether 20 push-ups or a score of 70% on a knowledge test is the right standard, but it can draw attention to selection criteria that might deserve more careful consideration.

3. **Training** — Some agencies lose a substantial number of recruits during the police academy, whereas other agencies rarely lose any, and the same is true for field training. Analysis should look at the dropout and failure rates in the academy and in field training, and should try to figure out why potential career employees are lost at these stages, after they have already passed through several rigorous screening steps. This analysis should also check for differential impact during training, especially on women recruits, since that is a common occurrence.

4. **Retention** — When an agency has trouble reaching its authorized strength, sometimes the cause is more related to high turnover than weak recruiting, that is, people are leaving faster than they can be replaced. Analysis should track the agency's turnover rate and seek explanations whenever employees leave short of retirement. Some degree of turnover is inevitable, of course, but a high rate can indicate that the agency hasn't hired the right people in the first place, or that good employees aren't satisfied with the agency for some reason. Analysis should try to figure that out, as well as watch carefully for disparity in turnover, which can indicate that the organization isn't as welcoming and inclusive as it should be.

Numerous other internal conditions should be subject to routine monitoring, with deeper analysis undertaken when issues and problems are detected. Officer safety and wellness is a prime example. Data on officer injuries and sick leave should be carefully tracked along with hours worked per day and per week, and employee surveys can provide data on exercise, sleep habits, stress, and work-life balance. Analysis can then look for patterns and trends, such as an increase in preventable accidents or high levels of stress and burnout. It might also be the case that accidents are more common during some shifts than others, or that burnout varies with years of experience or particular assignments. Detecting patterns like these could help the agency target its responses to keep employees healthy and safe.

An important component of internal conditions is employee attitudes and beliefs. Surveys are quite valuable for discovering whether officers and civilian employees think their supervisor treats them fairly, their training has prepared them adequately, the disciplinary system is fair, their input is respected when decisions are made, the agency is headed in the right direction, and so on. When data like these are regularly collected, analysis can compare results to benchmarks to help judge whether responses are typical or unusual[36] as well as looking for patterns, such as which types of employees don't believe that their input is respected. This would also be a situation where analysis could go a step beyond the survey data by interviewing individuals or groups to explore in more detail any issues or problems that surface in the data.

Officers' Attitudes and Beliefs

"These survey responses [from over 13,000 sworn officers in 89 agencies] show that the attitudes, beliefs, and perspectives of most police are relatively positive and favorable. Their occupational outlooks vary widely and are certainly not mainly negative or problematic. A majority of officers looks favorably on the public, supports community policing, and gives their immediate supervisor high marks. Police views are somewhat more mixed toward solidarity, misconduct, and toughness, some of which is probably reflective of the ambivalence and ambiguity inherent in the role of the police. Officers' most widely held negative views are toward top management and administration. A strong theme is that good work is not recognized or rewarded nor is poor work penalized, and only a small minority of officers is very supportive of the direction being taken by top management."

Source: Cordner, G. 2017. "Police culture: Individual and organizational differences in police officer perspectives." *Policing: An International Journal* 40 no. 1: 11-25. https://www.emerald.com/insight/content/doi/10.1108/PIJPSM-07-2016-0116/full/html.

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[36] The National Police Foundation administers the National Law Enforcement Applied Research & Data Platform, which provides surveys and results at no cost. See https://www.nationallawenforcementplatform.org.

BYTE 36

Analyzing Performance

Another important analytical focus is on performance. The task here is to look carefully at performance data in order to identify any slippage or weaknesses, and then to examine those situations closely to try to figure out what the problems are and what is causing them. This approach applies to performance by individuals, units, programs, and the agency as a whole.

As an example, current year data might show an agency that one of its property crime detectives has a much lower clearance rate on assigned cases than the other detectives in the unit. A first step in an analysis would be to look at all the detectives' caseloads to make sure they are really comparable; some of the detectives might be getting particularly lucky or unlucky with the number or types of cases assigned to them. One might have gotten all the shoplifting cases, which usually aren't reported unless the thief is caught in the act, automatically producing a high clearance rate without any detective effort. Another might have drawn all the burglaries, which typically have a very low clearance rate since they aren't discovered by victims until well after the fact. This is another good illustration that analysis should break down overly broad categories so as not to mix apples and oranges — the category "property crime" includes a range of offenses with differing degrees of difficulty when it comes to investigating and solving them. Any examination of performance data needs to carefully take such differences into account.

Continuing with the example, besides checking to make sure that individual caseloads really are comparable, analysis would want to look at previous years to see if the detective's performance during the current year is an anomaly or part of a longer-term trend. If the low clearance rate isn't "explained away" by bad luck and especially if it follows a trend, then the challenge would be to figure out what is causing the problem. In this scenario, the answer might be in data, if case records show that a low-performing detective rarely canvasses for additional witnesses, checks for surveillance video, seeks information from patrol officers, or takes other actions known to be effective in producing relevant information for solving crimes.[37] More likely, perhaps, insights from the detective's supervisor would be needed to explore reasons for the shortcomings in performance.

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[37] Eck, J.E. 1983. *Solving crimes: The investigation of burglary and robbery.* Washington, DC: Police Executive Research Forum. NCJ 090569. https://www.ncjrs.gov/pdffiles1/Digitization/90569NCJRS.pdf.

Analyzing performance at levels above the individual is particularly important for achieving and sustaining organizational effectiveness. Data might indicate that, for example, in one patrol district, officers are not attending as many neighborhood meetings as in other districts. Analysis would be directed at verifying this apparent problem (making sure it wasn't just a documentation failure) and then figuring out the cause. It could be possible that some neighborhoods in this district don't have active associations, or that officers are so much busier with calls for service and investigations that they don't have time to attend meetings. It could also be the case that the district commander hasn't communicated the importance of community engagement, or that direction and control are failing at some other point in the chain of command.

Monitoring and analyzing performance by special units are just as essential as analyzing patrol and investigations. Information from citizen complaints or surveys might indicate a spike in callers dissatisfied with 911 operators, data might show an uptick in K-9 bites, injuries to people being held in detention might increase, or data might reveal a growing backlog of evidence in the crime lab. Any of those situations, and others like them, could represent serious performance problems or random fluctuations. Analyses would help in sorting them out, understanding them, and addressing those that merit some kind of remedial action.

One last point about analyzing performance: Organizations and analysts should be mindful that targets, objectives, and performance pressure can sometimes distort employee behavior in ways that are not intended. If it is known that district commanders are under pressure to produce arrests, citations, or stops, for example, their subordinates may reinforce the pressure down the line until patrol officers produce "the numbers" that relieve the pressure with a blitz of questionable enforcement. Similarly, if the pressure is on to reduce Part I crimes by 10% in the district, the end result may be "cooking the books" in an effort to show that the target was met. This phenomenon is universal, not limited to law enforcement agencies, and underscores two key principles: (1) Whenever possible, performance should be measured and analyzed in relation to quality, not just quantity, and (2) the usefulness of performance data depends on its quality, that is, its reliability and validity. Analysts should always be aware that people with something at stake are often tempted to manipulate data that bear on their performance.

Perverse Effects of Performance Targets

"The reality is that when individuals are put under pressure to meet targets anything can (and does) happen. This does not mean that those who subvert the system are necessarily bad people; they are just trying to survive in a hostile environment — an environment where management inflicts unrealistic expectations upon them. I argue that targets inevitably promote perverse incentives and behaviors and the net result is that costs increase, morale is adversely affected, service delivery is suboptimised and the overall system is damaged. This is not a mere possibility. It is not a threat. It is a *guarantee*."

Source: Guilfoyle, S. 2013. *Intelligent policing: How systems thinking methods eclipse conventional management practice.* Devon, UK: Triarchy Press, 143.

SUGGESTED READING

Eterno, J.A., and E.B. Silverman. 2012. *The crime numbers game: Management by manipulation.* Advances in Police Theory and Practice Series. Boca Raton, FL: CRC Press.

Evaluating Practices and Testing Alternatives

E arly in this guide (byte 2), four key components of an evidence-based policing (EBP) framework were identified — data, analysis, research, and evidence. So far, Sections 1 and 2 explained the EBP framework, emphasizing the importance of keeping the multidimensional bottom lines of policing front and center; Sections 3-5 discussed the wide range of data an agency needs if it intends to be evidence-based; and Section 6 showed how analysis of all that data can help an agency identify gaps and problems and figure out why they are occurring. Next up is research.

As a reminder, the purpose of EBP is to make policing more effective. Research contributes to that purpose. This is the definition of EBP introduced earlier:

> Using data, analysis, and research to complement experience and professional judgment in order to provide the best possible police service to the public.

This definition says that law enforcement agencies and personnel should be informed by the best available scientific evidence as they go about identifying and understanding issues and problems, choosing responses, making decisions, setting policies, allocating resources, and enhancing employee well-being. Research doesn't replace experience and professional judgment. The goal of research is to produce information that decision-makers can use in conjunction with other sources of knowledge and wisdom. Also, the EBP framework supports *applied* research — research designed to produce practical information that helps an agency provide the best possible police service to the public.

The line between analysis and research is not clear-cut. Some of the types and examples of analysis discussed in Section 6 could be called research, and they certainly draw on research skills. In this section, however, the focus shifts from identifying and figuring out problems to determining whether responses to those problems are effective. This includes the programs, policies, and routine practices that the agency uses to try to reduce crime, hold offenders to account, reassure the public, and accomplish the other bottom lines of policing. It also includes the internal practices that the agency uses to meet the needs of employees and develop the capacity for quality performance. Research, in other words, is aimed at figuring out what's working, and what's not, throughout the organization.

One logical distinction is between the agency's current practices and any new practices that it might be considering. In the case of current practices, what is needed is evaluation research. An agency should regularly evaluate its programs, policies, and other practices to make sure they are accomplishing the ends that are expected of them. This is very

important, since lots of things change over time, including personnel and conditions both inside the organization and in the community. A practice that made sense five or 10 years ago, and that may have been effective in the past, may or may not be effective today. Just assuming that it still works is a big mistake.

An equally important type of research involves testing new practices when they are adopted. When an agency decides to implement a new program, policy, or other practice, it is rational and wise to carefully study its impact to see if it actually has the outcomes that were expected of it. When this research is done right from the outset, as it should be, then the new practice can be fine-tuned based on feedback, increasing its effectiveness. And if it's just not working at all, it can be called off or replaced with something else. In fact, the smartest way to implement new practices is to take this kind of testing approach by saying: "We think this new practice is the way to go, so we're going to try it out. We'll test it to see if it works as well as we think it will. If it doesn't, we'll try something else."

Techniques for conducting these two categories of research activity — evaluating current practices and testing alternatives — are largely the same. One difference might be that the opportunity to use experimental methods is more likely when testing something new; alternative practices are often tried out as pilot studies anyway, making it easier to utilize comparison or control groups. Doing an experiment to evaluate a current practice would generally require ceasing the practice in some locations or for some people, which might be difficult to accept without an alternative to replace it. That said, the landmark Kansas City patrol study did just that, eliminating motorized preventive patrol in five beats for a whole year in an effort to determine whether that traditional practice was effective.[38] A bit more about the Kansas City study will be mentioned shortly.

The next few bytes go into more detail about evaluating current practices and testing alternatives.

SUGGESTED READING

Cockbain, E., and J. Knutsson, eds. 2015. *Applied police research: Challenges and opportunities.* New York: Routledge.

Why Evaluate and Test

"Taken for granted policies and practices, which are simply reproduced with no authority other than tradition or ideology, need to be tested empirically … established practice is no guarantee of effectiveness. Indeed, counterproductive practices can survive in the absence of empirical test. Science itself is marked by organized skepticism, which means that scientists are perpetually open to doubt, to the possibility that they are mistaken. Even though in practical terms this might risk paralysis from uncertainty, it provides a healthy corrective to complacency. In a disciplined organization in which there is a strong can-do attitude, such as the police, it may be especially difficult to make routine that critical skeptical attitude which is the hallmark of science and which can be crucial to the early identification of weaknesses in working theories. Yet there are senior police officers who do, indeed, encourage their staff to raise doubts about standard working practices."

Source: Tilley, N., and G. Laycock. 2017. "The why, what, when and how of evidence-based policing." In J. Knutsson and L. Tompson, eds., *Advances in evidence-based policing.* London: Routledge, 20.

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[38] Kelling, G.L., T. Pate, D. Dieckman, and C.E. Brown. 1974. *The Kansas City preventive patrol experiment: A summary report.* Washington, DC: Police Foundation. https://www.policefoundation.org/wp-content/uploads/2015/07/Kelling-et-al.-1974-THE-KANSAS-CITY-PREVENTIVE-PATROL-EXPERIMENT.pdf.

BYTE 37

Process and Outcome Assessment

Whether evaluating current practices or testing new ones, it is important to look carefully at both process and outcomes. On the surface, the main question seems quite simple: Does practice A lead to desired outcome B? Assessing a practice is not quite that simple, however.

For starters, the agency needs to know for sure what the practice in question really is. Programs, policies, strategies, and tactics are often implemented differently than planned, and they often evolve over time. Also, they may not be implemented the same way in different parts of the organization. One of the first steps in a process assessment is documenting what the practice is "in the real world," which is sometimes not what it looks like on paper or what the chief or sheriff thinks it is. Why is this so important? Because later, when the outcomes of the practice are identified, the agency will need to know what the practice actually was. A bad decision could be made if the practice is just assumed to have been what the original plan said it should be. For example, a common evaluation finding is "no effects." In that situation, it is tempting to conclude that the practice didn't work, but often the full story is that it was never implemented correctly.

Another aspect of process evaluation is basically capturing the story. This includes finding out if the practice was easy or difficult to implement, what challenges were encountered, how the challenges were overcome (if they were), what changes were made over time (if any) and why, what the people directly involved think should be changed (if anything) to make the practice work better, and so forth. The setting and context should also be identified; they might have a bearing on results. This might include the level of skills and experience of the staff involved, whether the problems addressed were routine or unusual, or any other features of the situation that might have contributed to success or failure. Ideally, the process evaluation should help fill in the statement, "The practice did (or did not) work well because … ."

Some of the information needed for process assessment might come from routine agency data. If an agency is using hot spots patrol, for example, GPS data from the computer-aided dispatching system could be used to document the number of times that officers visited the hot spots and how much time they spent there. However, if the

tactic called for officers to get out of their patrol cars and walk around in the hot spots, observations and interviews might be needed to determine whether they did that, what other actions they took while sitting or walking in the hot spots, and the reasons why they did or didn't implement the tactic as instructed. Observations might also help identify characteristics of hot spots that seem to draw more or less enthusiasm from officers.

Combining quantitative data with qualitative observations and interviews is what's known as mixed methods research. It is important to recognize that neither quantitative nor qualitative research is inherently better. The choice of which approach to take depends on the situation, the purpose of the research, and the questions that need answering. Particularly for process assessment, that is, determining just what was implemented and why, a mixed methods approach is often the best.

Assessments also look at outcomes. Any program, policy, or other practice is expected to achieve something — reduced crime, increased public trust, fewer officer injuries, improved morale, and so on. An assessment tries to determine if the desired outcome was achieved. At a minimum, this usually depends on a baseline measurement before the practice is implemented, and then a follow-up measurement some time later. For an ongoing practice, assessment can check to see if the desired outcome is continuing to get better, remaining at an acceptable level, or declining.

One important consideration for outcome assessments in policing is that all the bottom-line outcomes are applicable. Hot spots patrol may be aimed primarily at reducing crime, for example, but its impact on maintaining safety and order, reassuring the public, using force and authority fairly, and other bottom-line outcomes (including police legitimacy) should be assessed as well. Looking at the whole range of bottom-line outcomes is crucial, since it is common for a policing practice to affect more than just one outcome, and all the outcomes are important.

A related consideration is to anticipate all the likely consequences of a practice and then measure whether they occur, as opposed to just measuring the one expected outcome. For example, implementing a crime prevention program based on educating the public about risks and threats could have the unintended result of increasing fear of crime. Implementing a location-based crime reduction program could displace crimes to other locations. Implementing more realistic self-defense training during the police academy, in order to give new officers more confidence about their physical skills, could result in more injuries to recruits. Hopefully, none of these side effects or unintended consequences would come to pass, but ones that can logically be anticipated should be measured, just in case.

More details and examples are provided in the next few bytes.

Research Methods in Evidence-Based Policing

"Conducting an experiment is not an end goal by itself; research questions ought to be answered with the appropriate research methods, and not the other way around. Over a century of 'research-methods theories' have been developed, and science has a rather robust layout for marrying research questions and the ways in which these queries can be answered. The more pertinent definition of EBP should therefore be using the most *appropriate* research design to collect evidence that will guide practitioners and continually evaluate practice."

Source: Ariel, B. 2019. "'Not all evidence is created equal': On the importance of matching research questions with research methods in evidence based policing." In R.J. Mitchell and L. Huey, eds., *Evidence based policing: An introduction*. Bristol, UK: Policy Press, 64.

SUGGESTED READING

Eck, J.E. 2002. *Assessing responses to problems: An introductory guide for police problem-solvers.* Tool Guide No. 1. Washington, DC: U.S. Department of Justice, Office of Community Oriented Policing Services. https://cops.usdoj.gov/RIC/Publications/cops-p034-pub.pdf.

Evaluating Current Practices

The landmark Kansas City patrol study completed in 1973 was a great example of evaluating a current practice. Members of the police department were the ones who suggested doing the study, based on their realization that some officers in the agency thought routine motorized patrol was absolutely essential for controlling crime and reassuring the public, while others thought of patrolling as "down time" — what they did while waiting for something to happen. It occurred to them that a study might help determine how effective the practice really was. The police department then got outside assistance to conduct the study, which produced valuable information for the agency and the entire police field.[39]

A more recent example comes from Austin, Texas, where the impetus to evaluate a current practice came from outside the agency. In that city, political leaders and community activists became critical of a longstanding juvenile curfew ordinance; the data suggested that it was applied disproportionately against minority youth. The police chief was able to forestall a rash political decision by promising to evaluate the department's use of the ordinance and then report back. In this case, his staff was first able to locate previous research completed in other jurisdictions; those studies had not found any beneficial impact of juvenile curfews on crime or youth victimization. Staff also reviewed Austin's own past use of its ordinance, finding that it was not being used as often as they thought, and when it was used there were other legal tools that would have worked just as well. This evaluation showed that the city's juvenile curfew ordinance was neither effective nor an essential tool in the police arsenal. Based on the evaluation, the chief reported that the police department had no objection to the ordinance's repeal.[40]

As these two examples show, recognition that a current practice ought to be evaluated can come from within the law enforcement agency or from outside the organization. In some cases, there may be a relevant body of existing research to draw on, but not always. In some cases, a rigorous evaluation of the current practice may be called for, even potentially a full-blown experiment, while in other cases a review of records and data may be sufficient. And, in some cases, the agency may need a research partner to guide the evaluation, but sometimes an in-house evaluation is sufficient.

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[39] Kelling, G.L., T. Pate, D. Dieckman, and C.E. Brown. 1974. *The Kansas City preventive patrol experiment: A summary report.* Washington, DC: Police Foundation. https://www.policefoundation.org/wp-content/uploads/2015/07/Kelling-et-al.-1974-THE-KANSAS-CITY-PREVENTIVE-PATROL-EXPERIMENT.pdf.

[40] Roman, I. 2018. "The curfew myth: How a '90s panic spawned an anti-crime measure that doesn't make you safer." *The Marshall Project* (July 31). https://www.themarshallproject.org/2018/07/31/the-curfew-myth.

At any given time, a police agency has many programs, policies, and other practices in use. A logical approach to evaluating them is to prioritize those that are presumed to be contributing to bottom-line outcomes, along with those that are most costly. On the first point, an agency's practices aimed at reducing serious crime, holding offenders to account, maintaining safety and order, reassuring the public, providing quality services, and using force and authority fairly and effectively should all be reviewed periodically because these are the key policing outcomes the community counts on. For example, if the agency encourages people to report certain offenses online, it would be important to find out if that method of service delivery is satisfactory to victims, and also whether it produces the information needed to guide crime reduction and investigation initiatives. If evaluation reveals that the practice is not doing as well as needed on any of those dimensions, then some kind of adjustment should be considered. Another example could be officers assigned to schools. That kind of program should be evaluated regularly across a wide range of bottom-line outcomes, both to make sure that officers are performing as expected and to see if the results are positive.

In regard to cost, police training comes to mind as an activity that is quite expensive, yet rarely subject to serious evaluation. The financial cost of training includes not only trainers, facilities, and supplies but also the salaries of recruits and officers while they are attending training and therefore not filling assigned positions. Especially since they are so costly, agencies should carefully evaluate all their training programs to see how well the attendees are acquiring the knowledge and skills that the courses are supposed to teach. Unless the results are overwhelmingly positive, part of the evaluation should include observations and interviews aimed at identifying particular course segments and teaching/learning methods that are working well or not so well. Importantly, evaluation of training should also include discovering the impact on officers' performance once they return to work — not just what they know and can do at the end of the training course but also whether their subsequent performance improves. If it doesn't, the training might have been a nice experience, but it wasn't effective.

Critical Incident Stress Debriefing

A current practice in many agencies is critical incident stress debriefing (CISD), in which a trained therapist, following a specific protocol, "conducts a debriefing session either individually or with a group of individuals who have experienced a critical incident." The session, which is conducted within 1-2 days of the event, is designed to get those involved to talk about and face what they experienced.

Unfortunately, independent evaluations have not found that CISD is beneficial and, in some cases, it may even be harmful. Based on scientific evidence accumulated over the past 20 years, numerous military and first-responder organizations around the world have discontinued and/or revised their use of this specific practice for relieving critical incident stress.

The lesson here is that agencies need to carefully evaluate their current practices, even ones that have the reputation of a best practice based on the fact that they are widely used. Also, an important element of evaluating current practices is taking advantage of relevant studies already conducted elsewhere. It isn't always necessary to reinvent the wheel.

Source: Adapted from Mitchell, R. 2018. "The harmful effects of critical incident stress debriefing (CISD): Why police departments should stay up to date on evidence-based practices." Washington, DC: American Society of Evidence-Based Policing. https://www.americansebp.org/the-harmful-effects-of-critical-incident-stress-debriefing-cisd-why-police-departments-should-stay-up-to-date-on-evidence-based-practices.

BYTE 39
Testing New Practices

When a law enforcement agency decides to implement a new program, policy, or other practice, the decision is based on an expectation that the new practice will be beneficial. If the practice is replacing something else, the expectation is that it will work better. If it is simply a brand new effort, the expectation is that it will have positive results. The logical and rational thing to do is to evaluate the new practice when it is implemented to determine if it is as effective as expected. In addition, a real-time formative evaluation can provide quick feedback to help steer the new practice in a positive direction. Emphasizing improvement from the beginning is important, since not every new practice is perfect right from the start.

An earlier example from Chula Vista, California, illustrates how to test a new alternative practice.[41] The police department had carefully analyzed the domestic violence problem in its city and checked previous research for promising responses. When a new protocol was selected, it was implemented in one police district while a separate district served as the comparison area. The agency ran the pilot test for 18 months and found that domestic violence crimes and calls dropped 24% in the target district versus a slight uptick in the comparison district. The evaluation also showed that victim satisfaction was higher in the target district. Based on this test of the new practice, it was then implemented citywide.

Numerous law enforcement agencies have implemented body-worn cameras (BWC) in recent years and sought to evaluate their effects.[42] This is an example of adopting a new technology, which in many cases permits a relatively straightforward evaluation. With BWC, however, implementation has turned out to be more complicated than expected, since it must consider when to turn on the cameras, when to turn them off, how long to store the video, and who gets to see the video. In addition, the presence of BWC might affect officer and/or citizen behavior, officer and/or citizen attitudes, complaints, internal investigations, and prosecutions (of either arrested citizens or police). Although evaluating this new technology has proven to be far more complex than expected, findings from evaluations have already been helpful to agencies when making decisions about whether to adopt the technology and, if it is adopted, how best to use it.

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[41] Chula Vista Police Department. 2018. "Reducing domestic violence in Chula Vista, CA." https://popcenter.asu.edu/sites/default/files/chula_vista_2018_pop_conference_presentation.pdf.

[42] Lum, C., M. Stoltz, C.S. Koper, and J.A. Scherer. 2019. "Research on body-worn cameras: What we know, what we need to know." *Criminology & Public Policy* 18 no. 1: 93-118. https://onlinelibrary.wiley.com/doi/abs/10.1111/1745-9133.12412.

A major initiative in Baltimore County, Maryland, in the 1980s illustrates the value of feedback for improving a new practice after its initial implementation.[43] Facing concerns about rising fear of crime, the county police department implemented a special citizen-oriented police enforcement (COPE) unit of 45 sworn officers. During the unit's first year of operation, COPE officers targeted various neighborhoods suspected of having an elevated fear of crime, using mainly saturation patrol tactics. Ongoing evaluation showed that COPE officers engaged in relatively little public contact during their patrols, which conflicted with available evidence that the "felt presence" of police was what best reassured citizens. In COPE's second year, officers were instructed to increase their public contact, which they mainly accomplished by holding crime prevention meetings and conducting security surveys in target neighborhoods. Evaluation showed that these tactics were modestly more effective in reducing residents' fear of crime but that they weren't specifically tailored to whatever was actually causing citizen concerns in different neighborhoods. Based on that feedback, COPE officers shifted to a more problem-oriented approach in their third year, first diagnosing the specific causes of fear in target neighborhoods and then implementing tailored responses. The evaluation showed that this approach had a bigger impact on residents' fear of crime than the earlier approaches of using saturation patrol and standard crime prevention techniques, and it was adopted as the COPE unit's standard methodology from that point forward.

When testing new practices, experimental and quantitative methods are often employed, since there may be the opportunity to utilize comparison or control groups during initial pilot testing, and since there may be time to gather baseline data before the new practice is implemented. Using these methods is highly recommended because they add scientific credibility to findings about whatever impact the new practice seems to have.

At the same time, though, qualitative information can be crucial for figuring out how and why things turn out the way they do when a new practice is implemented. For example, Chicago started a major community policing initiative in 1993 in five police districts and then expanded the initiative citywide in 1995. Even though the effort had its ups and downs over the course of 10-15 years, the impact on crime, disorder, fear of crime, and police-community relations was positive. The evaluation documented these impacts with a massive amount of survey and official data, while also gathering observational and interview data from hundreds of beat-level community meetings at which officers and residents worked to identify and target local problems.[44] That kind of qualitative information was very useful for gauging the actual level and nature of police-citizen interaction and community engagement that took place across a diverse array of neighborhoods, which in turn helped with interpretation of the "hard data."

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[43] Cordner, G. 1988. "A problem-oriented approach to community oriented policing." In J.R. Greene and S.D. Mastrofski, eds., *Community policing: Rhetoric or reality.* New York: Praeger, 135-152.

[44] Skogan, W.G. 2006. *Police and community in Chicago: A tale of three cities.* Oxford: Oxford University Press.

Targeting, Testing, and Tracking

1. "Police should conduct and apply good research to selectively *target* their scarce resources on predictable concentrations of harm from crime and disorder (a 'power few')."

2. "Once they choose their high-priority targets, police should use *tests* of police methods to help choose what works best to reduce harm."

3. "Once police agencies use research to *target* their *tested* practices, they should generate and use internal evidence to *track* the daily delivery and effects of those practices, including the publicly perceived legitimacy of policing."

Source: Sherman, L.W. 2019. "Targeting, testing, and tracking: The Cambridge Assignment Management system of evidence based police assignment." In R.J. Mitchell and L. Huey, eds., *Evidence based policing: An introduction*. Bristol, UK: Policy Press, 20.

SUGGESTED READING

Skogan, W.G. 2006. *Police and community in Chicago: A tale of three cities.* Oxford: Oxford University Press.

Experiments and Quasi-Experiments

E xperiments are considered the "gold standard" for evaluating and testing the impact of programs, policies, and other practices. Sometimes called a randomized controlled trial (RCT), an experiment has two main features that set it apart from other evaluation methods: a control group and randomization. The first feature means that while one group of subjects (such as people or places) gets the "treatment," which is the practice being tested, another group doesn't get it and so serves as a comparison. Randomization means that the subjects are randomly assigned to either the treatment or control group, which prevents bias from influencing who gets assigned to which group.

One of the better-known applications of the experimental method is for testing new drugs. Among a group of subjects, half are randomly selected to receive the drug, while the other half get a placebo (sometimes called a sugar pill) that looks just like the real thing. After an appropriate amount of time, the subjects are checked to see whether those who got the new drug have been affected any differently from those who got the placebo. If the answer is yes, it can be concluded that it was the drug that made the difference, and not some other factor.

Experiments are the gold standard of evaluation because they can demonstrate causation. In the drug trial example, if the treatment group got better but the control group didn't, it is plausible to claim that the drug caused the improved health in the treatment group. Most other methods of evaluating the impact of programs and practices fall short in this regard — they may be able to document that things got better (e.g., patients' health, crime, public trust), but they cannot support a scientific claim that it was the particular treatment or practice that caused the improvement. In nonexperimental studies, the possibility that something else caused an observed change can't be ruled out.

Another way of explaining the advantage of experiments is with the principle that correlation doesn't prove causation. Ice cream consumption and drowning both go up in the summer months, but that doesn't prove that ice cream causes drowning. In the police world, accreditation provides a similar example. Numerous studies have found that agency accreditation is linked (correlated) with desirable outcomes. One explanation could be that accreditation causes law enforcement agencies to improve, but another possibility is that agencies that are already "better" are most likely to pursue and achieve accreditation. Absent an experiment or some other type of rigorous study, there isn't a strong scientific basis for choosing between the two possible explanations. Again, correlation doesn't prove causation.

Experiments might seem difficult and impractical in the real world of policing, but they are more common than most people realize. One comprehensive search located 122 police RCTs from 1970 to 2015, with the pace of experimentation picking up substantially in recent years.[45] Some experiments in policing have been major undertakings, such as the Kansas City Preventive Patrol study that covered 15 beats for an entire year. Others are more short term and focused. Vallejo, California, ran a 90-day trial with three automatic license-plate readers, randomly setting whether the technology alerted officers or not in order to test how it affected officer behavior and productivity.[46] The same agency did a 34-day test with two night-shift units that patrolled in a commercial shopping district; their Code-2 roof lights were randomly set to be either on or off, to see if the lights had an impact on auto burglaries and auto thefts.[47] The National Police Foundation ran a six-month experiment that included 226 patrol officers from two departments who were randomly assigned to eight-, 10-, or 12-hour shifts to test the effects of shift length on performance, safety, health, stress, sleep, fatigue, and alertness.[48]

Besides the practical challenge of conducting an experiment in the real world, one common concern is ethical — Is it fair to make "guinea pigs" out of police officers or community residents by randomly deciding who will and who won't get some new program or practice? The ethics of experimentation with human subjects is a very important consideration, and strict criteria have to be met for an RCT to be approved. In general, though, the rationale is that (1) whether the new practice will have positive results is not yet known, so no one is being denied a benefit; and (2) an experiment is the only way to determine whether there are positive (or negative) results from the new practice, which is essential to learn so that everyone may eventually benefit (or avoid being harmed).

Needless to say, not all evaluation studies are experiments. The label "quasi-experiment" applies to evaluations that don't meet the RCT criteria but that do take meaningful steps to minimize "threats to validity" (alternative explanations for the study's results). One common variant is the use of a nonrandom comparison group. For example, a police academy might try one method of de-escalation training with a cohort of officers attending in-service training, and a different method with a second cohort the following week (i.e., the subjects are not randomly assigned officers, but whichever officers happen to be signed up each week). If there was a difference in outcomes between the two cohorts, it would be tempting to conclude that the method of training caused the

[45] Neyroud, P.W. 2017. *Learning to field test in policing: Using an analysis of completed randomised controlled trials involving the police to develop a grounded theory on the factors contributing to high levels of treatment integrity in police field experiments.* Cambridge, UK: Cambridge University. https://www.repository.cam.ac.uk/bitstream/handle/1810/268177/Neyroud-2017-PhD.pdf.

[46] Potts, J. 2017. Interview by BetaGov (New York University). http://www.betagov.org/blog/uncategorized/betagov-spotlight-jason-potts.

[47] Potts, J. 2019. "Police vehicle lights: Reducing crime through increased police visibility." New York: New York University, The Marron Institute of Urban Management, BetaGov. http://www.betagov.org/completed-trials/Police-Vehicle-Lights.pdf.

[48] Amendola, K.L., D. Weisburd, E.E. Hamilton, G. Jones, and M. Slipka. 2011. *The shift length experiment: What we know about 8-, 10-, and 12-hour shifts in policing.* Washington, DC: Police Foundation. https://www.policefoundation.org/wp-content/uploads/2015/12/Shift-Length-Experiment-Practitioner-Guide.pdf.

differing results, but it would be hard to rule out the possibility that the two groups of officers differed from each other in the first place. If that possibility had been anticipated, baseline data might have been collected to help determine if the two groups really were comparable prior to the training. Another way to strengthen the quasi-experiment would be to run it with multiple groups, rather than just two. In the end, however, the scientific basis of the claim that "A caused B" is almost always stronger with an experiment.

The best advice when evaluating programs and practices is, not surprisingly, to use the most rigorous design possible within the practical constraints of the situation. The objective is always to determine the outcomes of what is being evaluated — and whether those outcomes were caused by the program or practice — with as much confidence and credibility as conditions permit, so that decision-makers can use the results to make informed decisions that contribute to agency effectiveness.

Internal Validity

"We assess internal validity of a study's findings by asking what the possible causes of the outcome are. Typically, in an evaluation, we are interested in determining if a single intervention (e.g., additional lighting to a crime hot spot) had an impact on an outcome (e.g., crime). If the finding is that the intervention did change the outcome, we ask what else could have done so. There are often several: for example, random variation caused the outcome, environmental factors unconnected with the intervention caused the outcome, or even the outcome caused the intervention. If the study is able to eliminate all rival explanations, then we are entitled to believe the intervention caused the change. If the study cannot eliminate any alternative explanations, then its findings have no internal validity. In general, the more alternatives the study can rule out, the more internal validity for the study's findings."

Source: Eck, J. 2017. "Some solutions to the evidence-based crime prevention problem." In J. Knutsson and L. Tompson, eds., *Advances in evidence-based policing.* London: Routledge, 49.

BYTE 41
Nonexperimental Evaluations

Most evaluations of programs and practices, including those done in the policing field, are not experiments, and many are not even quasi-experiments. This fact limits how strongly an agency can claim that what it did caused some outcome (or failed to cause it). This is a significant limitation, since it makes it hard for agency leaders to know whether the practice should be continued and/or expanded, and it leaves other agencies unsure about whether to adopt the practice. In terms of evidence-based policing, the absence of experimental evaluations limits the development of evidence about what works.

However, evidence is a matter of degrees, not all or nothing. With a weaker design, the conclusion is not likely to be "we have no idea" but rather, "things got better, and we think it was due to what we did." As a practical matter, documenting that better outcomes were achieved is generally an agency's top priority. Knowing with confidence what might work the next time (i.e., if causation was established) is important, too, but in the meantime, positive results are positive results.

Whenever possible, an evaluation should at least measure before and after the practice is introduced. That requires a bit of planning and forethought: to identify in advance the desired/expected outcomes of the practice, as well as any likely side effects, and then measure those things before the practice is implemented. The investment in establishing these baseline measures is a wise one because it sets up the ability to measure the same outcomes later to document whether anything changed.

Without a baseline, an evaluation can usually only determine whether people think the practice had a beneficial effect. The thoughts and beliefs of people involved in an initiative are certainly relevant, especially their insights about what was really implemented, what hurdles and challenges were encountered, and what might be done differently to improve effectiveness. But in regard to a practice's impact on outcomes (reducing crime, improving public trust, making officers safer), the opinions of people involved in the effort are far less credible than a carefully measured comparison of before and after the practice's implementation.

In addition to measuring before and after, any evaluation, whether experimental or not, should include a careful look at the process involved, not just the impact. This entails monitoring the implementation through the use of performance data, observations, and interviews to capture the story of what took place. This is so important because programs and practices are often changed during implementation, and sometimes never implemented at all. Unless the evaluation captures information about what was actually implemented, knowing whether outcomes got better or worse will still leave decision-makers wondering whether to continue or discontinue the practice.

As one simple example of the importance of process monitoring, a field evaluation of the effectiveness of a new police baton wouldn't be very useful if it failed to notice that officers never carried the equipment when they exited their vehicles. If officers said they liked the batons and there were no reports of misuse or breakage, it might seem like a case of positive outcomes, but the real story would have been that the equipment was never put into use. Similarly, an evaluation of a community policing initiative wouldn't be complete if it didn't take a close look at just how much citizen interaction and community engagement took place. If the officers involved mainly stayed in the office or in their patrol cars, a finding of minimal impact on public reassurance might be more indicative of implementation failure rather than evidence that community policing was ineffective.

The least desirable evaluation design is the ex post facto case study. This type of evaluation lacks both a baseline and real-time collection of process information while the practice is being implemented. Sometimes, baseline data may be available retroactively through official data such as reported crime figures, but in other cases it isn't possible to go back in time and take baseline measurements of outcomes that might be important, such as fear of crime, public trust, or officer morale. Without that baseline, the evaluation is limited to people's recollections, which may not be accurate and may easily be swayed by the fact that a practice is being evaluated. In addition, information about what was actually implemented and the challenges that were encountered may only be available through the memory of participants, again raising issues of accuracy and potential bias. Participants might paint an overly positive or negative picture, depending on whether they liked the program or practice. Without any independent observations of the implementation in action, an ex post facto evaluation could be unreasonably swayed by participants' self-serving comments about what took place.

As noted, evaluating is not an all-or-nothing exercise. Different evaluation methods have their strengths and weaknesses, and their findings should be weighed accordingly. As a general rule, current practices and new alternatives should be tested as rigorously and systematically as possible because finding out what works best, and identifying shortcomings that might be improved, is the path to more effective policing.

Small-Scale Evaluation

Sometimes, a practice being evaluated is a relatively small-scale effort aimed at solving a specific problem or achieving a small improvement in performance. In such cases, a nonexperimental evaluation may be quite satisfactory. Many examples of this level of activity are found in problem-oriented policing and situational crime prevention. When a police department tackles chronic crime and disorder at a budget motel, for instance, it is strongly interested in evidence about whether crime and disorder are reduced following their effort. If not, they need to try something else. Their interest in scientific proof that their responses caused the positive results is not as strong, and if they implemented three responses, they may not particularly care which of the three deserves the most credit. Although that kind of information could be useful for future problem solving, it is also expected that the circumstances will probably be different with any future chronic motel problem, so a tailor-made response will be needed the next time anyway.

Source: Adapted from Eck, J.E. 2002. "Learning from experience in problem-oriented policing and situational prevention: The positive functions of weak evaluations and the negative functions of strong ones." In N. Tilley, ed., *Evaluation for crime prevention.* Crime Prevention Studies Vol. 14. Monsey, NY: Criminal Justice Press, 93-117.

SUGGESTED READING

Rossi, P.H., M.W. Lipsey, and H.E. Freeman. 2003. *Evaluation: A systematic approach.* Seventh edition. Thousand Oaks, CA: Sage.

SECTION 8:
Using Evidence

What ultimately matters is using the best available evidence. The purpose of data, analysis, evaluation, and research is to enhance situational awareness, identify and diagnose problems, and produce evidence about what works most effectively. All of that should have "a seat at the table." Then, it is up to police practitioners, managers, and leaders to incorporate the evidence into their planning and decision-making.

It deserves to be reemphasized that data and analysis are key elements of the foundation for evidence-based policing. It makes no sense for an agency to adopt an evidence-based practice if that practice doesn't address actual conditions and problems facing the agency. A police department doesn't need hot spots patrol if it doesn't have any crime hot spots or if its only serious crime problem is domestic violence. It doesn't need a violent crime reduction program if it has little or no violent crime. Data and analysis are crucial for monitoring actual conditions, spotting trends, identifying problems, and figuring out what's causing them.[49] They can also help an agency avoid adopting the latest fad if it doesn't address a problem that actually exists in the jurisdiction.

This final section focuses on using evidence, starting with two key questions: Where is evidence found, and how much weight should be given to it?

Tipping Point?

"Policing is on an evolutionary journey when it comes to embracing evidence. There are currently positive signals that there is movement forward toward science or evidence. Whether we are at a 'tipping point' — that point at which it requires less energy to go forward than to retreat backwards — is debatable. However, it is argued that, as with other fields such as medicine and engineering, which have embraced over time scientific methods and utilized research to guide and shape practice, policing will also continue to move with increased pace in this future scientific direction. There is positive movement in this direction and the strategies and signposts for success are becoming clear."

Source: Martin, P. 2019. "Moving to the inevitability of evidence based policing." In R.J. Mitchell and L. Huey, eds., *Evidence based policing: An introduction.* Bristol, UK: Policy Press, 212.

SUGGESTED READING

Mitchell, R.J., and L. Huey, eds. 2019. *Evidence based policing: An introduction.* Bristol, UK: Policy Press.

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[49] As mentioned earlier, this is just as applicable for small agencies as for large ones. The difference is that larger agencies have more to keep track of, and more data to sift through, to stay on top of things and spot trends and problems. Smaller agencies can often accomplish this informally, just because there is less to keep track of, but they have exactly the same need to be on top of things.

BYTE 42

Finding and Weighing Evidence

The previous section emphasized that any law enforcement agency should test and evaluate both existing practices and new ones in order to develop evidence to guide its decision-making. An approach focused on the agency's own practices needs to be combined with evidence derived from the rest of the policing universe — the 18,000 or so U.S. law enforcement agencies, the thousands of other police agencies around the world, and the researchers who study policing.

This is easier said than done. Finding evidence about what's known and what works in policing can be difficult. For one thing, the United States is a big country in an even bigger world. In addition, research results are typically written for an academic audience rather than for practitioners, and they are often published in academic journals that are not readily accessible and are typically behind paywalls. In other cases, findings are presented in internal agency reports that aren't widely distributed or easily found.

Fortunately, government agencies and scholars have begun the task of gathering up and assessing relevant studies of policing practices. These efforts are relatively new and don't yet cover every aspect of police effectiveness, but they are a start. One technique being used more and more often is the systematic review, which is a kind of extra-thorough literature review — an exhaustive international search for all studies on a topic, strict criteria for judging which studies are scientifically credible, and a rigorous formal process for aggregating the findings from those studies that meet the criteria.[50] When possible, a meta-analysis is also conducted to calculate a pooled estimate of effect size, which is the average impact that a particular practice has on a specific outcome, such as the average impact of hot spots patrol on crime in a targeted area.

One institution that sponsors systematic reviews covering various topics, including crime and policing, is the Campbell Collaboration.[51] Another institution, the U.K. College of Policing (which is a professional body, not a degree-granting school in the American sense of the word *college*), offers an online What Works Centre that currently rates the effectiveness evidence for 57 different crime reduction practices.[52] And here in the

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[50] Neyroud, P. 2019. "Systematic reviews: 'Better evidence for a better world.'" In R.J. Mitchell and L. Huey, eds., *Evidence based policing: An introduction.* Bristol, UK: Policy Press, 103-116.

[51] See https://campbellcollaboration.org.

[52] See https://whatworks.college.police.uk/toolkit/Pages/Toolkit.aspx.

United States, the National Institute of Justice (NIJ) sponsors CrimeSolutions.gov, a site that rates individual studies and meta-analyses as effective, promising, or no effects according to strict criteria.[53] This NIJ site organizes its reviews into eight categories, including one for law enforcement research and another for crime prevention studies.

All three of these sources use scientific criteria when assessing evidence of impact, heavily favoring experimental over nonexperimental studies. An important feature of the U.K.'s What Works Centre is that it assesses the evidence pertaining to each practice on four additional dimensions — how the practice works (mechanism), how it is affected by context (moderators), what it takes to implement the practice, and what it costs. This supplemental information is included based on an understanding that police need to know more about a practice than just its projected impact when they are considering whether to adopt it, and when planning how to implement it successfully.[54]

A source of "what works" information that is organized differently is the Center for Problem-Oriented Policing. Whereas systematic reviews, the U.K. College of Policing's What Works Centre, and NIJ's CrimeSolutions.gov mainly focus on the effectiveness of police *practices,* the Center for Problem-Oriented Policing focuses primarily on specific *problems*. For example, its problem-oriented policing (POP) guide on gun violence among serious young offenders reviews various responses to that particular problem, including available evidence about what works best under different circumstances. Other POP guides identify the types of data that an agency should collect and analyze to diagnose its specific problem, since gun violence, burglary, drug dealing, and other problems may not have the same characteristics and patterns in every jurisdiction. There are currently 73 of these specific POP guides posted on the site.[55]

Unfortunately, a shortcoming of all these sources of "what works" information is that they are mostly limited to crime reduction practices and problems. As a result, a police agency that wants to take an evidence-based approach to reducing crime has a fair amount of accessible evidence to draw from. But agencies that also want to adopt evidence-based practices related to policing's other bottom lines (holding offenders to account, maintaining safety and order, reassuring the public, providing quality services, using force and authority fairly and effectively, using financial resources efficiently, building public trust, sustaining police legitimacy, and enhancing officer safety and well-being) have to dig a lot deeper into the worldwide reservoir of studies and will probably have to do their own assessments of what the research adds up to.

There are a few exceptions to the mainly crime-focused nature of available effectiveness evidence. For example, the What Works Centre has assessments of red light cameras, speed cameras, and several measures aimed at reducing drunk driving, and there are

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[53] See https://www.crimesolutions.gov.

[54] Bowers, K., L. Tompson, A. Sidebottom, K. Bullock, and S. Johnson. 2017. "Reviewing evidence for evidence-based policing." In J. Knutsson and L. Tompson, eds., *Advances in evidence-based policing.* London: Routledge, 98-116.

[55] See https://www.popcenter.org/problem-guides.

guides from the Center for Problem-Oriented Policing on homeless encampments, people with mental illness, and several traffic safety problems. The big picture, though, is that most of the attention so far has been devoted to assessing the evidence on what works in reducing crime. This is completely understandable, but it means that there is still a lot of work to be done to support evidence-based policing in general, not just evidence-based crime control. Police agencies have multiple bottom lines for which they are responsible; therefore, they need to know what works best across a wide range of outcomes, not just one.

Systematic Reviews

"Systematic reviews are important for communicating high-level research findings to practitioners and policymakers. Yet, there are good reasons why in crime reduction, unlike in medicine, systematic reviews are not a mainstay of professional practice. First, high-quality primary evaluations are rare and for some topics virtually absent (e.g., organized crime, terrorism, modern slavery). Although 'empty' systematic reviews may be useful for researchers, they are of little utility to practitioners. Second, there is a tendency for systematic reviews to focus on studies published in scientific journals. Failure to consult the 'grey literature' of government and practitioner reports, which comprise a sizable proportion of the crime reduction literature, may give rise to biased findings and neglect potentially important information. Finally, the methods used to quantitatively synthesize data from primary studies can be complex, and effectively communicating these methods to a lay audience is challenging."

Source: Bowers, K., L. Tompson, A. Sidebottom, K. Bullock, and S. Johnson. 2017. "Reviewing evidence for evidence-based policing." In J. Knutsson and L. Tompson, eds., *Advances in evidence-based policing.* London: Routledge, 102.

Putting Evidence to Use

Several examples presented earlier in this guide illustrate how evidence should be used:

- **Chula Vista, California** — The police department used data and analysis to identify a specific chronic problem (domestic violence calls and crimes), reviewed the evidence base for promising alternatives, implemented and evaluated a new protocol in a pilot district with another district serving as a comparison area, found that the new protocol was more effective than past practice, and then expanded it citywide.

- **Austin, Texas** — An existing curfew law was criticized by activists and political leaders. The police department reviewed the evidence base, discovering that such laws had not been found effective and often had disparate impact, then took the additional step of analyzing its own use of the curfew law, finding inconsistent application. The agency concluded that the law was not an essential tool for reducing crime and disorder, so it did not oppose the law's repeal.

- **Eau Claire, Wisconsin** — Officers in the police department complained of back pain and suggested switching from the traditional duty belt to load-bearing vests. The agency partnered with a local university to do a six-month study, with 30 officers rotating between the belt and the vest. Results indicated less pain with the vests, so the department made the switch in equipment.

An interesting feature of all three of these examples was careful attention to local context. Chula Vista could simply have adopted a promising practice from some other jurisdiction, but instead it adopted elements from several programs that had been evaluated positively, combined them into its own tailored approach, and then conducted its own field test. Austin could have looked at the existing research on juvenile curfews and decided to abandon the law right then, but it took the extra step of analyzing its own implementation and enforcement before making a final decision. Eau Claire could have made an executive decision on whether to switch equipment based on personal preference, vendor claims, or existing medical evidence, but instead it took the time to test the vests on its own officers.

In these examples, evidence had its seat at the table, along with data, analysis, law, politics, and professional judgment. In addition, Chula Vista sought feedback from officers and victims, whereas Eau Claire's evidence was mainly officer self-reports of back pain. In Austin, commanders' experience and professional judgment played an

important role and initially weighed in favor of keeping the juvenile curfew, until evidence and analysis convinced them that the law was not as important a tool as they had believed. None of these situations was decided by the scientific method alone — the evidence was persuasive, but other factors could have tipped the decisions in a different direction.

It remains to be seen whether policing will eventually develop an evidence base that is so complete and compelling that it will occupy the primary role in decision-making. The evidence base of policing might someday become so robust that there will be a WebMD-style app: Type in the symptoms and get back a diagnosis and recommended treatment. Alternatively, that might not ever come to pass. Diagnosing and responding to community and organizational problems — crime, disorder, fear, risky behavior, discrimination, homelessness, mental illness, substance abuse, morale, stress, burnout, injustice — might be significantly less clear-cut than dealing with illnesses in the human body (which isn't really so clear-cut either, of course). Predicting how something will develop in the future is always treacherous, but at the present time the less programmable scenario seems more realistic.

Besides the key foundational ingredients emphasized in this guide — data, analysis, evaluation, testing, and finding existing evidence — some additional organizational steps have been recommended to help ensure that evidence is considered when decisions are made. The next byte goes into more detail about the training, policies, and agency champion needed for implementing evidence-based policing.

Why Be Evidence-Based?

"The importance of EBP [evidence-based policing] lies in the premise that police should have an ethical duty to employ the best evidence-based practices that reduce crime and calls for service while doing the least amount of harm to the community. If police managers do not have a grasp of whether they are using the city's resources in the most effective and efficient way, then they are not using the taxpayers' monies wisely. What duty does the police department owe to the public? Is public safety a sacred cow that is given a wide berth without determining cost, effectiveness, efficiency, or harm to the public, or should the police be held to a higher standard?"

Source: Mitchell, R.J. 2019. "A light introduction to evidence based policing." In R.J. Mitchell and L. Huey, eds., *Evidence based policing: An introduction.* Bristol, UK: Policy Press, 12.

BYTE 44
Creating an Evidence-Based Agency

t is one thing to take an evidence-based approach to a particular challenge or problem, but another thing to establish and sustain evidence-based policing (EBP) as an agency's normal method of operation. Using data, analysis, and research to complement experience and professional judgment, day in and day out, is the objective. Making it happen requires effort and commitment.

The key ingredients for EBP have been outlined throughout this guide. To be evidence-based, an agency needs the following:

- A clear understanding of the multiple bottom lines of policing — the outcomes that matter most.

- Data on external conditions, internal conditions, and performance.

- Analysis to identify and diagnose patterns and problems, both external and internal.

- Evaluation of current practices, and testing of new ones, to find out how effective (or ineffective) they are.

These key EBP ingredients do not occur on their own. In small agencies, it might only require focus and disciplined thinking, whereas in large agencies it requires resources and staff (data scientists, analysts, researchers). Beyond these baseline needs, agencies that have led the way in adopting EBP have identified some additional measures that deserve consideration:[56]

- **EBP Associations** — Membership organizations focused on EBP have formed in several countries, one being the American Society of Evidence-Based Policing.[57] Key agency staff should be encouraged to join and participate in networking and conferences.

- **Research Partnerships** — Agencies should look for opportunities to collaborate with research partners to help with evaluation of current practices, testing of new alternatives, and other research tasks that require special skills or an independent assessment. Although differences in timetables, terminology, and career incentives

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[56] Martin, P. 2019. "Moving to the inevitability of evidence based policing." In R.J. Mitchell and L. Huey, eds., *Evidence based policing: An introduction.* Bristol, UK: Policy Press, 199-213.

[57] See https://www.americansebp.org.

can sometimes complicate police-researcher interactions, establishing an ongoing partnership can help in developing productive collaboration.[58]

- **Research Committee** — Agencies should consider establishing a research committee with two main responsibilities: (1) identifying important research needs within the agency and (2) helping screen, prioritize, and coordinate external requests for researcher access to the agency and its data.

- **EBP Champion** — Agencies should consider assigning to someone in the agency the specific responsibility for ensuring that the best available scientific evidence is considered whenever the agency is making decisions about policies, programs, and practices.

- **Formal Policy** — Agencies should consider adopting a formal policy or other directive that enshrines the agency's commitment to using data, analysis, research, and evidence and that specifies any associated procedures, such as establishment of a research committee, appointment of an EBP champion, and setting a timetable for periodic evaluation of programs.

- **Training** — Agencies should incorporate training at various levels (recruit, supervisor, manager, commander) that demystifies EBP and emphasizes its practical value. Of equal importance is making sure that what is taught in police training reflects the best available evidence on every topic, and that how it is taught is based on evidence about how students and trainees learn.

- **Reinforcement and Accountability** — Performance evaluation rubrics, study materials for promotion, and promotion decisions should all incorporate and reward staff awareness and adoption of EBP. Unit commanders, program managers, and others in the agency should be held accountable for using the best available evidence when making decisions.

- **Compstat** — Agencies should integrate EBP into their Compstat-style systems so that responses to current crime and related problems are guided by analysis and evidence, not just a snapshot of recent data. When commanders are asked, "What are you doing about that problem?" their responses should be informed by analysis and evidence.

- **EBP Unit** — Some agencies have taken the step of creating an EBP Unit with the responsibility for infusing EBP throughout the organization. Data, analysis, evaluation, and research can be centralized in the unit, or simply coordinated by it. Design as a skill set is also helpful in the development of new systems, processes, and programs.

These kinds of organizational measures should help solidify EBP within an agency so that it doesn't fall by the wayside with the first budget crunch or change in leadership. Equally important is to work on developing an evidence-based culture throughout the organization. Everyone in the agency should be encouraged to ask "why?" on a regular basis: Why has this problem persisted? Why haven't we evaluated this program? Why

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[58] Alpert, G.P., J. Rojek, and J.A. Hansen. 2013. *Building bridges between police researchers and practitioners: Agents of change in a complex world.* Washington, DC: U.S. Department of Justice, National Institute of Justice. NCJ 244345. https://www.ncjrs.gov/pdffiles1/nij/grants/244345.pdf.

do we do things this way? Staff members who demonstrate critical thinking, problem solving, creativity, and an experimental approach to working effectively should be recognized and rewarded.

One agency that has set a course toward full-fledged EBP is the New Zealand Police. In 2018, they published the "Blueprint for Evidence-Based Policing," a three-year implementation plan spearheaded by their newly created Evidence-Based Policing Centre.[59] Besides incorporating many of the principles and components discussed throughout this guide, the Blueprint is tightly coupled to the agency's "Our Business" document, which succinctly presents "Our Purpose, Our Mission, Our Vision, Our Motto, Our Values, Our Goals, Our Strategies, Our People, Our Partnerships, and Our Transformation Program," with the overarching theme of "Policing Through a Culture of High Performance."[60] In other words, EBP isn't just a new initiative for the New Zealand Police. Rather, it is an integral part of how the agency intends to deliver the best possible police service and maximize its achievement of bottom-line outcomes.

Agencies that want to adopt and sustain EBP should take a cue from the New Zealand Police. Having a detailed plan helps keep things on track during the period of implementation, while clear and succinct statements of values, strategies, and themes help convey the kinds of emotion, pride, and purpose that can reassure officers that the agency is going in a positive and meaningful direction — toward better and more effective policing — which reinforces the practical importance of EBP.

Blueprint for Evidence-Based Policing

"Evidence-based policing presents an opportunity for New Zealand Police to embed a foundation of evidence-based best practice throughout all of its operations and provide confidence to our frontline, leadership, and wider New Zealand public, that what we do, does work."

"Evidence-based policing supports our high performance culture with tools, technology and capability to embed evidence-based practice. Providing our people with the appropriate decision-making tools will give our people the confidence to deliver on Our Business. Aligned to Prevention First and Police High Performance Framework (PHPF), EBP also provides us with the research and evidence to inform our practice on what prevents harm, opportunities to improve well-being and to inform our deployment model."

"Having seen the impact of research and evidence as a result of initiatives such as Family Violence Intervention Evaluation and the Crime Harm Index, we now need to expand the reach of EBP far beyond the existing EBP Centre, and embed the culture and ways of working throughout every district, service centre, and business group."

Source: New Zealand Police. "Blueprint for evidence-based policing." 2018. Wellington, NZ: New Zealand Police, 2.

[59] New Zealand Police. "Blueprint for evidence-based policing." 2018. Wellington, NZ: New Zealand Police.
[60] See https://www.police.govt.nz/about-us/publication/our-business.

Continuous Improvement

The most effective organizations are those that never stop looking for ways to get better. One might wish for a big discovery — a "silver bullet" that solves all problems and maximizes performance for all time — but the reality is that people come and go, technology evolves, new laws are enacted, and new social issues arise. Every law enforcement agency has to adapt to changing internal and external conditions. Merely surviving can be quite a challenge for some organizations in turbulent environments, but the real objective should be to improve, not just survive.

Properly understood, evidence-based policing is the main driver of continuous improvement in policing. Law enforcement agencies position themselves to keep getting better when they focus on the multiple bottom-line outcomes of policing, rely on data to systematically measure how things are going, analyze problems that are encountered, evaluate current practices and test new ones, and look for evidence throughout the profession about what works best. Nothing is guaranteed, of course, but adding data, analysis, research, and evidence to police experience and professional knowledge is most likely to produce positive results in the face of ever-changing conditions.

Four interrelated perspectives are recommended to help sustain momentum for continuous improvement:

1. **Eyes on the prize** — It takes intentional effort to keep any organization focused on what really matters, because it is so easy to confuse means and ends, outputs and outcomes. That is why the multidimensional bottom lines of policing have been emphasized repeatedly in this guide.

2. **Small steps** — Although new technology and new discoveries may sometimes enable big advances in effectiveness, incremental improvements are more common. The agency that keeps looking for ways to nudge performance in a positive direction is most likely to keep getting better.

3. **Learning from error** — Mistakes are inevitable. The most effective organizations are those that seize the opportunity to learn from errors in order to prevent them from happening over and over.[61] Otherwise, mistakes are bound to be repeated, which cuts into effectiveness and imposes a heavy drag on continuous improvement.

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[61] Doyle, J.M. 2014. "Learning from error in the criminal justice system: Sentinel event reviews." In *Mending justice: Sentinel event reviews.* Special Report. Washington, DC: U.S. Department of Justice, National Institute of Justice, 3-18. NCJ 247141. https://www.ncjrs.gov/pdffiles1/nij/247141.pdf.

4. **All hands on deck** — The front-line personnel who actually do the work of the organization are most aware of inefficiencies and reasons for weak performance. A law enforcement agency that can inspire and reward employees who identify problems and create solutions is wisely taking full advantage of its talented workforce and is most likely to enjoy sustained achievement of the policing outcomes that matter.[62]

Systems Thinking and Continuous Improvement

"The systems approach fosters clear continuous improvement through a program of innovation, meaningful performance measurement and worker engagement. It promotes evidence-based priorities, devolved responsibility, organizational trust and a culture of ongoing learning to engender an organizational climate where energy is focused on achieving overall purpose from the customer's or service user's perspective."

Source: Guilfoyle, S. 2013. *Intelligent policing: How systems thinking methods eclipse conventional management practice.* Devon, UK: Triarchy Press, 1.

SUGGESTED READING

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[62] Goldstein, H. 1990. *Problem-oriented policing.* New York: McGraw-Hill, 28.

Suggested Readings

This list is a compilation of the suggested readings identified throughout this guide, along with a few additional sources that are easily accessible online.

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Valuable Resources

American Society of Evidence-Based Policing — https://www.americansebp.org

Australia & New Zealand Society of Evidence Based Policing — http://www.anzsebp.com

Campbell Collaboration — https://campbellcollaboration.org

The Canadian Society of Evidence-Based Policing — https://www.can-sebp.net

Center for Problem-Oriented Policing, Arizona State University — https://www.popcenter.org

Crime Reduction Toolkit, What Works Network, U.K. College of Policing — https://whatworks.college.police.uk/toolkit/Pages/Welcome.aspx

CrimeSolutions.gov, National Institute of Justice — https://www.crimesolutions.gov

The Evidence-Based Policing App — http://www.evidence-basedpolicing.org

Evidence-Based Policing Matrix, Center for Evidence-Based Crime Policy — https://cebcp.org/evidence-based-policing/the-matrix

Law Enforcement Advancing Data and Science (LEADS) Programs, National Institute of Justice — https://www.nij.gov/topics/law-enforcement/Pages/law-enforcement-advancing-data-and-science-program.aspx

National Law Enforcement Applied Research & Data Platform, National Police Foundation — https://www.nationallawenforcementplatform.org

Society of Evidence Based Policing — https://www.sebp.police.uk