

CHARLOTTE- MECKLENBURG:

*A Living Lab For
Problem-Solving Policing*

The Advancing Community Policing Grant23

Panel Commentary29

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A Living Lab For Problem-Solving Policing

The Advancing Community Policing Grant

Background

Charlotte used its Advancing Community Policing (ACP) grant to bring Herman Goldstein, who is considered the father of problem-oriented policing, to the department as a scholar in residence. Goldstein visited Charlotte for week-long visits over a period of one year. He performed an audit of the department to see how consistently community policing and problem-solving models

were being applied. Goldstein was also available to work with individual officers and help departmental units define their roles in a community policing environment.

The Project

Goldstein identified the need to strengthen police officers' problem-solving skills and efforts. "Most officers did a quick scan of the problem and then moved immediately to the response phase," said Darrellyn Kiser, Assistant to the Chief. "Goldstein felt that officers were missing an opportunity to use the power of available data to understand

CHARLOTTE-MECKLENBURG POLICE DEPARTMENT

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DEMOGRAPHIC BACKGROUND

Charlotte, North Carolina is a mid-sized sunbelt city with a jurisdiction population of 540,828. The population is 55.1 percent white, 32.5 percent black, 3.4 percent Asian/Pacific Islander, and 7.4 percent Hispanic.* Charlotte is experiencing a period of rapid growth. It is headquarters to two of the 10 largest banks in the Nation, making it the second-largest banking center in America. Charlotte is the center of the Nation's fifth-largest urban region and covers 530 square miles.

The Charlotte-Mecklenburg Police Department (CMPD) is a consolidated

metropolitan police agency that serves both the city of Charlotte and all of the unincorporated area in Mecklenburg County. CMPD has 1,533 sworn personnel and 456 civilian members. It has four divisions—Administrative, Field Operations (patrol), Investigative Services, and Special Services—and 12 patrol districts. CMPD recently established an International Relations Unit, staffed by a sergeant and six bilingual officers, whose goal is to develop initiatives that reduce crime, enhance quality of life, and foster mutual trust and

respect with members of Charlotte's increasingly diverse community.

CMPD has used federal grants to strengthen its efforts in community policing, problem solving, and the use of technology. The department hired 211 officers under the COPS program and has used COPS Making Officer Redeployment Effective (MORE) grants to put laptop computers in all of its vehicles, develop a records management system with a problem-solving component, and design a new Computer Aided Dispatch (CAD) system.

* U.S. Census Bureau, 2000.

the true nature of a problem, who was affected, what were the consequences, and how to tailor a response based on the results of data analysis."

Goldstein suggested that, under his guidance, the department should identify several difficult crime problems and apply a fuller problem-solving model. Given the need to emphasize the data collection and analysis phase, Goldstein suggested using a portion of the grant funds to bring in Ron Clarke, a member of the faculty at Rutgers University. Consequently, CMPD used the department as a "living lab" for linking the use of data and computer capacity to problem solving.

Four problems were identified for intensive analysis:

- Appliance burglary from single-family homes under construction
- Vehicle larceny in central city parking lots
- Drug-related violence in the Belmont community
- Pawnshops and their possible connection to burglaries

Appliance Burglary From Single-Family Homes Under Construction. A police captain and two

officers developed a plan to reduce thefts from construction sites. The plan targeted the three elements that make up a crime: suspect, victim, and opportunity. The idea was to work with burglary detectives to identify suspects. Once a suspect was arrested, officers would petition the courts to get the maximum prison sentence on conviction. Officers would get after-hours contact numbers for the builders who were victimized, in case suspects were apprehended in their neighborhoods. Officers also would exchange crime prevention ideas with the builders to improve and increase the builders' use of crime prevention techniques.

To reduce opportunities for theft, officers altered their method of patrolling the neighborhoods under construction. They staked out neighborhoods using marked and unmarked patrol cars and altered the days and times of their patrols.

The problem was that after six months, the plan was barely intact. Site managers who had been contacted either were reassigned or had left the construction company. This made the after-hours contact list and distribution of crime prevention information worthless. No suspects were identified and the directed patrols did not reduce the reported crimes. One major aspect of the initial plan had been left out: analyzing the problem.

With the help of Goldstein and Clarke, Captain Johnson and Officers Cunius and Rost started again from scratch. First, the scope of the project was narrowed, because the category of construction site theft was too large. Instead, the plan focused on reducing the theft of appliances in burglaries from single-family homes that were under construction. This plan had a greater chance of success because serial numbers could be located for stolen appliances, the appliances could be secured, and this type of crime was responsible for a high percentage of the commercial burglaries in the district.

The next step was to investigate why these thefts were occurring. The neighborhoods

were surveyed to learn the location of new construction and how many houses would be built during the next few years. Builders were surveyed on their methods and practices while on the construction site. Building inspectors were asked about building regulations for installing appliances.

"Goldstein felt that officers were missing an opportunity to use the power of available data to understand the true nature of a problem, who was affected, what were the consequences, and how to tailor a response based on the results of data analysis."

Darrellyn Kiser, Assistant to the Chief

The questioning yielded several important pieces of information:

- Homebuilding in the district was increasing and would continue to do so for the next few years.
- Most homebuilders were installing "plug-in" appliances approximately 21–28 days before houses were sold.

- Before the house was issued a certificate of occupancy, the only appliances required to be installed were those that were hardwired directly into the house.

An analysis of crime at construction sites led to the discovery of a data problem, so officers had to look through hard copies of two years of police reports and locate each burglary report for thefts of construction appliances. Although time consuming, this process ensured accurate data. Next, officers created an appliance profile, noting the types and makes of the appliances stolen, the builders involved, days of the week, incidents per month, and cost per incident. In reviewing the risk rates and the appliance profiles, officers discovered that nearly 75 percent of the appliances stolen were plug-in appliances that did not need to be installed before the sale. The next step was to formulate a response.

The data were presented to the homebuilders in a PowerPoint presentation. The goal was to get them to delay the installation of appliances from the normal 21–28 days in advance to the day of closing. A six-month test period was proposed. Ten of the 15 builders who viewed the presentation agreed to participate in the test.

During the test period, all houses under construction within the district were checked 15 times; more than 11,000 field checks were conducted.

The data collected during these checks proved invaluable later when the project was assessed.

After the trial period ended and the data were analyzed, officers found a reduction in the number of appliance burglaries (from 76 in 1999 to 45 in 2000) and in the rate of burglaries (from 5.3 per 1,000 in 1999 to 2.5 per 1,000 in 2000).

Using a geographic information system (GIS), officers mapped the areas that had high concentrations of appliances that were installed early. These same areas had most of the appliance burglaries. The results were shared with the builders, most of whom agreed to continue to delay the installation of appliances even after the trial period ended. If all builders participated in the project, officers believe the problem of appliance theft could be virtually eliminated.

Vehicle Larceny in Center City Parking Lots.

Larcenies from autos (LFAs) were increasing each month, having grown from 428 offenses in 1998 to 700 in 1999, according to Sergeant Harold Medlock. Analysis revealed that 73 percent of those were from surface parking lots, 15 percent were on the street or on the property of single-family residences, and 12 percent were on parking decks.

Captain Jerry Sennett assembled a problem-solving team that included Goldstein and Clarke.

The team decided to conduct a survey of Center City parking lots. They collected information on lighting, vehicle and pedestrian access, night and day parking, presence or absence of an attendant, cost of parking, number of parking spaces, number of floors, geographic location, dimensions, and perimeter fencing. The team ultimately decided to focus the problem-solving initiative on surface parking lots. Analysis confirmed that unsecured surface lots that were adjacent to railway lines/former rail lines, were close to highway overpasses, had poor lighting and inadequate fencing, lacked attendants, and were close to the Center City nightlife district were disproportionately prone to higher numbers and densities of incidents.


During the analysis phase, Captain Sennett sent team members to Portland, Oregon to learn about their success in combating a similar problem. The team gathered valuable information that helped them develop their own strategy.

Based on the information gathered during 18 months of research and analysis, the problem-solving team proposed and implemented the following strategies:

- Captain Sennett proposed forming a partnership with the parking lot owners and managers to develop strategies for improving safety. The parking lot owners agreed that a grading system for parking lots would produce positive results.

The owners also provided letters of support for an amended fence ordinance that CMPD proposed to the city planning department.

- Officers implemented a radio system that linked private security firms and security units for major institutions to provide everyone with immediate information in the event of a crime. A side benefit was that the private security firms began to feel like legitimate partners with the police department.
- The problem-solving team recommended creating a specialized, proactive, nonpolice LFA bicycle patrol unit with direct radio links to the police department. The Center City Crime Prevention Council is trying to find a cost-effective way to implement this proposal.
- Detailed Crime Prevention Through Environmental Design (CPTED) surveys of six surface parking lots in Center City provided valuable information on how the physical environment affects criminal activity. Based on these surveys, team members began to educate parking lot owners/managers informally about changes and improvements that could be implemented at minimal expense.
- The team recommended implementing a grading system to encourage parking lot owners to improve environmental design and/or



increase active security throughout their properties. Each lot or deck would be graded (A, B, C, or D) based on a CPTED survey. The grades would be posted prominently at several locations in each parking lot.

- Captain Sennett helped obtain a portion of the police department's block grant funds to purchase and install a closed-circuit television system in Center City, with cameras placed in close proximity to the surface parking lots. Nearly all of the private partners allowed and paid for the installation of the cameras on their buildings at no cost to CMPD.
- Team members identified a major obstacle to parking lot safety/security in a current city ordinance that mandates opaque wooden fences surrounding every surface parking lot, which blocks sightlines. Captain Sennett and the team members have begun working with the city planning department to amend the city fence ordinance.
- The project team is beginning to provide LFA education to the homeless population in the center city. The team agreed that, although the homeless are not solely responsible for LFA, they have a right to know about the increased attention to this problem. Officers will go to soup kitchens and homeless shelters to provide more information.

→ Early on, the project team learned that many victims of LFA were not sure where the incidents occurred because most of the surface parking lots did not have street addresses posted. When parking lot owners began to post addresses, LFA incidents began to decrease.

→ The project teams identified repeat offenders. Officers began to work with the district attorney's office to ensure that repeat offenders were properly prosecuted. Officers now ask the presiding judge to issue territorial exclusions as part of an LFA suspect's sentence.

Captain Sennett presented the entire LFA project during a Center City Crime Prevention Council meeting, further strengthening the partnership between the police and the business community.

An additional benefit of this project was that officers became more aware of suspicious activity in surface parking lots as they traveled throughout the district. Officers began to stop and talk with suspicious people who were in parking lots. This increase in officer interest and activity, along with all the other remedies implemented, has decreased the larceny from auto rate, with the number of reports during 2001 expected to be less than half of the 700 incidents reported in 1998.

Drug Violence in the Belmont Community. The Belmont Drug Violence Reduction Project began

as a response to a series of homicides and serious assaults in which firearms were used. During one 9-month period, 5 homicides and more than 100 aggravated assaults occurred in the neighborhood. On initial scanning of the problem, officers learned that victims did not live in or near the Belmont community. The majority of these incidents appeared to involve people coming from outside the neighborhood to buy drugs, a theory that preliminary analysis supported.

A GIS analytical capacity was employed to analyze problems and trends based on a number of variables. Data included U.S. Department of Housing and Urban Development Section 8 public assistance properties, Habitat Homes, rental and owner-occupied properties, businesses, and levels of streetlight illumination. To increase analytical accuracy, crimes were mapped to property building footprints rather than estimated along street centerlines. Crimes and other violations could then be assessed house by house. The result has allowed police to view crime trends more accurately than ever before in the department's history. Police can now compare and associate patterns, changes, and trends with numerous variables relating to the community, such as rates of crime between types of housing. One outcome of the analysis was that Habitat Homes in this area were found to be high in violence. Officers investigated and found that many of the Habitat Homes were secretly being rented. Habitat for Humanity was

informed of this finding; the organization is now working to eliminate the rental violations via contractual adjustments.

With an analysis of the data confirming that 60 percent of the arrests in northeast Belmont were for drug offenses committed by people from outside the area, officers knew the area's easy accessibility by automobile was a problem. Further analysis pointed out two of the most prominent routes, so officers suggested installing barricades on these two streets. The hypothesis was that the barricades would create sufficient insecurity among drug buyers and thus reduce their frequency of visits, and by extension reduce their risk of victimization. With mixed support from the community, a single solid-concrete highway barricade was installed at the popular intersection, effectively turning the roads into dead-end streets. The community agreed to allow the barricade on a temporary basis and to remove it if it proved ineffective. To create a relatively sound test environment for analyzing the impact of the barriers, no other intervention strategies were applied at that time.

An analysis of the crimes committed on the same date one year before and one year after the barricades were installed found a 54-percent decrease in violent offenses. When there was no relationship between offender and victim (typically

assumed to be buyers and sellers), violent offenses decreased by 78 percent. Arrests were also down by 43 percent. The highest rates of decrease for all statistics came specifically on those streets that were barricaded. Other area streets showed less substantial decreases.

During the course of this study, many community residents objected to the use of the barricades. The community leadership lent cautious support, requesting periodic evaluations of their effectiveness. Ironically, a year after installation, the residents most strongly supported the continued use of the barricades, while the community leaders objected. Supporters said drug activity in the study area, although not eliminated, was noticeably less prevalent, and they were positively impressed with the reduction in violence. Neighborhood leaders were now opposed to the barricades because they feared the city was imposing them as a permanent solution, which they viewed as inadequate. Everyone involved agreed that the unsightly appearance of the concrete barricades was a problem. As a result, the barriers have been replaced with a post-and-chain divider surrounded by a garden, which pleases area residents.

More than a year after the installation of the barricades, a seven-member Street Drug Interdiction Team was created. Individuals known to be drug dealers were targeted for investigation, arrest, and

prioritized prosecution in a joint effort between police and prosecutors. Between November 2000 and February 2001, violent offenses in the area dropped by 30 percent.

Pawnshops and Their Possible Connection to Burglaries. The study of pawnshops in Charlotte-Mecklenburg was designed to examine the activities and behavior of individuals who frequently pawn multiple items, according to Crime Analyst Kristen Knight. Police believe the study was vital both to the recovery of stolen merchandise and to the investigation of crimes such as burglary, robbery, and larceny.

Prior examination of data suggested that people who pawned items occasionally accounted for approximately 90 percent of business, while the remaining 10 percent pawned items quite often. The study examined nine components of the behavior of frequent pawners:

- Whether the transaction involved a loan or a sale
- The type of property pawned (e.g., firearms, electronics, tools)
- The addresses and frequency of pawnshops visited for GIS analysis
- The number of items pawned per visit and the average value of these items

- Each customer's criminal record, if any
- The average value of items
- The point at which a pawnshop owner or manager became involved in the transaction, based on the value of the item
- The average distance from home the customer travels to pawn items
- A comparison of the above factors for frequent pawners and a random sample of less frequent customers

One of the most interesting aspects of this project was its application of the problem-solving philosophy and the scanning, analysis, response, and assessment (SARA) model to an investigative issue. The Investigative Services Division has sought ways to involve detectives in problem-solving activities so they can more closely apply these concepts to their work. This project took an investigative issue and used extensive data analysis to test the theories. The project gave detectives a chance to see the benefits of more extensive data analysis, which the department hopes will be an impetus for similar projects in the future.

Officers often described the SARA process as tedious and slow; however, this project helped them see that their efforts had concrete results.

This ACP project is a good model for the integration of problem solving with data. This particular project did not demonstrate the expected correlation. It was a good example of using SARA to check and overturn an assumption of the relationship between pawnshops and burglary.

Panel Commentary

Charlotte-Mecklenburg used its ACP grant to demonstrate the power of bringing an outside expert with international prominence to a department. Goldstein's and Clarke's involvement caused officers to take this project seriously. Having an expert onsite for a week at a time created many informal opportunities for spontaneous interaction, including the flexibility to pursue ideas as they came up. As a result of working with Goldstein, people from the department accepted the concept of community policing more powerfully and effectively than they would have through training in another location.

The immediate question that arises, however, is the degree to which this process could be replicated elsewhere. How many agencies can afford such an investment, and how many scholars have the cachet and immediate credibility of Goldstein? Perhaps the larger lesson is that community

policing programs benefit from having access to continuous feedback from an independent, critical source. This function, which should be embedded in implementation programs whenever possible, can be fulfilled by a variety of sources: police personnel, community members, business leaders, and/or retirees. The point is that the inclusion of a credible "touchstone" in the process of program implementation is worth considering, and Charlotte-Mecklenburg clearly benefited from novel and creative use of the ACP grant.

The summary of the "appliance burglary project" is a classic case study and worthy of extended analysis. The panel hopes that Charlotte-Mecklenburg will work up a detailed paper on this project and focus on the process of redefining a program that initially failed. It is rare for police agencies to provide indepth analysis of programs that do not work, and to explain how they redesigned their approach to achieve ultimate success. Charlotte-Mecklenburg learned a profound lesson in its initial attempt to address a specific crime problem without first undertaking rigorous analysis of data and causalities. The point is that failures should be examined and triumphs should be celebrated with equal interest. Although false starts and failed initiatives are plentiful in the law enforcement profession, they are seldom reported.

It is tempting to minimize several of the Charlotte-Mecklenburg initiatives as rather mundane and uninteresting. But there is a profound message in the department's experience: Choose battles that can be won. A police agency at the early stages of organizational transformation would do well to focus on perfecting the SARA process by using it to address some basic problems, which in turn would allow them to demonstrate substantive success by dramatically reducing a solvable crime and disorder problem. Once a record of accomplishments has been established and the process has

been tested in a real-world laboratory, the chances of acceptance of organizational change and institutionalization of the problem-solving model will be greatly improved.

The pawnshop study is noteworthy in part because of the involvement of the investigations bureau in a SARA project. Much has been said about the rarity of SARA applications in detective bureaus around the country. For all the rhetoric about how the integration of problem-solving methodologies into investigations is the next frontier, few case studies indicate progress in this area.

Together, the four varied projects provided the Charlotte-Mecklenburg Police Department with a rich framework in which to address future issues. Personnel who worked on these projects are now armed with immensely valuable institutional knowledge that will allow them to teach others and pass along their successes, trials, and failures. Although the process often seemed tedious and overly time consuming, the organizational wisdom and experience that were gained were invaluable.

