



Problem-Oriented Guides for Police
Problem-Solving Tools Series
No. 9

Enhancing the Problem-Solving Capacity of Crime Analysis Units

Matthew B. White



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About the Problem-Solving Tools Series

The *Problem-Solving Tool* guides are one of three series of the *Problem-Oriented Guides for Police*. The other two are the problem-specific guides and response guides.

The *Problem-Oriented Guides for Police* summarize knowledge about how police can reduce the harm caused by specific crime and disorder problems. They are guides to preventing problems and improving overall incident response, not to investigating offenses or handling specific incidents. The guides are written for police—of whatever rank or assignment—who must address the specific problems the guides cover. The guides will be most useful to officers who:

- understand basic problem-oriented policing principles and methods
- can look at problems in depth
- are willing to consider new ways of doing police business
- understand the value and the limits of research knowledge
- are willing to work with other community agencies to find effective solutions to problems.

The *Problem-Solving Tools* summarize knowledge about information gathering and analysis techniques that might assist police at any of the four main stages of a problem-oriented project: scanning, analysis, response, and assessment. Each guide:

- describes the kind of information produced by each technique
 - discusses how the information could be useful in problem-solving
 - gives examples of previous uses of the technique
 - provides practical guidance about adapting the technique to specific problems
-



- provides templates of data collection instruments (where appropriate)
- suggests how to analyze data gathered by using the technique
- shows how to interpret the information correctly and present it effectively
- warns about any ethical problems in using the technique,
- discusses the limitations of the technique when used by police in a problem-oriented project
- provides reference sources of more detailed information about the technique and
- indicates when police should seek expert help in using the technique.

Extensive technical and scientific literature covers each technique addressed in the *Problem-Solving Tools*. The guides aim to provide only enough information about each technique to enable police and others to use it in the course of problem-solving. In most cases, the information gathered during a problem-solving project does not have to withstand rigorous scientific scrutiny. Where police need greater confidence in the data, they might need expert help in using the technique. This can often be found in local university departments of sociology, psychology, and criminal justice.

The information needs for any single project can be quite diverse, and it will often be necessary to use a variety of data collection techniques to meet those needs. Similarly, a variety of different analytic techniques may be needed to analyze the data. Police and crime analysts may be unfamiliar with some of the techniques, but the effort invested in learning to use them can make all the difference to the success of a project.

The COPS Office defines community policing as “a policing philosophy that promotes and supports organizational



strategies to address the causes and reduce the fear of crime and social disorder through problem-solving tactics and police-community partnerships.” These guides emphasize *problem-solving and police-community partnerships* in the context of addressing specific public safety problems. For the most part, the organizational strategies that can facilitate problem-solving and police-community partnerships vary considerably and discussion of them is beyond the scope of these guides.

These guides have drawn on research findings and police practices in the United States, the United Kingdom, Canada, Australia, New Zealand, the Netherlands, and Scandinavia. Even though laws, customs and police practices vary from country to country, it is apparent that the police everywhere experience common problems. In a world that is becoming increasingly interconnected, it is important that police be aware of research and successful practices beyond the borders of their own countries.

Each guide is informed by a thorough review of the research literature and reported police practice, and each guide is anonymously peer-reviewed by a line police officer, a police executive and a researcher prior to publication. The review process is independently managed by the COPS Office, which solicits the reviews.

The COPS Office and the authors encourage you to provide feedback on this guide and to report on your own agency’s experiences dealing with a similar problem. Your agency may have effectively addressed a problem using responses not considered in these guides and your experiences and knowledge could benefit others. This information will be used to update the guides. If you wish to provide feedback and share your experiences it should be sent via e-mail to cops_pubs@usdoj.gov



For more information about problem-oriented policing, visit the Center for Problem-Oriented Policing online at www.popcenter.org. This web site offers free online access to:

- the *Problem-Specific Guides* series
- the companion *Response Guides* and *Problem-Solving Tools* series
- instructional information about problem-oriented policing and related topics
- an interactive problem-oriented policing training exercise
- an interactive *Problem Analysis Module*
- a manual for crime analysts
- online access to important police research and practices
- information about problem-oriented policing conferences and award programs.



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Members of the San Diego; National City, California; and Savannah, Georgia police departments provided feedback on the guides' format and style in the early stages of the project.

Cynthia E. Pappas oversaw the project for the COPS Office. Research for the guide was conducted at the Criminal Justice Library at Rutgers University under the direction of Phyllis Schultze. Stephen Lynch edited this guide.



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Introduction

The theoretical framework of problem-oriented policing has evolved steadily over the past few decades and it has become increasingly clear how much the approach depends for its success on the careful analysis of data about crime problems. Indeed, problem-oriented policing and data analysis are highly interdependent. A framework for problem-oriented policing is of little use if good data are not available and, similarly, complex data about crime problems require a meaningful framework for analysis. In fact, methods of capturing and analyzing data about crime problems have rapidly developed at the same time as advances have been made in the theory of problem-oriented policing agenda.¹ Computerized crime data and geographic information systems (GIS) are just two examples.² Attracted by these developments, a cadre of young, well-trained analysts has been recruited into policing. Many of them have good technical skills and may even hold degrees in non-policing fields such as Geography that provide training in advanced mapping and GIS. They are eager to put their knowledge to work in order to “make a difference,” which is why many have opted to join police departments rather than work in some other public or private setting where they could earn much more money.

Police managers who wish to benefit from these developments and implement a program of problem-oriented policing must ensure that their crime analysts are properly inducted into the police environment and that their analytical work is fully integrated into departmental operations. They will then be able to take their proper role as central members of the team in problem-solving projects. This guide is intended to help police managers attain this goal.



Merely expanding analytical capacity cannot on its own further a commitment to problem-oriented policing within a department. Efforts to enhance the unit must be supported throughout the chain of command. High-level oversight and support is essential to the reallocation of traditional crime analysis duties and to ensuring that the work of the crime analysis unit maximizes the role of problem-oriented policing throughout the agency.

Crime Analysts and Crime Analysis Units

Crime analysts are known by many titles: police analysts, management analysts, intelligence analysts, research analysts, and planning analysts. Whatever they are called, however, their responsibilities—collecting, collating, distilling, interpreting, and presenting data and information—are similar. They are typically tasked with a long list of duties, such as diagnosing emerging crime trends, creating administrative reports, and identifying likely suspects. With developments in user-friendly technologies, some of these traditional functions might be performed by line officers or administrative assistants, but many will not; thus the core functions of the analysis unit must be preserved at the same time as its ability is enhanced to serve problem-oriented policing.

Despite the uniformity of duties, great diversity exists in and among analysts and analysis units. The advice contained in this guide would be of less value for very small departments with only one or two analysts on staff. It is primarily intended for larger departments with a separate crime analysis unit employing several analysts, some of whom might be recent recruits of the kind mentioned above.



Nine Questions

This guide is organized around nine fundamental concerns, framed here as questions, which must be addressed when developing a problem-solving capacity within a crime analysis unit. The starting point will vary with the existing resources within the agency and on the extent to which new resources can be deployed. The questions are as follows:

1. Are Your Analysts Able to Focus on their Core Analytic Function?
2. Are Your Analysts Learning about Problem-Oriented Policing?
3. Are Your Analysts Learning Problem-Solving Skills and Techniques?
4. Are Your Analysts Learning as a Team?
5. Do Your Analysts Have Adequate Technical Support?
6. Are Your Analysts Free to Be Objective?
7. Are Your Analysts Properly Integrated into the Decision-Making Process?
8. Is the Importance of Analysis Adequately Recognized in Your Department?
9. Are Your Analysts Properly Paid?

Some of these questions have simple actionable answers; others do not. Many cannot be addressed without the full cooperation of the head of the analysis unit. Still others will require seemingly simple solutions—but in the face of structures that are resistant to development and change. Moreover, care must be taken to ensure that progress does not erode in one area while your attention is directed elsewhere. Attending to each question increases the likelihood that the crime analysis unit will contribute meaningfully to your departmental problem-solving efforts.



Are Your Analysts Able to Focus on Their Core Analytic Function?

Analysts are often asked to perform a variety of non-analytical tasks, including providing computer and software support, secretarial and administrative assistance, and audiovisual and other technological aid. They are often assigned these duties because no one else is available to do them. Consequently, much of their time is spent doing other things. Their skills become more general, rather than specialized, as their time is frittered away on a scattering of requests and demands. If analysts are to perform high order analytical tasks, they must be free from non-analytical duties. Analysts should not be used to cover for departmental shortfalls, technical or otherwise. Neither should they be a crutch for poor resource allocation, training, or time management. Analysts will never fill their proper roles and functions if they cannot be fully committed to them.

In addition to protecting analysts from non-analytical duties, the evolution of problem-solving requires that routine analysis be put on hold at certain periods of time. Analysts must be able to dedicate time and effort to learning the new tools and methods needed for problem-solving. They must consistently sharpen their skills and knowledge over time.

Too often, crisis management and recurring obligations (e.g., weekly briefings or monthly reports), even when appropriately assigned, can prevent the development of new skills and capacities. Moreover, developing the specialized skills necessary for problem analysis requires ongoing assignment of staff. Consistency and balance in personnel is critical to ensuring that skills are developed and enhanced. The biggest long-term risk to analysts is a lack of professional progression.



Any group of analysts possesses inconsistent skill sets; and indeed, varying skills can be of great benefit to the unit as a whole if properly managed. However, this can result in a disproportionate workload if some skill or another is more needed or appreciated. Thus, you should avoid relying too heavily on any one analyst or any one particular skill. Rather, attempt to establish consistency through training, information sharing, and collective brainstorming. Skills that are shared among analysts will ensure a more balanced workload.

Recommendations

1. Ensure that your analysts spend most of their time doing analysis and that they are properly trained for their role. Look closely at what they are doing and deal with the reasons they are not doing more analysis. This might not be easy: often it is shortcomings in other areas (information technology, administrative support, command structures, legal compliance, etc.) that create extraneous burdens on analysts.
 2. Help analysts distinguish the important from the urgent. Analysts often find it difficult to find time to complete the important, because of the constantly urgent. Problem-oriented policing often suffers because, while potentially far more important, it is not as *urgent* as what is needed to put out the latest 'fire'.
 3. Consider overtime or other incentives if extraneous duties push your analysts' problem-oriented work to the back burner.
-



Are Your Analysts Learning about Problem-Oriented Policing?

Most analysts have had only limited exposure to the principles of problem-oriented policing and some traditionally trained analysts have never heard of it at all. They must therefore be trained in the core concepts of problem-oriented policing. As a first step, analysts should be encouraged to read *Crime Analysis for Problem Solvers*³ and to consult materials on www.popcenter.org, the web site of the Center for Problem-Oriented Policing. They should also be encouraged to attend training sessions and seminars, including the annual Problem-Oriented Policing Conference and the annual meetings of the International Association of Crime Analysts, where they can network with other like-minded analysts. If budgeting allows, consider hiring experts as departmental consultants and allow analysts to visit agencies with a track record of successful problem-oriented projects. Finally, analysts should be given every opportunity to participate as integral members of the team in problem-oriented projects. Practical experience will help them develop the confidence to apply new techniques and might even allow them to find new uses for old techniques.

Most police meetings about problems are not problem-oriented in nature; neither do they provide the same experience as problem-oriented policing projects. Managers should guide these projects to ensure that problem-solving efforts remain at the core of the approach. A cornerstone of effective guidance and supervision for crime analysts is nurturing a relentless and methodical approach to attacking problems. Problem-oriented methods do not always lead to quick success and, in fact, trial and error learning is expected. This is in contrast to traditional policing approaches, which



focus on immediate responses to changing needs and circumstances. Analysts who are used to operating along such traditional lines often struggle with the longer term needs of problem-oriented projects. Scope creep, loss of focus, and confusing tactical responses can fray the edges of any effort. When combined with the myriad challenges associated with real world problem-solving, these seemingly minor difficulties can lead to disappointment and disillusion.

It is therefore vital to instill the methodical long-term nature of problem-oriented policing in a team accustomed to non-methodical, short term tasks. When this is done successfully, analysts can sometimes be the glue that holds a project together because their methodical operations push the project from one stage to the next.

Recommendations

1. Budget time and money for training in problem-oriented policing. Allow your analysts to attend training sessions, to acquire books and materials, and to elicit expert advice as needed.
 2. Ensure that analysts understand the relatively long-term nature of problem-oriented policing projects and the part that they can play in driving forward the project by rapidly answering and raising new questions that are revealed by analysis.
 3. Inexperienced problem-oriented analysts and their teams often need oversight or coaching to ensure that a project progresses. If this oversight cannot be provided in-house do not hesitate to bring in problem-oriented expertise from outside the department to take on this role.
 4. Ensure that analysts work with commanders who understand their roles and needs and who share the problem-oriented policing vision.
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Are Your Analysts Learning Problem-Solving Skills and Techniques?

Traditional analytical skills closely mirror those needed by problem analysts. Both need timely and accurate information and both engage in similar analyses to distill data. Police data is heavily relational; analysts of both types must understand the nature of these relationships and how they can be deconstructed. However, problem-solving calls for a different application of technology and data than traditional tactical analysis. In particular, it requires the analyst to expand the breadth and scope of the data in order to be able to, (1) analyze the diverse factors that contribute to a particular problem and, (2) assess the effectiveness of the responses implemented.

Good data is at the heart of good analysis and it is important that analysts dedicate time to establishing a timely flow of appropriate data. Because data collection is rarely done with sophisticated analysis in mind, data must often be processed for analytical needs. Moreover, because the data flow must be dynamic, changes to data processing are often necessary. As analysts get more sophisticated and the analytical process gets more streamlined, so should the data. Without consistent and accurate data, much of the time and money spent on tools and techniques will be wasted. Flexibility and creativity are more likely to produce better and faster results than are more complicated or sophisticated software products and techniques.

Problem-solving also sometimes requires analysts to seek out or even create data sets that have never existed before. Analysts engaged in real world problem-solving are less reliant on traditionally-structured quantitative data. Qualitative and unstructured data (including free-form field reports and other unstructured narratives) take on great importance in many



problem-solving efforts. Problem-solving analysts must be adept at sifting and shaping these data sets into a cohesive form that can provide meaningful insight into a specific crime problem. But they must also possess an understanding of traditional policing practices and must be able to synthesize their analytical training with traditional theories, data, and technologies. It is this combination of skills—analytical and practical—that makes problem-solving analysts so valuable.

This guide does not consider individual software applications, databases and data structures, or specific analytical techniques. In fact, the only professional consensus seems to be in the types of technologies that are useful—i.e., relational databases, spreadsheets, statistical software, geographic information systems, web technologies, reporting software, link software, text analytics software, online analytical processing (OLAP) software, and so forth. There is certainly no consensus regarding specific hardware or software applications; the best methods for storing, retrieving, and processing various data types; or the best methodologies to apply to specific problems. Moreover, any consensus would likely be short-lived, as all of these applications and processes are subject to dramatic change as technology and methodology evolve due to cost, scale, experience, and any number of other factors.

Automation and newer, easier to use tools are a constant; data storage, structures, and mining techniques change. Analysts should be at the forefront of these evolving skills and technologies. They must be able to take advantage of everything that the current technologies offer while at the same time having the freedom to explore advances that will allow them to maximize their effectiveness in the future. Managers should work to create a professional environment that allows analysts to remain current with evolving technologies so that they can converse fluently with information technology personnel.



Recommendations

1. Ensure that analysts are constantly exploring new tools and techniques that will make them faster and more flexible.
2. Help analysts get the data they need; do not assume that web sites or software packages will suit their needs.
3. Work to prevent analysts from relying on programming they do not fully understand.
4. Always ensure that new technology is tested on your department's own data to make sure that it suits your particular needs.

Are Your Analysts Learning as a Team?

Although the analytical duties related to any particular problem-oriented policing project can usually be performed by a single analyst, their close association with other like-minded individuals is vital. Relying on others to provide access to information, explanations, and interpretations is critical. Analysts should not be isolated for extended periods of time—either from their peers within the agency or from the network of problem-solving crime analysts across the country. Staying connected to other problem-solving analysts and professionals inside and outside their own agency will allow analysts to keep up with new developments in technology, to become aware of best practices, to increase efficiency, and to learn new skills. Their connection to other problem solvers can strengthen their commitment to problem analysis.

Analysts are often physically relocated to be closer to the team members whose work they are to support. This has obvious advantages, but it can fragment the network of analysts, who are likely to thrive among their peers. Worse,



prolonged relocation can dull the specialized skills and knowledge that makes analysts unique. It is important to recognize that analytical decentralization can carry long-term disadvantages that might outweigh short-term benefits. Even when centralized, however, analysts should not be tied to their desks. Managers must balance in-house duties with out-of-office time that will allow analysts to build networks that can aid in problem-solving. This can include remote meetings, joint data collection efforts, research trips, and a host of other activities that can enhance their ability to impact people and problems.

Whether analysts are housed together or are deployed throughout the department, it is important to strike a balance between short-term tactical goals and long-term developmental objectives. Coordinating problem-solving efforts and nurturing progressive analysts well suited to their mission requires that analysts work and learn as a team. Of course, certain analysts will acquire specialized skills and interests over time. Although the full breadth of analytical knowledge and skill should be acquired by all team members—cross-training and role switching is very important to any analyst's growth—some specialization can also be efficient. However, as with any assignment, teamwork should be aggressively promoted.

Recommendations

1. Ensure as much centralization as possible, even if it is only based on ongoing cross-training and information sharing.
 2. Ensure that analysts who are centralized are also mobile; they should regularly spend time with those they support while at the same time having access to a full array of tools, data, and peer support.
-



3. Recognize that providing diverse tactical and technological support can endanger collective analytical progress. To counteract this, set a baseline for acceptable overall skills and knowledge and hold all team members to it, regardless of their specific roles.
4. Consider personality and new skill sets when hiring with an eye to building a diverse analytical unit that can operate as a team while at the same time assisting each other in their professional growth.

Do Your Analysts Have Adequate Technical Support?

The support of information technology specialists is needed throughout all sectors of a police agency, but is nowhere more critical than within the crime analysis unit. Crime analysts are not programmers, database architects, or network engineers; rather, they rely heavily on the expertise of these individuals to create and maintain much of the data, infrastructure, hardware, software, and other tools needed to support their job functions. Given this support, analysts will make more of the data, better tool choices, experience fewer software problems, create less problematic databases, and develop more efficient analytical plans.

In fact, better technology will improve analytical efficiency especially when dealing with non-traditional data. Many problem-solving efforts take far too long and are far short of the quality that could have been achieved because of a lack of appropriate data and technology. Although advanced technology is not necessary for limited or pilot analysis projects, it is critical to the implementation of efficient institutional problem analysis.



Some analysis units owe their successes to technical support that is integrated into the unit. In-house technological support is sometimes born of necessity, because police information technologists are often focused on the needs of officers and commanders, rather than on those of analysts. Moreover, analysts often require tools and techniques that are far ahead of what agency programmers can provide. In fact, it is often analysis that drives technological innovation. Giving analysts technical priority might be resisted, but it can actually improve responsiveness and efficiency department-wide by providing patrol officers with products and methods that are precisely tailored to effective crime and disorder reduction. Although problem-solving is about much more than just technology and data, downplaying their importance will hamper projects sooner rather than later. If managed properly, growing analytical sophistication can improve information technology throughout the agency—and by doing so prevent drag on institutional problem analysis.

Recommendations

1. Help build a strong and positive working relationship between analysts and information technology staff, but do not force analysts to rely on information technologists who cannot commit to their needs.
 2. Because many technology units are barely able to support current departmental-wide needs, a rapidly evolving technical crime analysis staff can quickly overwhelm technology units with requests. If no other solution can be found, consider allowing the analysis unit to hire its own experts and programmers, which will allow it secure and direct access to the data it needs. While this might be resisted by the technology department, it is a model that has proven successful in many cities.
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Are Your Analysts Free to Be Objective?

In many agencies, analysts do not feel free to provide information that contradicts desired outcomes. This can occur for a number of reasons. Some analysts might feel too intimidated to risk offering strategic suggestions that are at odds with established opinions. In other instances, analysts might not have the credibility or clout to make their opinions heard. Well-intentioned analysts who want to improve their working relationships with decision-makers might sacrifice their objectivity to achieve acceptance and inclusion; even well-regarded analysts can struggle with objectivity because of their desire to stay integrated in decision-making circles.

However, challenging traditional assumptions is critical to quality problem-solving; no resource is more valuable to this end than an objective and well-prepared analyst. The analyst's role is to offer methodologically-sound analysis that leads to a multi-faceted understanding of a problem, to ensure that responses flow directly from these analyses, and to evaluate the effectiveness of the response strategies. In so doing, objective analysts increase efficiency by ensuring that resources are properly and effectively allocated. In addition, objective and well-trained analysts allow police executives to defend controversial decisions more easily and allow for greater accountability. This benefit is often overlooked by police managers.

Objectivity should be encouraged and defended and analysts should be allowed to challenge accepted beliefs and conventional wisdom. Analysts who have done their homework provide information that can bruise egos in poorly managed efforts. But their alternate interpretations of situations and data can be critical to enhancing problem-oriented approaches. Rather than infringing on the expertise of decision-makers, such analysts fulfill a core function.



Recommendations

1. Encourage well-prepared analysts to respectfully disagree—even with high level commanders and even in front of subordinates.
2. Lead by example: where appropriate, allow analytical recommendations and opinions to carry weight and allow analysis to help drive decision-making.
3. In short, trust your analysts; and when they fail, focus on fixing the circumstances that lead to analytical shortcomings, rather than on placing blame.

Are Your Analysts Properly Integrated into the Decision-Making Process?

One of the most disturbing realities in many police agencies is that quality analysis is often not integrated into decision-making practices. Sometimes, it is completely absent. This is bad for the community because it can lead to weak crime solving efforts and bad for police because it can leave the department open to criticism if traditional methods fail.

In many cases, analysis is only used to support strategies or programs that are already in place. When true analytical guidance is desired, analysts are often too far removed from decision-making process to have any impact. And even when their input is sought and accepted, analysts are often expected to return quickly to their other duties and are excluded from continuing problem-solving efforts.

Early involvement by analysts can be crucial to effective problem-solving. Only then can they fully understand the problem at hand—and be able to provide the research and analysis that might allow others to avoid assumptions, often based on conventional wisdom or traditional practices, which are flawed and which can lead to failure.



Because acting as a decision-maker can be intimidating, supervisors must clearly identify the analyst's role and be vocal about what the analyst has to offer. With the appropriate support, a capable analyst's credibility and reputation will grow. In time, such an analyst will be relied upon to define problems, to help craft responses, and to methodically evaluate the effectiveness of the solutions that are implemented, thus helping to build a consistent and cohesive problem-oriented paradigm throughout the agency.

Recommendations

1. Ensure that analysts have access to decision-makers of all ranks and that they are engaged from start to finish of a problem-oriented policing project. They should be brought in at the beginning to help define the problem, rather than being asked to provide analysis after the fact.
 2. Do as much as you can to break down barriers between your officers and analysts. Commanders should be encouraged to spend time with analysts on a regular basis and they should be encouraged to discuss recurring problems with officers and analysts alike.
 3. Allow analysts to attend high level meetings and encourage them to speak their minds. Require them to keep commanders informed of progress through regular reporting and accountability.
 4. Where possible, allow forward-thinking analysts to support progressive police leaders. This will maximize the likelihood for success and provide informal reinforcement for analysts and staff alike. If done consistently and fairly, these progressive leaders will become natural candidates for promotion.
-



Is the Importance of Analysis Adequately Recognized in Your Department?

Policing is one of the few remaining professions that generally holds analysis in low regard. Many police agencies do not even recognize the need for professional analysts, much less celebrate the accomplishments of those skilled in problem-solving. In too many departments, analysts play roles akin to those played by administrative or low-level technical assistants. Where they are elevated, it is largely due to tactical expertise, and even then analysts must be careful not to step on the toes of officers or senior police. In fact, detectives, the members of specialized units, and patrol leaders often feel compelled to keep analysts at arm's lengths, unless they have direct supervisory control over their activities. It is absurd—but common—that these individuals fail to recognize that policing decisions are far more effective when influenced by an informed team of engaged analysts.

This is partly because police often underestimate the skills and expertise of crime analysts. On the one hand, analysts may be viewed as less technologically competent than information technology professionals and software engineers; on the other, their knowledge of policing is thought to be no better than that of lay citizens. These comparisons are inappropriate, because a good crime analyst has independent and specific knowledge of computers and policing that goes well beyond these other groups. Thus, analysts must be seen in their proper context: as professionals who have essential training, experience, and skills that help improve the effectiveness of efforts to reduce crime and disorder.



If innovative responses to crime prevention are to thrive, the agency must reward those analysts who embrace creativity and who develop new skills and expertise. In most police agencies, recognition and reward are tied to practices that result in a high volume of arrests. Although it is not necessary to sever the link between reward and arrests, the means by which these arrests are obtained should be considered. Arrests can be generated from an initiative that does little to address the underlying dynamics of the problem, or they can come from an effort to target the people, places, and conditions that create opportunities for crime. The latter is more likely to bring about a lasting drop in crime and is more likely to occur when creative analysts are teamed with patrol officers and supervisors who are well versed in problem-oriented policing. These efforts should be publicly recognized and rewarded if problem-solving is to flourish within the crime analysis unit. By so doing, analysts will begin to understand and appreciate their essential role in supporting problem-solving efforts and begin to feel passionate about problem-solving. Such recognition also plays an important part in retaining highly trained analysts — a major challenge for police agencies.

Recommendations

1. Work to ensure a balance between rewards and recognition for both tactical and problem-oriented analysis. Do not hype tactical successes that involve simple solutions, such as basic data searches.
 2. Do not wait for success to praise problem-oriented thinking; encourage it at every stage. Bring innovative problem-oriented analysis to the attention of command staff at the highest levels.
 3. Point out where a lack of problem-oriented thinking leads to doing the same things over and over and challenge conventional police wisdom when research studies do not support it.
-



Are Your Analysts Properly Paid?

Consider the skill set required for problem-solving crime analysts. They must:

- master numerous, complex software packages
- know how to obtain, manipulate, and use relational data
- understand research techniques and statistical methods
- understand the relative merits and drawbacks of many analytical techniques
- understand the tenets of problem-oriented policing
- possess a broad and in-depth knowledge of policing in general
- be versed in various aspects of crime theory
- be able to lead or coordinate the analytical process while dealing with a diverse group of stakeholders
- be able to communicate effectively with both officers and command-level managers.

With this range of highly specialized skills should come commensurate compensation, but this is rarely the case. Instead, police agencies depend on internal promotions and transfers or the attractiveness of a stable government position with good benefits to attract qualified candidates. Analysts with comparable skill sets are paid far more in the private sector.

The lack of parity in salary with the private sector and the low rank and status typically afforded to analysts within police departments are largely to blame for the difficulty in attracting and maintaining a group of qualified analysts. High-quality analysts deserve salary and status befitting their skill sets and potential contribution. The other side of the coin is that expectations of your analysts should be relative to their pay and their status. With the proper leadership and training, highly paid analysts will quickly show their worth.



If you hope to advance problem-oriented policing, you should not base salaries on those paid by departments with a lesser commitment to analysis and problem-solving. Remember that the value of analysts does not come down merely to the skills they possess or the tools they use or any other particular factor: ultimately, value is measured by the effectiveness of the solutions they propose and the efficiency of their professional outputs, given the tools and data that are available to them and the technological constraints under which they operate.

Recommendations

1. Pay analysts commensurate with their abilities and demand excellence in return for your investment. Do not base salaries on what analysts earn elsewhere. Instead, examine what other agencies do and how they do it; compare their technological skills and problem-solving capabilities with those of your own agency and pay salaries accordingly.
2. Be aware that many competent analysts in other departments are saddled with difficult working conditions. If you find such people, recruit them. They might appreciate the opportunity to work in an analytical environment that is more conducive to personal and professional growth.



Conclusion

Developing a group of skilled problem-solving crime analysts is a requirement for police agencies committed to problem-oriented policing. Crime analysts can play a central role in helping problem-solving projects to succeed. Indeed, they can often provide the driving force to ensure that the project team moves from one stage to the next in a logical progression. To play this role consistently requires them to be given training and support and to be integrated more fully into project teams and into the decision making of departments. This will require a considerable investment of time and effort from their superiors and supervisors as well as from the analysts themselves. Thus, agencies that wish to drive forward problem-oriented policing will need to consider carefully how best to build the needed analytic capacity. The nine questions outlined in this guide can serve as the starting point for this task. Once in place, problem-oriented analysts can make a dramatic and lasting impact on an agency's ability to respond to crime and disorder.



Endnotes

1. Clarke and Eck (2005); Bynum (2001); Weisel (2003).
 2. Chainey and Ratcliffe (2005); Boba (2005).
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Matthew White is the manager of the Crime Analysis and Research & Development Units of the Jacksonville (Florida) Sheriff's Office. He has overseen the Crime Analysis unit's re-engineering, pioneered new technology, introduced multi-jurisdictional analysis, and grown the unit from six to eighteen analysts. White was previously a management analyst for the Charlotte-Mecklenburg (North Carolina) Police Department. He has worked as an instructor and consultant for the Carolinas Institute for Community Policing. He is a frequent speaker at conferences and universities and a consultant to other police agencies. White received his master's degree from Florida State University in international affairs where he concentrated on Eastern European crime issues.



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