

Integrated Intelligence and Crime Analysis: Enhanced Information Management for Law Enforcement Leaders



Jerry H. Ratcliffe, Ph.D.
Second Edition

This guide, developed by the Police Foundation with support from the COPS Office, examines the disconnect between crime analysis and intelligence analysis found in many of the nation's law enforcement agencies. Smart deployment of resources at the tactical, operational and strategic level requires analysis of both crime data and criminal intelligence information, preferably in an integrated fashion. This book looks at ways in which departments can encourage information sharing between crime analysts and the special units that typically manage criminal intelligence for the purpose of presenting an analysis of all known information to aid in problem-solving efforts.



Police Foundation
1201 Connecticut Avenue, NW
Washington, DC 20036-2636
www.policefoundation.org





Integrated Intelligence and Crime Analysis:

Enhanced Information
Management for Law
Enforcement Leaders

Jerry H. Ratcliffe, PhD

COPS

COMMUNITY ORIENTED POLICING SERVICES
U.S. DEPARTMENT OF JUSTICE



POLICE
FOUNDATION

The Police Foundation is a national, independent, nonprofit organization dedicated to supporting innovation and improvement in policing. Established in 1970, the foundation has conducted seminal research in police behavior, policy, and procedure, and works to transfer to local agencies the best information about practices for dealing effectively with a range of important police operational and administrative concerns. Motivating all of the foundation's efforts is the goal of efficient, humane policing that operates within the framework of democratic principles and the highest ideals of the nation.

The Office of Community Oriented Policing Services (COPS) was created as a result of the Violent Crime Control and Law Enforcement Act of 1994. A component of the U.S. Department of Justice, the COPS mission is to advance community policing as an effective strategy in communities' efforts to improve public safety in jurisdictions of all sizes across the country. Community policing represents a shift from more traditional law enforcement in that it focuses on prevention of crime and the fear of crime on a very local basis.

This project was supported by Cooperative Agreement #2005-CK-WX-K004 by the U.S. Department of Justice, Office of Community Oriented Policing Services. Points of view or opinions contained in this document are those of the author and do not necessarily represent the official position or policies of the U.S. Department of Justice or the Police Foundation.

© 2007 by the Police Foundation. All rights, including translation into other languages, reserved under the Universal Copyright Convention, the Berne Convention for the Protection of Literary and Artistic Works and the International and Pan American Copyright Conventions. Permission to quote readily granted.

ISBN 1-884614-21-3

978-1-884614-21-7

August 2007



1201 Connecticut Avenue, NW
Washington, DC 20036-2636
(202) 833-1460
Fax (202) 659-9149
Email: pinfo@policefoundation.org
www.policefoundation.org



U.S. Department of Justice
Office of Community Oriented Policing Services
1100 Vermont Avenue, NW
Washington, DC 20530
800-421-6770
E-mail: askCopsRC@usdoj.gov
<http://www.cops.usdoj.gov/>

Integrated Intelligence and Crime Analysis: Enhanced Information Management for Law Enforcement Leaders is available online at <http://www.policefoundation.org/docslibrary.html> and <http://www.cops.usdoj.gov/>

Table of Contents

Foreword	v
Acknowledgements	vii
Executive Summary	1
The 2005 Forum on Intelligence and Crime Analysis	4
What is the Purpose of this Report?	5
Criminal Intelligence and Crime Analysis	8
What is Intelligence Analysis?	8
<i>Tactical Intelligence</i>	10
<i>Operational Intelligence</i>	10
<i>Strategic Intelligence</i>	11
What is Crime Analysis?	13
What Crime Analysis is Not	15
The Need for an Integrated Analysis Model	15
What Does this Mean for Police Chiefs?	17
What is an Integrated Analysis Model?	20
How Might an Integrated Model work?	21
The Benefits of an Integrated Analysis Model	23
Hindrances to Integrated Analysis	25
Potential Barriers	25
Police Culture	28
Jumpstarting Integrated Analysis	30
Expecting More from Analytical Thinking	33
Developing Integrated Analysis: Checklists for Action	35
Checklist for Executives	35
Checklist for Analysts	35
Resources	36
References	37
Biographies of Participants in the Forum on Intelligence and Crime Analysis	38

Foreword

Law enforcement agencies rely on a multitude of information sources and utilize a variety of approaches to prevent and respond to crime and disorder problems. These approaches, whether broad or specific, are typically tactical, operational, or strategic, and each requires that information be collected, synthesized, and analyzed into a usable format.

The sources of information may vary (arrest data, wiretaps, informants, crime data, etc.) depending on the objective, but the analysis of these sources into useful information and data is largely the task of law enforcement analysts who focus their efforts on trying to identify crime patterns, trends, and linkages between individual offenders and/or organized groups.

Generally speaking, intelligence analysis involves the development of critical and substantive products that support law enforcement decision-making efforts that are centered on organized criminal activity. Crime analysis, on the other hand, involves the use of various geographical and socio-demographic information, in combination with spatial techniques, to analyze, prevent, and solve crime and disorder problems. Both disciplines are essential to law enforcement operations, but their ability to provide greater analytical and investigative support has been hindered by the lack of integration between the two units due to various issues, such as departmental policies, the police culture, and a lack of leadership.

Over the past few years, much debate and discussion has surfaced within the law enforcement analyst community about the culture and operational functions of these units. Information from the intelligence unit is typically considered confidential and thus is perceived to be of greater value because of its sensitive nature. On the other hand, crime analysis information is less sensitive and is used more widely throughout agencies. In many cases, law enforcement agencies tend to position the intelligence capacity at a separate level within the organization, creating a further divide with other analytical units such as crime analysis. Of particular importance, however, given the nature and scope of intelligence and crime analysis units, is the issue of why they do not work more closely together to provide a more holistic approach to crime problems and to better inform decision makers about the problems affecting the communities they serve.

Police managers and leaders tend to rely heavily on the range of products that both intelligence and crime analysis units provide to inform their decision-making process with respect to crime prevention, deployment strategies, and crime suppression. Better coordination between these two analytical units can enhance both the quality of those products as well as the support they provide decision makers. This report documents the issues and recommendations made by a

group of distinguished law enforcement practitioners, researchers, and policy makers that convened at the Police Foundation in November 2005 to discuss the integration of crime and intelligence analysis. We hope that this report contributes to a greater understanding of the importance of utilizing intelligence and crime analysis units more effectively to assist law enforcement managers and leaders with their tactical, operational, and strategic decisions.

Hubert Williams
President
Police Foundation

Acknowledgements

This report would not have been possible without the contributions of the participants of the 2005 Forum on Intelligence and Crime Analysis. We greatly appreciate their insight and candor. We are especially grateful to Dr. Jerry Ratcliffe who led the forum discussion and authored this report, drawing on the comments of the participants and his considerable knowledge of and experience in intelligence and crime analysis.

The Police Foundation gratefully acknowledges the Office of Community Oriented Policing Services, U.S. Department of Justice, for its support of this project, particularly Dr. Matthew C. Scheider, Amy Schapiro, and Deborah Spence for their participation and assistance throughout the course of this project.

We thank the following current and former Police Foundation staff and fellows for their support in producing the forum and this report: Karen Amendola, Greg Jones, Mary Malina, Joe Ryan, Sergeant Terril Shoemaker, and Heather Tubman.

Executive Summary

Law enforcement executives are increasingly recognizing that they are no longer in an information-poor world: data and information about the criminal environment and criminal activity abound. The challenge is to corral this wealth of data into knowledge that can enhance decision making, improve strategies to combat crime, and increase crime prevention benefits. In other words, the aim is to convert data and information into actionable intelligence.

In many cases, however, this increase in data has not necessarily translated to an increase in knowledge. The structure of information handling processes within policing is not set up for the new millennium and ideas about intelligence management and dissemination from the 1970s still pervade the thinking and organizational culture of police agencies in the twenty-first century. While many executives get access to crime analysis, sometimes through Compstat meetings or similar briefings, criminal intelligence is not integrated into the picture and executives make key decisions without access to all of the pertinent knowledge available within their organization.

For much of the history of law enforcement, criminal intelligence—information that relates to the activities of criminal individuals or groups of offenders—was retained by specialized units or by individual detectives. Even with the introduction of intelligence units, these analytical groups often kept their information within the narrow confines of their specific unit. The focus of intelligence units was first and foremost on reactive, investigative support. This situation continues in most places today. For example, narcotics intelligence units do not share intelligence beyond their units, and street gang intelligence units do the same. In the new environment of intelligence-led policing, these information silos are too valuable as strategic resources for the whole police department to squander on the needs of an individual investigator or unit. As we learn more about the abilities of organized crime groups to involve themselves in a range of criminal enterprises such as street crime, narcotics, human smuggling, and money laundering, it has become necessary to restructure law enforcement analytical services to better reflect this criminal environment. The risks are too high to stick with unit isolation and specialization out of simple bureaucratic convenience.

To change this situation will require executive leadership within policing. The purpose of this report is to provide the necessary information for police managers to implement change and embrace the information-rich environment of modern policing. The document is also of value to intelligence analysts and crime analysts wishing to get greater traction from the intelligence they produce.

The central themes and recommendations originate from an intelligence and crime analysis forum, convened by the Office of Community Oriented Policing Services, U.S. Department of Justice, and the Police Foundation's Crime Mapping and Problem Analysis Laboratory at the end of 2005. Eighteen practitioners, policy makers, and researchers were brought together to address the crime analysis and criminal intelligence needs of the future, and their thoughts and quotes influence and enhance this work.

The net result of these endeavors was endorsement of an integrated analysis model. By blending crime analysis with criminal intelligence, it is suggested that crime analysis can provide the *what is happening* picture of the criminal environment, and criminal intelligence can provide the *why it is happening*. These two components, used in combination, are essential to a more complete understanding of criminality necessary to formulate effective crime reduction and prevention strategies. The integrated analysis model will allow executives to see the big picture of criminality and from this knowledge access a wider range of enforcement options. Furthermore, this can allow a more fluid response to crime, one that is based on a realistic model of analysis that better mimics the criminal environment.

Intelligence-led policing is a business model and managerial philosophy where data analysis and crime intelligence are pivotal to an objective, decision-making framework that facilitates crime and problem reduction, disruption and prevention through both strategic management and effective enforcement strategies that target prolific and serious offenders.

Source: Ratcliffe, J.H. (Forthcoming 2008). *Intelligence-Led Policing*. Cullompton, Devon, UK: Willan Publishing.

However, the hindrances to the development of this model are not insignificant and will require a better understanding by police managers of the business model that is modern intelligence-led policing. For example, problems discussed in this report include: issues of civilianization, differing missions and terminology between crime analysts and criminal intelligence officers, isolationist and case-specific thinking instead of concentrating on the big picture, perceived legal restraints on intelligence analysts, and a lack of training and education. Most importantly, there is a resistance from police culture and a lack of leadership from police executives. Perhaps the most pressing issue—one that is crucial for the success of intelligence-led policing in the U.S.—is the lack of executive training. Many police leaders received their training and initiation into policing in a different time when investigators were the only people who used covert information and experience was the key to promotion into leadership positions. Information resources beyond the odd map with some pins were generally unheard of, and experience and gut feeling were the compass that guided most senior officers. Reactive, case-by-case investigation is now known to be ineffective in stemming the flow of crime, and covert and information resources have to be used more strategically. Intelligence-led policing requires a greater integration of covert information, criminal intelligence, and crime analysis to better manage risk and to support proactive policing that targets enforcement and promotes crime prevention. This new approach requires police leaders to learn and embrace a new way of thinking about knowledge and risk, and it also demands a new organizational approach for the police department.

Stemming from the work of the forum participants, it has been possible to make a number of key recommendations. First, police chiefs should strive to better understand the central tenets of intelligence-led policing and work more closely with analysts. Articulating the vision of the police department should be matched by an organizational restructuring of the information sections of the department to increase managers' access to intelligence. Secondly, there are a number of issues that managers and analysts should take heed of, including: resolving technological barriers; better understanding legal and privacy constraints in order to maximize intelligence-sharing; building connections with other analysts; and learning about problem-oriented policing and community policing.

The challenges of the new information-rich, post-9/11 age require effort to resolve and leadership to implement. The forum pinpointed the key challenges limiting criminal intelligence sharing, advocated for the integrated analysis model, and identified the way that all police departments, big or small, can work individually and collectively towards the new intelligence-led policing paradigm of modern policing. There is now a need for police executives to step up and decide if they are ready to tackle the cultural and organizational barriers within law enforcement, action necessary to making intelligence-led policing a reality.

The 2005 Forum on Intelligence and Crime Analysis

Towards the end of 2005, the Office of Community Oriented Policing Services, U.S. Department of Justice, and the Police Foundation's Crime Mapping and Problem Analysis Laboratory brought together a group of eighteen practitioners, policy makers, and researchers for a forum that aimed to identify the current state of criminal intelligence and crime analysis in the United States, and to describe where this relationship might, or should, go in the future (see Biographies of Participants in the Forum on Intelligence and Crime Analysis at the end of this report). The discussions lasted two days and were semi-structured in format. This enabled the forum moderators to allow participants to elaborate and expand on responses, while maintaining a focus on a number of issues that had been raised at an earlier meeting. The earlier meeting occurred at the 2005 annual training conference of the International Association of Law Enforcement Intelligence Analysts, where a group of twelve (predominantly practitioners) had identified some initial focus points that were used to initially direct the main forum. Other than Police Foundation staff, only Jerry Ratcliffe and Marilyn Peterson were present at both sessions. Quotes from forum participants appear throughout this report.

What is the Purpose of This Report?

Police chiefs and law enforcement policymakers who are tasked with crime reduction and prevention responsibilities need quality information in order to make good decisions. How best should they receive this information, and how should they organize their department to make the best use of information? Ideally, information passes through the hands of an analyst so that it can be combined, filtered, synthesized, and placed into context with other information so that the end result, an intelligence product, can give decision makers a succinct picture of the criminal environment. Nearly every modern policing strategy, from problem-oriented policing to Compstat and intelligence-led policing, requires an analysis of the criminal environment as the starting point to choosing a crime reduction strategy. This report addresses the creation of a more holistic analysis of the criminal environment. The goals are better policing, more targeted responses, effective crime prevention, and less crime.

Criminal intelligence, as it is commonly operationalized, can provide decision makers and police chiefs with a snapshot of criminality and criminal behavior. Crime analysis can provide police leaders with an understanding of crime patterns and trends. Without this understanding of both crime patterns and criminal behavior, people who have to make decisions that affect the safety and security of communities will not have access to the vital, synthesized information essential to good planning and strategy. For example, an intelligence unit may have good information about a local group of offenders dealing in methamphetamine. Crime analysis, however, suggests that the key problems in the area are vehicle crime and heroin. With a more complete picture of the local criminal environment, the police executive can make a better decision about the best use of resources for these competing priorities. Alternatively, crime analysis might identify an area of a town where drug arrests have increased. The intelligence officer for the drug unit can fill in the picture with a description of a drug dealer who lives in that area and who has recently been released from prison. Knowledge of individuals and offender behavior can improve understanding of crime patterns and vice versa.

I don't know what you can do with intelligence without crime data or what you can do with crime data without turning it into actionable intelligence.

Debra Piehl, Intelligence Analyst,
Massachusetts State Police Fusion Center

While some police chiefs espouse the view that they have access to both criminal intelligence and crime analysis, the reality in many police departments is different. In fact, some have only crime analysts, while others have only intelligence officers, and this creates significant challenges for the

individuals responsible for the interpretation of the criminal environment. Moreover, few executives have any information on the criminal world outside their jurisdiction. Intelligence sharing is the key but few know how to make it happen.

The vast majority of police agencies in the U.S. do not have the luxury of having both crime analysts and intelligence analysts. Having analysts trained and able to generate all-source and all-methods analysis is the most effective way for them to support the agencies' missions.

Marilyn Peterson, Intelligence Management Specialist,
New Jersey Division of Criminal Justice, Department of Law and Public Safety

Some of the problems are endemic to the U.S. More so than in many other countries, in the U.S. it is common for intelligence operatives to be sworn police officers, while crime analysts are most often civilians. The tendency for intelligence officers to refrain from sharing information is therefore compounded when the colleague that needs the information is a civilian. Some of the traditional reticence and mistrust that affects some sworn officers in regard to civilians can manifest itself within the crime intelligence arena to the detriment of good intelligence flow.

Intelligence officers often retain their intelligence within their teams or squads, under the often mistaken belief that this is necessary for operational security and because of government rules. From the smallest police department right up to national security agencies, there is a tendency to restrict access to information rather than to distribute it to others whose perspectives can assist in developing appropriate solutions. Crime analysts work with crime patterns and trends but often stop short of gaining a better understanding of why the patterns unfold as they do and which groups or individuals may be responsible. Crime analysts tend to share widely, while criminal intelligence analysts feel constrained by culture, unit mission, and federal legislation. The inability or unwillingness to integrate criminal intelligence and crime analysis is affecting the ability to make communities safer.

While most people agree that a full integration of criminal intelligence and crime analysis is essential, there are few agencies where this level of integration is a reality. Why might this be? There are a variety of reasons—technical, organizational, and cultural—as this report will explain. The report will also describe some strategies that can be used to better integrate these essential streams of knowledge so that decision makers have access to the best information and most comprehensive analysis possible in order to generate the best responses.

I think it's appalling that a crime analyst and intelligence analyst in the same agency wouldn't work together, but this is often the case.

Christopher Bruce, Crime Analyst,
Danvers, Massachusetts, Police Department

This report starts by describing the differing roles that criminal intelligence and crime analysis play in the modern law enforcement environment. It then clarifies why the current situation—a separation of key functions, as commonly seen in many police departments—is both a hindrance to good policing in an intelligence-led policing environment, as well as a risk to the communities that police are sworn to protect. Furthermore, the lack of connectivity with crime analysts and

the over-emphasis on security and secrecy that limits the amount of useful knowledge that intelligence analysts feel they can share with crime analysts is a fundamental problem that managers are going to have to address in the post-9/11 policing world that demands more efficient and proactive policing. This report argues for an integrated analysis model that combines the functions of crime analysis and criminal intelligence and seeks to avoid analytical processes that separate information on offenders from information on the crimes that they commit. In support of this argument, this report identifies a range of ways that the integrated model can help decision makers and includes a number of examples to demonstrate this approach. Finally, the report contains a number of practical recommendations for police departments wishing to better integrate these necessary functions and become more intelligence-led and problem-focused. The challenge exists, and leadership is the solution. For intelligence-led policing to truly function, police leadership will have to engage with the analysis function, as this report will show.

Criminal Intelligence and Crime Analysis

What is Intelligence Analysis?

A public misconception about intelligence is that the tactics used to gather covert information constitute intelligence. This view is reinforced by misinformed fictional and media presentations. These often portray the intelligence function as a secretive and sometimes subversive activity that is morally ambiguous or takes police close to legal and ethical boundaries. There is a significant distinction between gathering information and using intelligence to influence the decision making of senior law enforcement personnel. Even within law enforcement, the term intelligence can often mean different things to different people. Add to this the qualifiers of intelligence analysis, criminal intelligence, crime intelligence, and intelligence-led policing, and the picture becomes even more complex. Many organizations have their own definitions of intelligence, from the brief to the painfully verbose. These problems of definition occur for understandable reasons: the intelligence needs of a large federal agency are quite different from the intelligence needs of a small, rural police department. Even metropolitan police departments differ, both in terms of their enthusiasm to be intelligence driven and the types of problems that they have to handle. When different cities have different problems, they often respond in different ways and, as a result, their information needs are different. A common corollary of this is that intelligence definitions differ.

In order to show no favoritism, and because some definitions are too specific, we can basically say that *criminal intelligence is the creation of an intelligence knowledge product that supports decision making in the areas of law enforcement, crime reduction, and crime prevention*. In this context, an intelligence knowledge product is a product that can influence the thinking of a decision maker. It is the result of a criminal intelligence analysis and could be a written bulletin, a presentation, a verbal report, or some combination of these in a briefing. An intelligence knowledge product could even be a brief telephone conversation if the intelligence is timely and has an effect on the decision making of the recipient of the intelligence.

While this definition may seem succinct, a little clarification is necessary. Some definitions limit intelligence as a process that targets individuals or groups of offenders. Indeed, many in policing see criminal intelligence solely as a mechanism to examine the behavior of individual offenders or organized crime groups, separate from the main patrol functions and high-volume crime focus of most police officers. There is a growing realization, however, that at the operational and strategic levels of law enforcement a deeper understanding of general criminality may

be required, beyond simply trying to understand the behavior of individual offenders. The definition provided here places emphasis on intelligence that supports crime reduction and prevention as well as enforcement.

Others feel that criminal intelligence should support just law enforcement decision makers, and they restrict the distribution of useful intelligence beyond sworn officers. But that approach suggests that only police can have an impact on crime, a view that is probably not shared by the majority of proponents of problem-oriented or community policing. The definition therefore simply mentions decision makers. Good analysts with a product that could make their community safer should seek out the most appropriate decision maker. Ideally, of course, the leadership of the police department should be a good starting point when searching for a decision maker.

Finally, some perceive that the only value of criminal intelligence is when it can be used to effect an arrest or provide evidence against an offender. However, while good intelligence can assist with enforcement of criminal law, it can also suggest strategies to reduce the volume of crime or even provide a route to preventing offending altogether through problem-oriented tactics such as situational crime prevention and crime prevention through environmental design.

As stated earlier, the techniques to gather covert information are not criminal intelligence. A common misconception is that criminal intelligence is the process of gathering wiretap records, conducting surveillance, and mapping telephone call records. The unfortunately common view among many in policing is that any information that is obtained covertly is called criminal intelligence. It is more accurate to call this covert information. Covert information becomes criminal intelligence when it is analyzed and assessed in context with any other sources of information that are known about the subject of inquiry. Some of the other sources that can be combined with covert information to become intelligence may be of an open-source nature (i.e., not secret). Investigative devices such as surveillance photography and telephone wiretaps are usually just tools used to build a case against an offender. Work in this area is therefore investigative case support and not intelligence. If the information is used to inform a broader picture of criminality that is used by decision makers to direct enforcement, prevention, or further intelligence resources, then it becomes criminal intelligence.

I'm not sure that most U.S. criminal intelligence analysts are trained to do much more than case support. Moreover, I'm not sure they see their own jobs as being more than case support. The problem lies largely with the way the profession has been sold to intelligence analysts in the United States, with its focus on criminal organizations, homeland security, and high-profile arrests and prosecutions. I think that many, if not most, criminal intelligence analysts in the U.S. prefer to think of their duties as providing analytical support to such endeavors. If criminal intelligence analysts thought of themselves more in a crime prevention role, or even a pattern analysis role, then certainly the intelligence analysis and crime analysis professions would have merged in the U.S. some time ago.

Christopher Bruce, Crime Analyst,
Danvers, MA, Police Department

Tactical Intelligence

The most common level of criminal intelligence in operation around the world is tactical intelligence. This level of analysis supports front-line enforcement officers and investigators in taking case-specific action in order to achieve enforcement objectives such as tactical plans.¹ In this case, the criminal environment that is under examination is a micro-level one, where the decision makers are individual investigators or small teams targeting local criminals. This is the most dominant form of intelligence analysis across the world and it is understandable why this is so. Tactical intelligence can often be directly tied into the investigative aim of effecting an arrest and gathering evidence for a conviction. For many police departments, chasing arrests and reactively responding to crime events are the main activities of operational police officers. A criticism of police departments that focus on tactical intelligence alone is that they do not necessarily have access to the broader and more holistic levels of intelligence that can provide a greater understanding of long-term problems, problems that exist at scales greater than that of the behavior of individual offenders. Tactical intelligence can therefore become a self-fulfilling prophecy, driving more short-term, arrest-focused activity, which in turn increases the demand for more tactical intelligence. Tactical intelligence is easier to explain to front-line officers as information that is often directly convertible to arrests. However, with some thought, it can also be used in a more operational or strategic sense, as Deborah Osborne explains:

Analysis of investigative data in aggregates rather than case-by-case could help in discovering new patterns that might enhance both investigation and prevention of crime. What are the characteristics of burglary victims in a neighborhood? When are all the robberies occurring in a retail district? What are other factors that contribute to crime in a specific region? Weather? Events? How might the police be better deployed to address some of these issues? How might the community become involved by enhancing capable guardianship? Who are our vulnerable population and how might they be better protected?

Deborah Osborne, Crime Analyst,
Buffalo, New York, Police Department

Operational Intelligence

A second level of criminal intelligence exists at a broader, organizational level. Operational intelligence is the creation of an intelligence product that supports area commanders and regional operational managers in planning crime reduction activity and deploying resources to achieve operational objectives (Ratcliffe 2004). That some professional organizations do not consider this to be a distinct level of intelligence work is a mistake; if anything, this is the fastest growing area of criminal intelligence. This meso-level of operation supports decision makers who are responsible for geographic areas or who command enforcement teams. Operational intelligence helps decision makers decide which organized crime groups are most vulnerable to enforcement or which areas of a city require the most resources. It allows commanders with limited resources to determine the main priorities for the forthcoming few weeks or months, and provides a big-picture understanding of longer-term problems that cannot be alleviated by making a few arrests. Operational intelligence priorities are often ripe as targets for problem-solving approaches and

¹ Adapted from Ratcliffe, J. H. (2004). "The structure of strategic thinking", in J. H. Ratcliffe (Ed.), *Strategic Thinking in Criminal Intelligence* (pp. 1–10). Sydney: Federation Press.

for the types of methodologies used in problem-oriented policing. In terms of scale, it sits above tactical intelligence because operational intelligence is more concerned with identifying the most pressing crime-reduction priorities within a geographic area; only after a decision maker determines priorities will tactical intelligence be used to support any enforcement objectives.

Traditional policing has been reactive-investigations oriented. The new paradigm, intelligence-led policing, requires police to gather data, have it analyzed, and prioritize investigations and other remedies based on that analysis. This calls on police officers and managers to view analysts as filling a more proactive and substantive role than solely case support.

Marilyn Peterson, Intelligence Management Specialist,
New Jersey Division of Criminal Justice, Department of Law and Public Safety

Strategic Intelligence

The third level of criminal intelligence considered in this report is strategic intelligence. Strategic intelligence aims to provide insight and understanding into patterns of criminal behavior and the functioning of the criminal environment, and aims to be future-oriented and proactive. This intelligence is used by executives and top-level managers who are responsible for organizational planning designed to impact the criminal environment. The strategic intelligence product seeks to influence long-term organizational objectives and to contribute to discussions of policy, resource allocation, and strategy. Good strategic products will influence not just police behavior but also that of other, non-law enforcement organizations that are able to have an impact on crime, such as health services, city planners, and other criminal justice agencies.

Strategic intelligence is an often-misunderstood aspect of criminal intelligence and, yet, if real crime reduction is to be achieved, it has the potential to be of the greatest value to police leaders and executives responsible for crime prevention. Too many crime analysts are focused on the tactical end of the intelligence spectrum and too few concern themselves with longer-term crime problems and challenges. There is usually a good reason for this: few police managers are trained or experienced enough to be able to put a strategic intelligence product to good use, and most cops demand tactical products that can help alleviate an existing crime issue. This lack of demand from the client base does not mean that strategic intelligence products are of little value to crime prevention.

The analyst's role in helping apprehend and prosecute criminals is of real value and personally rewarding. Yet, the greater value in using analysis exists at the strategic level of analysis, where leverage points to disrupt and prevent crime can be identified. Too few analysts are engaged in such work.

Deborah Osborne, Crime Analyst,
Buffalo, New York, Police Department

The boundaries between operational and strategic intelligence tend to blur to a considerable degree. To some extent, these boundaries are, and should be, fluid. Criminal behavior does not fit neatly into nice categories so that we are able to compartmentalize the analysis function and have an impact on offender activity. With the exception of lone offenders who shun accomplices, much offending is a combination of individual activity and cooperative action. For example, an individual crook might steal credit cards and thus be a potential target for a tactical intelligence profile; however, the offender may sell the credit cards to a network of accomplices or may use the credit

cards at a number of local stores that knowingly accept fraudulent transactions. An operational intelligence product might be able to estimate the scale of the problem and place the credit card scam within the context of other activity, allowing an operational commander to decide what the important priorities are for his or her officers. A strategic intelligence product might use the activities of the individual offender as an illustrative case study, and a senior police officer might employ a strategic product to convince credit card companies to change their security protocols. This strategic intelligence product has the capacity to influence criminal opportunity at a large level, but much of it can be derived from a number of tactical and operational intelligence reports.

Furthermore, the notions of operational and strategic intelligence change with agency size and operational scope. While tactical intelligence generally refers to case-specific activity at all levels of law enforcement, operational and strategic intelligence can be applied and interpreted quite differently. This is demonstrated in Figure 1, showing a simplified model of agency scope for different agencies. While it is recognized that agencies within each category can differ, the range of activities conducted as strategic activities in a rural police department will differ considerably from activities deemed strategic by a federal agency. For example, few municipal police departments will compete with the New York City Police Department in terms of their mandate and scope, yet all police agencies, regardless of size, will have issues that are tactical priorities and long-term problems that are strategic issues for them to solve. The only difference is the scale of the issue and not the nature of the tactical-operational-strategic continuum.

Figure 1 shows that federal agencies are likely to have the widest scope of activities and concerns and, as a result, will have the widest extent of intelligence activities, with strategic intelligence concerning itself with international criminal intelligence patterns and their likely impact on the country on a broad scale. Operational intelligence will conduct activity at scales that may cross state lines, and tactical operations will be supported by tactical intelligence that is case-specific. State police are likely to have similar considerations in terms of the scale and range of activities that the intelligence arm may address, though the international dimension may not be so prevalent. At this point, we can see from Figure 1 that the strategic activities of a state police unit may fall between operational and strategic for a federal agency. The scope of activities reduces again when considering a municipal police department that has responsibility for a single city or municipality. What is considered strategic for a municipal police agency at this point may fall within the mandate of an operational intelligence unit with a state or federal agency, yet it is clearly a long-term, strategic priority for a municipal police department and should be treated as such.

Finally, the scope of activities within a small rural agency is likely to be fairly constrained, with considerable overlap between tactical, operational, and strategic activities. Strategic planning and the intelligence requirements to support it may be considered as operational activities for a municipal police department at this level and may not even be considered operational in level by a federal agency. Yet, there are clearly strategic issues for a rural agency as much as there are strategic priorities for a large federal agency: the tactical-operational-strategic continuum is equally valid for all agencies, regardless of size.

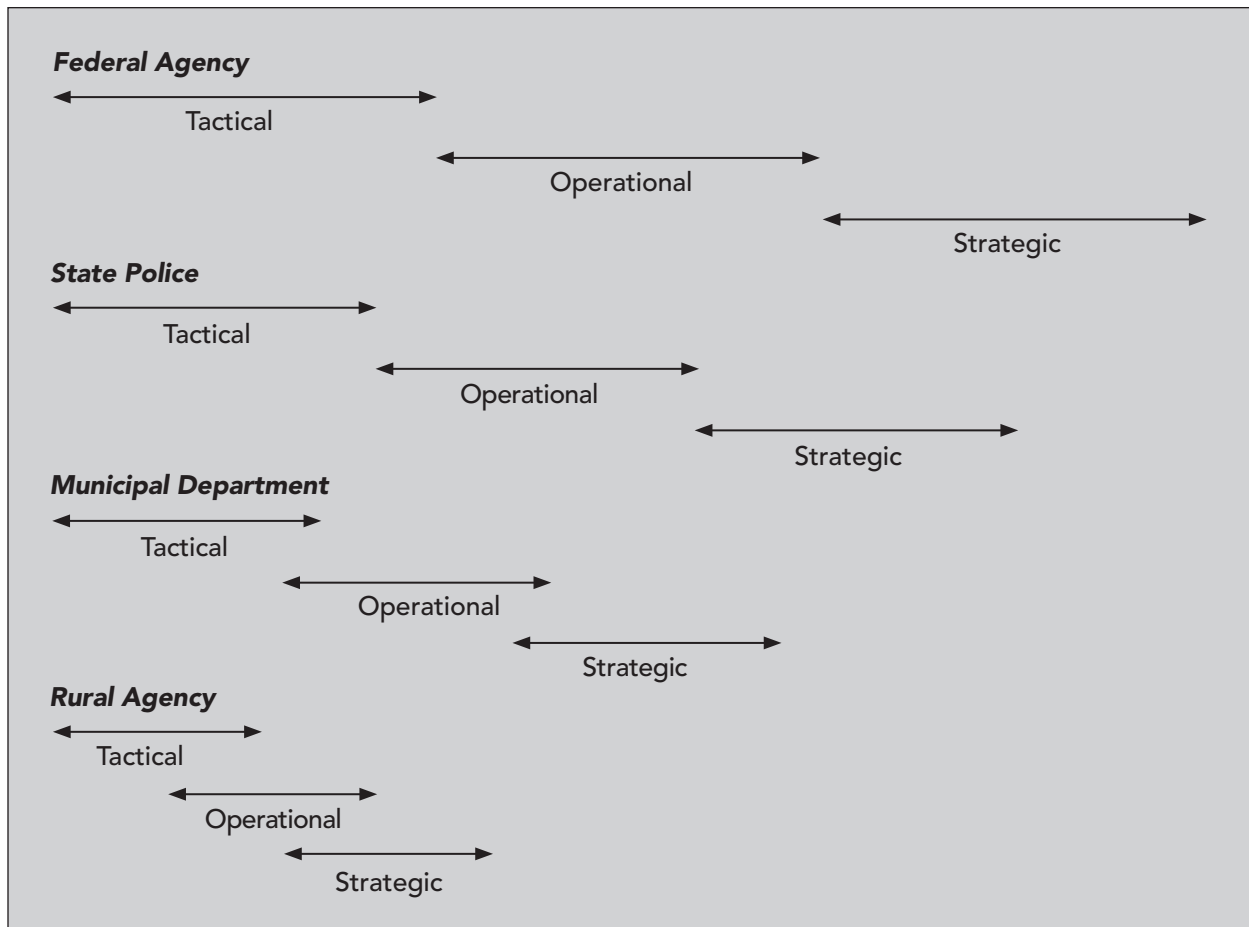


Figure 1. Simplified scope of intelligence activities for different types of agencies

Added to these issues of agency size and scope, criminal intelligence is often organized differently from place to place across the U.S. and the world. It is probably reasonable to say, however, that the majority of police departments tend to be driven by the tactical level and rarely have a unit within the department that has a purely strategic role. State and federal bodies are more likely to have a strategic capability because they have greater influence over state and federal budgets and the associated resources. In the U.S., local police departments that have intelligence officers are more likely to employ sworn officers in a tactical role. This is often because intelligence officers began in a sworn function within organized crime or drug units where the main focus has traditionally been on maintaining a substantial arrest rate. This is unfortunate, as many of the key crime prevention tools that exist to combat criminal activity are effectively long-term remedies that are identified through a strategic analysis.

What is Crime Analysis?

As with criminal intelligence, there are a myriad of definitions for crime analysis. Crime analysis is essentially the “systematic study of crime and disorder problems as well as other police-related issues—including sociodemographic, spatial, and temporal factors—to assist the police in criminal apprehension, crime and disorder reduction, crime prevention, and evaluation” (Boba 2005, 6).

Like criminal intelligence work, crime analysis has a tactical, operational, and a strategic component. The tactical aspect focuses on immediate issues that are of significance to a police department; operational issues identify priority areas and potential problems; and the strategic component looks at longer-term problems that might be solved by either a police department or by agencies such as a city council or planning department. If these external groups are to be provided with crime-related information, the analytical task is termed administrative crime analysis (Boba 2005; Lersch 2004). This is an area of crime analysis that is not directly involved with crime reduction activities but provides support to grant applications, community relations, and feasibility studies. A further component of crime analysis is criminal investigative analysis, a lesser-employed aspect of crime analysis that includes activities such as geographic profiling (Canter, Coffey, Huntley, and Missen 2000; Rossmo 2000; Santtila, Zappala, Laukkanen, and Picozzi 2003), and specific case support for investigations.

Crime analysis is a term used to describe a broad range of activities and ideas. Of potentially greater value is the term problem analysis. Problem analysis stems from Herman Goldstein's concept of problem-oriented policing (1990) and has come to signify a form of crime analysis that is "conducted within the police agency [and] in which formal criminal justice theory, research methods, and comprehensive data collection and analysis procedures are used in a systematic way to conduct in-depth examination of, develop informed responses to, and evaluate crime and disorder problems" (Boba 2003, 2). It is closely allied with the framework of problem-oriented policing, a process that not only concentrates on the identification and remedy of crime problems but also is a more comprehensive framework for the improvement of the police response to all aspects of their work (Scott 2000). Problem solving is the thought process by which officers and analysts achieve their goals, and is often articulated through the SARA (Scanning, Analysis, Response, and Assessment) process (Eck and Spelman 1987).² For our purposes here, we can consider crime analysis to be the overarching generic term that can collectively represent these more specific activities.

Unlike criminal intelligence, crime analysis is a relatively new discipline within law enforcement. While criminal intelligence may have remained in the "murky backwaters of policing" for over one hundred years (Christopher 2004, 179), it does at least have name recognition both internally and externally to law enforcement. By comparison, crime analysis is a young upstart whose growth has occurred largely as a result of the digitalization of the policing world. Only since the 1980s have significant numbers of police departments discovered that they were able to use data originally recorded for statistical purposes for more than just annual summaries of crime frequencies.³ Even with this discovery, the lack of suitable computer hardware and software applications inevitably hampered the growth of the crime analysis field. Only in the last decade or so have we seen the creation of off-the-shelf, commercial crime analysis products to replace programs that were previously created by programmers hired by police departments or on contract from universities. This growth has generated the professional field of crime analysis.

² Details of the SARA model can be found at <http://www.popcenter.org/about-SARA.htm>.

³ For example, police departments in the U.S. provide an annual summary of crime statistics through the Uniform Crime Reports process to the FBI, and in the U.K. police services provide regular data reports to the Home Office.

Goldstein argues that “in a police agency in which individual officers may not know what has occurred outside the areas in which they work or during periods when they are not on duty, crime analysis has been the primary means for pooling information that may help solve crimes” (1990, 37).

What Crime Analysis is Not

As there are misconceptions with criminal intelligence, so there are misconceptions with crime analysis. Given the aim of exploring both crime events and broader trends in crime patterns, good crime analysts have to understand a wide range of technical and theoretical areas. For example, an experienced crime analyst might have an understanding of quantitative research skills using a variety of software packages, probably uses a geographical information system to analyze spatio-temporal crime activity, creates analysis products and conducts officer briefings, and has a knowledge of the basics of environmental criminology. However, the perception sometimes is that crime analysts just provide management with charts and breakdowns of overtime and sick leave or simple counts of the numbers of different crime types that have happened in the last week. These tasks are not crime analysis but are simply the provision of management statistics. Such requests for help in areas unrelated to crime can often be a considerable drain on the enthusiasm of some analysts, and police executives should be wary of allowing their analysts to engage in work that is far removed from the central aims of crime reduction and prevention.

Like good criminal intelligence analysis, good crime analysis requires an investment in training, hardware, software, and personnel in order to function at the higher levels beyond basic management statistics. Good crime analysis is also a function of good leadership from police management. A skim through the excellent *Crime Analysis for Problem Solvers in 60 Small Steps* (see the resources section near the end of this report) gives a great indication of the wide skill range necessary to be a good crime analyst and should be required reading for all crime analysts and their managers.

Analysts may employ nonlinear approaches to analysis by synthesizing information obtained in a number of methods to see a more complete “whole” of a crime problem. These methods may include crime mapping, statistical analyses, field observations of high-crime and low-crime areas, reading crime and intelligence reports, talking to officers, suspects, and victims, looking for evidence links, as well as gathering information on known offenders residing in or near the jurisdiction. Merging crime and intelligence analysis will provide a more accurate “whole picture” and improve the meaningfulness and utility of information generated by law enforcement analysts.

Deborah Osborne, Crime Analyst,
Buffalo, New York, Police Department

The Need for an Integrated Analysis Model

The previous section might suggest that crime analysis shares many goals with criminal intelligence. Both fields look to influence police decisions as a result of an objective understanding of the criminal environment, and they both seek to employ information as the raw product to which analysts add value through their analytical techniques. However, there are significant and important differences that directly impact on the ability of law enforcement to protect communities and reduce crime.

To explain these differences, it is necessary to generalize quite considerably here. Across the globe there exists nearly every conceivable configuration of police department, from small departments with only a couple of officers, to large national agencies employing tens of thousands of officers and agents; from agencies with no analytical support, to departments with dozens of intelligence and crime analysts; from departments with pin maps on a wall, to police services with advanced real-time mapping systems accessible through intranet portals; and police agencies that have only crime analysts or have only intelligence analysts. The following description is therefore not designed to be recognizable to every department but it does aim to describe a common scenario.

In general, most criminal intelligence analysts (also known as intelligence officers) are sworn officers, often working within specialized units such as narcotics, organized crime, or counterterrorism. These analytical staff concentrate their energies on identifying members of organized crime groups and helping investigators gather evidence to support a prosecution. Under the mantra of security, the intelligence produced by these units is usually retained in-house and is not shared with the rest of the police department. The officers—usually sworn and predominantly male—have often come to the intelligence role through a number of years as patrol officers and often as detectives or investigators. The main focus of intelligence units is on the criminality of individuals and groups.

By comparison, crime analysts are more likely to be civilian—and more likely to have a higher female ratio than in the ranks of the criminal intelligence officer—and report directly to the command staff of the police department. They tend to concentrate on reported crime rather than on the activities of individuals, and their information is disseminated more widely throughout the police department, as it is usually deemed to be less sensitive and case specific. One increasingly popular mechanism by which their intelligence is disseminated is through Compstat meetings. As a result of the more recent introduction of the crime analysis field to policing, crime analysis products sometimes receive less recognition in a policing field that places greater significance in information that is secret or covertly gathered. The main focus of crime analysis units is on crime patterns and disorder problems.

Many agencies currently have crime analysts and criminal intelligence analysts but keep them separate. In such agencies, I suspect that the crime analysts have their fingers on the pulse of the crime and safety dynamic in the jurisdictions—what's up, what's down, where the hot spots are, what type of property is being stolen, and so on. In other words, they know about the patterns and trends and problems. The intelligence analysts, on the other hand, are likely to be more aware of the specific people responsible for crime in the jurisdiction—who they are, where they live, what they do, who they associate with, who gives their orders, and what they're planning.

Christopher Bruce, Crime Analyst,
Danvers, Massachusetts, Police Department

Most importantly, there is often little cooperation or even communication between intelligence officers and crime analysts. Some police departments do not have crime analysts, while others do not have intelligence analysts. Some agencies employ an analyst who attempts to do both jobs. Few agencies have a network of interconnected crime and intelligence analysts and, as

a result, few police departments have a senior management team that gets crime and intelligence briefings based on information that has been sufficiently analyzed and synthesized to understand the big picture.

I think it's a belief that they don't need each other to function. The thought is, Why do I need intelligence analysts to do crime analysis?

Jason Elder, Crime Analyst,
Baltimore/Washington High Intensity Drug Trafficking Area (HIDTA)

The real danger is that most police departments have chiefs and senior officials that get some of the intelligence on the criminal environment but not all of it. Even with the introduction of fusion centers in the U.S., few managers have analysts that are tied into local networks that enable police leadership to access intelligence on the crime picture in neighboring jurisdictions. Internally, agencies that have only crime analysts often lack a detailed understanding of recidivist individuals and gangs and their motivations, while agencies that have only intelligence analysis get detailed information on individuals and networks but little indication of the crime context in which these people operate.

The integration of the intelligence and crime analysis functions is essential to uncovering crimes linked to organized groups of criminals (groups of juveniles in a neighborhood, gang-related activity, and so on). By looking only at crime data without the integration of intelligence on people, locations, and groups, crime analysis will always fall short of the overall picture of crime.

Mary Garrand, Crime Analyst Supervisor,
Alexandria, Virginia, Police Department

In summary, criminal intelligence analysis provides information on prolific offenders and organized criminal groups, while crime analysis provides the crime context of the environment in which they offend. Both are essential to a full understanding of crime problems and recidivist criminality, and are prerequisites of good decision making and effective crime reduction.

I think when we talk about crime analysis we are talking about incidents and patterns of incidents. When we talk about intelligence analysis, we are talking about individuals and criminal enterprises. I think that's where the dividing line is, though I see this huge overlap of skills.

Tom Casady, Chief of Police,
Lincoln, Nebraska

What Does this Mean for Police Chiefs?

At this point, you might be thinking that this description does not exactly match your police department and decide there is no point in reading further. With a little reflection, however, this scenario may be more common than you think. I've been fortunate enough to see Compstat meetings on three continents, and the common situation is one where a crime analyst shows maps of crime on a screen and senior officers discuss crime problems and possible solutions. Rarely do they refer to an intelligence officer because intelligence analysts are generally not present, even though accurate and timely information is a central tenet of the Compstat process. On the

other hand, I have also had numerous conversations with intelligence officers who have extensive knowledge of the activities of individuals and gang members in their jurisdiction but who are unable to identify the high-crime areas or significant crime problems in the same area; their knowledge is specific to the offenders with which they are familiar. In the end, the losers are the police executives who have to make decisions based on an incomplete picture of the criminal environment, and, ultimately, the public.

Intelligence and crime analysts are not in the same arena as far as chain of command. The directives do not say otherwise and, while crime analysts may provide information to the whole department, intelligence analysts do not because there is no mandate to do so, outside of their section.

Mary Garrand, Crime Analyst Supervisor,
Alexandria, Virginia, Police Department

The problem is a lack of integration of intelligence analysis and crime, or problem, analysis. An integrated model of criminal intelligence information and problem analysis was first proposed by the U.K. Home Office in the 2000 report, *Calling Time on Crime*. It noted that while “initial investigation into a crime is always undertaken, effective problem solving also requires the routine consideration of related intelligence” (HMIC 2000, 86). While not explicitly linking crime analysis with intelligence, the report effectively proposes this by linking intelligence analysis with problem solving. As Boba (2003, 33) points out, for problem analysis to function effectively, analysts should have access to intelligence information. Problem solving therefore requires access to both crime analysis and criminal intelligence. An integrated model is necessary to fulfill this vital crime reduction role, yet it is rare to find a police agency that employs this integrated model.

The problem, as it currently exists in a number of jurisdictions, can be demonstrated diagrammatically, as shown in Figure 2, which shows a generalization of much of the fields of criminal intelligence and crime analysis. At the tactical level, crime analysts concern themselves with mapping and analyzing crime incidents and events that are usually the concern of uniformed police officers. At the same tactical level, criminal intelligence analysts are interested in case support and getting a better picture of the activity of known offenders, often with the short-term aim of securing a conviction. At the operational level of analysis, crime analysts are concerned with crime patterns—the clustered activities that suggest the necessity for resourcing issues for police departments. On the criminal intelligence side, the issue is on understanding and charting the activities of organized crime groups and gang activity. Even at the strategic level, it can be argued that there are two different foci. The crime analysis field is interested in understanding the causes and effects of significant crime and disorder problems, while the criminal intelligence analyst is interested in identifying systemic weaknesses and vulnerabilities in the structure of society and how organized crime groups are exploiting these opportunities. While Figure 2 is a generalization, it is drawn from extensive research and communication with analysts from both sides of the equation and from discussion with forum participants. It demonstrates that many police agencies are operating an isolated analysis model.

In this picture, the two analytical fields operate independently at tactical, operational, and strategic levels without interacting with each other. Information that is gleaned from the crime

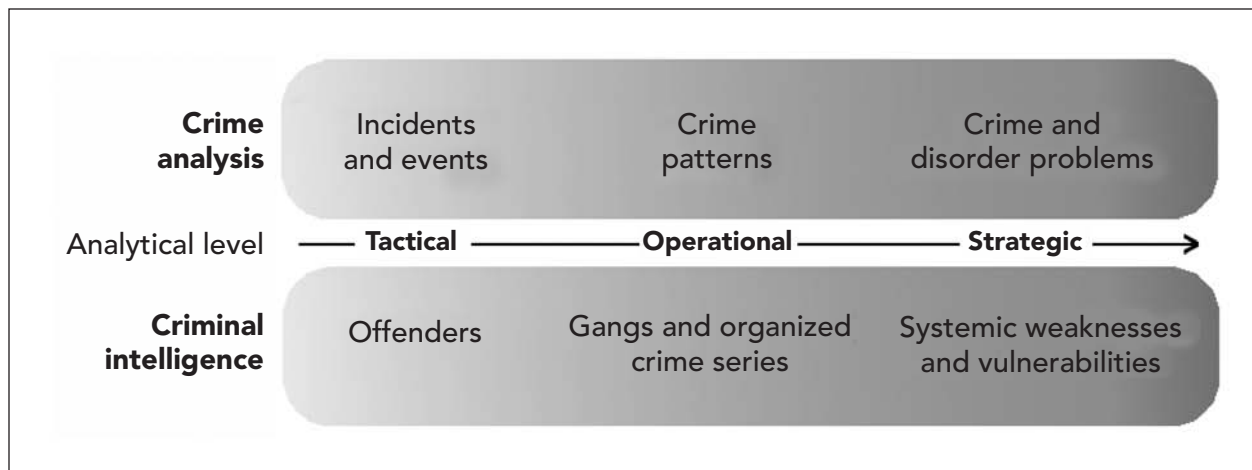


Figure 2. Isolated crime and intelligence analysis model

analysis field is often disseminated to chiefs, executives, and even patrol officers, yet it sometimes lacks the contextual information that would allow for more focused operations. Conversely, criminal intelligence is often disseminated only within a single unit, resulting in an information silo. This aids short-term operational security and can assist an investigation, but the value of the rich texture that often comprises criminal intelligence is lost to the rest of the department, ultimately hindering attempts to take a more holistic approach to crime reduction. Many agencies have access to both but keep crime analysis and criminal intelligence compartmentalized so that criminal intelligence remains locked up in the heads of analysts and investigators and is never employed to make more sense of the broader patterns of criminality in the jurisdiction.

What is an Integrated Analysis Model?

An integrated analysis model aims to integrate crime information with criminal intelligence so that police agencies are able to see the complete picture of the criminal environment. This blend of information about criminal activity and the offenders who are committing crimes creates the possibility for a holistic approach that allows for the most appropriate community- and problem-oriented solutions to crime problems. By having access to both offender and offense intelligence, police agencies are more likely to design an effective response that addresses the problem or tackles the organizations responsible for the crime problem.

It is often the case that the outcome of criminal intelligence is a target for arrest, while the outcome of crime analysis is a geographic area for targeted patrol; however, these end results are more a response to the limitations of the available analysis. If crime analysis is only able to suggest places and times of criminal activity, then a place/time-based response is often all that is available. Criminal intelligence lacks a crime focus and concentrates on offenders, so the result is therefore usually a target package. Without an integrated model, the outcome is a self-fulfilling prophecy depending on the analysis model chosen.

A holistic approach to crime and criminal analysis will identify offenders for targeting, as well as places and times for a problem-oriented response. An integrated analysis model could provide police chiefs and operational commanders with a better picture of the criminal environment and, as a result, more options for reducing crime.

I think there has been a failure to explain in plain, simple terms the benefits of merging these two functions. We just haven't clearly explained why it makes sense for those units to function as though they were one.

Tom Casady, Chief of Police,
Lincoln, Nebraska

Figure 3 shows the types of output police executives and crime prevention decision makers could expect from an integrated crime and intelligence analysis model. Instead of the crime analysis and criminal intelligence functions acting independently and supporting decision makers in an unintegrated fashion, decision makers could expect and demand crime information that is placed in a context of offenders in the area, and offender-related intelligence that can use recorded crime to estimate the impact of offender activity.

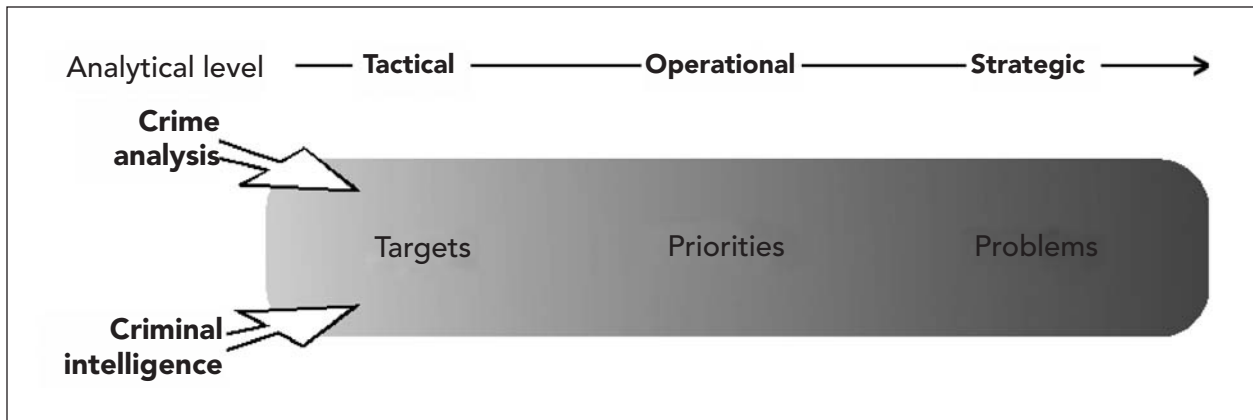


Figure 3. Integrated crime and intelligence analysis model

In Figure 3, both crime analysis and criminal intelligence feed into a central pool that provides the most complete picture of the criminal environment. At the tactical level, the actionable intelligence is likely to provide viable targets for law enforcement attention. These targets could be individuals or particular locations that are vulnerable to criminality; however, the point is that with a complete picture of criminal activity, decision makers are able to determine if they have the capability to focus on offenders or on their activities. At the operational level, decision makers are able to determine the most appropriate use of resources and which priorities are the most pressing. Drug and organized crime activity can be assessed alongside traffic enforcement and public order issues in an environment where resources are distributed based on the broader needs of the community and with the full knowledge of the capabilities of the department, rather than isolating criminal intelligence decisions and crime problem priorities. At the strategic level, long-term problems associated with systemic weaknesses (often the target of strategic criminal intelligence) are indistinguishable from the impact of long-term crime problems (the target of strategic crime analysis). In other words, strategic crime analysis and strategic intelligence analysis end up approaching the same problem from different directions. Indeed, it is with strategic intelligence analysis that the blending of criminal intelligence and crime analysis has often been the most successful, albeit also the most underutilized by decision makers.

How Might an Integrated Model Work?

First, it should be said that an integrated model will only become effective with strong leadership. Police executives have to be clear about *why* they wish to coordinate information resources from the crime analysis and criminal intelligence sides and, furthermore, they have to be clear about *how* they want to do it. This is a task that is unlikely to succeed if delegated far from the top of the hierarchy because police culture still perceives benefits in withholding criminal intelligence from the rest of the police department and sees delegation downward as an indication of lack of commitment. For police executives to commit to this new model requires understanding its benefits. The following examples demonstrate the benefits of bridging the gap between these two fields.

Consider the police chief who has received an injection of funds from the city budget for police overtime. In an isolated information environment, crime priorities become clear during a Compstat meeting where crime analysts identify crime problems around the city. At the same

time, the chief receives a briefing from the intelligence unit about the growth of gang activity and organized crime groups that are moving into the city. How are these competing priorities to be reconciled? In separate briefings with separate analytical units conducting the analyses, resolving this dilemma is not possible. In an integrated analytical model, the chief would receive a briefing that identified the high-crime priorities for the city along with the organized crime groups and gangs most likely to be responsible. Instead of having to split resources and possibly try and fund two separate activities, the police chief now has the option to target uniform and detective activity to an area of the city where crime is increasing *and* where there is significant gang activity.

Another example further demonstrates the value of an integrated model. Consider a police district that is being plagued with domestic burglaries. The crime analyst is able to map the crime patterns and extract descriptions of the goods stolen and the times of the offenses. The map shows some clustering of offenses but nothing that would suggest any one particular offender. Mapping of all known offenders with previous convictions for burglary creates too many possible matches to enable police to mount a significant, offender-targeted, proactive operation, so the command makes a decision to conduct directed patrols in the area of the burglaries. At the same time, the intelligence unit, which has no communication with the crime analysts, is keeping up regular contact with drug users in the area. However, unaware of the burglary problem that is affecting one area in the city, they are unable to help solve the problem.

In another district, a similar problem exists, but in this second district the intelligence unit is co-located with the crime analysts and both intelligence and crime analysts share the same briefing meeting with the chief. As the intelligence unit becomes aware of the problem, they interview confidential informants in the drug-user community and discover that a local pawnshop has started accepting stolen goods. A quick investigation of the pawnshop reveals that a significant quantity of the stolen property from the burglaries is being pawned at the shop, and this realization leads to an operational plan to arrest key offenders and fences.

In the latter case, the integrated model succeeds because there is greater intelligence flow in an organizational environment that encourages cooperation and intelligence transfer between the problem identification component from the crime analyst and the contextual information that the intelligence unit can provide. While this may seem obvious, the vast majority of forum attendees agreed that this ideal scenario was one that they had rarely, if ever, seen.

When we talk about case support on the intelligence side, it is somewhat equivalent to the more tactical aspects of crime analysis, whereas the strategic analysis portion looks at patterns and overviews and problems and is more like the problem-oriented policing model. I think that one could bring them closer together and I think that we can't ignore any part of our information, whether that information is crime statistics or confidential informant data.

Marilyn Peterson, Intelligence Management Specialist,
New Jersey Division of Criminal Justice, Department of Law and Public Safety

The integrated analysis model is beneficial because now, more than ever, senior law enforcement executives require a complete picture of the criminal environment. This is equally as impor-

tant at the local level as in the national arena. Although crime has been falling in the United States for the better part of twenty years, it is still a significant factor in the daily lives of many citizens, and many areas are seeing increases in violent crime and increased stability and confidence in drug trafficking and drug markets. There is also the increased threat from terrorism, both international and domestic.

The Benefits of an Integrated Analysis Model

By linking these two equally important analytical functions, serial crimes and organized crime groups can be detected more quickly and more cases can be solved. The days of “this is my information and you can’t see it” have to end. Separating crime and intelligence analysts within law enforcement agencies is a no-win situation.

Mary Garrand, Crime Analyst Supervisor,
Alexandria, Virginia, Police Department

The merging of the crime analysis and criminal intelligence functions in a police department would have a number of benefits to the overall operation of the department.

- The big picture

Few law enforcement decision makers receive regular briefings from both intelligence officers and crime analysts. Generally their information flow tends to be dominated by one or the other. This is to the detriment of any attempt to gain a holistic picture of the criminal environment.

- Increased enforcement options

If crime analysts generally produce areas for targeted patrol, and intelligence analysts usually produce offender target packages, an integrated analysis can suggest a broader range of tactics and can give an operational commander the opportunity to weigh a greater number of options.

- Cheaper in the long run

While there may be some initial costs involved in merging functions, there will be long-term benefits from merging databases, software, and computing resources, as well as training. The impact on crime reduction activity will also extend a benefit to the community.

- A fluid response to crime

Offenders do not compartmentalize their criminal activity. This should be obvious to anyone who has examined the criminal records of most offenders. They often have previous convictions for drugs, vehicle-related crime, property crime, and violent offending. Why then should the analytical arm of the police department respond by compartmentalizing the analysis function?

- A realistic analysis model

Members of gangs and organized criminal enterprises are of interest to law enforcement because they commit crime, but much of that recorded crime is analyzed by crime

analysts. It is more realistic to examine both crime patterns and individual behaviors together.

- A single point of contact for interagency communication

Communicating between agencies within law enforcement is often hampered by the bewildering array of individual analytical units that larger agencies often have. For example, agencies might have narcotics, street gang, and robbery intelligence units, as well as a Compstat unit. The integrated model removes their barriers and increases the opportunities for better coordination with outside agencies.

These benefits may not be easy to achieve, however beneficial they may seem. The following section lists a number of the potential hindrances raised by participants at the forum.

Hindrances to Integrated Analysis

A novice could see that the merger of these two information sets [crime analysis and criminal intelligence] is natural, practical, and beneficial. The agency or the analysts themselves may have erected walls between them but these walls are artificial and should be dismantled.

Christopher Bruce, Crime Analyst,
Danvers, Massachusetts, Police Department

Potential Barriers

The following is a list of items identified by forum participants as potential barriers to integrated crime and intelligence analysis.⁴

- Civilians within the law enforcement environment

Group members felt that civilians were often treated as second-class citizens and were often deemed not worthy enough to have access to intelligence, a commodity associated with a degree of prestige. This has a significant impact on the information deemed by intelligence analysts (often sworn personnel) as sharable with their (often civilian) colleagues in crime and problem analysis.

- Different missions

In many agencies, intelligence units and crime analysis units have significantly different mission statements, such that interaction is difficult and not complementary to the activities of either unit. They are often assessed in vastly different ways and have different definitions of what constitutes success. Cooperation is therefore a low priority.

- Terminology

Within both the intelligence and crime analysis fields, conflicts regarding terminology hinder better cooperation. In reality, terminology confusion is also a factor within individual branches of analysis as much as between the different fields. For example, the International Association of Law Enforcement Intelligence Analysts has a separate definition for crime-pattern analysis, criminal analysis, and criminal intelligence.

⁴ The list is presented in no particular order and with the caveat that not everyone subscribed to each item or felt that particular items related to their specific agency.

- Invulnerability

There is a belief in both quarters that they do not need each other. Intelligence units support their own areas and crime analysts do likewise. Without a wider accountability mechanism, both sides of the analytical framework can survive without having to cooperate or share information.

- Case-by-case thinking

There is a tendency for both intelligence and crime analysts to defer to a tactical frame of mind. For crime analysts, this can be minimized down to a number of potentially linked cases, while for intelligence analysts this subverts to investigative support. On both sides, the case focus loses sight of the big picture, though this is clearly an issue predominantly for intelligence officers.

- Isolated thinking

A number of participants noted that in the post-9/11 environment there is a fixation with secrecy, such that agencies that have struggled to gain access to classified data subsequently classified all of their information both internally and externally to the same level. This was perceived to be an example of excessive transfer of secrecy. Again, this is largely an issue for criminal intelligence officers.

- Perceived legal constraints

A lack of familiarity with 28 Code of Federal Regulations (CFR) Part 23⁵ leads many intelligence analysts to be overly cautious in their handling of potentially sensitive information. This results in both compartmentalization and silo thinking, though this was seen as less of a problem for crime analysts, who are used to sharing and are expected to share their intelligence products around the police department.

- Compartmentalization

The sudden growth in the numbers of analysts across the police information field has sparked sufficient numbers to generate specialization. General analysts, both intelligence and crime, are sometimes subdivided into specializations in vehicle theft or organized crime. This compartmentalization has reinforced the isolated thinking of individual analysts.

- Lack of leadership

While the fields of intelligence and crime analysis have done a moderately successful job of creating training opportunities and educational possibilities in crime and intelligence analysis, the broader field of police leadership has failed to train police managers in how to understand and use intelligence. As a result, many police

⁵ Commonly known as 28CFR23, this is a set of guidelines and standards for law enforcement agencies that operate federally grant-funded, multijurisdictional criminal intelligence systems. As such, the guidelines do not relate to individual agencies that are not multijurisdictional in nature (even if they occasionally collaborate with other agencies), or agencies that do not receive federal grant funding. The guidelines do not create mandatory rules on how the standards should be implemented. The guidelines cover areas such as the entry, maintenance, and purging of criminal intelligence files.

executives are often unaware that they are seeing only part of the picture if they receive crime analysis that lacks an intelligence context, or an intelligence briefing that lacks the crime activity context.

- Lack of training

Training—or more specifically the lack of training—is a perennial issue for law enforcement agencies in many countries. In the U.S. the situation for crime analysts is particularly troubling with little training being offered beyond the basic, introductory-level data manipulation skills necessary for entry-level analysts (O'Shea and Nicholls 2003).

- Technology constraints

Intelligence and crime databases are often structured differently and this results in incompatibility. Intelligence databases emphasize the linking of individual offenders into organized groups, while crime databases are most informative when analyzing aggregate crime patterns. In the absence of industry standards for data collection and storage, individual agencies are often hampered if they wish to share information with neighboring agencies, and indeed are often unable to pass information internally either.

- Education

Police executives are often unaware of how to use and implement operation plans from intelligence and crime analysis products because they are unaware of the role of analysts. They are also unaware of what tactics do and do not work for effective, long-term crime reduction. It is also true that intelligence officers are often unfamiliar with the role and purpose of the crime analyst and vice versa.

- Organizational structure

The rapid introduction of crime analysts into the organizational structure of police departments has not been matched by an equally rapid restructuring of the thinking of police departments to assimilate this new information source. While intelligence analysis has been around policing for a long time, albeit compartmentalized and shoehorned into operational units, crime analysis has still to find its niche. It is seen as both a valuable tool and a threat, often within the same police department.

At one [police department], I saw the crime analysis unit and the intelligence unit work as two separate functions. They never interacted, not even at the Compstat meetings.

Jason Elder, Crime Analyst,
Baltimore/Washington High Intensity Drug Trafficking Area (HIDTA)

A number of themes underpin these issues, including organizational dynamics, technical problems, and culture. For the crime information arm of a law enforcement agency to function at an optimal level, and for the agency's executives to have access to the best intelligence available, each of these three themes must be addressed.

We have our analysts working together in a coordinated sense but it has taken a lot of work to get to that stage.

Kent Mawyer, Chief, Criminal Law Enforcement Division,
Texas Department of Public Safety

Law enforcement organizations are not isolated structures that are allowed to dictate their own working environment and conditions immune from outside influence. Newcomers to policing often find that the organizational dynamics of police agencies can be cumbersome to understand and difficult to navigate. The range of external stakeholders that can have an impact on operational decision making is significant and includes other law enforcement agencies, political figures, and community groups. It has been argued that these outside influences have resulted in police organizations that do not necessarily structure themselves for the demands of the primary mission of crime control but organize their structure more to reflect the demands of external and internal influences (Crank 2003; Crank and Langworthy 1992). If this is the case, then articulate, evidence-based calls for greater crime analysis or intelligence resources, or a reorganization of an existing structure to improve efficiency, may not necessarily succeed in attaining departmental approval. Internal opposition to the blending of crime analysis and intelligence may be strong enough to convince executives to keep these complementary functions isolated, even in the face of a strong argument to the contrary. Opposition may be encountered due to perceived loss of status or influence by some parties, or because of any one of the many hindrances to the merging of crime analysis and intelligence outlined earlier in this section.

Technical problems seem to plague every police department. The rapidity with which technology advances always appears to leave many aspects of policing operating in a proverbial dark age. Nowhere is this more apparent than in crime analysis and intelligence, both areas that make significant technological demands. For agencies that have dedicated intelligence staff or who have dedicated investigators of organized crime, electronic access to one of the Regional Information Sharing Systems (RISS) can be beneficial but comes with additional technological demands. For agencies wishing to mimic the New York City Police Department's Compstat approach, investment in geographic information systems (GIS) software, data, and training is a requirement. This results in two, related problems. First, agencies may purchase different software solutions for intelligence analysis and crime analysis, and, secondly, agencies may decide to limit access to the different systems. Once agencies start to differentiate clearances between staff based on their being crime or intelligence analysts, or on their being sworn or civilian, the technical issues increase. This is sometimes used as a backdoor way to keep intelligence and crime analysis units separate.

Of all of these hindrances to an integrated analysis model, none is more powerful than the inhibiting effect of police culture.

Police Culture

Culture plays a substantial part in how police departments function. As Goldstein (1990, 29) noted, "Police departments have a life of their own. Powerful forces within the police establishment have a much stronger influence over the way in which a police agency operates than do the

managers of the department, legislatures and courts, the mayor, and the members of the community.” According to Ritchie Martinez, a former president of the International Association of Law Enforcement Intelligence Analysts, as intelligence analysts began to emerge in law enforcement agencies in the 1970s, sworn officers were usually employed for these “trusted” positions (Loyka, Faggiani, and Karchmer 2005, 25). The notion that the intelligence analyst is a trusted position, one that is unavailable to civilian personnel, still pervades law enforcement to a considerable degree. Unfortunately for many police chiefs, this attitude seems to also extend to the data that they analyze and the intelligence that they produce. Given the range of sensitive information that crime analysts are now routinely exposed to, this silo mentality about criminal information and intelligence as a precious commodity to which few should have access, even within law enforcement, appears to have little justification and is a significant hindrance to effective decision making.

The outcome of this historical legacy is an artificial distinction between information that relates to incidents (crime information) and information that relates to suspected individuals (criminal information). The unnecessary but common segregation of crime analysis and criminal intelligence analysis results in products that are not complementary and holistic because they are often lacking the contribution that the other half of the equation could provide. Decision makers, patrol officers, and the public are the ultimate losers.

We have very few incidents where somebody has compromised our information. I think departments do a lot more damage by compartmentalizing their information and protecting the information from the people who really need it—the officers.

Tom Casady, Chief of Police,
Lincoln, Nebraska

In the next section, forum participants provide mechanisms that may enable an organization to overcome the hindrances to an integrated analysis model.

Jumpstarting Integrated Analysis

Separate intelligence and crime data will only hinder detectives, analysts, and commanders from making informed decisions regarding criminal activity in their jurisdictions.

Mary Garrand, Crime Analyst Supervisor,
Alexandria, Virginia, Police Department

Listed below are some ways in which a police department can move towards an integrated analysis model.

- Become intelligence-led

Instill attitudes within the organization that value objective intelligence and analysis. If the police department is a largely reactive department with little capacity to explore more productive methods of crime control, then there is little value in an integrated analysis model. Indeed, in such an environment there is little value in intelligence. Innovative and reflective departments will need to become more objective in their decision making, and instilling this attitude from the top to the bottom is essential in fostering an intelligence-focused attitude among all levels of the organization.

- Police chiefs should work closely with analysts

Police chiefs have to spend time with analysts. This will result in better analysis and better products, and will engender a culture within the department that recognizes the work of analysts—where the chief spends time sends a signal to the department.

It does help change the culture when you have analysts reporting directly to the chief or sheriff because everybody sees that analysis is important to the agency head and they have more respect for it and the people who perform the analyses.

Julie Martinez, Senior Criminal Intelligence Analyst,
Hillsborough County, Florida, Sheriff's Office

- Co-locate analysis and intelligence functions close to decision makers

Recognize the value of regular, formal and informal contact between people who dictate policy and those who supply them with their information. The physical location is as important as the organizational location: analysts must have regular

access to each other and to decision makers or the aim of a more intelligence-led organization cannot be met.

- Articulate the analytical vision within the police department

By describing an aim to combine crime analysis and criminal intelligence, the department makes a formal statement of its analytical aim. As soon as this is done, the value of combining crime and intelligence analysis should become more obvious and it will enable the analytical arm of the department to keep the big picture in sight.

- Make the case for integrated analysis

Many police executives learned their trade many years ago when crime analysis did not exist and criminal intelligence was a largely irrelevant division within the department. Consequently, they may not have been trained to appreciate the bigger decision-making options that become available with a more complete picture of crime and criminality. It is not sufficient to say what should happen; you have to demonstrate the value that flows from greater integration.

- Create integrated reporting mechanisms

Formalize the connection between all analysis that takes place and the decision makers in the police department. It is not sufficient to have both intelligence briefings and a Compstat process. They must be integrated so that contextual information from both sides is always available.

- Develop informal information-exchange mechanisms

Although it is nice to think that formal organizational structures can create effective crime intelligence analysis, decision makers should recognize that informal information exchanges still dominate both the crime analysis and criminal intelligence worlds. Recognize the value of informal information gathering. Analysts need to have a direct line of communication with decision makers, but they also need to have a mechanism to gather information from a variety of sources. Both intelligence and crime analysts have to be able to develop relationships with patrol officers and investigators and earn their trust.

- Consciously collect feedback and respond to criticisms

Track what happens to intelligence and analytical products to see if decision makers are using all of the criminal environment information provided to them. Analysts should document what they give to their commanders in terms of products and analyses and see what is done as a result.

- Create an analysis users group

Bridging the gap between crime analysis and intelligence is likely to create some initial teething problems in terms of analysis products and these can be resolved by focusing on the primary activity—the dissemination of useful analysis to decision makers. An analysis users group can help identify the products that may be helpful for the law enforcement executive.

- Get over the whole security issue

The vast majority of information that is gathered by police departments is not so secret that it cannot be revealed to other analysts and people responsible for deciding crime-reduction strategy. There is a perceived informational hierarchy that often exists whereby sub-units do not want to work with other analysts because they deem their information to be super sensitive. This attitude is often derived from a misreading of the regulations as they pertain to 28 Code of Federal Regulations (CFR) Part 23, or out of a fixation with the perceived mystique and drama of intelligence work. It is also sometimes simply because analysts think that their information is too important to share. It is also sometimes related to the issue of civilians in a sworn police department (as discussed in other parts of this report), and sometimes it is because particular sub-units within a police department receive more attention and support than others. These attitudes are unhelpful to the aim of making informed decisions about crime reduction and are ultimately harmful to the general public.

- Develop technology solutions but do not fixate on them

There is a tendency in policing to believe that technology will overcome organizational and cultural barriers. Technological solutions to data management will certainly help but will not be able to address all of the concerns noted in this report. As Collier and colleagues noted in relation to improving communication in a British police force, “Without addressing the cultural barriers, an investment in technology may not yield the appropriate changes in behavior. To achieve this, technology needs to be integrated with working practices in order to reduce organizational reliance on informal methods of communication” (Collier, Edwards, and Shaw 2004).

- Be realistic about what can be achieved in your department

If you work in a small police department, then it is realistic to expect that both the intelligence and crime analysis functions will often be combined in the job description of one or two individuals, and that tactical products will dominate the information requests. However, mid-size and large departments should strive for greater incorporation of crime analysis and criminal intelligence, especially if they find that narcotics or counter-terrorism units are located remotely from crime analysts. This will help with their operational and strategic planning.

Expecting More from Analytical Thinking

We have many of the necessary tools. We now need people to understand how to use them to bring down crime.

Sergeant Mark Stallo, Financial Investigations Unit,
Dallas, Texas, Police Department

The purpose of this report was to identify why it is fundamental to creating safer communities that police departments move beyond current organizational complexities and integrate information that they receive about crime and criminals. It has been argued herein that integrated analysis is necessary in order to give decision makers the most accurate picture of criminals and the crimes they commit so that a holistic picture of the criminal environment is available. The public has a right to expect that the people charged with protecting them will appropriately use intelligence and crime analysis in ways that will ensure their safety and security. That many police departments are not structured to achieve this end jeopardizes the safety and security that the community deserves and may expect in a community-policing environment. The central theme throughout this report has been the vital role of leadership to effect the necessary changes. Without strong leadership within law enforcement, none of what is proposed here is likely to occur.

As forum participant Mary Garrand commented, “The public, and indeed many within policing, think that we do this already. There are few calls for local police to move towards an integrated analysis solution because they think we are there already.” Closer inspection of many police departments would reveal a less palatable truth. An integrated analysis model is essential if police are to be able to articulate to community partners the pressing issues of today and tomorrow. The relationship to community partners is a significant part of many problem-solving approaches to crime problems. The U.K. Home Office, when considering the benefit of an integrated model, recommended that:

In the development of an integrated model for crime and disorder reduction, there is a need to *embrace problem solving and effective intelligence* to identify:

- The different and complementary contributions that partners can make.
- The intervention or combination of interventions that would be most appropriate to the problem. (emphasis added, HMIC 2000, 91).

The inclusion of information from disparate community sources complicates the picture further but will be an essential step in the protection of communities and the protection of the

homeland. Solutions to complicated crime problems can be found in strategies such as problem-oriented policing but only if executives have access to intelligence and the evidence necessary to drive action in a responsible, proactive manner. Modern policing requires a more objective understanding of the criminal environment, an understanding that is grounded in data rather than the traditional police officer's gut feeling. A sensible solution is to combine knowledge of offenders from intelligence-led approaches with knowledge of crime problems from problem-oriented policing initiatives, so that policing can focus on the right targets, be they problems or people. As Michael Townsley and colleagues have noted:

If a defining characteristic of problem-oriented policing is its being evidence-based, it would be necessary to ensure that adequate resources are allocated to intelligence units so that different forms of evidence can be assembled and triangulated, and that the members of these units acquire "problem-oriented policing heads" (Townsley, Johnson, and Pease 2003, 197).

Developing Integrated Analysis: Checklists for Action

Checklist for Executives

- Know what intelligence-led really means and strive to achieve it
- Invest in training for yourself to understand intelligence-led policing
- Co-locate analysts and intelligence officers close to your office
- Always meet with analysts and intelligence staff together
- Work with analysts to articulate a vision for analysis in the department
- Send the signal that these functions are important
- Become more focused on repeat offenders and persistent problems
- Invest in joint training opportunities for intelligence officers and crime analysts
- Educate all officers about the importance of building trust with the community and what they should do with information they learn from those relationships

Checklist for Analysts

- Build connections with decision makers and other analysts
- Help your decision maker understand the big picture and develop more strategic products
- Learn about problem-oriented policing and apply this approach to solve long-term problems
- Organize cross-training so that analysts can appreciate the work of intelligence officers and vice versa
- Share intelligence for the common good
- Work to integrate databases and avoid duplication of effort

Resources

Analysts and executives may find the following resources useful in moving forward toward an integrated analysis model.

- Boba, R. (2003). *Problem Analysis in Policing*. Washington DC: Police Foundation. Available to download from <http://www.policefoundation.org/pdf/problemanalysinpolicing.pdf>
- Carter, D. L. (2004). *Law Enforcement Intelligence: A Guide for State, Local, and Tribal Law Enforcement Agencies*. Washington, DC: Office of Community Oriented Policing Services, U.S. Department of Justice. Available to download from <http://www.cops.usdoj.gov/files/ric/Publications/leintelguide.pdf>
- Clarke, R. V., and Eck, J. (2005). *Crime Analysis for Problem Solvers in 60 Small Steps*. Washington, DC: Office of Community Oriented Policing Services, U.S. Department of Justice. Available to download from <http://www.popcenter.org/Library/RecommendedReadings/60Steps.pdf>
- IACP (2002). *Criminal Intelligence Sharing: A National Plan for Intelligence-Led Policing at the Local, State, and Federal Levels*. Alexandria, VA: Office of Community Oriented Policing Services and the International Association of Chiefs of Police. Executive summary available to download from http://it.ojp.gov/documents/NCISP_executive_summary.pdf
- Loyka, S.A., Faggiani, D.A. and Karchmer, C. (2005). *The Production and Sharing of Intelligence: Vol. 4. Protecting your Community from Terrorism*. Washington, DC: Office of Community Oriented Policing Services and the Police Executive Research Forum. Available to download from <http://www.cops.usdoj.gov/mime/open.pdf?Item=1438>
- Peterson, M. (2005). *Intelligence-Led Policing: The New Intelligence Architecture*. Washington, DC: Bureau of Justice Assistance. Available to download from <http://www.ojp.usdoj.gov/BJA/pdf/IntelLedPolicing.pdf>
- Ratcliffe, J.H. (Forthcoming 2008). *Intelligence-Led Policing*. Cullompton, Devon, UK: Willan Publishing.
- Scott, M.S. (2000). *Problem-Oriented Policing: Reflections on the First 20 Years*. Washington, DC: Office of Community Oriented Policing Services, U.S. Department of Justice. Available to download from <http://www.popcenter.org/Library/RecommendedReadings/Reflections.pdf>
- Global Justice Information Sharing Initiative. (2006). *Fusion Center Guidelines: Developing and Sharing Information and Intelligence in a New Era: Executive Summary*. Available to download from http://www.iir.com/global/products/fusion_center_executive_summary.pdf

References

- Boba, R. 2003. *Problem Analysis in Policing*. Washington, DC: Police Foundation.
- Boba, R. 2005. *Crime Analysis and Crime Mapping*. Thousand Oaks, CA: Sage.
- Canter, D., Coffey, T., Huntley, M., and Missen, C. 2000. Predicting serial killers' home base using a decision support system. *Quantitative Criminology*, 16(4), 457–478.
- Christopher, S. 2004. A practitioner's perspective of UK strategic intelligence. In J. H. Ratcliffe (Ed.), *Strategic Thinking in Criminal Intelligence* (First ed.). Sydney: Federation Press.
- Collier, P. M., Edwards, J. S., and Shaw, D. 2004. Communicating knowledge about police performance. *International Journal of Productivity and Performance Management*, 53(5), 458–467.
- Crank, J. P. 2003. Institutional theory of police: a review of the state of the art. *Policing: An International Journal of Police Strategies & Management*, 26(2), 186–207.
- Crank, J. P., and Langworthy, R. 1992. Institutional perspective on policing. *Journal of Criminal Law and Criminology*, 83(2), 338–363.
- Eck, J. E., and Spelman, W. 1987. *Problem Solving: Problem-Oriented Policing in Newport News*. Washington DC: Police Executive Research Forum.
- Goldstein, H. 1990. *Problem-Oriented Policing*. New York: McGraw-Hill.
- HMIC. 2000. *Calling Time on Crime*. London: Her Majesty's Inspectorate of Constabulary.
- Lersch, K. M. 2004. *Space, Time, and Crime*. Durham, NC: North Carolina Press.
- Loyka, S. A., Faggiani, D. A., and Karchmer, C. 2005. *The Production and Sharing of Intelligence: Vol. 4. Protecting your Community from Terrorism*. Washington, DC: COPS/PERF.
- O'Shea, T. C., and Nicholls, K. 2003. *Crime Analysis in America: Findings and Recommendations* (Final report). Washington, DC: Office of Community Oriented Policing Services.
- Ratcliffe, J. H. 2004. The structure of strategic thinking. In J. H. Ratcliffe (Ed.), *Strategic Thinking in Criminal Intelligence* (pp. 1–10). Sydney: Federation Press.
- Rossmo, D. K. 2000. *Geographic Profiling*. Boca Raton, FL: CRC Press.
- Santtila, P., Zappala, A., Laukkanen, M., and Picozzi, M. 2003. Testing the utility of a geographical profiling approach in three rape series of a single offender: A case study. *Forensic Science International*, 131, 42–52.
- Scott, M. S. 2000. *Problem-Oriented Policing: Reflections on the First 20 Years*. Washington, DC: Office of Community Oriented Policing Services.
- Townsley, M., Johnson, S., and Pease, K. 2003. Problem orientation, problem solving and organizational change, *Crime Prevention Series*. Vol. 15 (pp. 183–212). Monsey, NY: Criminal Justice Press.

Biographies of Participants in the Forum on Intelligence and Crime Analysis

(Titles and affiliations were current at the time of the forum and may have changed.)

Christopher Bruce has been a crime analyst for twelve years, seven at the Cambridge (MA) Police Department, and the last five at the Danvers (MA) Police Department. He has served as the vice president of administration for the International Association of Crime Analysts since 2000, and he was president of the Massachusetts Association of Crime Analysts from 2000 to 2004. Bruce teaches crime mapping and analysis and has edited and authored several publications.

Tom Casady began his law enforcement career as a police officer in Lincoln, Nebraska, in 1974, and has served as chief of police since 1994. He received a bachelor's degree in criminal justice from the University of Nebraska-Omaha, and an M.A. in political science from the University of Nebraska-Lincoln. Chief Casady has coordinated several police technology projects focusing on communications, information systems, mobile data systems, and geographic information systems.

Jason Elder has worked for the Washington/Baltimore High Intensity Drug Trafficking Area (HIDTA) since 2001, and is currently an intelligence analyst assigned to the Case Support Unit working with agents from the FBI, DEA, and ATF investigating narcotics in various HIDTA initiatives. Prior HIDTA assignments included writing strategic intelligence reports on methamphetamine, PCP, and prison gang parolees, and working with the Baltimore City Police Department analyzing and writing intelligence reports on homicides and shootings. He has an M.S. in criminal justice from the University of Cincinnati, and a bachelor's in criminal justice from Edinboro University of Pennsylvania, where he graduated cum laude.

Mary Garrand supervises the crime analysis unit for the Alexandria, Virginia, Police Department., where her duties include overseeing the tactical analysis of crime series and strategic analysis of crime trends. She serves as the training coordinator for the International Association of Crime Analysts (IACA) and training representative for the Virginia Crime Analysis Network (VCAN). She is an instructor for NLECTC's Crime Mapping and Analysis Program (CMAP) and teaches crime mapping and analysis in George Mason University's Continuing Education Program. Ms. Garrand holds a M.S. in justice, law, and society from American University and a B.A. from Fordham University.

Julie Martinez serves as the senior criminal intelligence analyst for traffic crash analysis for the Hillsborough County, Florida, Sheriff's Office (HCSO), where she has worked for thirteen years. She serves as a liaison between her agency and other county and state law enforcement and government agencies, as well as community action groups. She was instrumental in establishing the Sheriff's Crime Information Strategy System (SCISS), the HCSO's Compstat program. Julie holds a bachelor's degree in criminology from the

University of South Florida, and graduated from Florida's Law Enforcement Analyst Academy as a Certified Law Enforcement Analyst.

Kent W. Mawyer is chief of the Criminal Law Enforcement Division for the Texas Department of Public Safety, where he is responsible for overseeing operations of the agency's specialized services of narcotics, criminal intelligence, motor vehicle theft, and the crime laboratory. Prior assignments during his 29-year tenure include assistant chief of the division, investigator in the motor vehicle theft service, and major in charge of special projects. He has a B.S. in criminal justice, an M.P.A., and is a graduate of the Leadership Command College at Sam Houston State University and the FBI National Academy. He is the past president of the Texas Association of Vehicle Theft Investigators and the International Association of Auto Theft Investigators. He is actively engaged in the U.S. Department of Justice's Global Advisory Committee's Global Intelligence Working Group.

Deborah Osborne is a crime analyst at the Buffalo, New York, Police Department and a member of the FBI/Police Futurists International Futures Working Group. She was elected second vice president of the Society of Police Futurists International and was a remote research fellow for the Center for Strategic Intelligence Research, Joint Military Intelligence College, DIA, in 2004–2005. She is the author or co-author of a number of books and articles on intelligence analysis and crime analysis and has taught at the university level. Ms. Osborne holds a B.A. in psychology and an M.A. in social policy from Empire State College, State University of New York.

Marilyn B. Peterson worked for the New Jersey Division of Criminal Justice from 1987 until 2005, and served in a number of capacities including intelligence management specialist. She is currently an instructor in the Joint Military Intelligence Training Center (JMITC) Analytic Branch in Washington, D.C. Ms. Peterson has authored numerous publications on criminal intelligence analysis and has taught intelligence and analysis in eight countries. She has a bachelor's degree in criminal justice from Thomas Edison State College and a master's degree in education from Seton Hall University. She is past president of the International Association of Law Enforcement Intelligence Analysts (IALEIA), past chancellor of the Society of Certified Criminal Analysts (SCCA), and is a regent emeritus and fellow of the Association of Certified Fraud Examiners.

Debra J. Piehl is the CompStat director and senior analyst assigned to the Office of the Superintendent of the Massachusetts State Police (MSP). Prior to joining the MSP in 2004, she spent eight years at the Newton, MA, Police Department where she was responsible for implementing CompStat. Ms. Piehl serves as president of the Massachusetts Association of Crime Analysts. She holds a bachelor's degree in journalism and political science from Valparaiso University and a master's degree in criminal justice from Anna Maria College.

Eileen Quibuyen is an intelligence analyst with the Federal Bureau of Investigation assigned to the Los Angeles Field Intelligence Group. She has assisted with investigations ranging from violent gangs, organized crime, Innocent Images (child pornography), and counterterrorism for almost seven years., and has supported several domestic and overseas missions, including the 2006 Summer Olympics in Athens, Greece. She holds a B.A. in criminology, law, and society from the University of California, Irvine.

Jerry H. Ratcliffe is an associate professor of criminal justice at Temple University. A former police officer from London (UK), he has previously taught criminal intelligence at the New South Wales Police College, and conducted research and evaluation of intelligence-led policing in Australia and a number of other countries. Dr. Ratcliffe has a B.S. and Ph.D. from the University of Nottingham and has published numerous books and articles on the topics of crime mapping, intelligence-led policing, and environmental criminology.

Sergeant Mark Stallo works in the Financial Investigations Unit of the Dallas Police Department. Since joining the DPD in 1979, he has served as a patrol officer and as a member of the crime analysis team. Sgt. Stallo is one of the founders of the International Association of Crime Analysis (IACA) and served as its president from 1994 to 2000. He is the author or co-author of a number of policing and crime analysis publications and teaches at the university level. He has a B.S. in criminal justice from the University of Cincinnati, and a M.S. in management and administrative science and a M.P.A. from the University of Texas at Dallas.



Police Foundation
1201 Connecticut Avenue, NW
Washington, DC 20036-2636
www.policefoundation.org

ISBN 978-188461421-7

