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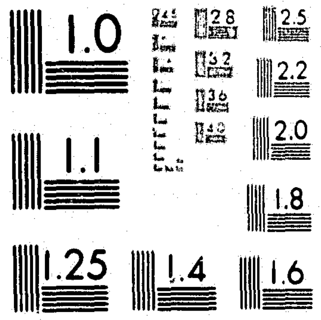

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The Police and the Elde

Ongoing Development of Crime Analysis Units

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"Selecting and training crime analysts is important for establishing a solid base for the development of the unit."

Since the mid-1960's, police departments in many parts of the country have formed crime analysis units.[1] Many were established as part of the integrated criminal apprehension program (ICAP), formerly funded through the Law Enforcement Assistance Administration (LEAA). Some crime analysis units are, however, the same in name only. Individual departments tend to have very different ideas about what crime analysis should do for them. Many agencies have also found it difficult to convince patrol officers and investigators to use crime analysis data on a day-to-day basis. In those agencies, crime analysts tend to complain that their work has become routine and clerical.

Traveling around the Nation as a consultant and trainer over the past few years, it became clear to me that some departments were more successful than others in making crime analysis an integral part of field operations. These departments have used strategies to develop the skills of crime analysts and the functions of crime analysis units. Much of the success these agencies have experienced results from being "user-oriented," meaning that user feedback is actively sought. That feedback is then employed to develop crime analysis products that fit the needs of patrol officers and investigators.

Along with obtaining meaningful user feedback, departments that have developed crime analysis units have successfully addressed other major issues, including staffing the unit, training analysts, and the specifics of crime analysis unit operations.

Staffing the Unit

Selecting and training crime analysts is important for establishing a solid base for the development of the unit. Analysts chosen to start a unit are, in many cases, handpicked. Problems sometimes develop when these original analysts must be replaced. Crime analysts should be persons who can develop credibility with line personnel.

Sworn personnel who are used as crime analysts should be capable of handling the necessary paperwork and have the reputation of being "good cops." Assigning light-duty persons or using crime analysis as a place to put someone "on the shelf" places the unit at a serious disadvantage. Assignment decisions send a message to a department's staff about the importance of a function.

If civilians are assigned to the unit, they should not be mathematicians. They should be persons who have a criminal justice background, have good communication skills, and understand how best to deal with line personnel.

Mr Bellmio

Once an analyst is chosen, clerical support should be considered. The information processing tasks performed by crime analysis units require some clerical services. Many units do not develop because analysts are bogged down in the day-to-day paper flow.

Time studies performed by the Portsmouth, Va., and Virginia Beach, Va., Police Departments suggest that crime analysts spend less than 20 percent of their time actually analyzing crime.[2] The balance of their time is spent on such tasks as screening information, file maintenance, and report production. These and other departments have used part-time high school students or retired volunteers as a low-cost method for reducing the clerical burden on crime analysts.

Training Issues

There are several formal training courses available for crime analysts. These programs may be expensive because of tuition, travel, and subsistence costs; however, departments just beginning to implement crime analysis units may find these training programs a worthwhile investment. Crime analysts with some experience sometimes find that these courses do not deal with more advanced problems. Overall, they tend to be one-time ventures for most agencies.

Many departments have found that one of the best methods for ongoing development of crime analysts is to provide travel funds to enable them to visit other units using new and innovative crime analysis techniques. This on-the-job training allows a new crime analyst to work for a week in an established crime analysis unit. More experienced crime analysts also find this approach useful because they can ask questions about operational problems they may face in implementing new techniques in their own departments. These onsite visits also tend to create an informal technical assistance network of crime analysts who share both ideas and experience on an ongoing basis.

Operational Issues

Aside from staffing problems, crime analysis units that continue to develop their capabilities have addressed important issues at each of the five operational stages of the crime analysis process—data collection, collation, analysis, dissemination, and feedback.

Data Collection

Successful crime analysis units look beyond using only offense reports and field interviews as data sources. In cities that have high rates of property crime, offense reports provide limited information for analysis purposes. Many times, analysts are not able to determine the time of the day or the day of the week a residential burglary took place. Other sources of information are used by some units to supplement information provided in offense reports and field interviews. (See fig. 1.) The data in these sources can be used to pin down times of occurrence or to distinguish between old

Figure 1

Supplemental Data Sources for Crime Analysis Units

Internal sources	Uses
Evidence technician's reports	Determine availability of latent fingerprints Determine precise means used to commit an offense
Selected calls for service	Times at which alarms are triggered in areas Speeding car calls Suspicious person calls
Investigative followup reports	Additional information from witness Information on trademarks
Traffic citations	Movements of vehicles in key areas
Teletypes from local agencies	Track crimes across jurisdictional boundaries
Confessions from arrestees	Confirm exact modus operandi of fencing property
Intelligence files	Drug abusers, fences, organized crime-related activity

External sources	Uses
Bail information	Suspects committing crimes while on bail
Probation information	Conditions of probation related to associates, places, alcohol use, etc.
Parole information	Release of known offenders into the community
Furloughed prisoners	Track appearance of an old modus operandi over a series of weekends

and new pry marks. Analysts should be aware of witness information that may have changed and new evidence obtained through followup investigations. Information on known offenders released from prisons or out on bail may also be very helpful in determining why a crime pattern continues after an arrest is made or why an old modus operandi reappears. In some cases, crimes committed by suspects out on bail may have little or no impact on their prosecution and therefore provide limited additional penalties.

When attempting to collect additional data, departments should establish information sharing agreements with other agencies. Staffing also becomes an important consideration because clerical help is needed to sift through data to provide analysts with information relating only to a specific area or problem.

Along with seeking new data sources, many departments have struggled with the problem of obtaining good information. Quality control is needed to create a system of checks and balances that promotes the collection of specific crime information. This requires that a set of standards be established for information to be collected about offenses and incidents. Training should include an explanation of why certain information is needed, and the quality of reports should be monitored at each level of supervision. Supervisors should determine the need for supervision, training, and changes in forms of paper-flow systems.

Some crime analysis units are assigned the quality control responsibility. Those units risk their relationship with line officers by assuming a role that is essentially supervisory without having the authority to make it work.

Data Collation

Crime analysis units usually begin to question the usefulness of files developed when the units were first implemented. Generally, these units eliminate files that are not used regularly to answer information requests. Each unit should also examine the need to maintain files on particular types of crime. Assault and homicide files, for example, may be interesting for research purposes, but many agencies find that information from these files has little application to patrol or investigative activities. These types of crimes usually take place between persons who know each other. Interpersonal relationships, not geography, time, or weapons used, determine whether these crimes take place. Many of these are also "smoking gun" cases that are less difficult to solve because of confessions or witness testimony. Keeping files on these types of problems does not usually justify the time spent on file maintenance.

Files should be easy to use and maintain. This requires adjustment and development of file structure on an ongoing basis. For example, file categories that have become too large should be divided into more manageable categories.

Collation of data has also been improved through the use of automated systems. Overall, however, the automation of crime analysis has not been as successful as many units had hoped. Units that use central computer systems sometimes run into problems because of the priority given to programing support for crime analysis from municipal data processing departments. These centralized systems were designed based on the assumption that a central records system could be modified to serve crime analysis. New forms to be fed into these systems were designed as a result of compromises involving many department units. The result, in many cases, was a new form that may have served the needs of records units but did not collect the information needed to analyze crime problems effectively.

Automation of crime analysis functions was also less successful in units that did not first develop viable manual systems. Making changes to developed manual systems is less time consuming and less expensive than rewriting computer software. User confidence is also threatened when customized software is constantly being revised.

Easy to use, relatively inexpensive, desk top microprocessors seem to hold the most promise for successful automation of crime analysis files. These systems can employ existing crime analysis software available for several brands of machines.

Along with existing crime analysis software, new data base management software packages for microprocessors that are well-suited to crime analysis functions are available. These packages function like large electronic file cabinets that can be searched a variety of ways, using file tabs defined by crime analysts. While these packages have some limitations, they can be used to inexpensively develop automated crime analysis files.

Data Analysis

Crime analysis units that have been less successful may have omitted the data analysis stage in producing products. Some of these units served only to reprocess information from incident reports into lists or summaries and send them back out to officers. These units did little analysis and even expected line personnel to do some of the analysis. As a result, bulletins were generally not used.

Analysis techniques should be developed by individual analysts. These techniques result from a mixture of information, intuition, creativity, and disciplined reasoning. Analysts have transformed traditional pin maps into multicolored maps that use acetate overlays. While these overlay maps are more useful than pin maps, some units depend too much upon maps as an analysis tool. As a result, some crime series go undiscovered because they are based on property targets, trademarks, or time of day, rather than geography.

Crime series matrices have been used by many departments to identify similarities in a series of cases. Matrices are particularly useful tools for analyzing crimes against persons. By charting the steps used to commit each crime, analysts can determine when offenses were most likely committed by the same suspect.

Other automated reports produced on a regular basis can be used to pinpoint reporting areas that are experiencing an unusual level of activity so that the areas could be the focus of detailed analysis.

The analysis process is one area that is still in need of major development. Many hours have been spent developing new approaches to analysis that employ such things as triangulation and statistically based projections of future criminal activity.

Dissemination of Products

An interesting analysis problem confronted by units after they have been in operation for a few years is that of defining the criteria for identification of a crime pattern. Some analysts have found that they waited too long to make their theories known. By the time any information was released, the problem was well-recognized by other members of the department. As a result, some units now release information in phases as problems and patterns develop.

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Reports generated by crime analysis units are their "products." Many units have learned that the packaging of these products seems to have a significant impact on increasing their use. Examples of alternative approaches are the use of video taped presentations based on a television news format, a tabloid newspaper format, and a briefing of patrol officers by crime analysts during rollcall.

Departments should adopt dissemination methods that fit the character of their agency. Experimentation is very important in finding the right method. A few general rules have emerged that seem to indicate that some products may be more successful than others. (See fig. 2.)

Feedback and Evaluation

Good communication with users of crime analysis products is necessary for the development of good products. Without input from users, crime analysis units are more inclined to become involved in planning projects or in maintaining useless, impressive-looking files. Officers on patrol and in investigations need to believe that the crime analysis unit is a service bureau that is able to meet their information needs.

Every effort should be made to ensure that the feedback and evaluation phase is a constructive process. One method that has been used to solicit feedback on the quality of unit products is a simple, structured user survey that elicits specific written feedback from users. These questionnaires, which are filled out anonymously, can serve to answer important questions about the relationship between the unit and its users. Some typical user survey questions include:

1) How do you use crime analysis reports?
2) Do you find them easy to use?
3) Are you familiar with the information available from the Crime Analysis Unit?
4) How often do you request information from the Crime Analysis Unit?
5) Are you satisfied with the information you receive?
6) What types of new reports do you need that could be provided by the Crime Analysis Unit?
7) What do you like best about the Crime Analysis Unit?
8) What do you like least about the Crime Analysis Unit?

A key to making this exercise a success is to ensure that the persons completing the survey later receive a summary of the survey results. The department should also issue a memo explaining how the survey's results will later be employed in fine-tuning the Crime Analysis Unit.

Figure 2

Checklist for Assessing Crime Analysis Products

	Yes	No
1) Is the report less than three pages long?		
2) Does it look significantly different from other department memos?		
3) Is the report *timely* (within 1 day of latest offense)?		
4) Is there a system for *keeping track* of who acted on the basis of the reports?.		
5) Could the report be written more clearly or concisely?		
6) Does the report require the reader to analyze lists of cases or information?.		
7) Are there grammatical or spelling *errors* in the reports?		
8) Do more than 35 percent of the reports end up in a trash can just after rollcall briefing?.		
9) Does any one complain when you stop producing the report?		
10) Does your unit stress quantity of bulletins rather than their *quality*?		

If you answered "no" to any of the first four questions and "yes" to any of the last six questions, you should reevaluate your unit's products.

Other, less formal, methods of feedback may be more appropriate in some departments. A user committee for crime analysis could be assembled to meet quarterly to provide feedback on unit products and operations. This group, which should be larger than 10 people, should represent a cross section of persons from various user groups. Both supporters and critics of crime analysis should be considered for appointment. A chairperson should establish an agenda in consultation with the crime analysis supervisors, and simple minutes of the meetings should be recorded. It may also be helpful to keep in touch with a few key, objective users who will be honest about the use of crime analysis products. Occasional surveys of rollcall room trash cans can also determine what shift or precinct in a patrol division is using Crime Analysis Unit products. Some units also find it useful to keep records of requests for service. A log or card file of information concerning requests provides a good data base for analyzing the types of information users are requesting.

Patrol Officer Use of Crime Analysis Products

Successful use of crime analysis by patrol officers results from the development of a partnership between patrol officers and crime analysts. Crime analysts must maintain the posture of a service bureau. Patrol officers should be praised and recognized in some way for their use of crime analysis products.

One way to build a successful partnership is through in-house training programs that explain crime analysis services available to patrol officers. Both inservice and recruit programs should include time for crime analysis. Rotation of patrol officers into crime analysis for 60 to 90 days is another method of training that provides patrol officers with insight into crime analysis and the necessity of direct feedback on unit products.

Once officers understand what information is available from crime analysis, a regular program of directed patrol activity should be developed. These directed patrol activities should be based on crime analysis data. Departments that expect results from patrol activities will find that crime analysis products are more likely to be used since successful directed patrol activities support the credibility of crime analysis products. Without a planned patrol program, officers may use crime analysis products on an individual basis, obtaining results that may never be traced back to crime analysis products.

Firstline supervisors also play an important role in increasing the use of crime analysis products. These supervisors, who are often the peer group leaders for their shift, can greatly improve the quality of offense reports, as well as the use of crime data by line personnel. For this reason, they should be consulted in the development and dissemination of crime analysis products.

The credibility of crime analysis has been enhanced greatly in agencies that encourage regular contact between line personnel and analysts. The crime analysis office should be close to the rollcall room but not next to the chief's office. Analysts should be encouraged to attend rollcalls to deliver briefings to officers on shifts with specific crime problems.

The credibility of crime analysis units suffers when predictions about when crimes will occur are inaccurate. Prediction and forecasting require a solid data base, coupled with a good deal of skill. Some units attempt to forecast offenses too soon, and their credibility suffers as a result.

Communication Between Units

Communication between crime analysis units and investigative divisions needs improvement. Data describing crime series are used by some departments to improve multiple clearances. Other departments use photographs of known offenders recently interviewed in the field for photo lineups rather than traditional mug books.

Assignment of cases based on information about crime series or crime patterns will reduce duplication of effort and make better use of investigative staff time. Crime analysis units could perform a case enrichment service by searching their files and providing the investigative supervisor with any additional relevant information before assignments are made.

Traditional uses of latent fingerprints could be speeded up by using crime analysis information to narrow

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down the number of fingerprint cards against which latent prints need be compared. Latent prints from crime scenes could be compared against those of known offenders recently field interviewed in the area of an offense.

The link between crime analysis units and crime prevention units is also weak. More work is needed to define and develop this link. Crime prevention units should stress target-hardening for crime problems identified by crime analysis. Neighborhood watch groups should receive on a regular basis information that describes crime problems in their neighborhood to help them focus their efforts. Crime analysis could also provide crime prevention units and neighborhood groups with profiles of potential victims and targets. These profiles would provide a basis for educational programs tailored to serve potential victim groups.

Conclusion

Many agencies began crime analysis units with high expectations. Some even experienced initial success during a "honeymoon" phase just after implementation. Now, many second generation units are no longer funded by Federal dollars. These units must compete with other department priorities to obtain resources, and as a result, they are experiencing either pressure to produce results or loss of resources.

While ongoing development of crime analysis units does not necessarily require dollars, it does require a systematic approach to developing and evaluating unit products. Successful crime analysis units have recognized that obtaining user feedback on a regular basis is crucial to the development of a crime analysis process that works. **FBI**

Footnotes

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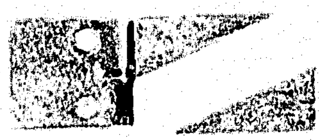
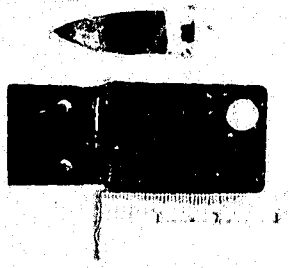
Belt Buckle Knife





During a narcotics arrest, a San Diego, Calif., police officer noticed an unusual belt buckle on the subject. It was subsequently discovered that the buckle, which conceals a knife, is a model in Gerber's "Touche" line and is available in sporting goods stores, police equipment stores, and other retail outlets. Law enforcement personnel should be aware of such a tool since it poses a potential threat when making arrests.

(Submitted by the San Diego, Calif., Police Department)

Crime in the United States 1982

According to the final 1982 Crime Index figures, serious crimes numbered an estimated 12.9 million, the lowest total recorded since 1979 when 12.2 million offenses were reported. These figures compiled by the FBI's Uniform Crime Reporting Program reveal an overall decline of 3 percent in serious crimes from the 1981 volume, the first significant decline since 1977. However, when compared to previous Crime Index totals, the 1982 statistics show a 15-percent increase over the 1978 figure and a 47-percent increase in the number of offenses recorded in 1973. Over 15,000 law enforcement agencies nationwide, covering over 97 percent of the total U.S. population, reported their crime data during 1982.

Crime Distribution

Geographically, the overall Crime Index showed declines of 6 percent in the Northeastern States, 5 percent in the North Central States, and 3 percent in the Western States. The Southern States registered virtually no change in its totals for the two annual periods.

Like the Nation as a whole, the country's cities recorded a 3-percent decrease in crime from 1981 to 1982. The rural counties and suburban areas each showed 5-percent declines.

The national crime rate, which relates the crime volume to population, was 5,553 offenses per 100,000 inhabitants in 1982. This rate was 4 percent lower than in 1981 but was 9 percent higher than the 1978 rate and 34 percent above the 1973 level.

Index of Crime, United States, 1973–1982

Population	Crime Index total	Modified Crime Index total	Violent crime	Property crime	Murder and non-negligent manslaughter	Forcible rape	Robbery	Aggravated assault	Burglary	Larceny-theft	Motor vehicle theft	Arson
Number of offenses:												
1973-209,851,000	8,718,100		875,910	7,842,200	19,640	51,400	384,220	420,650	2,565,500	4,347,900	928,800	
1974-211,392,000	10,253,400		974,720	9,278,700	20,710	55,400	442,400	456,210	3,039,200	5,262,500	977,100	
1975-213,124,000	11,256,600		1,026,280	10,230,300	20,510	56,090	464,970	484,710	3,252,100	5,977,700	1,000,500	
1976-214,659,000	11,304,800		986,580	10,318,200	18,780	56,730	420,210	490,850	3,089,800	6,270,800	957,600	
1977-216,332,000	10,935,800		1,009,500	9,926,300	19,120	63,020	404,850	522,510	3,052,200	5,905,700	968,400	
1978-218,059,000	11,141,300		1,061,830	10,079,500	19,560	67,130	417,040	558,100	3,128,300	5,991,000	960,000	
1979-220,099,000	12,152,700		1,178,540	10,974,200	21,460	75,990	466,880	614,210	3,327,700	6,601,000	[illegible]	
1980-225,349,264	13,295,400		1,308,900	11,986,500	23,040	82,090	548,810	654,960	3,759,200	7,112,700	1,114,700	
1981-229,146,000	13,290,300		1,321,900	11,968,400	22,520	81,540	574,130	643,720	3,739,800	7,154,500	1,074,000	
1982-231,534,000	12,857,200		1,285,710	11,571,500	21,010	77,760	536,890	650,040	3,415,500	7,107,700	[illegible]	
Rate per 100,000 inhabitants:												
1973	4,154.4		417.4	3,737.0	9.4	24.5	183.1	200.5	1,222.5	2,071.9	442.6	
1974	4,850.4		461.1	4,389.3	9.8	26.2	209.3	215.8	1,437.7	2,489.5	462.2	
1975	5,281.7		481.5	4,800.2	9.6	26.3	218.2	227.4	1,525.9	2,804.8	469.4	
1976	5,266.4		459.6	4,806.8	8.8	26.4	195.8	228.7	1,439.4	2,921.3	446.1	
1977	5,055.1		466.6	4,588.4	8.8	29.1	187.1	241.5	1,410.9	2,729.9	447.6	
1978	5,109.3		486.9	4,622.4	9.0	30.8	191.3	255.9	1,434.6	2,747.4	454.7	
1979	5,521.5		535.5	4,986.0	9.7	34.5	212.1	279.1	1,511.9	2,999.1	498.5	
1980	5,899.9		580.8	5,319.1	10.2	36.4	243.5	290.6	1,668.2	3,156.3	494.6	
1981	5,799.9		576.9	5,223.0	9.8	35.6	250.6	280.9	1,632.1	3,122.3	468.7	
1982	5,553.1		555.3	4,997.8	9.1	33.6	231.9	280.8	1,475.2	3,069.8	452.8	

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