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Crime Analysis: Perceptions from the Field

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### LEARNING DISCLOSURE STATEMENT

During the research and preparation of this final paper, I learned the following things I did not know before:

1. I learned that crime analysis is not thought of as negatively as I had first conceived.
2. In order to gain acceptance from sworn officers, crime analysts must provide useful information versus just pumping out support products that do not provide much use. In essence, find out what the officers need instead of force feeding them.
3. Agencies must assist the analyst by allowing them to support front line officers instead of directing the work of crime analysts towards non-useful number crunching tasks. Otherwise the analyst loses credibility with the officers they can provide the most benefit too.
4. Patrol officers are less apt to make the initial contact because they are busy responding to calls for service. So, it's up to the crime analysis unit to proactively contact patrol officers and find out what they need to assist them.
5. If an agency wants to make a case for crime analysis, they need to hire adequate personnel to meet the demands of the officers in the agency. When the demand for the analysts support surpasses their capability to supply analytical products, then efficiency is lost and the timeliness of product delivery diminishes. This creates a negative perception on the part of the officers that the crime analysts is not dependable and cannot deliver support as needed.

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## Crime Analysis: Perceptions from the Field

### **Introduction**

Crime analysis has several definitions, processes, and subsets of activities. Boba presents a simplified definition as a “study of crime and disorder problems, as well as other police-related issues...to assist police in criminal apprehension, crime and disorder reduction, crime prevention, and evaluation” (2005). The crime analysis process is simply the collection of data and collating it, so that it can be analyzed and disseminated to members of a law enforcement agency (O'Shea & Nichols, 2003). The dissemination process provides knowledge and intelligence to individuals that can enhance their decision making process. An additional process in the crime analysis cycle is feedback. Feedback from users is sometimes neglected and can present problems if not addressed. Typically, insufficient feedback for a crime analyst can create misunderstandings between the analyst and the officers they support. These misunderstandings can then lead to ill conceived perceptions towards the crime analysis function in general. In contrast, it is possible for field officers to have a good understanding of the crime analysis function which then creates favorable perceptions. Thus, the issue regarding perceptions of law enforcement officers in the field provides the impetus for this research.

Police officers and deputy sheriffs utilize numerous tools of the trade in their profession. Tools such as their service weapons, batons, radios, MDC's (Mobile Data Computers) and vehicles are used in their daily activities. However, there is a tool that is commonly misused or unused as part of their available repertoire in fighting crime. Crime analysis is not a physical tool that an officer would carry on their hip or in their vehicle. Instead it is a tool they carry in

their brain in the form of knowledge and intelligence. Crime analysis, as a tool, can provide intelligence that assists in guiding an officer's decision making process when carrying out their daily patrol activities. Of course a beat officer will typically know where the hot spots and people with criminal intent are generally located. However, the information provided by crime analysis adds an additional dimension of information that the officer might not be aware of at the time. The officer doesn't work shifts that cover twenty-four hours a day seven days a week. The brain can only process limited amounts of information and retain them for analysis. Not only that, but officers typically react to trouble on the streets. Crime analysis affords an officer the opportunity to be proactive within their areas of responsibility. From the officer on the street, to the chief or sheriff in command, they can all benefit from the function of a crime analysis unit.

However beneficial crime analysis might be perceived as, Christopher Bruce, the current President of the International Association of Crime Analysts (IACA), conducted an inquiry a few years ago with crime analysts regarding the hostility and resistance towards crime analysis (2004). Interestingly, reasons for the hostility and resistance were stated as;

Suspicion of the analysts duties because it was believed they were used to monitor officer's job performance. There was a reasoning that the analyst couldn't possible know more about an officers beat than the officer. Other comments reflected officer's resentment with the analyst role in directing their activities. Some officers may have experienced a negative outcome due to a product or service the analyst had provided. Another comment was made regarding a personnel dislike for the analyst. Yet another common theme was the typical resistance to change that officer's display (Bruce, 2004)

Generally, in order to find causes and effects for any phenomena, we must search into the past and ascertain the order of events that possibly created the issue in question. For this research we will explore the history of crime analysis briefly.

Crime analysis operations in the United States can be traced back to the early 1900's. During these early years the innovative Police Chief August Vollmer was the first to use pin mapping and reviewing police reports to analyze crime volume. Working with O.W. Wilson, another innovator in law enforcement administration, in 1963 they alluded to the first recognition of crime analysis as a viable function within law enforcement activities (Boba, 2005; Haley, Todd, & Stallo, 2004).

During the 1970's an increased awareness of crime analysis functions began to emerge. Conferences were held and research findings were published to assist law enforcement agencies enhance their crime analysis functions. In 1979 problem-oriented policing emerged as a model for law enforcement to address issues on crime and disorder. This created additional awareness of the crime analysis function and its importance in assisting agencies to understand underlying causes of crime. Yet another milestone was established when the Commission on Accreditation for Law Enforcement Agencies (CALEA) was established. In order for an agency to receive accreditation from CALEA required agency's to develop formal crime analysis units (Boba, 2005; Seebacher, 2005).

During the 1990's crime analysis was beginning to form even deeper roots within the law enforcement function. Community oriented policing began to be touted as the new model of policing effectiveness in the fight against crime. With this model an increased use of crime analysis and the function it offered by providing analytical and statistical support was realized. In

1994 another concept was developed within the New York City Police Department. The New York model was called ComStat and relies heavily on data and spatial analysis of criminal events. As such, it integrated the crime analysis function into daily practices for the police department (Boba, 2005; Walsh, 2001).

Currently, crime analysis is possibly at the cutting edge of yet another law enforcement operational model. Intelligence led policing is at initial stages of being adopted within various U.S. agencies and throughout other nations (Peterson et al., 2004). However, just as the aforementioned models took time for adoption and acceptance, so to will intelligence-led policing travel through an arduous road to final implementation (Ratcliffe, 2002). Once accepted though, it just may be the final process needed to establish the legitimate function of crime analysis and its role in law enforcement.

As we can see, crime analysis has experienced a lengthy history within law enforcement. There is even a level of acceptance by numerous agencies. Therefore, we would think that every agency would have whole heartedly created a crime analysis unit to support various police operations. However, not all agencies have embraced a formal crime analysis function. Agencies that have integrated crime analysis within their organizations have experienced mixed results (O'Shea & Nicholls, 2003). Apparently, there may be some disconnection between sworn law enforcement officers and the crime analysis function (Bruce, 2004). Could it be a misperception on the part of the officers? Or perhaps the field of crime analysis has not reached the level of professionalism that would garnish the respect from law enforcement field? Interestingly, we see that current literature available provides few clues regarding the perceptions of officers towards the support role that crime analysis provides.

## **Literature Review**

As O'Shea and Nicholls pointed out, there has been little research conducted on the field of crime analysis (2003). Most works that have been published are typically how-to manuals that offer introductory materials regarding crime analysis (Boba, 2005; Clarke & Eck, 2005; and McCue, 2007; Felson & Poulsen, 2003). There appears to be more interest in the importance and general usage of data to drive intelligence led decisions, without determining how useful this process would be to front line officers (Harvey, 1996; Nutt, 2007; Peterson, 2005; Ratcliffe, 2002; and Wagner, 2005). Some researchers have identified the usefulness of crime analysis, however, mainstream policing has not yet been able to come down off the fence to support crime analysis whole heartedly (Bruce, 2004; Ekblom, 1988; Haley, Todd, & Stallo, 2004; O'Shea & Nicholls, 2003; and Walsh, 2001). There have been very few published works that analyze the importance of crime analysis and its role in today's law enforcement agency (Seebacher, 2005). There are reports of success, but the realization of where crime analysis stands as a full tour-de-force in assisting law enforcement officers accomplish their daily mission remains elusive.

## **Objectives**

There were two overall objectives for this exploratory research. One was to review relevant literature on crime analysis practices and functions within law enforcement. The second was to identify and assess the perceptions of law enforcement personnel towards the crime analysis function.

## **Methodology**

The data for the analysis was derived from conducting a survey (Appendix A) with law enforcement officers. A list of agencies with a functioning crime analysis unit was obtained via

searches on the Internet. This list comprised of twenty agencies randomly selected throughout the United States that included city police departments and county sheriff offices. In order to gain multiple perspectives on officer's views towards crime analysis, three phone numbers for each of the agencies was obtained. The phone numbers were for command staff, patrol divisions and special units. Special units were classified as detectives and investigative personnel working within sub areas such as homicide, sex crimes, and robbery. Once the list was formulated the process of cold calling these agencies was conducted in hopes of contacting officers that would volunteer ten minutes of their time for a phone interview.

It was soon apparent that phone interview techniques were not very conducive and extremely time consuming while attempting to collect data. Thus, a secondary data collection method was employed via email. Contact was made with colleagues who had established relationships with officers in other law enforcement agencies. The survey questionnaire was emailed to these colleagues who then distributed them to fellow officers. The responses to the survey then became fruitful and the sample criteria were eventually met.

The survey instrument was a questionnaire with forty-two questions. Ten questions required officers to reply with yes and no responses to determine crime analysis usage. Three questions required open ended responses to determine officer's rank, years of law enforcement service, and the number of years the crime analysis unit has been in operation. Four questions had multiple choice responses to collect factual information regarding officer's agency type, education level, job description, and precipitators for developing a crime analysis unit. The remaining twenty-five questions required responses to a four point Likert scale to determine



officer’s perceptions and attitudes towards the crime analysis function and the support they provide.

After the data was collected it was entered into a database. Then scores were assigned to the answers based on the Likert scale. Four points were assigned to questions answered by respondents with Strongly Agree; three points were assigned to those with Agree, two points were assigned to responses with Disagree; and one point was assigned to responses with Strongly Disagree. The data was then queried by using combinations of variables and transferred to a spreadsheet for tabulations. Within the spreadsheet, again variables were combined into subsets of groupings by job functions, general perceptions on crime analysis, and attitudes towards their current crime analysis unit, and overall scores for respondent’s perceptions and attitudes towards crime analysis.

**Results**

The results of the survey comprised of 59 responses from 11 agencies. There were 53 responses from City Police departments and 6 from county Sheriff’s offices. The survey was conducted in five states. Percentages of respondents by agency type and state are presented in Table 1. The percentage of city police departments does not indicate prevalence in their use of crime analysis, but merely shows they were more likely to have a web site indicating their use of crime analysis. Also, since there are fewer sheriffs’ offices than city police departments, it is logical they have a lower number of crime analysis functions in existence.

**Table 1: Percentage of Respondents by State**

Type of Agency	AR	AZ	CA	FL	OR	TX
City Police Department	7%	83%	0%	0%	0%	0%
County Sheriff	0%	0%	2%	3%	3%	2%

During the research there were 3 (5%) responses from command staff officers. Patrol officers comprised of the majority with 30 (51%) total responses. Officers working in an investigative capacity (Special Units) comprised of the remaining 26 (44%) responses.

Overwhelmingly, as indicated in table 2, the majority (62%) of respondents strongly agreed that crime analysis was an essential function within a law enforcement agency. An additional 27% of officers agreed that crime analysis was essential. Interestingly, patrol officers (10%) were the only group to disagree or strongly disagree on the issue of crime analysis being essential. This could be an indication of patrol officer’s hostility towards crime analysis as Bruce points out (2004). It can also be seen as possible negative connotations amongst a certain population of patrol officers.

**Table 2: Is Crime Analysis Essential within a Law Enforcement Agency?**

Capacity	Strongly Agree	Agree	Disagree	Strongly Disagree
Command Staff	3%	2%	0%	0%
Patrol	20%	20%	8%	2%
Special	39%	5%	0%	0%

Another interesting result came from the study. Officers sometimes argue that crime analysis is used solely to monitor their performance (Bruce, 2004). The Comstat process has garnished similar comments from officers as they are held accountable in their performance in solving crime issues (Walsh, 2001). It is not surprising then with the results indicated in Table 3. Although a small number of officers working within the command staff participated in the study, they all agreed that crime analysis was used to monitor their performance. This result lends itself to officers in command position are indeed being held accountable to agency operations in regard to crime issues. Overall, only 34% of the officers perceive crime analysis as being used to monitor their performance. In contrast, the majority (66%) of patrol and investigative officers

disagree or strongly disagree. This could indicate that patrol and investigative officers are indeed breaking away from the negative paradigm that crime analysis is being used to monitor their performance.

**Table 3: Is Crime Analysis used to Monitor Officer Performance?**

Capacity	Strongly Agree	Agree	Disagree	Strongly Disagree
Command Staff	0%	5%	0%	0%
Patrol	5%	17%	24%	5%
Special	2%	5%	29%	8%

In Table 4, negative perceptions from patrol officers are recognized again regarding the ability of crime analysis being able to enhance an agency’s capability to prevent crime. This possibly indicates that patrol officers do not recognize the utility that crime analysis adds to the crime prevention equation. Although this does not appear to be the perception for the majority officers, it still presents an issue of negative perceptions that can be passed from one officer to another and demean the overall effectiveness and acceptance of the crime analysis function. However, it is quite clear that 84% of officers consider crime analysis an important enhancement in their agency’s capabilities of preventing crime.

**Table 4: Does Crime Analysis Enhance your Agency’s ability to Prevent Crime?**

Capacity	Strongly Agree	Agree	Disagree	Strongly Disagree
Command Staff	5%	0%	0%	0%
Patrol	12%	25%	12%	2%
Special	17%	25%	2%	0%

Table 5 depicts the results of officer’s opinions as to crime analysis providing any benefits to them as they perform their job duties. Although the majority (88%) of officers either agree or strongly agree that it does provide some beneficial value to their jobs, some patrol

officers again indicate they disagree on a point regarding crime analysis. This could be due to their lack of knowledge regarding the benefits crime analysis can offer them as they perform their daily operations. In addition, investigative personnel working in special units strongly agree or agree (40%) that crime analysis provides benefits to them as they perform their job function. This could be due to the analytical nature that crime analysis and investigative work shares.

**Table 5: Does Crime Analysis provide any Benefits when performing your Job Duties?**

Capacity	Strongly Agree	Agree	Disagree	Strongly Disagree
Command Staff	5%	0%	0%	0%
Patrol	7%	36%	8%	0%
Special	25%	15%	3%	0%

The results in Table 6 indicate that officers have enjoyed a degree (79%) of success when using crime analysis to support their job functions. In contrast, patrol officers (19%) report their use of crime analysis has led them to unsuccessful or very unsuccessful results. As a result, this negative experience could correlate with an overall negative perception towards crime analysis in general. This could lead to an overall attitude that crime analysis is of no benefit towards the patrol officer’s job function, as well as the perception that crime analysis cannot support an officers efforts to prevent crime.

**Table 6: What types of success have you experienced when using crime analysis in your job function?**

Capacity	Very Successful	Successful	Unsuccessful	Very Unsuccessful
Command Staff	5%	0%	0%	0%
Patrol	7%	25%	14%	5%
Special	15%	27%	2%	0%

### **Summary of Command Staff Perceptions**

The few respondents (n=3) that worked in the capacity of command staff had a good understanding of why the agency's crime analysis unit was developed and the purpose behind it. They strongly agreed their Crime Analysis unit was very accessible to their demands. These officers made frequent contacts with their crime analysis units for support. They also indicated their crime analyst(s) frequently pushed information out to the officers in a proactive fashion, which in turn was frequently utilized. Each of the command staff officers had also utilized products from their crime analysis unit over the last six months for crime counts, forecasting and predictions, trends, comparisons, hot spot mapping, strategic planning, patrol and resource allocation, and geographic profiling. Their perceptions towards the usefulness of crime analysis products were also favorable. They all strongly agreed to the usefulness of the products as it relates to providing benefits when conducting their job functions. Their opinions toward their crime analysis unit were very favorable. They all strongly agreed the unit was providing timely information that was useful. The information was considered accurate with detailed information. They relied on this information and felt the unit was dependable and provided services quickly. Overall, command staff officers consider crime analysis a viable function within law enforcement and their crime analysis units provide the right information to the right people in a timely fashion so that efficient decision making processes were accomplished.

### **Summary of Patrol Officer Perceptions**

Only a few patrol officers (23%, n=7) had an understanding as to why the crime analysis unit was established and its purpose within the agency. The majority of these officers felt their crime analysis unit was accessible. Patrol officers mostly (80%) agreed or strongly agreed that crime analysis was essential to the law enforcement organization. However there was some

disagreement with this when (20%) of them indicated that it was not essential. In regards to crime analysis being used to monitor patrol officers performance, where most analysts might feel they receive strong resentment, turned out to not be the case as expected. Overall, patrol officers (57%, n=17) disagreed or strongly disagreed that crime analysis is used to monitor their performance. A little over a quarter (26%, n=8) of these officers felt that crime analysis did not enhance their agency's ability to prevent crime. Most patrol officers (83%, n=25) also indicate that crime analysis does provide benefits to them as they perform their job duties. Interestingly, patrol officers indicate that crime analysis is essential and can provide benefits to their job function to a large degree, however, the majority (64%, n=19) of them indicate they do not proactively contact their crime analysis unit for support, and if they do it is infrequently (one time a year). Instead, they (80%, n=24) tend to use the products their crime analysis unit proactively pushes to the officers. In contrast though, the remaining (20%, n=6) officers either use this type of proactive support infrequently or not at all. In regards to actually using crime analysis products, patrol officers were more likely to use crime trend (77%) and hot spot mapping analysis (70%). Apparently the other products (such as crime counts, predictions/forecasting, crime comparisons, strategic analysis, patrol/resource allocation, and geographic profiling) did not offer the information officers needed, or they are unaware what other products might be useful. However, as a group of officers they typically agreed that each of these products that a crime analysis unit can provide would benefit them when conducting their job duties. When compared to the other two groups of officers, patrol had the majority of unsuccessful uses of crime analysis support with 20% (n=11) indicating negative results. Patrol officers opinions regarding their crime analysis unit was not positive. As a group they typically disagreed that their crime analysis unit provided timely information that was useful. The

information was considered inaccurate and did not contain enough detailed information. They did not rely on this information and felt the unit was not dependable as they provided services rather slowly. Overall, patrol officers perceive the crime analysis function as essential and for the most part consider that crime analysis support can benefit their job functions. However, due to a lack of success when using crime analysis products, and the poor services they receive from their crime analysis units, has created somewhat of a negative perception towards crime analysis amongst some patrol officers.

### **Summary of Specialized Officers Perceptions**

Almost a third (31%, n=8) of specialized officers working in an investigative capacity had an understanding as to why the crime analysis unit was established and its purpose within the agency. Nearly all the investigative officers (88%, n=23) strongly agreed that crime analysis is essential to the law enforcement function. These officers (92%, n=24) also thought their crime analysis unit was accessible to their demands. When responding to the question if crime analysis is used to monitor their performance, 84% (n=22) indicated that was not the case at their agency. These officers (96%) also agreed or strongly agreed that crime analysis enhances their agency's ability to prevent crime. Investigative officers (92%) also felt that crime analysis support definitely provided benefits when conducting their job duties. These officers (84%) were also more likely than not to initiate contact with their crime analysis unit to gain support in their investigations. Investigative officers recognized their crime analysis unit as being proactive and utilized the support products the unit provided quite frequently (88%, n=23). The types of crime analysis support that investigative officers were most likely to utilize over the last six months were crime counts, trend analysis, and hot spot mapping products. Although these officers had not pursued the use of other crime analysis support in the form of analytical products, they did

however agree that all the products that a crime analyst could provide to them would benefit their operations when investigating a crime. Officers (96%, n=25) working in the investigative capacity indicated a large volume of success when they have used the support of their crime analysis unit. Investigative officers as group had very favorable attitudes towards their crime analysis unit. The officers indicated their crime analysis unit was providing timely information that was extremely useful. The information they received was considered accurate with detailed information. They indeed relied on this information and felt the unit was very dependable as they provided needed services quickly. Overall, investigative officers are predominant users and proactive in the use of crime analysis support. They view the role of crime analysis as essential and enjoy success in their jobs with the support from their crime analysis unit. Due to the inherent nature of crime investigations, and combined with the tools and techniques that crime analysts deploy, appears to have created a great synergy of effectiveness.

### **Discussion**

The traditional policing model has proven itself to be slow at adapting to changes in law enforcement trends (Harvey, 1996). Agencies that do not embrace these emerging trends and change the way they operate are setting their organizations up for failure. More importantly, due to our nation's distinctive policing characteristics, in their very nature, creates an impetus for law enforcement agencies to constantly evolve and improve. One important characteristic is law enforcement's responsiveness to the demands of the citizens. The majority of work in law enforcement is driven by calls for service from the citizens they serve. This in turn creates the second characteristic of being accountable to these citizens, and thirdly, opens up the doors of law enforcement for evaluations and criticisms (Bayley, 1998). It would seem by these general characteristics that an agency would embrace and accept a process such as crime analysis, that



aides them by proactively improving their effectiveness in responding to the needs of their agency and the citizens they serve.

As law enforcement has attempted to adapt over the years there have been two transformations of importance. The first was the transformation to the professional policing model. A model that is reactive to crime and not conducive to meeting the demands, nor the evaluations of accountability, of the citizens that are served. The second transformation occurred when community policing emerged in the 1980's as a proactive solution (O'Shea & Nicholls, 2003). As a proactive model, community policing relies heavily on crime analysis to identify problems and underlying causes for serial crimes.

Some officers may scoff at the idea of using crime analysis to identify problems. Who knows the crime problems and other prevailing issues in an area better than the officers that patrol the beats? This is probably true in a sense, but how many officers can actually synthesize information about their area of responsibilities during their shift, as well as the additional information that other officers from different shifts may have regarding the same area. Wilson and Kelling indicated that many agencies do not have processes in place that allow for easy identification of problems in neighborhoods (1982). Although officers might patrol an area, when and how do they know the neighborhood is on the brink of a rash of serial burglaries? Although officers might notice a crime problem beginning to take hold in the neighborhood, their perceptions of the problem might be narrowly defined. In essence, there may be more than meets the eye.

Curiously, Bichler and Gaines (2005) explored officers' skills at identifying problems and their ability to solve them. In their study they discussed Buerger's research on problem

solving in Minneapolis. After identifying several crime and disorder issues it was found that police officers were resistant to the community policing process. It was also discussed that officers have difficulties with using data to analyze and identify problems, as well as determining a problem solving response. Moreover, officers' perceptions on crime problems and where they were actually occurring resulted in significant inconsistencies between perceptions and reality. As a result, utilizing officer contributions to identifying crime problems can be problematic in itself. Using crime analysis to erase these types of misperceptions towards problem identification can provide a positive impact in reducing crime and disorder. On the other hand, it can create a negative impact towards crime analysis because officers may perceive that a crime analyst is directing an officer on how to perform their job.

Increasingly, there are processes, models, methods and techniques that are coming to the forefront which will require the skills of the crime analyst and the units they work in. Community policing and ComStat are already being practiced in varying degrees. These two methods are creating the paradigm shift from traditional policing models to data driven analytical approaches as used with crime analysis (Walsh, 2001; Zhao & Thurman, 1997). As agencies begin to realize the benefits of crime analysis in community policing and ComStat processes, it will lead to even more analytical models such as intelligence-led policing. Although intelligence led-policing hasn't found its way into mainstream policing, it will no doubt provide an extension of uses for crime analysis (Peterson et al., 2004; Ratcliffe, 2002).

Not only are the aforementioned processes and models beginning to spread as common practices in law enforcement, but analytical techniques and advanced technologies are continually being improved upon that increase the effectiveness of crime analysis. The analysis

of various types of data is increasing rapidly and is being used to manage numerous aspects of law enforcement operations (Wagner, 2005). As the tempo for data analysis increases, so to does the volume of data being collected. In order to analyze this data requires the use of data mining techniques and software technologies that have potential for predictive analysis. These techniques go beyond the simple statistical methods commonly used today, and can enhance a crime analysts standing with sworn officers by assisting them in catching the criminals (McCue, 2007). In addition, crime analyst techniques are being improved upon that can increase the accuracy and reliability of crime analyst products. Techniques, such as Felson's and Poulsen's, that breakdown time indicators, into a simpler and more manageable, analysis of crimes by time of day (2003).

After the terrorist attacks in 2001 many law enforcement agencies have stepped up their efforts to collect and process data to create useful information. This effort has also created a need for data collaboration between multiple agencies spanning local, state, and federal jurisdictions (Zhaoa et al., 2006). It is apparent that crime analysts are in the midst of this evolution because these efforts involve the process of analyzing crime trends and searching for patterns in the data. One question remains though on how to incorporate crime analysis into the workflow of the investigative process. Whether it is an investigation on terrorist activities or a series of burglaries, the crime analyst can be an integral source of information at the onset of the investigative process. Similarly, Ribaux, Walsh, and Margot, point out that forensic science should be used proactively throughout the investigative process, instead of on the back end to produce evidentiary information for the courts (2005). Crime analysis should be used in the same fashion, versus the typical numbers crunching routine while providing information on crimes that have already occurred. Moreover, an analytical approach towards investigations creates

opportunities to conduct strategic targeting and apply problem solving methods. At the same time case data can be organized and analyzed while preparing final information for the court process (Peterson, 2005).

Although the current state of law enforcement is moving towards a higher level of data driven operations, it still doesn't indicate an embracing acceptance of the new models and processes that will be used. As mentioned previously, law enforcement organizations are slow to change. Resistances to new ideas that change the current paradigm are the norm. In order to better prepare officers and whole organizations for inevitable changes an agency must become proactive in determining the true needs of its organization and officers. This is true when attempting to bring crime analysis functions into the mainstream operations. All of the officers will not flock to the analyst for support. Instead, an analytic approach is needed to improve acceptance. An approach similar to what Colvin and Goh had undertaken to determine why police officers either rejected or embraced new computer technology, would serve well as a test for acceptance of crime analysis functions. In their study it was determined that officers would accept new technology if it was easy to use and provided a useful benefit to their job. In addition, officers indicated they would be even more prone to accepting new technology if it provided timely and quality information (2005). Surprisingly, these sentiments were echoed by some of the officers during the survey interviews for this research. Just as officers might accept or reject new technology based on important factors as mentioned above, law enforcement agencies with crime analysis units, or those about to embark towards the creation of one, might take heed to the needs of the officers.

Law enforcement activities are in a state of constant flux. Crime levels rise and fall, budgets change, new personnel take charge, politics play an influence, and new programs and strategies are adopted. When attempting to ascertain these issues and the effects they may produce, requires a decision making process that dictates the use of intelligence gathering, determining directions to take, identifying alternatives, setting a course of action and finally implementing the decision (Nutt, 2007). In law enforcement this type of decision making is typically triggered by a crime trend, such as an increase in burglaries or homicides. For this reason and others as listed in a brochure published by the United States Department of Justice, is why analytical functions are needed in law enforcement. They list the following:

1. Helps solve criminal investigations.
2. Increases the ability to prosecute criminals.
3. Supports the chief executive and the agency's mission.
4. Proactively informs law enforcement officers of crime trends and develops threat, vulnerability, and risk assessments.
5. Trains law enforcement and other intelligence personnel.
6. Assists in the development of computerized databases to organize information and intelligence.
7. Fosters meaningful relationships with other law enforcement personnel.
8. Ensures compliance with local, state, tribal, and federal laws and regulations.
9. Provides support to fusion centers. (U.S. Department of Justice, 2005)

We can see that crime analysis can play a pivotal role within many aspects of law enforcement. However, there might be lingering perceptions in a negative aspect. Crime analysts

and their organizations must then take steps to curtail those negative perceptions. Organizations can do this by deploying adequate technology and processes that enhances proper data collection. This allows the analyst to analyze data and detect patterns of crime, and in turn provide products that contain useful and reliable information in a timely manner (Ekblom, 1988). Changing perceptions isn't just left up to the organization. It is up to the crime analysis unit, whether it be a one man shop or twenty analysts, to be proactive and insert themselves as a valuable asset to all personnel in the agency. Analysts need to learn more than computer programs and statistics; they need to become local experts on crime in their jurisdictions. They should pursue facts and report them as soon as possible using the best mode of communication. Lastly, the analyst should understand what technique, product, or problem solving process works to bring about successful results (Clarke & Eck, 2005).

The role of crime analysis within a law enforcement agency will undoubtedly take its proper place alongside the other tools that officers use. Increased demands for analysis on homeland security issues, improved technologies, citizens' demand for improved and innovative approaches to solving crime and disorder issues will provide avenues for a crime analyst to enhance the perceptions officers have towards their profession. The traditional policing model with its independent operations and closed door community will burst open in the future (Stephens, 2005). At the entrance will be the crime analyst providing the needed information that officers can use as they continue to fight crime on the streets.

### **Conclusion**

It is apparent that a crime analysis unit can bring a different layer of intelligence for each of the units it supports. Hot spot mapping assists patrol officers by providing them spatial

intelligence on where crime is occurring. Crime trend analysis of a beat assists the lieutenant determine where problems are beginning to emerge. We could say that a law enforcement agency survives on different levels of intelligence that their analysts provide. However, we do know that an agency does not necessarily survive off the crime analyst's function. Otherwise every agency would have a crime analysis unit operating in every command.

As we can see from this brief research, the majority of officers certainly agree that crime analysis is essential to law enforcement operations. It appears that crime analysis may have indeed crossed a threshold of acceptance from the officer's perceptions. However, there are still some disagreements from officers on the usefulness and benefits of crime analysis that can still pose a negative perception. It is up to the analysts to improve their capabilities and continue educating officers on the usefulness and validity of the crime analysis function. Without this proactive effort, officers may continue to resist the function of crime analysis and its important role in supporting law enforcement operations.

**Appendix A**

**Perceptions on Crime Analysis Survey**

Name of Agency \_\_\_\_\_

State \_\_\_\_\_

- 1. What type of agency do you work for?**
  - A. City/Municipal Police Department
  - B. Sheriff's Office
  - C. State Police/Highway Patrol/Department of Public Safety
  
- 2. What capacity do you currently work in?**
  - A. Patrol
  - B. Command Staff
  - C. Special Unit (SWAT, Homicide, Narcotics, K9, Detectives, IA, Auto Theft, Sex Crimes, Investigations, etc...)
  - D. Other \_\_\_\_\_
  
- 3. What is your current rank?**  
\_\_\_\_\_
  
- 4. How many years have you been working in law enforcement?**  
\_\_\_\_\_
  
- 5. What is your current level of education?**
  - A. High School/GED
  - B. Some College
  - C. Associates Degree
  - D. Bachelors Degree
  - E. Masters Degree
  - F. Phd.
  
- 6. Have you ever attended a period instruction on crime analysis?**
  - A. Yes (If Yes go to #6a)
  - B. No (If NO, go to #7)



**6a. If YES, How would you rate the training you received?**

- A. Very Good
- B. Good
- C. Unsatisfactory
- D. Very Unsatisfactory

**7. How long has your agencies Crime Analysis unit been in place?**

- A. \_\_\_\_\_
- B. Don't Know

**8. What was the precipitator to develop a crime analysis unit?**

- A. Community Policing
- B. Accreditation
- C. Chief or Sheriff Initiated
- D. ComStat
- E. Other \_\_\_\_\_
- F. Don't Know

**9. How accessible is your crime analysis unit?**

- A. Very Accessible
- B. Accessible
- C. Somewhat Accessible
- D. Not Accessible

**10. Do you agree or disagree that a Crime Analysis Unit is essential within a law enforcement agency?**

- A. Strongly Agree
- B. Agree
- C. Disagree
- D. Strongly Disagree

**11. Do you agree or disagree that the Crime Analysis Unit is used to monitor your performance?**

- A. Strongly Agree
- B. Agree
- C. Disagree
- D. Strongly Disagree

**12. Do you agree or disagree that a crime analysis unit enhances your agencies ability to prevent crime?**

- A. Strongly Agree
- B. Agree
- C. Disagree
- D. Strongly Disagree

**13. Do you agree or disagree to how beneficial you think crime analysis can be in relation to your job duties?**

- A. Strongly Agree
- B. Agree
- C. Disagree
- D. Strongly Disagree

**14. Have you ever used the services/products from the crime analysis unit?**

- A. YES *(If YES go to #15)*
- B. NO *(If NO go to # 16)*

**15. How many times have you contacted the crime analysis unit for assistance?**

- A. Frequently (at least once or more a month)
- B. Semi Frequently (at least once per quarter)
- C. Infrequently ( Once or Twice per year)
- D. Never

**16. How many times that you know of does the crime analysis unit push information/products out to officers?**

- A. Frequently (at least once or more a month)
- B. Semi Frequently (at least once per quarter)
- C. Infrequently ( Once or Twice per year)
- D. Never

**17. How many times do you actively use the information the CAU pushes out to officers?**

- A. Frequently (at least once or more a month)
- B. Semi Frequently (at least once per quarter)
- C. Infrequently ( Once or Twice per year)
- D. Never

**18. Which of these CAU products have you utilized in the past six months?**

- A. Crime Counts Yes or No
- B. Crime Forecasting Yes or No
- C. Crime Trends Yes or No
- D. Crime Comparisons Yes or No
- E. Hot Spot Mapping Yes or No
- F. Strategic Planning Yes or No
- G. Patrol/Resource Allocation Yes or No
- H. Geographic Profiling Yes or No
- I. Other\_\_\_\_\_ Yes or No

**19. Out of the following CAU products, would you agree or disagree that they provide benefits when performing your duties?**

**A. Crime Counts**

Strongly Agree     Agree                       Disagree     Strongly Disagree

**B. Crime Forecasting**

Strongly Agree     Agree                       Disagree     Strongly Disagree

**C. Crime Trends**

Strongly Agree     Agree                       Disagree     Strongly Disagree

**D. Crime Comparisons**

Strongly Agree     Agree                       Disagree     Strongly Disagree

**E. Hot Spot Mapping**

Strongly Agree     Agree                       Disagree     Strongly Disagree

**F. Strategic Planning**

Strongly Agree     Agree                       Disagree     Strongly Disagree

**G. Patrol/Resource Allocation**

Strongly Agree     Agree                       Disagree     Strongly Disagree

**H. Geographic Profiling**

Strongly Agree     Agree                       Disagree     Strongly Disagree

**I. Other**

Strongly Agree     Agree                       Disagree     Strongly Disagree

**20. How would you rate your success when using crime analysis to assist you in your work?**

- A. Very Successful
- B. Successful
- C. Unsuccessful
- D. Very Unsuccessful

**21. Would you agree or disagree with the following factors in regards to your Crime Analysis Unit?**

**Does the unit Provide Timely Information**

- A. Strongly Agree
- B. Agree
- C. Disagree
- D. Strongly Disagree

**Does the unit Provide Pertinent/Useful Information**

- A. Strongly Agree
- B. Agree
- C. Disagree
- D. Strongly Disagree

**Does the unit Provide Accurate Information**

- A. Strongly Agree
- B. Agree
- C. Disagree
- D. Strongly Disagree

**Does the unit Provide Detailed Information**

- A. Strongly Agree
- B. Agree
- C. Disagree
- D. Strongly Disagree

**Does the unit Provide Reliable Information**

- A. Strongly Agree
- B. Agree
- C. Disagree
- D. Strongly Disagree

**Does the unit Provide Dependable Service**

- A. Strongly Agree
- B. Agree
- C. Disagree
- D. Strongly Disagree

**Does the unit provide Service Quickly**

- A. Strongly Agree
- B. Agree
- C. Disagree
- D. Strongly Disagree

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