

A PRACTICAL APPROACH TO EVIDENCE-BASED POLICING

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Abstract

Evidence-based policing remains misunderstood and under-appreciated. This article clarifies what it is, emphasizing its value in informing police practices in conjunction with experience, judgment, and craft knowledge. It also argues for a broad framework simply because policing has a broad mission. In other words, evidence-based policing is more than evidence-based crime control. Data, analysis, and the other tools of science can help police increase their effectiveness across the multiple bottom lines of policing.

Keywords: *Evidence-based policing; data; analysis; research*

This article presents the broad outlines of a practical framework for understanding and implementing evidence-based policing (EBP).¹ 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 simply about serving and protecting the public as effectively as possible.

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That said, this EBP framework is demanding, because the police mission is demanding. 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 – producing and then using the best available evidence when making decisions, developing policies, and designing programs and practices.

Policing is a broad function in a society that expects a lot from the police. The people who manage police organisations 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. Crucially, both police and their political superiors need a coherent framework that organises all that information into a manageable set of indicators that genuinely reflects the broad nature of policing and yet is readily digestible.

The framework is designed mainly with police executives and policy makers in mind, because they are most responsible for making policing as effective as possible. They have the strongest need for data, analysis, research, and evidence to help them make decisions that produce the best possible organisational 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 political leader asks a police executive, "How are we doing?" an off-the-cuff, vague response may not suffice. The framework presented here will help the executive respond with a well-documented, full-fledged answer.

Although the framework 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, support staff, especially analysts and planners, are often the ones most directly involved in collecting and analysing data and evaluating programs. Outside of police, government managers, elected officials, public interest groups, and concerned citizens all have a role in holding police agencies accountable and will find the framework helpful in judging how effectively their police are performing.

Evidence-Based Policing (EBP)

Evidence-based policing 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 recognise, however, that even 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 that may be applicable, to diagnose and respond to the situation – and often, careful trial and error is still required before a satisfactory outcome is achieved (Tilley & Laycock, 2016). So it is with evidence-based policing as well.

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.

What is Evidence-Based Policing?

Although the term "evidence-based policing" (EBP) has become well known, we should 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 (1998: p.2) is credited with coining the term evidence-based policing, arguing that "police practices should be based on scientific evidence about what works best." Similarly, Cynthia Lum and Chris Koper (2017: pp.3-4) 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." 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.

Drawing on these perspectives, evidence-based policing can be defined as:

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 policing 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 wellbeing. Looked at this way, evidence-based policing is a no-brainer. It would be foolish and harmful for police to utilise practices that don't work, and unethical to knowingly disregard more effective ones (Johnson, 2019). It is safe

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 advocated here.

to say that every right-minded law enforcement official always makes what they believe are the best decisions.

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 it is the best way. Likewise, law enforcement agencies don’t always devote much energy toward analysing 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 become a research scientist. A practical approach to evidence-based policing can be reasonable and balanced. For the most part, it’s not rocket science. But it is about employing a scientific approach to making policing more effective.

Data, Analysis, Research, Evidence

Some versions of evidence-based policing (EBP) put all their emphasis on determining “what works,” which leads them to push experimental research (randomised control 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, i.e., whether A caused B (for example, 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 (Tilley & Laycock, 2017).
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 is that their *external* validity is generally limited or unknown. Consequently, places where the experiment wasn’t conducted can usually only guess whether the study’s results would be the same in their jurisdiction.
4. Experimental studies can be fairly complicated, expensive, and time consuming. They aren’t always practical for many law enforcement agencies, especially if there is a long wait to find out the results.

The broad EBP framework suggested here 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 looked up or "Googled."
- **Evidence** is derived from the agency's own data, analysis, and research, as well as from 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 evidence appropriately to best inform decisions and practices.

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 emphasise 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.

"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 recognise that it provides also the basis for choosing between the available sources of evidence" (Fleming & Rhodes, 2017).

The issue of context was mentioned above – 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 it is up to “we the people” to decide how to use it. For example, brain scanning may someday accurately detect deception, but whether and how police are allowed to use that technology to ferret out liars will be determined by public opinion, politics, and judicial decisions, 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, all concerned need to recognise 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.

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

It is necessary to emphasise that evidence-based policing (EBP) is not the latest hyphenated strategy of policing – in fact, it is not a police strategy at all (Scott, 2017). Consequently, it will not replace intelligence-led policing, problem-oriented policing, community-oriented policing, 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 it implement that strategy, and then help determine how effectively the strategy is working.

Intelligence-led policing (ILP) depends heavily on data to identify priority targets (offenders, locations, behaviours) 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.

Problem-oriented policing (POP) relies on data to identify emerging crime and disorder problems, analysis to describe the problems and figure out why they are occurring, and then, once tailor-made responses are implemented, assessment (evaluation) to deter-

mine whether the problem has been reduced, and if not, why not. Selection of responses to a problem (after it has been analysed) should be wide-ranging and should draw on both evidence and previous experience drawn from within the agency and elsewhere.

Community-oriented policing (COP) is generally perceived as less data-driven and analytically based than intelligence-led or problem-oriented policing, but where it really differs is mainly 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 there's no "versus" between evidence-based policing 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.

Effective Policing

As a reminder, the *purpose* of evidence-based policing (EBP) is to make policing as effective as possible. The *methods* of EBP – data, analysis, 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 – organisations 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 maximises 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 (reducing crime); and/or (2) choosing one outcome, such as reducing crime, while ignoring others. Focusing on outputs is understandable but insufficient, since the output (number of arrests) may or may not produce the outcome (reducing crime) that really matters. Focusing on only one outcome (such as reducing crime) is risky if there are multiple outcomes that matter, which is usually the case for government agencies, and always true for police organisations (Lum & Nagin, 2015).

The reality is that policing has a multi-faceted bottom line. Policing and police administration would be a lot simpler if there was a single important outcome, but there isn't.

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 favoured 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 non-emergency 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, including preventing crime, solving crimes that do occur, making 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 over-stated. The whole point of evidence-based policing is to use data, analysis, and research to make policing more effective – i.e., to achieve the seven bottom lines of policing as completely as possible. So, if one wonders whether a police program or police agency is effective, that should be answered in relation to these seven dimensions. And if one is wondering what kinds of data are needed in order to answer such questions about effectiveness, it is data related to these dimensions.

An alert reader might wonder, what about police legitimacy? That condition, legitimacy, is best understood as the ultimate desired end of policing – when the 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.

Reducing Serious Crime

Right away, most people would think of reducing or controlling crime as a main purpose of policing. This purpose was emphasised 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 less victimisation, 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 (EBP) has been on doing 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 (Kelling et al., 1974). 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), prolific offenders, or specific categories of crime, tend to be more effective at reducing crime than efforts that are diffuse or generic (Weisburd & Majimundar, 2017).

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 in order to prevent as many future crimes as possible. Accurate targeting isn't feasible without this kind of information.

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 under-counts the actual amount of crime. This makes it impossible to know the size and scope of the real crime problem, and 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 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 over-reliance on traditional crime categories. These often do not include cyber-crime or other frauds (no matter how big the loss) and typically minimise the importance of crimes like simple assault, which deflects attention away from otherwise serious problems like domestic violence. Efforts are underway in several countries 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, shootings, and knifings often deserve the closest attention. In a small town or rural area, by contrast, vandalism/criminal mischief might be the most common and costly crime, and therefore one that would be important to measure, analyse, and report.

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. Or to put it in a negative way, when the perception is that crime pays, that offenders get away with their crimes, this can lead to lack of confidence in police, in the justice system, and in the government’s ability to protect its people. In the worst case, this leads to vigilantism, when people feel they need to take the law into their own hands. Less dramatically, it can feed cynicism and weaken the social bonds that hold communities together.

Police have traditionally measured their detection or 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 also usually track their numbers 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, however. To measure their effectiveness in relation to this element of their 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, since 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, merely looking at the prosecution rate or the conviction rate could be deceiving. But at the same time, if a police agency is making a lot of arrests that are not leading to prosecutions and/or convictions, there is a problem that needs to be addressed, as the outcome of “holding offenders to account” is not being achieved.

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. While 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 far exceeds the number who are murdered, and many 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. People in free societies have the right to peaceably assemble and demand the attention of their governments. 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 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, 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 neighbourhood, 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 prohibiting disturbing the peace and disorderly conduct are generally in effect, using discretion to negotiate the grey 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.

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 neighbourhood, 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 victimised are the most fearful. It is also common for improvements in police performance to go unrecognised 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 cred-

ibility. If crime is heavily 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 recognise that the police aren't actually on top of the situation. Similarly, if, for example, the police were to rely on their own perception in assuring the community that there was no 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 neighbourhoods but not others, some demographic groups (such as elders) might be most 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 most effective and to avoid wasting energy where it isn't needed (Cordner, 2010).

Sometimes it is possible to observe the consequences of public perceptions, such as few people using a neighbourhood park or protesters at a city council meeting. More often, though, surveys and interviews are used to gauge fear of crime and perceptions of police, providing data that can then be used to target reassurance efforts.

Providing Quality Services

Police get contacted for all kinds of reasons, including 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 closure for block parties, and background checks on childcare 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 just 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 24/7/365, neither of which is true of most

other service providers. Also, many social 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, it keeps falling back on the police to try to help the person or resolve the situation.

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; and (2) studies have shown that 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 fast the police show up (Spelman & Brown, 1982). 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 (McEwen et al., 1986).

The other principal indicator of good police service is the customer satisfaction survey. While “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 them, 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.

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 behaviour, 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 organisation’s highest priorities.

Police executives and the public need data on this aspect of the police function in order to judge how well an agency is meeting the mandate of using force and authority fairly and effectively. The number and circumstances of police shootings is obviously of high interest, but such metrics as the percent of arrests involving use of force beyond handcuffing, the number and percent of vehicle pursuits ending in crashes or injuries, and the percent 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 (Baumgartner et al., 2018). It is routine and expected that data on arrests, stops, searches, and use of force will be examined for disproportionate impact on people of colour, ethnic minorities, and women. A serious dilemma is that disproportionate impact is often found, but the data rarely provide much insight about the actual reasons for the disparity. Consequently, advocates and police sometimes debate whether there even is 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 “using force and authority fairly and effectively.”

Using Financial Resources Fairly, Efficiently, and Effectively

Since 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 executives 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, or domestic violence, or online child predators, or street gangs? Should every neighbourhood get the same level of patrol, or should it 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 slam-dunks. 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 organisation 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.

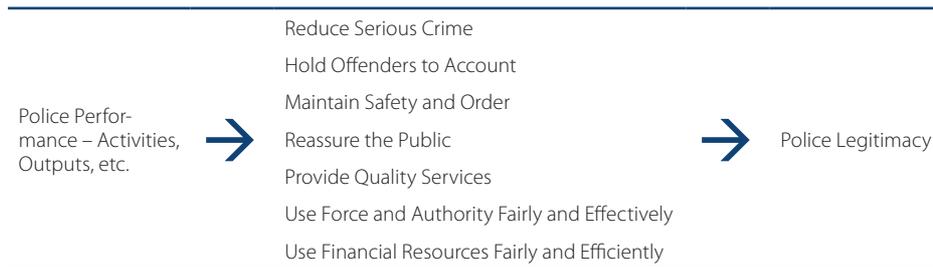
Effective use of resources pertains more to using practices that work best, and not using practices that don't work so well. This dovetails directly with evidence-based policing, the purpose of which is to make policing more effective. Thus, for example, following a practice like responding immediately to every reported crime is not an effective use of resources, since studies have shown that it produces neither more arrests nor more satisfied victims. But effectiveness also depends on more than just adhering to "what works" principles. It depends on data, because targeting only works if it is focused on problems that actually exist, where they happen, and when. And it depends on analysis that uncovers the mechanisms and conditions that fuel the problem, giving police guidance on 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 a sharp pencil and pinching pennies, but also (1) utilizing only those programs and practices that accomplish the best possible outcomes, plus (2) channelling the wisdom of Solomon to convince people and groups with competing interests that the police are being as fair as they possibly can in how they use their resources.

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 the diagram below, 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, 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 that police 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, comes the responsibility to use that authority wisely and effectively.



In recent years, studies have pointed to the significant impact of procedural justice on police legitimacy (Mazerolle et al., 2013). These studies have demonstrated that how police treat people, and whether the public believes that police act fairly in their encounters with people, affects 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 due to 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 others, police legitimacy is threatened not so much by the level of serious crime but because so few murders and shootings are solved. And then there are communities that

don't actually have serious crime problems, but police reassurance efforts have not been implemented or are not successful, so residents feel fearful and unprotected, though they shouldn't.

The best approach is to recognise that procedural justice is important, but it isn't the only thing that is important (Worden & McLean, 2017). Once again, the challenge is to keep the full bottom-line framework in mind, as each of its dimensions represents policing outcomes that matter to the public and that have the potential to strengthen or weaken police legitimacy.

Conclusion

Evidence-based policing is more than just conducting experiments, and it is more than figuring out how best to suppress street crime. It is essential to recognise that police agencies have multiple bottom lines, all of which matter, so evidence-based policing is about incorporating scientific methods into the enormous challenge of figuring out how to maximise the achievement of many different desired outcomes at the same time. Moreover, problems and circumstances change, requiring constant attention and a commitment to continuous improvement. Orchestrating this complex process requires skill, judgment, experience, and loads of craft knowledge. Adding evidence and science into the mix improves the chances of attaining the best possible outcomes.

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