Excellence in Problem-Oriented Policing

The 2001 Herman Goldstein Award Winners

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Contents

Introduction

This report celebrates the extraordinary efforts of the winner and five finalists of the Police Executive Research Forum's (PERF's) 2001 Herman Goldstein Award for Excellence in Problem-Oriented Policing (POP). The award recognizes outstanding police officers and police agencies—both in the United States and around the world—that engage in innovative and effective problem-solving efforts and achieve measurable success in reducing specific crime, disorder, and public safety problems faced by the police and the community.

PERF assembled a panel of nine researchers and practitioners who selected the winner and five finalists from among 73 award submissions from the United States, Canada, and the United Kingdom. The judges considered a number of factors in their selection, including the depth of problem analysis, the development of clear and realistic response goals, evidence of a relationship between analysis findings and response, the use of relevant measures of effectiveness, and the level of involvement of citizens and other community resources in problem resolution.

Police agencies whose projects successfully resolve or alleviate any type of recurring crime or disorder problem are eligible to compete for the award. Examples of problems reduced by past applicants include graffiti along a business corridor, burglaries of immigrant-owned businesses, drug markets in apartment complexes, bullying in schools, theft from construction sites, and panhandling.

The PERF award honors Herman Goldstein, professor emeritus at the University of Wisconsin Law School in Madison, who first articulated and later elaborated on the concept of problem-oriented policing in two seminal publications—the first in 1979, "Improving Policing: A Problem-Oriented Approach" (Crime and Delinquency 25: 236–258); the second in 1990, Problem-Oriented Policing (New York: McGraw Hill). Goldstein continues to advance POP and to inspire police officers around the world to identify the problems that plague communities, to analyze a wide range of information, and to craft and implement responses uniquely suited to each problem. Goldstein has urged police to become problem solvers and expand their repertoire beyond reactive policing.

Notably, Goldstein has encouraged police to evaluate the impact of their responses to determine the effectiveness of their efforts. Rather than focusing on the symptoms, problem-oriented policing efforts should address the underlying conditions that give rise to crime and disorder. The results of such a focused approach should prove more effective and long lasting. Indeed, improving police effectiveness is at the center of problem-oriented policing.

The concept of problem-oriented policing is best illustrated by an example. Suppose police find themselves responding several times a day to calls about drug dealing and vandalism in a neighborhood park. The common approach of dispatching an officer to the scene and repeatedly arresting offenders may do little to resolve the long-term crime and disorder problem. If, instead, police were to incorporate problem-oriented policing techniques into their approach, they would examine the conditions underlying the problem. This would likely include collecting additional information—perhaps by surveying neighborhood residents and park users, analyzing the time of day when incidents occur, determining who the offenders are and why they favor the park, and examining the particular areas of the park that are most conducive to the activity and evaluat-

ing their environmental design characteristics. The findings could form the basis of a response to the problem behaviors. While enforcement might be a component of the response, it would unlikely be the sole solution because, in this case, analysis would likely indicate the need to involve neighborhood residents, parks and recreation officials and others. Police adopting the problem-oriented policing approach are encouraged to develop innovative responses to public safety issues in their community.

THE EVOLUTION OF POP

In the late 1970's, researchers, law enforcement professionals, and policymakers became interested in improving the effectiveness of policing. Research during this period pointed out the limitations of random patrol, rapid response, and follow-up criminal investigations—practices that had been the foundation of policing for many years. These findings laid the groundwork for the emergence of problem-oriented policing. The first test of POP took place in the Newport News Police Department in the mid-1980's in a PERF research study that was conceptualized as a crime analysis study. Indeed, using analysis to inform policing remains a key tenet of POP today.

Early work on problem-oriented policing yielded important insights:

- Police deal with a range of community problems, many of which are not strictly criminal in nature.
- Arrest and prosecution alone—the traditional functions of the criminal justice system—do not always effectively resolve problems.
- Giving the officers, who have great insight into community problems, the discretion to design solutions is extremely valuable to solving the problems.
- Police can use a variety of methods to redress recurrent problems.
- The community values police involvement in non-criminal problems and recognizes the contribution the police can make to solving these problems.

As problem-oriented policing has evolved over the last two decades, researchers and practitioners have focused on the evaluation of problems, the importance of solid analysis, the development of pragmatic responses, and the need to strategically engage other resources—including community members, city departments and government agencies, and local business and service organizations. Indeed, the role of the community continues to be a subject of discussion among POP experts, and problem solving is a key element in many community policing initiatives.

The SARA Model

The most commonly used process for addressing recurring problems, known as SARA (scanning, analysis, response, and assessment), grew out of the problem-oriented policing project in Newport News. This model has become the basis for many police agencies' training curricula and problem-solving efforts. The process is broken into steps, which are summarized below:

Scanning:

- Identify recurring problems of concern to the public and the police.
- Prioritize problems.
- Develop broad goals.
- Confirm that the problems exist.
- Select one problem for examination.

Analysis:

- Try to identify and understand the

events and conditions that precede and accompany the problem.

- Identify the consequences of the problem for the community.
- Determine how frequently the problem occurs and how long it has been taking place.
- Identify the conditions that give rise to the problem.
- Narrow the scope of the problem as specifically as possible.
- Identify a variety of resources that may be of assistance in developing a deeper understanding of the problem.

Response:

- Search for what other communities with similar problems have done.
- Brainstorm interventions.
- Choose among the alternative solutions.
- Outline a response plan and identify responsible parties.
- State the specific goals for the response plan.
- Identify relevant data to be collected.
- Carry out the planned activities.

Assessment:

- Determine whether the plan was implemented.
- Determine whether the goals were attained and collect pre- and post-response qualitative and quantitative data.
- Identify any new strategies needed to augment the original plan.
- Conduct ongoing assessment to ensure continued effectiveness.

THE 2001 AWARD WINNERS

The following six chapters describe how the winner and finalists of PERF's 2001 Herman Goldstein Awards used problem-oriented policing and the SARA model to address community problems. The judges selected the **California Highway Patrol** as the winner of this year's award for their strategy to reduce injuries and fatalities along a busy highway corridor—an area that had experienced 48 fatalities in the three years preceding the project. Their task force's comprehensive analysis yielded a response plan that included: enhanced enforcement of traffic laws and increased fines; no-passing zone, shoulder, and signage improvements; installation of roadside call boxes, jurisdictional modifications to facilitate emergency assistance, and increased public awareness. The Corridor Safety Program has decreased the rate of fatal collisions and saved an estimated 21 lives in the first year of its implementation.

The judges also recognized the following finalists:

The **Buffalo (NY) Police Department**, which addressed the longstanding problem of prostitution in their Allentown area by targeting "johns" for increased enforcement while providing alternative sentencing. Their strategy, which also included outreach to prostitutes and environmental alterations in the area, drastically reduced calls for service to the area.

The **Chula Vista (CA) Police Department**, which faced an increase in their high residential burglary rates because of new housing construction. The department interviewed victims and burglars, conducted environmental assessments, and reviewed

incident reports before concentrating their efforts on new housing security improvements. Police estimate that 100 burglaries will be prevented annually in neighborhoods with the new construction target hardening upgrades.

The **Rogers County (OK) Sheriff's Office**, which partnered with regional associations, residents, and the media to address thefts of general livestock, horse, and flatbed trailers. The solution of microchip installation in trailers provided a tracking device for equipment that was easily removed and disposable, and a deterrent to would-be thieves. Trailer theft in Rogers County has been virtually eliminated, with only one reported instance in the past two years.

The **Salt Lake City (UT) Police Department**, which confronted a high volume of false alarm calls that drained patrol resources and contributed to a backlog of calls for service that decreased response times. After a thorough examination of response options, the department implemented a verified response strategy, shifting the burden of false alarm response to private security companies and continuing to dispatch officers to calls after eyewitness verification of suspicious activity. False alarm-related calls for service dropped by 90 percent after the verified response ordinance became effective.

The **South Euclid (OH) Police Department**, which reduced instances of bullying in the public school system by 60 to 80 percent by increasing awareness of teachers, students and parents and targeting bullying hotspots in the schools. The project not only created a safer school environment, it also provided a way for "at risk" students to succeed in school.

Each of these police agencies provides an excellent example of how problem-oriented policing can be used to successfully address substantial problems in their community.

California Highway Patrol

CORRIDOR SAFETY PROGRAM—A COLLABORATIVE APPROACH TO TRAFFIC SAFETY

Judge's Commentary
The focus of most problem-oriented projects is crime, but it might just as well be any other of the recurring problems dealt with by police. In fact, this year's winner of the Goldstein Award was focused on a traffic problem—a high rate of fatal accidents on a particular stretch of rural highway in California. The projects' novelty was one reason for its selection. Another was that it was focused on an important, life-threatening problem. However, judges liked many other things about the project, including the following:

- Scanning was unusually rigorous. The stretch of highway, or corridor, was selected from among 550 qualifying roadway segments on the basis of its high rate of collisions and fatalities during a three-year period. A particularly serious accident resulted in its being given high priority for treatment by the California Highway Patrol.

- Analysis consisted of a detailed review of accident data, together with input from a task force of state and local stakeholders who made a daylong visit to the roadway to see the problem first hand. The principal factors involved in the different kinds of collisions were identified.

- This analysis resulted in a comprehensive response plan with 48 specific recommendations falling under four major headings of Engineering, Emergency Response, Enforcement and Public Education. The submission included information about the cost of the recommended actions and their status by the end of the project.

- Quantitative assessment of accident statistics clearly demonstrated the success of the project. Accidents were substantially reduced (especially when related to miles traveled) and it was estimated that in the five years after the completion of the project 21 lives were saved.

- The local community has continued to make improvements to the corridor. Encouraged by the success of the project, the California Highway Patrol has now implemented a total of 22 corridor projects and is extending the corridor concept in seeking to reduce pedestrian fatalities and those related to truck accidents.

SUMMARY

The Problem: California State Routes (SR) 41 and 46 are rural east-west highways connecting California's Central Valley to the central coast region. After a particularly serious multiple fatality collision in 1995, the local community asked the California Highway Patrol (CHP) to assist them in reducing such tragic incidents along this corridor. A brief look at the collision picture along the corridor confirmed the need to act quickly. Between 1992 and 1995, there were a total of 976 collisions on the corridor, including 48 fatalities.

Analysis: The California Highway Patrol formed a multi-disciplinary task force to complete a comprehensive analysis of this corridor's collision problem. The main causal factor was "unsafe turning movement," which includes drifting out-of-lane

INITIAL SELECTION PROCESS FOR CORRIDOR SAFETY PROJECTS

Evaluation of the first candidate corridors began with a review of state highway data from the California Department of Transportation's (Caltrans) Traffic Accident Surveillance and Analysis System (TASAS). This database, along with information from the CHP's Statewide Integrated Traffic Records System (SWITRS), yielded 550 roadway segments for consideration. Three years of collision and victim data (1989-1991 initially) were reviewed to minimize any statistical anomalies. Segments less than eight miles in length and those with an average daily traffic count of 1,000 vehicles or less were eliminated since those rates were too variable to be reliable indicators. Also, to be included in the selection pool, potential corridors had to pass through or be adjacent to an urban area, and fall under the jurisdiction of the CHP for at least a portion of a potential corridor. Segments with fewer than five deaths in three years were also eliminated.

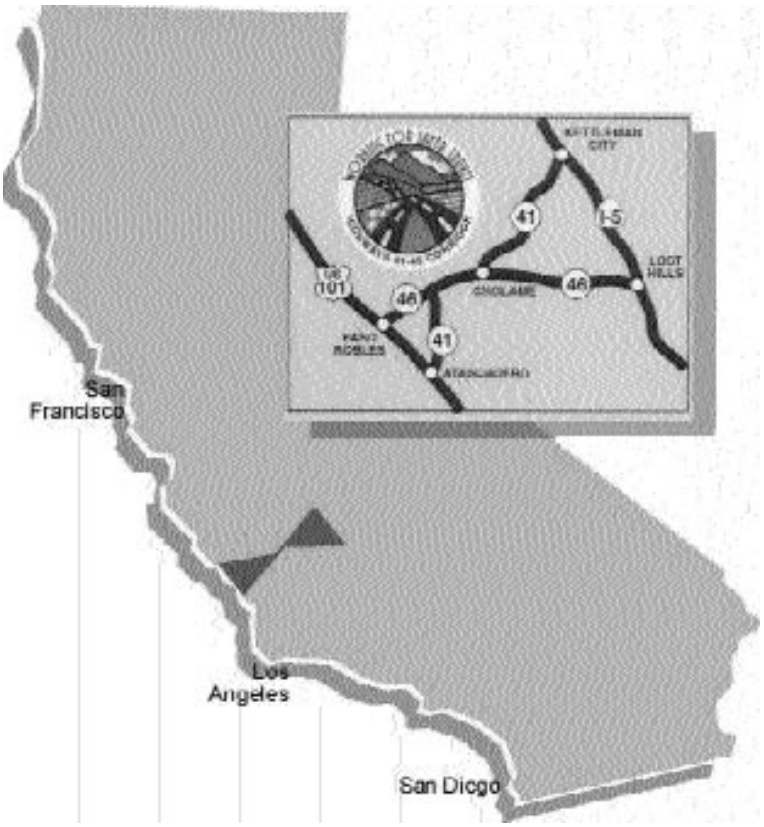
Along with the statistical rankings of potential corridors, more subjective input was typically sought from a variety of sources. Personnel from the CHP and Caltrans in the localities of each segment and from members of the local public works departments requested information about the top-ranked segments. This provided a localized perspective concerning the appropriateness of applying the corridor concept to a segment, public sentiment about the proposed corridor, and other information not necessarily available at the statewide level.

Based on statistical rankings and input from local experts, recommendations for corridor selection were presented to CHP's Executive Management, who selected a portion of State Route 1 in Ventura County as the first Corridor Safety Project. A similar process resulted in selection of State Route 184 in Kern County as the second corridor project in 1995. The SR 41/46 corridor was the third corridor selected.

[i] U.S. Department of Health and Human Services, Public Health Reports , Vol. 110 ; No. 3 ; Pg. 233; ISSN: 0033-3549 (May, 1995).

and over-correcting off the road, and crossing over the center line into oncoming traffic. Contributory factors included inadequate shoulders, poor signage and short passing or merging lanes. A large farm worker population, comprised primarily of Spanish-speaking individuals, raised questions about motorists' knowledge of traffic signs and laws relating to use of occupant restraints, drinking and driving, and other rules-of-the-road. The remoteness of much of the corridor made access to emergency services inconvenient at best.

Response: The Corridor Safety Task Force developed a detailed action plan comprised of four main areas: enforcement, emergency services, engineering, and public education. Along the SR 41/46 corridor, CHP and local law enforcement enhanced patrol to enforce traffic laws; emergency service providers found ways to deliver services more quickly; the California Department of Transportation made engineering improvements along the corridor to enhance driver safety; and CHP mounted an extensive public education campaign to remind motorists to drive safely.



Assessment: The efforts were quite successful. Fatal collisions were reduced by 10 percent and injury collisions were reduced by 32 percent. A follow-up four-year data comparison showed continued safety benefits, especially in the more severe crashes, with a 27 percent reduction in collisions resulting in serious injuries. Over the five years of available data, it is estimated that the safety initiatives have saved 21 lives and prevented 55 injuries.

SCANNING

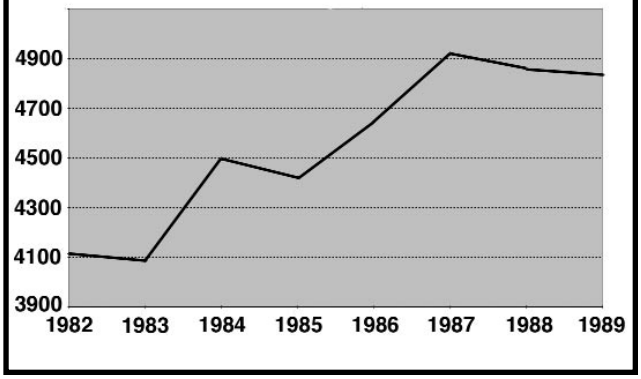
When statewide fatalities began to increase in the mid-1980s (see Figure 1), it became evident that the CHP would have to expand its focus and seek the assistance of other traffic safety professionals in order to deal with the situation. The department developed a multi-faceted approach with input from a broad base of federal, state, and local entities to attack problems along a specific traffic corridor. Within two years, the CHP had an approved grant from the National Highway Traffic Safety Administration and the California Office of Traffic Safety (OTS) to try this safety corridor concept for the first time in California.

During the selection of an initial corridor safety project, all state highways in California were considered. The selection process incorporated a variety of quantitative measures of the safety challenges on corridors throughout the state, along with more subjective information from traffic safety officials. The inset box contains a detailed discussion of the selection process used for the initial group of possible roadway corridors.

Using four years of "before" data (from 1988-1991), State Routes 41/46 were identified among the top half of the candidate routes based on collision rates (fatal, injury, and total) along with the mileage death rate (fatal victims per 100 million miles of travel). This made the corridor one of many that could be considered for the new program.

This east-west corridor runs between two major north-south traffic arteries: Interstate 5, running through California's Central Valley, and US 101, along California's scenic central coast. SR 46,

FIGURE 1: FATAL TRAFFIC COLLISIONS IN CALIFORNIA (1982–1989)



Source: CHP Statewide Integrated Traffic Records System (SWITRS)

largely a two-lane rural route, is infamous as the roadway where actor James Dean was killed in the late 1950s. It maintained its reputation into the 1990s due to the frequency of fatal and injury collisions. Local residents dubbed the route "blood alley" and sought local, state and federal assistance to help improve safety along the SR 46 corridor. Collision data for the years 1992 through 1995 highlighted the deadly profile for both SR 41 and SR 46 (see Table 1).

TABLE 1:
SR 41/46 COLLISIONS, FATALITIES, AND INJURIES (1992–1995)

INCIDENT	SR 41	SR 46	TOTALS
Total Collisions	622	459	981
Fatal Collisions	11	20	31
Injury Collisions	212	187	399
Fatalities	17	31	48
Injuries	348	344	692

Matters came to a head in an unfortunate series of fatal collisions in 1995. Traditional approaches were tried, including speed enforcement (some with aerial support) and a driving-under-the-influence (DUI) checkpoint. It became apparent that more must be done when a particularly violent crash claimed the lives of three local family members, including a young child. California State Senator Jack O'Connell and CHP officials in that part of the state were familiar with the concept of a safety corridor because CHP's first corridor program was located nearby. With a growing consensus for action, CHP Commissioner D.O. Helmick designated State Routes 41 and 46 as the third California safety corridor (currently, 22 corridor projects have been completed or are underway).

ANALYSIS

Once a corridor has been selected, it is necessary to examine the specific collision factors associated with that particular stretch of roadway. This kind of analysis is facilitated by the CHP's Statewide Integrated Traffic Records System (SWITRS), a database of collision statistics from both CHP and local jurisdictions. All jurisdictions are required to file collision reports for fatal and injury collisions using CHP collision report forms. Information on collisions involving only property damage is submitted only if the jurisdiction investigates those incidents.

SWITRS provides data concerning the primary collision factors associated with each collision—vehicle type, time of day, weather, use of restraint systems, victim characteristics, and driver-at-fault. These statistics help develop a picture of the driving behaviors associated with traffic safety problems on each corridor and guide the development of effective solutions. SWITRS data for SR 41/46 showed the primary collision factors outlined in Table 2.

TABLE 2:
SR 41/46 PRIMARY COLLISION FACTORS

	FATAL COLLISIONS	INJURY COLLISIONS	PROPERTY DAMAGE ONLY	ALL COLLISIONS
1.	Unsafe turning	Unsafe turning	Unsafe turning	Unsafe turning
2.	Wrong side of road	Unsafe speed	Unsafe speed	Unsafe speed
3.	Improper passing	DUI	Driver not at fault	Auto right-of-way violations
4.	DUI	Auto right-of-way violations	Auto right-of-way violations	DUI
5.	Unsafe speed	Wrong side of road	DUI	Driver not at

TABLE 3: COLLISIONS, FATALITIES, AND INJURIES ON THE COMBINED SR 41/46 SEGMENT (1992 – 1995)					
YEAR	TOTAL COLLISIONS	FATAL COLLISIONS	INJURY COLLISIONS	FATALITIES	INJURIES
1992	38	1	17	1	31
1993	40	3	13	4	26
1994	36	2	11	2	20
1995	43	6	18	14	34

Collisions occurred most frequently on Friday, Saturday, and Sunday between 1:00 p.m. and 6:00 p.m. The peak months for collisions varied by roadway. For SR 41, April through June had the highest number of collisions. For SR 46, it was the July through September quarter.

The merger of SR 41 and SR 46 led to an increase in traffic volumes, which rose approximately 3 percent per year from 1992 to 1995. In 1992, annual average daily traffic amounted to 12,800 vehicles. In 1996, the volume had increased to 14,400 vehicles. Collisions were particularly numerous on the combined 41/46 segment (see Table 3).

The Corridor Safety Task Force

A hallmark of the corridor approach is the inclusion of many stakeholders in the development of solutions to improve safety on a selected corridor. Corridor task forces include members from a broad base of both public and private sector entities, all of which have an interest in improving traffic safety along an identified corridor.

The focus of the task force is to determine the best courses of action for improving traffic safety based on the available collision and roadway data. In addition to driving behaviors, engineering characteristics of the roadway are studied to determine what, if any, impact they have on the safety of the corridor. The variety of viewpoints offered by the task force results in solutions tailored to a specific, community-based safety problem and provides a strong base of support for implementing the solutions.

In March 1996, the CHP formed a task force to review the collision data and develop recommendations for safety improvements along the SR 41/46 corridor. The 31 members represented the CHP, Caltrans, local governments, fire departments, city police departments, state legislators, local public works departments, and federal transportation officials.

As in other corridor projects, the task force members traveled the length of the SR 41/46 corridor taking note of the physical characteristics that might adversely affect safety. Task force members studied:

- the adequacy of regulatory and advisory signage;
- the number of traffic or passing lanes;
- the presence of roadway shoulders and medians, and their size;
- the presence or absence of guardrails and other safety aids;
- the condition of the pavement; and
- the presence or lack of landscaping and how that might impact safety.

Based on the collision and traffic data, and the results of the task force corridor survey, a comprehensive picture of the overall safety along this corridor was developed. The primary collision factors spoke to the presence of aggressive driving and of impatient drivers behind large slow-moving vehicles who made unwise passing decisions.

Collision times and days reflected the presence of "weekend-warriors" who travel to the coast on the weekends to escape the valley heat. Analysis also suggested that many of those involved in collisions were workers employed at local farms during harvest who may have limited English skills, and who may be unfamiliar with drinking and driving laws, seatbelt laws, or other California rules-of-the-road.

Much of the corridor was quite remote. At the time of the survey, it was largely without cellular phone service and had too few call boxes, creating difficulties for motorists needing emergency services. Emergency medical services' jurisdictions further complicated the situation. Call response times were dependent on the EMS unit with jurisdiction over the area, which was sometimes not the closest unit to the scene. There was a lack of adequate roadway shoulders and medians, making it dangerous to pull over with a flat tire or other unexpected problem. Existing signage was confusing and inadequate, as were existing passing and merging lanes. Being an east-west route, glare was a problem during sunrise and sunset. The geometry of various roadway curves also contributed to poor visibility.

RESPONSE

The information collected by the task force led to the development of a comprehensive action plan designed to enhance traffic safety along the 41/46 corridor. The recommendations and proposed solutions were grouped into four basic categories: enforcement, emergency services, engineering, and education.

Enforcement

Three local CHP commands and two local police departments were involved in the plan to enhance enforcement and address the most frequent causes of collisions along the 41/46 corridor. Special overtime enforcement operations were implemented and funded through federal traffic safety grants from the California OTS and the National Highway Traffic Safety Administration. Ultimately, officers worked 2,922 overtime hours, offered assistance and services to motorists 2,837 times, and issued 14,606 citations.

Emergency Services

Emergency response services were improved on the SR 41/46 corridor through the following actions:

- Emergency roadside call boxes were installed countywide in San Luis Obispo County.
- A CHP helicopter was permanently assigned to the CHP Coastal Division. The primary missions of this aircraft are medical evacuation of collision victims in remote areas, search and rescue, and traffic enforcement.
- The California OTS approved traffic safety grants for several county and city fire departments to fund the purchase of equipment used by emergency responders at traffic collision scenes.
- Agreements were reached with emergency service providers that the closest units may respond to traffic collision scenes, without regard to jurisdictional boundaries.

Engineering

Among the engineering improvements implemented under the direction of Caltrans, the following were particularly noteworthy:

- Delineation projects were completed where raised-profile thermoplastic striping was installed where passing was allowed in one direction. This striping is designed to get a driver's attention when the driver is fatigued, impaired, or over-correcting.

- In no-passing zones, a widened center median with rumble strips and thermoplastic striping was installed.
- Outside shoulders were treated with rumble strips and indented-profile thermoplastic striping to aid in keeping fatigued drivers alert and on the roadway.
- Several signing, striping, and maintenance projects were completed.
- Certain lane drops were reconfigured so that traffic consistently merged to the left.
- Striping at channelized intersections was refreshed to improve visibility of pavement markings.
- "Stop Ahead" warning signs were posted at certain key intersections; and, chevron signs were installed to warn motorists of impending curves.
- Several projects along SR 46 received top funding priority in the state's State Transportation Improvement Program funding plan.
- Caltrans posted signs along SR 46 declaring it a daylight headlight safety section, requiring motorists to turn on their headlights while driving because of the positive effects daytime running lights have shown in studies.i
- The governor signed legislation making SR 46 a "double fine zone."
- Caltrans posted signs informing motorists that fines for violations would be doubled.

Education

A variety of educational programs and materials sought to involve the local media, businesses, government, and residents in reminding motorists to drive safely:

- Two million color flyers emphasizing safe driving habits were printed and distributed through educational institutions, newspapers, local businesses, restaurants, recreational facilities, and government agency offices.
- In-car litterbags, repeating the message of the flyers, were distributed to people who drive the corridor.
- Large and small posters were printed and posted in restaurants, at recreational destinations, and in local businesses, and emphasized the same safe driving habits.
- Local restaurants offered free cups of coffee or soft drinks to drivers who mentioned the corridor safety project. Media coverage included Spanish-language television and radio public service announcements regularly broadcast each weekend during the program's operation, intended in part to reach the area's local harvest workers.
- Three kick-off news conferences were held simultaneously just before the Memorial Day weekend in three separate locations along the corridor.

The status of the Task Force's 48 recommended actions, as taken from the project report, is provided in Table 4.

California Highway Patrol's experience with previous corridor safety projects has shown that a plan with these four action elements can considerably improve safety. Motorists are made aware of their current driving habits and provided ways to make their driving safer; enhanced enforcement is present to reinforce proper driving behaviors; the roadways on which they drive are

TABLE 4:
STATUS OF SR 41/46 CORRIDOR TASK FORCE RECOMMENDATIONS

CATEGORY	PROPOSED	STATUS
Engineering	30	8 completed 10 initiated 12 pending
Emergency Response	4	3 completed 1 pending
Enforcement	1	1 completed
Public Education	13	13 completed

optimized for safety; emergency services are available more quickly; and, media attention involves the community as a whole and encourages everyone to be an equal partner in improving safety and saving lives.

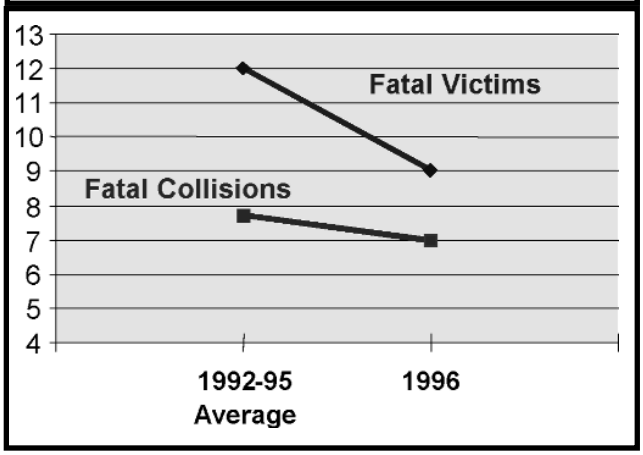
ASSESSMENT

From a statistical point of view, the success of the corridor programs is measured by changes in collision levels. Fatal collisions are of the greatest concern, but are relatively rare events. Given the variability of these rare events from year to year, it can be difficult to measure the program's impact on fatal collisions. Injury collisions are much more common, and generally are a preferred measure of effectiveness. Fatal and injury collisions together are called reportable collisions.

A typical outcome evaluation of a corridor safety project involves a before and after study design, using exposure data (vehicle miles of travel) to adjust for the different time periods. The "before" time period is usually three years to avoid the undue influence of a recent bad year and the consequent problem of an apparent safety impact. The complete impact of the Task Force recommendations is rarely measured in full because the "after" evaluation periods are typically limited to one year for practical reasons (other corridor projects are competing for the same analytical talent). A one-year "after" time frame is often insufficient to develop, design, and implement engineering strategies, particularly if the cost or environmental impacts are substantial.

Substantial reductions in collisions occurred on the corridor since the beginning of the project. When comparing 1996 to an average of the previous four years, there was a 10 percent decrease in the number of fatal collisions (average = 7.75; 1996 = 7) and a 25 percent decrease in the number of people killed (average = 12; 1996 = 9). A comparison of 1995 to 1996 shows a 44 percent

FIGURE 2: FATAL COLLISIONS AND FATALITIES ON SR 41/46 CORRIDOR (1995 – 1996)



decrease in the number of people killed in those collisions (from 16 in 1995 to 9 in 1996). Highlights of these decreases are in Figure 2.

A comparison of 1996 statistics to an average of the previous four years reveals a 32 percent decrease in injury collisions (average = 100; 1996 = 68) and an 11 percent decrease in the number of people injured (average = 173; 1996 = 154). There was a 35 percent decline in injury collisions when comparing 1995 to 1996 (from 104 to 68), and a 9 percent decrease in the number of people injured (from 170 to 154).

Figure 3 shows the decrease in "reportable" collisions (those in which a per-

FIGURE 3: REPORTABLE COLLISION TREND ON THE 41/46 CORRIDOR (1992–1996)

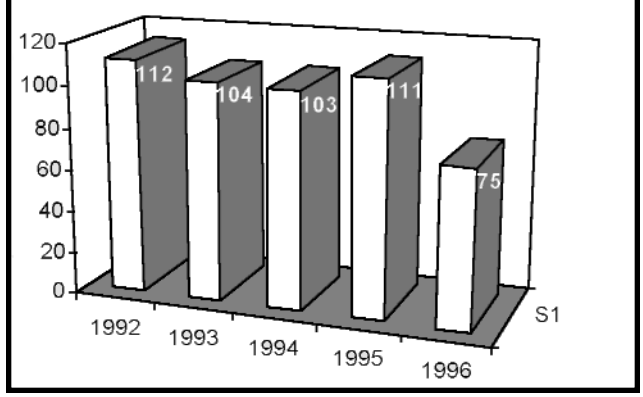


TABLE 5: CHANGE IN COMBINED SR 41/46 FATALITIES AND INJURIES (1992/1995 – 1997/2000)			
TIME PERIOD	FATALITIES	SEVERE INJURY	TOTAL INJURED
1992-1995	48	68	692
1997-2000	31	50	656
Change	-17	-18	-36
Percent Change	-35.4%	-26.5%	-5.2%

son was killed or injured). There was a 30 percent decrease between 1996 and the previous four years (108 to 75) and a 32 percent decrease between 1995 and 1996 (111 to 75).

The longer-range perspective shows a continuing impact on more severe collisions, which is consistent with engineering improvements to reduce high-speed collisions involving improper passing. Comparing four pre-project years (1992-95) with four post-project years (1997-2000) shows a 35 percent reduction in fatalities, a slightly smaller reduction in severe injuries, and a 5 percent reduction in total injuries (see Table 5).

Unsafe turning was the primary cause of fatal and injury collisions on the two routes, and these collisions decreased 15 percent during the two time periods (see Table 6). Other primary collision factors generally decreased (note the 35 percent reduction in improper passing), with the exception of speed-related collisions (which also increased statewide).

TABLE 6: SR 41/46 COMBINED REPORTABLE COLLISIONS BY PRIMARY COLLISION FACTORS (1992/1996 – 1997/2000)			
FATAL AND INJURY COLLISIONS			
FACTORS	1992- 1996	1997- 2000	% CHANGE
Unsafe turning	91	77	-15.4%
Wrong side of road	36	33	-8.3%
Improper passing	20	13	-35.0%
DUI	52	45	-13.5%
Unsafe speed	73	79	8.2%

The collision levels mentioned previously do not account for any changes in exposure, i.e., changes in the number of vehicles using the corridor. The statewide vehicle miles of travel have been increasing consistently since 1991, and available data indicates a similar trend on the corridor (+8 percent from 1993 to 1998). Other factors being equal, an 8 percent increase in traffic would result in an 8 percent increase in collisions, so the measured reductions are a conservative indicator of the actual safety benefits.

Other Evaluation Issues

A cost-benefit analysis was not conducted on this corridor because of the many different funding sources and agencies, and the extended time frame for potential collision reductions. The CHP spent just under $90,000 in grant funds on this project, primarily for enforcement-related costs. Since 1996, approximately $8 million has been spent on engineering improvements along the SR 41/46 corridor. These costs are easily outweighed by the societal benefits of fatal and injury collision reductions (estimated to be 21 lives and 77 injuries over the 1996 - 2000 time period).

Unintended benefits included community and political support for emergency response equipment in particular, and highway safety improvements generally. With this support and higher visibility, the local communities are more likely to be successful in the competition for state and federal highway funds.

CONCLUSION

The CHP's Corridor Safety concept has been extremely successful in improving safety along identified dangerous corridors. One

of the more positive effects of this concept is the continuing benefit once a "project" has ended its formal operational phases. For example, although the formal grant program along the SR 41/46 corridor has ended, the local CHP offices are still heavily involved in local safety efforts initiated with the task force action plan. Local residents also continue to keep public attention focused on the corridor with the "Fix 46" safety committee. Once the state establishes a corridor operation, the process allows the state to step back and let local communities continue efforts to maximize safety. For state fiscal years 2004 through 2008, approximately $213 million has been "programmed" for further safety improvements along this stretch of roadway.

Corridor Safety Projects have also helped California make dramatic improvements in the number of fatal collisions occurring in the state. Since 1987, when fatal collisions peaked at 4,920, the number has dropped by 36 percent to 3,144 in 1999. Likewise, the state's mileage death rate (MDR), the number of persons killed for every 100 million miles of travel, has seen similar declines. In 1987, the MDR stood at 2.4, but has since dropped to 1.19 in 1999—a decline of over 50 percent. A concentrated focus on traffic safety through projects such as the Corridor Safety program, occupant restraint enforcement, and drunk or impaired driver enforcement has led to these dramatic results.

The success of the CHP's corridor safety concept also has resulted in the development and implementation of 22 Corridor Safety Projects. Most have resulted in successes similar to the 41/46 corridor project. In addition, the concept has been further expanded to address two other prominent traffic safety issues: pedestrian fatalities and commercial vehicle safety.

In 1997/98, two pedestrian corridor safety projects were introduced in Modesto, California and in south Los Angeles to reduce fatality collisions involving pedestrians. Other pedestrian corridor programs are currently in operation in Hayward, east Los Angeles, and Santa Fe Springs.

In August 2001, the first commercial vehicle safety corridor began operations along the Interstate 710 corridor in southern California. A second corridor program is scheduled to begin operations along Interstate 5 in Sacramento County in the fall of 2001, and a San Francisco Bay Area corridor will be selected and begin operations sometime in early 2002.

The corridor safety concept works well within the Problem-Oriented Policing analytical model of Scanning, Analysis, Response, and Assessment. The program is easily replicated and can be applied to a variety of traffic safety and other issues facing law enforcement. It maximizes participation by local communities and encourages a continuing local commitment to this goal. The corridor concept truly makes traffic safety a collaborative effort!

ADDITIONAL INFORMATION

The formal evaluation report for the SR 41/46 Corridor Safety Project is available from the CHP's Office of Special Projects (see address below), or from the California State Library (www.library.ca.gov). It is titled: California Highway Patrol. Highways 41-46 Safety Corridor Task Force. Task force final report, SR 41-46 traffic safety corridor: Dept. of California Highway Patrol, Office of Special Projects, [1997], Call No. H325.H56 R4, Government Publications.

Buffalo Police Department

WORKABLE SOLUTIONS TO THE PROBLEM OF STREET PROSTITUTION IN BUFFALO, NY

Judge's Commentary

The Buffalo street-level prostitution project stood out for several reasons. First, the project presented evidence that the surface issue, street-level prostitution, was connected to other problems–drugs, assaults, and neighborhood decay. Second, problem analysis was multi-faceted, including arrest data, recidivism data, resident surveys, interviews with prostitutes, and interviews with "johns." Third, it was clear that the project's analysis phase informed the subsequent choice of responses. In POP projects, this logical connection between analysis and responses is often missing or not clearly explained. Fourth, the Buffalo project implemented multiple responses, ranging from arrests targeted at johns (because the analysis revealed that they were more susceptible than prostitutes to deterrence) and arrests of repeat offenders, to environmental changes at hot spots, to a one-day school for convicted johns and a longer-term rehabilitation program for convicted prostitutes. Fifth, the assessment phase demonstrated rather conclusively that the responses really were implemented (including much longer sentences for repeat offenders), and that the incidence of street-level prostitution was reduced substantially. Moreover, the assessment demonstrated that the prostitutes were not merely displaced to other parts of the city, nor were they displaced to the most likely replacement offense, shoplifting.

In all, the Buffalo prostitution project stood out as a good illustration of the SARA problem-solving process, with an interesting range of responses and dramatic results.

SUMMARY

The Problem: The Allentown area of Buffalo, NY experienced a persistent, high concentration of 911 calls and arrests for prostitution, as well as longstanding complaints from community groups that prostitution created traffic congestion, noise, litter, harassment of residents and declining property values. Residents felt threatened by johns propositioning women living in those neighborhoods and often observed sexual transactions performed in parked cars, empty lots and alleys. Business people in the commercial districts cited loss of sales and attraction of a criminal element (i.e., drug trade) as concerns arising from street prostitution. In 1997, the Prostitution Task Force (PTF) in Buffalo, NY received a grant and began working to reduce the incidence of street prostitution in the area.

Analysis: Analysis was conducted of all three parts of the crime triangle—offender, victim, and location—and consisted of surveys and interviews with prostitutes, johns, residents, police officers, and businesses. Analysis of the problem clearly revealed that arrest was a deterrent for johns but not for prostitutes. Arresting the johns rather than the prostitutes became a key strategy. Prostitutes reported that they were supporting drug habits or children, and lacked the education and work options to leave the business. Analysis also showed that certain locations within the target area were "hotspots" particularly vulnerable to prostitution activity. Interviews with community members helped to determine when and where the prostitution problem occurred and which solutions to the problem they found acceptable.

Response*:* A Prostitution Task Force (PTF) used the results of the analysis and a review of effective strategies used by other munici-

palities to craft a five-pronged response to the problem of prostitution. The first three elements of response centered on arresting johns and providing first-time offenders with alternative sentencing while targeting repeat offenders with more severe sentencing. The team's response also included outreach to prostitutes. Social service agencies worked with the group to make services more available to persons involved in prostitution (drug rehabilitation, support systems, jobs) and to address underlying causes of their involvement in prostitution. Finally, the hotspots were reviewed and strategies created using crime prevention through environmental design (CPTED).

In this range of strategies, each partner was necessary in the effort to reduce prostitution: the police department arrested the johns reducing the customer-base and the district attorney worked with the courts to provide alternative sentencing for both johns and prostitutes and to increase jail time for repeat offenders. Social service agencies created drug rehabilitation programs specifically for prostitutes (e.g., the Magdalene program) and the community itself established a "John School." Fees paid by John School attendees provide funds for outreach programs for prostitutes. The community and government also continue to work to change the environmental factors that made areas vulnerable to prostitution.

Assessment: The Buffalo Police Department (BPD) used 911 calls as an indicator of whether prostitution was a problem in target areas, since the calls represented the level of community concern. In 1996, there were nearly 1,000 calls to 911 regarding prostitution in the city of Buffalo. In 2000, there were only 390 calls, representing a 60% reduction and indicating a declining concern with the problem in the target area and throughout the city. Community leaders in "hotspot" areas also reported a decrease in prostitution activity.

SCANNING

The Allentown area of Buffalo, NY experienced a high concentration of 911 calls—nearly 1,000 in 1996—and frequent arrests of prostitutes. It was also the focus of long-standing complaints to the police from community groups that prostitution was creating traffic congestion, noise, litter, harassment of residents and declining property values. Residents felt threatened by johns propositioning women living in the area and often observed sexual transactions performed in parked cars, empty lots and alleys. Business people in the commercial districts cited loss of sales and attraction of a criminal element (i.e., drug trade) as concerns arising from street prostitution.

In late 1996, the Prostitution Task Force (PTF) in Buffalo, began working with the Buffalo Police Department, the Erie County District Attorney's office, the courts, local social service agencies and the University at Buffalo on a problem solving project funded by a Office of Community Oriented Policing Services (COPS) Problem Solving Partnership grant, to reduce the incidence of street prostitution in Buffalo's Allentown area.

The PTF had been established in the early 1990's and had led inaugural efforts to reduce prostitution in the area after gentrification of a downtown business section of the city had displaced prostitution into this relatively stable residential neighborhood. These initial efforts included court watch, billboards to warn johns away, and periodic sweeps to arrest prostitutes and johns. In 1996, the group re-organized and began looking for more coordinated and longer-term strategies. At the same time, the District Attorney's Community Prosecution Unit, established in 1996 to address misdemeanor offenses such as prostitution that affect the neighborhood quality of life, provided a needed link between the community and the criminal justice system. The Problem

Solving Partnership grant enabled this group to look more carefully at the causes of the problem, such as offender motivations and vulnerable locations. As well, the group was able to study the problem's effects on the community in order to determine workable solutions to the problem of street prostitution in Buffalo.

ANALYSIS

Analysis Methods

The Buffalo Police Department conducted an analysis of all three parts of the crime triangle: offender, victim and location. The analysis utilized a variety of methods. Project team members at University at Buffalo conducted interviews with prostitutes, johns, residents, police officers, and businesses, using survey instruments developed in close conjunction with the PTF. One of the PTF members was a former prostitute who provided valuable feedback on the instruments and insight into offender motivations. The BPD and the District Attorney's office collected and provided information to the task force on arrests and prosecutions. Analysis also included a CPTED review of three hotspots of activity identified through maps of 911 calls, arrest data and observation.

University at Buffalo team members interviewed 15 prostitutes regarding motivations for working as a prostitute, choice of location for the activity, possible deterrents, and health and other services they would be most likely to use if the services were made available. Team members also surveyed 127 johns as part of the John School to find out what might deter their activities. Telephone surveys to 116 neighborhood residents inquired about observed neighborhood prostitution activity. The PTF also contacted businesses in the Elmwood-Virginia area for their perspective on the prostitution problem, and conducted a focus group at Beacon Center, a service agency that conducts the Magdalene program for prostitutes in recovery for both drug addiction and prostitution.

Offenders

Statistics from the District Attorney's office revealed that repeat offenders constitute 66 percent of the prostitutes arrested, while only 8 percent of the johns were repeat offenders. Crime and arrest statistics from the Buffalo Police Department indicated that arresting johns as well as prostitutes reduces the incidence of street prostitution. From 1996 to 1997, the number of john arrests increased from 107 to 198 (85%), while the rate of prostitution arrests did not increase proportionately (28%), and, most importantly, the number of 911 calls concerning prostitution decreased significantly (37%). Interviews with prostitutes indicated that arrest is not a deterrent, with only 27 percent citing it as a fear. For johns, though, arrest is a more effective deterrent. Over 50 percent of johns interviewed indicated that arrest was their most significant fear. Mapping addresses of those arrested for solicitation showed 65 percent of johns were from the city (although primarily from more affluent neighborhoods) and 35 percent were from outside the city.

Offender Characteristics and Motivations

All prostitutes reported having drug addictions. Seventy-three percent of the prostitutes interviewed work as prostitutes mainly to support their drug habit. Forty percent of those supporting a drug habit are addicted to heroin, with the other sixty percent supporting a cocaine habit. The average reported weekly income from prostitution was $400, and with an average of $270 per week spent on their drug habits. Other reasons for solicitation include making a living (53%), supporting children (20%), no other work options (27%), and companionship (13%). Interviews also provided the following information:

- All but 2 of the women interviewed knew a prostitute prior to becoming one themselves;

- Only one of the prostitutes was currently working for a pimp;
- All of the interviewed prostitutes had experienced some form of sexual abuse;
- The average age of the women interviewed was 34. Most had a 12-grade educational level; and
- Forty percent of the prostitutes interviewed mentioned a fear of health risk.

Officers interviewing the prostitutes understood that most women prostitute to support their own drug habit, as well as the drug habits of their partners. They also felt the women were abused by their partners.

When asked about barriers to quitting prostitution, 73 percent of the prostitutes interviewed cited inadequate income as the most significant hurdle. Sixty seven percent indicated that their drug habit was an obstacle to quitting, and 53 percent said that lack of job training kept them working as prostitutes. Other reasons for staying on the streets include lack of education (53%), concern over being able to get another job (60%), and low self-esteem (53%). Several of the participants in the Beacon Center focus group agreed that low self-esteem had gotten them into prostitution and kept them there. They felt that rehabilitation or job training would have to be coupled with renewed self-esteem in order to motivate them to quit. This was corroborated by an interview with a former prostitute now working with the PTF, who emphasized that lack of self-esteem and self-worth are fundamental reasons for women getting into and staying in prostitution.

As for the johns, the four top reasons given for soliciting include the need for sex (50%), loneliness (21%), alienation from a spouse (17%), and the influence of drugs (12%). Only 5 percent of the johns used crack and 13 percent used marijuana. None indicated addiction to heroin. Only 21 percent of the johns surveyed were afraid of health risks.

Victims

Prostitutes

All of the prostitutes interviewed had experienced at least one childhood trauma ranging from the death of a parent or close family member (73%) to sexual abuse (47%). Forty percent of the participants had alcoholic parents and 73 percent had tried to run away from home. The average age of the prostitutes at the time of their first sexual encounter was 11, although half of them (47%) indicated that their first sexual activity was consensual. All of the women in the focus group at Beacon Center had been victims of some form of sexual abuse before adulthood, and several indicated that they had been repeatedly involved in abusive relationships with men.

Community Members

The Task Force began its work largely because people in the neighborhood were complaining about activity on their streets, solicitation by johns, and detritus on their properties. An analysis of calls for service data for 1996 indicated that three callers were the source of 10 percent of the calls to "911." Maps also indicated that there were very distinct hotspots of calls for service. Results from a survey of 125 randomly selected residents in buffer areas surrounding "911" calls indicated that, while only a small percentage of people are aware of the problem, they are a vocal minority and have been significantly affected by the problem. The survey also sought feedback from the community regarding their support for various responses to the problem. (See Table 1.)

Businesses

Some upscale businesses and restaurant owners expressed concern about prostitution to Buffalo Police Department officers before the activity moved from the area to

TABLE 1: SUGGESTED SOLUTIONS (FROM PTF COMMUNITY SURVEY)	
SOLUTIONS*	PERCENT RESPONSE
Programs and services to help offenders	85.3%
Arrest customers (johns)	72.4%
Arrest prostitutes	69.8%
Stiffer penalties for customers	65.5%
Publish names of customers	56.0%
Stiffer penalties for prostitutes	50.9%
Legalize prostitution	28.4%
Develop "red light" districts	24.1%

*Number of responses per question varied from 92 to 104.

poorer business areas in Allentown (one or two arrests a month still occur in the upscale area). Officers hypothesized that johns from the suburbs felt more comfortable soliciting in the upscale area, but that primarily male prostitutes work the area. In the poorer area, two business owners reported seeing detritus from sex acts more than 5 times in the last six months. None of them indicated they were going to leave the neighborhood, although they seemed to question whether or not they could economically survive there.

Location/Situation

Place

The most common reasons prostitutes gave for working in the Allentown area were high traffic (100%), a sense of safety and familiarity with the area (87%), proximity to prostitutes' residences (73%), proximity to 24-hour convenience stores (67%), and easy access to drugs (60%). Prostitutes in the Beacon Center focus group agreed that highly trafficked streets are most attractive, and also indicated that one-way streets intersecting busy streets (such as Niagara or Genesee) with stop signs or lights are locations chosen for activity. They explained that having a drug house nearby so that they can easily obtain drugs is an important factor in their location choice. Several women also said that they hung around bars to find johns. A former prostitute working with the PTF corroborated that proximity to drug selling and the expressway were significant factors in choosing where she worked. She also said that unlike New York City where prostitutes have territories and often work for pimps, in Buffalo most prostitutes have neither pimps nor territories.

Johns reported that they solicited in the Allentown area because they were passing through (33%) and because it is an area known for prostitution (33%). Only a small percentage wanted access to drugs (2%).

Police officers who work in the area suggested that multi-family rental units suspected of being drug houses and owned by absentee landlords were prime spots for prostitution, although not necessarily street prostitution. They also said that heroin users tend to locate and prostitute near a hospital with a needle exchange program.

Maps of repeat arrest locations indicated that 24-hour businesses, particularly those with large parking lots, are conducive to prostitution, as are street corners. They also revealed that proximity to the expressway is a significant factor. Maps overlaying "911" calls regarding narcotics with calls about prostitution show a strong correlation between the two events.

Hotspots

Prostitution is problematic in nature because it is very concentrated, especially once an area becomes "known". Maps showed distinct patterns of "911" calls and crime and arrest hotspots (crimes and arrests are nearly a 1 to 1 correlation because the nature of the incidence of prostitution is that a crime report is only taken when an arrest is made). Hotspots identified using computer maps were corroborated by PTF members' observations, and a CPTED specialist was hired to

perform an analysis of three identified sites.

Time

Fifty-three percent of prostitutes interviewed felt that Friday was the best day for business, followed by Saturday (20%). For obvious reasons in Buffalo, summer is the best season for working but, surprisingly, 27 of interviewed prostitutes said they preferred working in winter, citing fewer police patrols and reduced competition for clients. Late evening (after 9 p.m.) was selected by 40 percent of respondents as the best time, which correlates with the highest level of "911" calls (40-50% call between 9 p.m. and 2 a.m.) Early evening (4 to 9 p.m.) was selected by 33 percent and early mornings (4 yo 6 a.m.) by 13 percent. According to prostitutes, johns prefer evenings and nights both in terms of time of day and lighting. Interviews with residents and reviews of "911" call activity corroborated these days and times as those with the highest level of activity.

Officers working in the area observed that more johns were out after major sports events and that prostitutes knew when certain officers detailed to prostitution were on duty. They also said that crack users tend to "work" 24 hours a day to find money for their habits while heroin users need their fix in the mornings and so tend to prostitute in the early mornings.

RESPONSE

The PTF used the results of the analysis as well as a review of effective strategies used by other municipalities (including San Francisco, San Diego, Toronto, and St. Petersburg, Florida) to implement of five discreet responses: 1) Operation Johnny; 2) Alternative sentencing for first time offenders; 3) Severe sentencing targeted at repeat offenders; 4) Outreach to prostitutes; and 5) Crime Prevention Through Environmental Design (CPTED).

Operation Johnny

Operation Johnny had strong support in the community. In telephone surveys, community members voiced support for arresting customers (72%) as well as prostitutes (70%), and expressed their preference for more severe sentences for customers than for prostitutes. The operation was also supported in the courts. Judges told police officers and prosecutors that they supported arresting customers along with the prostitutes for the sake of equity.

Grounded in the analysis findings that arrest is a significant deterrent for johns, Operation Johnny uses a female police officer as a decoy in order to arrest johns for solicitation. The Buffalo Police Department implemented Operation Johnny in late 1996 in the Allentown area, and, on the recommendation of the PTF, expanded it to a city-wide program in order to avoid displacement of prostitutes. From October 1999 through April 2000, Operation Johnny was discontinued due to issues raised by the police union regarding the status of the detective operative used as a decoy for the sting. During this time, 911 calls regarding prostitution increased by 25 percent.

Currently, the BPD conducts Operation Johnny using a decoy from the New York State Police under a cooperative agreement with the Buffalo Police Department. Because prostitution activity in Buffalo is reduced during the winter months (for instance, there were an average of 45 calls per month for summer months and 22 for winter months in 1999), Operation Johnny is conducted primarily from April to October with an emphasis on Friday and Saturday nights.

Alternative Sentencing for First-Time Offenders

The District Attorney's Community Prosecutor developed alternatives to incarceration for first time offenders, worked

with the courts and the PTF to establish the John School for those arrested for solicitation, and worked with the courts and the Beacon Center to establish the Magdalene Program for those arrested for prostitution.

Although recidivism rates for johns (8%) indicated arrest is an effective deterrent from repeat offending (at least in the same area), interviews with johns also revealed that some of them would respond to assistance to stop the behavior. For this reason, the PTF, after visiting a John School in Toronto and talking with the coordinators of a program in San Francisco, decided to establish a similar program in Buffalo. Enrollment in the John School is offered to first time offenders as an alternative to a criminal record. Once the john successfully completes the 8-hour program, the arrest is removed from his record.

The Buffalo John School is run by the PTF once or twice a month (depending on the number of arrests) with a limit of 15 participants. The fee paid by offenders is currently $100, which covers the director's salary, the facility, and the speakers with remaining funds being utilized for outreach programs for prostitutes. Lower fees are sometimes negotiated for those unable to pay the full fee. Speakers include a health professional who discusses STDs and AIDS, counselors offering rehabilitative services, neighborhood activists who describe the effects of prostitution on their neighborhood, and former prostitutes. Referrals are also made to participants for HIV and STD testing, drug and alcohol abuse rehabilitation, and other counseling services.

Because all prostitutes interviewed indicated that they were addicted to drugs and most felt they had very low self-esteem, incarceration did not seem to be the appropriate response. Buffalo officers believed incarceration would keep the prostitutes off the streets for an appointed time, but would not remove their motivations for offending. For this reason, the task force looked for ways to divert first time arrestees to programs that would address the underlying causes of prostitution.

The Magdalene Program, begun in 1997, is an outpatient alcohol and drug treatment program designed specifically for prostitutes and run by the Beacon Center, a woman-owned and operated drug rehabilitation agency. Because prostitutes had motivations different from the general population of drug addicts and because women in the general population tended to look down on prostitutes, the Beacon Center designed a holistic program specifically for persons addicted to prostitution and drugs, with a support group comprised solely of prostitutes. The Erie County DA and the Buffalo City Court offer a stay at the Magdalene Center as an alternative sentence to persons with a chemical dependency who are convicted of prostitution (according to the ADA, all convicted prostitutes had a substance abuse problem). Judges determine the length of time required for the offender to attend the program (a minimum of eight weeks, with participants meeting between three and six times a week) and set a return court date for reevaluation. Some prostitutes are also recommended to the program through other agencies, such as Child Protection Services or Probation.

Targeting Repeat Offenders Severe Sentencing

While the PTF believed alternative sentencing was appropriate for first time offenders, the task force fully supported efforts to incarcerate repeat offenders. In the past, prostitutes with repeat offenses were usually either given appearance tickets or a few days in jail. The Community Prosecutor now works with the police and the community to identify chronic offenders and ensure that they receive more severe sentences. In 1998, through a local cable station, "John TV"

began broadcasting names, photos, and addresses of persons convicted three times of soliciting a prostitute. Since that time, no offenders have been convicted for a third time.

Outreach to Prostitutes

Members of the Prostitution Task Force felt strongly that more outreach programs and support services were needed to enable prostitutes to leave street walking. The PTF worked closely with both Beacon Center and TRY (Teaching and Restoring Youth) House to design outreach programs.

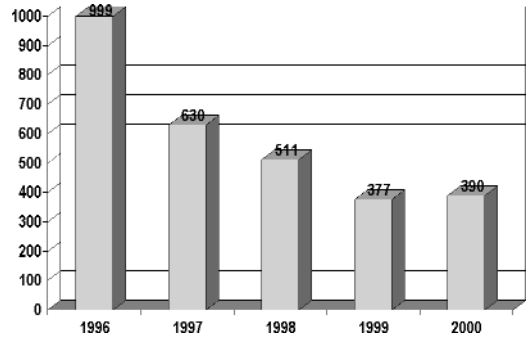
In 1997, TRY House opened as a residential facility for women and girls under 25 currently involved or at risk for becoming involved in prostitution. TRY House generally has four to six residents who usually remain for three to four months, and its staff includes professional counselors as well as former prostitutes. A former prostitute working with the PTF runs a program there: "Three Cs: Confrontation, Conversation and Closure." Monies from the John School fund the program. Referrals to TRY House come from the court system and from agencies providing emergency shelter, and funding comes from the county, city and local foundations. TRY House staff also ride along with police officers to identify individuals involved in prostitution.

The PTF, using funds from the John School, has also produced a palm card listing available services for prostitutes. The card is distributed by police officers and is also available at locations frequented by prostitutes (e.g., needle exchanges). (See card at the end of this chapter.)

Crime Prevention Through Environmental Design (CPTED)

The PTF commissioned a CPTED survey of three prostitution "hotspots." To reduce prostitution activity in two multi-dwelling units in the Maryland-West neighborhood, task force members contacted the U.S. Attorney's Save Our Streets (SOS)Task Force that identifies houses used for drug dealing and conducts interviews with the property owners. The SOS Task Force interviewed the owner of the Maryland-West property, who subsequently evicted the tenants and made CPTED improvements (e.g., better lighting, security, removal of abandoned buildings) to reduce the potential for illegal activity. Recommendations concerning the Elmwood-Virginia area included the possible use of CCTV in an area that had little natural surveillance at night. CPTED improvements in Elmwood-Virginia were not implemented, as the construction of a neighborhood fire station in the area dissipated the prostitution.

FIGURE 1:
"911" PROSTITUTION CALLS TO BUFFALO POLICE DEPARTMENT (1996 – 2000)



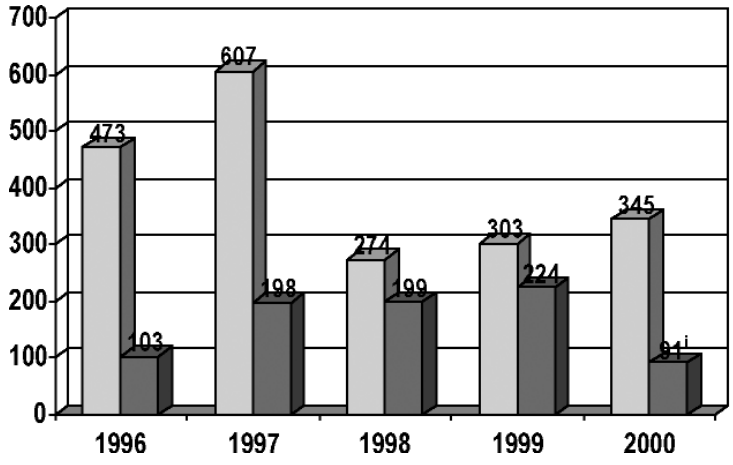
The CPTED survey of the third area, Grant-Ferry, discovered that bright lights have created a shadowed area conducive for solicitation. The survey recommended transitional lighting to a group working on improving security in the area. CCTV cameras were also installed in the area. Observations indicate the cameras have generated some success in taking the activity off of the main streets but may have pushed the activity into the side streets.

ASSESSMENT

"911" calls

Because the purpose of the project was to reduce street prostitution that is visible to

FIGURE 2:
ARRESTS OF PROSTITUTES AND JOHNS
(1996 – 2000)



[i] Arrests of johns were down significantly in 2000 due to the temporary discontinuation of Operation Johnny

the community, "911" calls were considered the best measure of street-level prostitution activity. The number of "911" calls for prostitution in the City of Buffalo has decreased dramatically: in 1996 there were almost 1,000 "911" calls, but by 1999 there were only 377, and in 2000 there were 390—a reduction of over 60 percent. (See Figure 1.)

Arrests

Arrest has proven to be a deterrent for johns—more than 50 percent of the johns surveyed cited arrest as their most significant fear, and johns have only an 8% recidivism rate—while it is not for prostitutes (27% cited it as a fear, with a 66% recidivism rate). From 1996 to 1999, while the number of john arrests has increased, the number of prostitutes arrested has decreased. In 1996, 82 percent of the solicitation arrests were for prostitutes and 18 percent were for johns, but by 1999, 58 percent of the arrests were of prostitutes and 42 percent were of johns. (See Figure 2.)

Once the demand was reduced, prostitution was reduced. According to officers involved with Operation Johnny, they went from making several prostitution arrests a day to making a few a month due to reduced activity. Officers also report that prostitution has ceased to be an issue at community meetings. As one officer describes it, "the problem requires maintenance now, but not an all-out assault."

Severe Sentences

Increasingly severe sentences for repeat offenders have been meted out with the creation of the District Attorney's Community Prosecution Unit and the cooperation of the courts. These severe sentences keep repeat offenders off of the streets for longer periods of time. In 1996, without Operation Johnny in effect, most of the 590 arrests made were for loitering for the purpose of prostitution and were difficult to prosecute. When these cases were removed, only a total of 124 cases (26 prostitutes and 98 johns) were prosecutable, with jail sentences given for fewer than 20 of the offenders. By 1998, 102 repeat offenders for prostitution served jail time. Only only one prostitute served a 90-day sentence in 1996, but 25 prostitutes served that sentence in 1998. (See Table 2).

In 1997, only 1 person arrested for

TABLE 2: JAIL SENTENCES FOR REPEAT OFFENDERS (PROSTITUTES)
(1996 – 2000)

SENTENCE	1996	1997	1998	1999	2000
90 days	1	14	25	15	17
45-75 days	4	31	55	30	39
30 days	2	21	17	20	15
15 days or less	2	76	65	36	54

soliciting a prostitute served jail time; in 1998, 8 persons served jail time. The average number of days served per arrest in 1996 was less than 1, but by 1998, offenders (primarily prostitutes, for whom extended jail time is more of a deterrent than simple arrest) were receiving an average of 24 days per arrest.

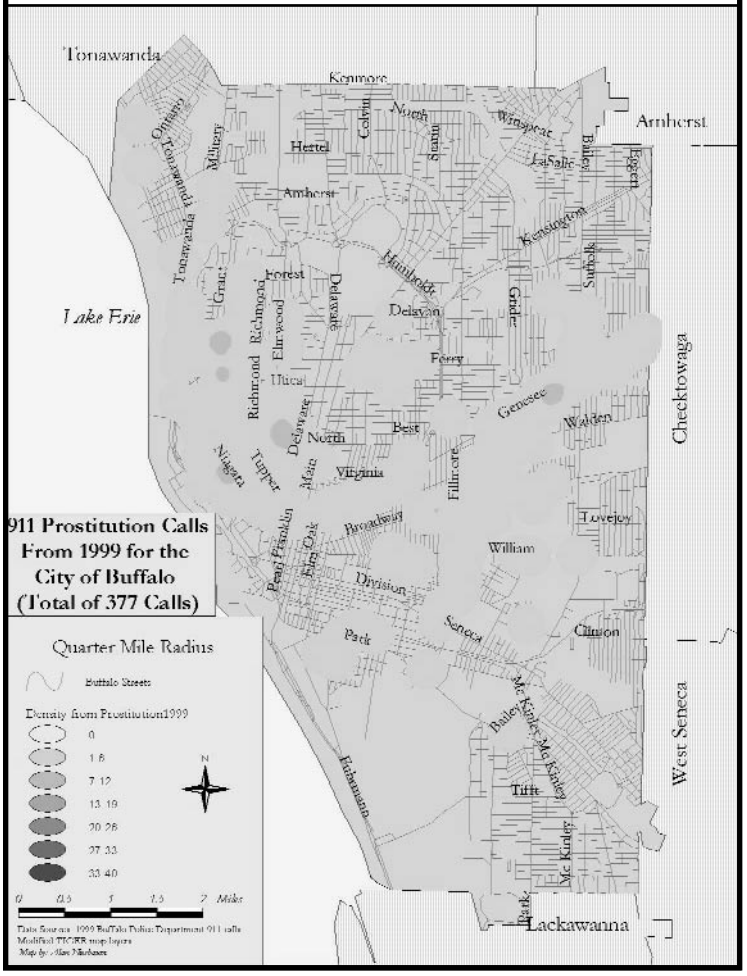
Alternative sentencing

New plea policies for alternative sentencing to self-supporting programs such as the John School and the Magdalene program for drug-addicted prostitutes reduced recidivism significantly. Since it began in 1997, over 600 persons have completed the John School with only five re-arrests. The recidivism rate for the general population of johns is about 8 percent, while for those attending John School it is less than 1 percent. From 1997 to 2000, a total of 144 persons involved with prostitution have been mandated to the Magdalene Program. As of 2000, 92 persons have graduated and remained "clean" (free of drugs and not involved with prostitution), with only one known re-arrest (on a non-prostitution related charge). Many of those who finished the 8-week program (which is not long enough to produce lasting results but is as long as most judges could be convinced to sentence the offenders) continued voluntarily with the program for an average of six months. Many of the graduates have received their GEDs, found work outside the field of prostitution, had their children restored to them, and, as several have reported at the graduation ceremony, they have found other women friends who form a support network. One of the graduates now works at the Beacon Center.

Hotspots

The Maryland-West hotspot was reported to the SOS Task Force, who convinced the landlord to make CPTED changes to the location. However, the activity was not sufficiently reduced, and recently one of the two multi-unit buildings was torn down, eliminating the alleyway between the two buildings

FIGURE 4:
911 PROSTITUTION CALLS (1999)

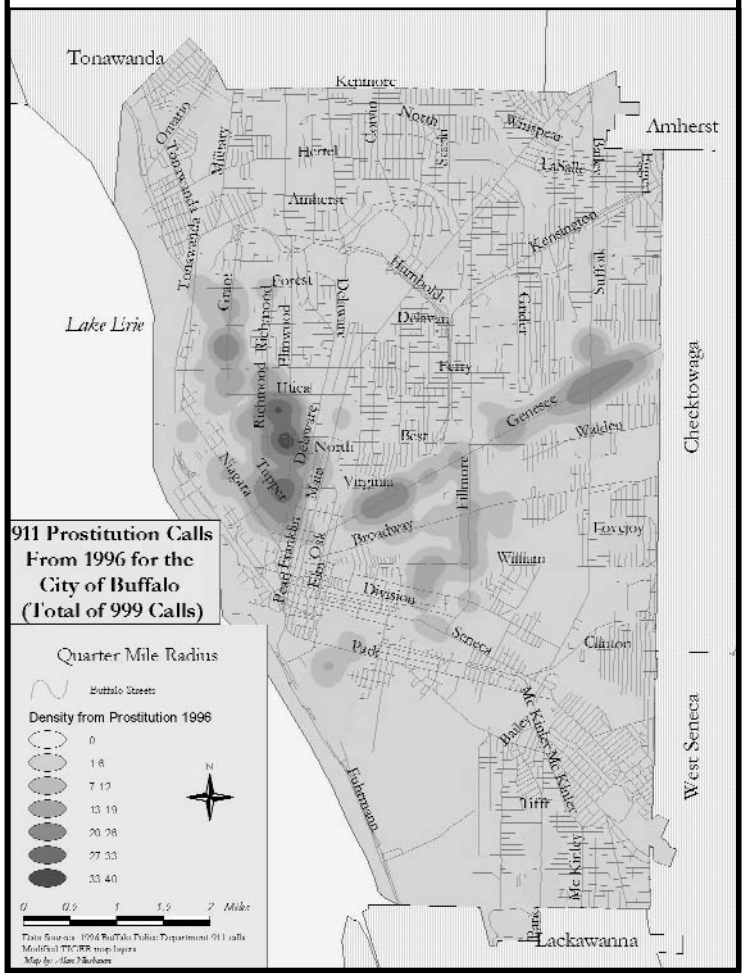


where most of the activity was occurring. In the Elmwood-Virginia area, interviews with business owners and residents in late 1998 revealed that they no longer considered prostitution to be much of a problem. The reduced activity was in part due to the police department's reduction strategies but also due to the sale and rehab of two houses on the corner of Elmwood-Virginia formerly occupied by drug dealers, as well as to active surveillance by a flower shop owner on the corner and by a fire personnel at a nearby fire station.

Displacement

Some displacement into another area (the Grant-Ferry area) did occur in the early stages of Operation Johnny. To counteract this displacement, the PTF encouraged the police to maintain a citywide Operation Johnny to include potential hotspots in other areas of the city. As well, the PTF commis-

FIGURE 3:
911 PROSTITUTION CALLS (1996)



sioned a CPTED site analysis for the Grant-Ferry area.

Interviewed officers believed that displacement in type of crime might also occur when prostitutes cannot make money prostituting, noted that shoplifting is the most popular option. A former prostitute corroborated their belief. In her experience, prostitution and shoplifting are the most common crimes that addicted persons, particularly females, commit to support their habit. However, a review of "911" calls for the City of Buffalo showed a decrease in reports of shoplifting concurrent with the decrease in prostitution activity (1,541 in 1997 compared with 898 in 2000).

Maps of the City of Buffalo "911" calls for prostitution show that, while there may have been some minor displacement to other locations within the city, there was a clear overall decrease in the problem. (See maps for 1996 and 1999.)

CONTINUING EFFORTS

The PTF will continue to serve as a vehicle to bring stakeholders together to address the chronic problem of prostitution and will look for funding to hire part-time staff support.

The primary strategy for reducing prostitution in Buffalo will continue to be elimination of the prostitution customer base through Operation Johnny, as arrest has proven a powerful deterrent for johns. The Community Prosecution Unit will continue to target repeat offenders for longer sentences and to request that the courts remand first time arrestees to John School and the Magdalene program.

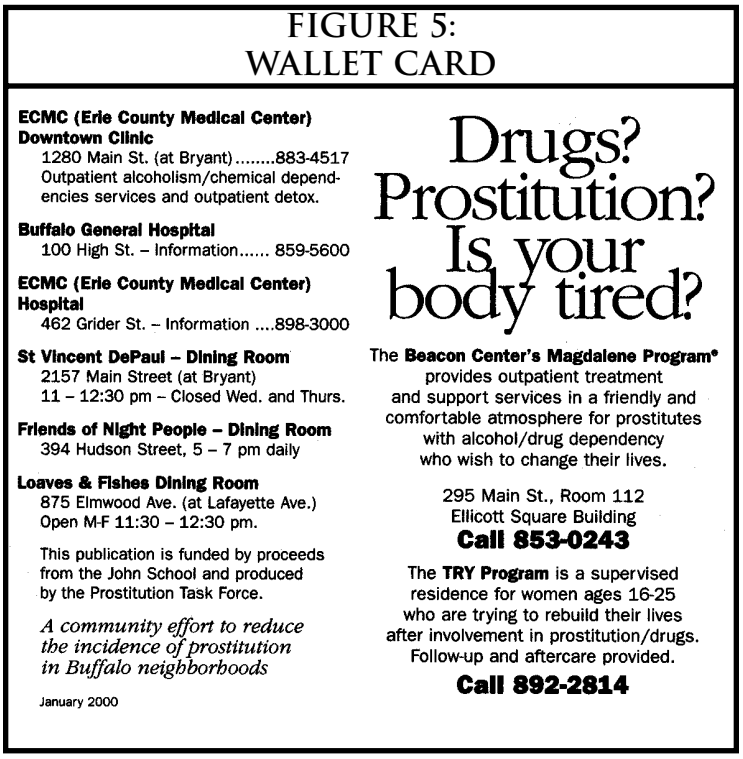
FOR MORE INFORMATION

This problem-solving initiative was encouraged and supported by the BPD upper level administration from its inception. Personnel most closely involved with the project included a captain, two patrol officers assigned to the prostitution detail, two detectives who often worked on the problem, and a community police officer, all from Police District B serving the Allentown area. With the inception of Operation Johnny, a female decoy joined the project. A detective from the BPD Narcotics and Vice Squad also became involved on a regular basis when Operation Johnny became a city-wide operation, as did officers in other affected districts. Except for occasional overtime given to officers to attend PTF meetings, no additional incentives were provided: officers saw it as a worthwhile project and a problem that needed attention even though it was a "low level" crime.

Using funding from the Problem Solving Partnership grant, a five-day problem solving training was provided to 75 percent of the police supervisors in District B as well as to several patrol officers, a detective,

the BPD crime analyst, and a community police officer. Four members of the PTF and a University researcher also participated in the training, which was held at the inception of the project. The only problem-solving guidelines that the officers had at the time were the materials distributed at the problem solving training, which also included an excellent method for facilitating meetings. The project was managed by the team of community members, police and researchers.

FIGURE 5:
WALLET CARD



ECMC (Erie County Medical Center) Downtown Clinic
1280 Main St. (at Bryant).....883-4517
Outpatient alcoholism/chemical dependencies services and outpatient detox.

Buffalo General Hospital
100 High St. – Information..... 859-5600

ECMC (Erie County Medical Center) Hospital
462 Grider St. – Information 898-3000

St Vincent DePaul – Dining Room
2157 Main Street (at Bryant)
11 – 12:30 pm – Closed Wed. and Thurs.

Friends of Night People – Dining Room
394 Hudson Street, 5 – 7 pm daily

Loaves & Fishes Dining Room
875 Elmwood Ave. (at Lafayette Ave.)
Open M-F 11:30 – 12:30 pm.

This publication is funded by proceeds from the John School and produced by the Prostitution Task Force.

A community effort to reduce the incidence of prostitution in Buffalo neighborhoods

January 2000

Drugs?
Prostitution?
Is your body tired?

The **Beacon Center's Magdalene Program®** provides outpatient treatment and support services in a friendly and comfortable atmosphere for prostitutes with alcohol/drug dependency who wish to change their lives.

295 Main St., Room 112
Ellicott Square Building
Call 853-0243

The **TRY Program** is a supervised residence for women ages 16-25 who are trying to rebuild their lives after involvement in prostitution/drugs. Follow-up and aftercare provided.
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Chula Vista Police Department

DESIGNING OUT CRIME: THE CHULA VISTA RESIDENTIAL BURGLARY REDUCTION PROJECT

Judge's Commentary

Chula Vista's approach to residential burglary represents an exemplary analysis phase for a POP project. Project staff carefully examined all sides of the crime triangle—victim, offender, and location—through interviews with victims, interviews with a sample of incarcerated burglars, and site observations of burglarized properties. Many POP projects undergo thorough analyses such as the one conducted by the Chula Vista Police Department, and yet they fail to make the connection between the analysis results and the chosen response, often implementing every possible response rather than focusing in on the underlying cause of the problem.

In the case of this project, however, the police thought very strategically about how they could get the greatest impact from their efforts and concluded that by focusing on new housing stock they could effectively design in crime prevention measures so as to have a lasting impact. While only time will tell whether this approach yields the long-term benefits police expect, early indications point to a very effective POP project.

SUMMARY

The Problem: Although residential burglary rates had declined in Chula Vista in the mid-1990s, the number of burglaries was still unacceptably high in 1996, when more than 900 of 52,000 households were victimized. A 1997 resident survey reinforced the need to focus on residential burglary: 82% of respondents indicated that they were concerned about burglary, making it the second-highest ranked crime or disorder problem in the city after the problem of speeding vehicles. It was imperative that potential buyers and builders saw Chula Vista neighborhoods as safe places to live, as 30,000 new housing units were scheduled for construction over the next 20 years.

Analysis: The police department undertook an extensive study of the factors that attracted burglars to specific homes, as well as those protective devices that were most effective at preventing burglaries. Researchers and sworn police staff interviewed more than 250 victims and 50 burglars, conducted more than 100 street-view environmental assessments, and reviewed over 1,000 incident reports of burglaries committed against single-family homes. Key findings from the analysis phase included:

- Doors without deadbolt locks were targeted;
- Windows with single-paned glass were targeted;
- Windows with simple stock latches were easily defeated;
- Sliding glass doors without specialized pin locks were easily rocked off their tracks;
- Homes that appeared unoccupied were targeted; and
- Almost all targeted properties had numerous hidden points of entry concealed by high shrubbery or solid fencing.

Response: The police determined that they could have the greatest impact by promoting environmental design characteristics as "built in" features for the city's new housing stock, most of which was in the early development stages. The police department negotiated with the five major home developers

in the city to make small, but significant, design changes to address the key risk factors and protective elements for residential burglary identified in the analysis phase. These changes were made in every new home built in the city after February 1999. Developers also agreed to distribute anti-burglary literature (home and landscape) tailored to Chula Vista residents at the point of sale.

Assessment: Burglary rates in neighborhoods comprised only of homes with new construction target hardening upgrades were 37 percent lower than rates in newer neighborhoods where only some of the homes had new construction upgrades. As a result, police estimate approximately 100 burglaries will be prevented annually by 2015.

SCANNING

Like many cities across the country, Chula Vista experienced slowly declining residential burglary rates in the mid-1990s.[i] However, the police department felt the number of burglaries was still unacceptably high in 1996, when more than 900 of 52,000 households were victimized. During this same period, the city experienced a series of "hot prowls"—burglaries committed while the residents were home—that raised fear levels in the community. While the police determined that these crimes represented an unusual and short-lived flare up, the crimes nonetheless raised the profile of burglary as a serious problem in the community. This community perception persisted: a 1997 community satisfaction survey conducted by the police found that 82 percent of respondents expressed personal concern about burglary, making it the second-highest ranked crime or disorder problem in the city after the problem of speeding vehicles.

Perhaps the greatest reason for the police to focus in on the problem of residential burglary was that Chula Vista was on the verge of expanding its residential housing dramatically, creating more targets of crime for likely offenders. Already a largely residential community,[ii] Chula Vista will build more than 35,000 new housing units between the late 1990s and 2015. For this vision to be realized, it is imperative that potential buyers and builders feel Chula Vista neighborhoods are safe places to live. With these issues in mind, the police department began work on what ultimately became a far-reaching problem-solving effort to reduce residential burglary rates over the next 20 years.

ANALYSIS

The Chula Vista Police Department began the analysis phase of the project by attempting to gain a better understanding of the dynamics of the problem. However, analysts quickly realized that the data necessary to fully examine burglary patterns and identify effective solutions was not available in existing police reports. Further, staffing constraints limited the amount of research that could be done on the exact nature of the residential burglary problem in Chula Vista. Fortunately, in late 1998, the department was awarded problem-solving grant funds from the U.S. Department of Justice, Office of Community Oriented Policing Services (COPS), which enabled the department to hire a researcher to assist in conducting an in-depth analysis of Chula Vista's burglary problem.

The analysis began with a review of the criminal justice literature, an examination of new housing plans, an assessment of Chula Vista's demographics, and a review of over 1,000 incident reports. Analysts found that more than 35,000 new housing units were planned by 2015, and that the new homeowners would typically have higher household incomes than the average city household. This led project staff to believe that the new homeowners would often both work and be more likely to be away from their homes during the daytime hours. Incident reports indicated that single

detached homes (the bulk of the homes being built) were the most frequent burglary targets as compared to apartments or townhouses.

Turning to an analysis of existing police department data, project staff reviewed 18 months of reports on 569 single-detached homes for which a burglary or attempted burglary had taken place. This review indicated that 70 percent of the residential burglaries had occurred during daylight hours, but only 58 percent had occurred during weekdays. (If burglaries were occurring randomly, 71% should have occurred on weekdays.) In most cases, victims were at work at the time of the burglary, but in other cases the crime seemed to suggest surveillance and/or ease of opportunity when the house was unattended for only an hour or two. A number of the burglary case reports had to be reviewed by hand to determine such factors as method of entry, which was sometimes only captured in the narrative section of the crime reports.

A basic profile of the "successful burglary" (a burglary that was completed, not just attempted) emerged: the point of entry was most frequently a door (52%) or a window (44%) that was generally out of sight from the street and located at the back or side of the home. Sixty-five percent of the points of entry were at the back or side of the house. Burglars defeated locked doors most frequently way by prying them open using tools such as screwdrivers or crowbars (19% of the door-entry cases). In the case of sliding glass doors, burglars easily lifted them off their tracks if they did not pry them open (12% of the door-entry cases). Simply finding an unlocked or open door proved helpful to burglars in 10 percent of the cases. Another relatively frequent and highly preventable type of burglary, particularly in newer neighborhoods, was the open garage door burglary, which accounted for 12 percent of all incidents studied.

Burglars gained access through windows in much the same way they gained access through doors. The method employed most often was to force a latched window open by prying with a tool (24%). In 17 percent of the cases, suspects broke a window to gain entry, apparently without regard for the noise it might cause or the attention it might attract from neighbors.

To add to their understanding of the problem, Chula Vista police interviewed more than 250 burglary victims and 50 persons either convicted or suspected of burglary. Police collected additional information about specific crime prevention measures in place at victimized locations, in order to assess the measure's relative effectiveness. This assessment contrasted those measures in place in attempted burglaries (which accounted for 11% of all incidents) with those in place during "successful burglaries." This critical information was not captured in routine incident reports.

From victim interviews, police learned that, in 87 percent of the break-ins that occurred when intruders defeated locked doors with tools such as screwdrivers or crowbars, the burglars targeted "the one door that had no deadbolt lock." Victim reports also indicated that burglars had an easier time entering through sliding glass doors that did not have channel locks or slide bolts.

Another major finding from the victim interviews was that windows with simple stock latches were easily pried open, whereas those with locks were not. Perhaps even more important was the finding from the victim interviews that not one burglar attempted to break a double-paned window during the course of a successful or attempted burglary. During offender interviews, burglars themselves confirmed that double-paned windows were among their greatest

deterrents. See Table 1 for a summary of relative success of deterrent measures.

According to victim interviews, the problem of leaving doors unlocked (10% of door-entry cases) was largely due to forgetfulness. Interviews with burglars confirmed that locked doors were among their greatest deterrents; few preferred to punch or pick door locks (4%); and less than 1 percent chose to defeat channel locks on sliding glass doors. Burglar interviews also reinforced the findings from police reports that the offenders had a much easier time gaining entry through side garage service doors, which were rarely equipped with deadbolt locks.

Police also learned which prevention techniques seemed to have little effect on whether a burglary would be successful. Methods found to have relatively low effectiveness included: sliding glass door braces, such as wooden dowels (as opposed to sliding door channel or pin locks); deadbolts installed in the front door only (since burglars prefer entering through the side or rear of the home); and outdoor lights on dusk-to-dawn timers.[iii] This latter finding makes sense with regard to the analysis of incident reports, which revealed that most burglaries occurred during daylight hours.

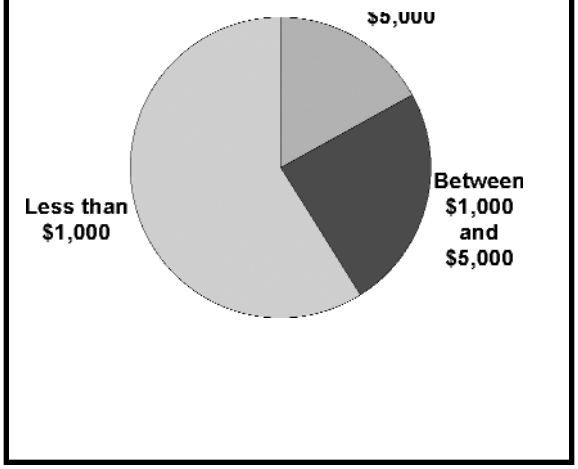
Police also sought to more fully understand and quantify the harms experienced by burglary victims. Average loss figures for residential burglaries were calculated from incident reports, revealing that in 1998 the typical victim lost just more than $2,000. Approximately 26 percent of burglaries yielded more than $5,000 worth of property, while another 37 percent of victims estimated their losses at between $1,000 and $5,000. The remaining 37 percent of victims lost less than $1,000. Generally, items stolen were uninsured or underinsured, and had not been engraved with identifying names or numbers.

In reviewing reports, police determined that burglars typically ransacked or vandalized at least 25 percent of the homes they burglarized in Chula Vista. Discussions with victims also reinforced the psychological impact of residential burglary. Although it is "merely" a property crime, it is a devastating crime to its victims. In discussions with officers, persons whose homes strangers have entered and who have had items stolen indicated that the crime most closely resembles rape. Victims feel invaded and unsafe in a way not experienced by victims of car theft or petty larceny.

TABLE 1:
SUCCESS OF DETERRENT MEASURES

DETERRENT MEASURE	SUCCESSFUL BURGLARY	UNSUCCESSFUL ATTEMPT
Front door deadbolt only	28%	25%
Deadbolts on front and side doors	15%	29%
Dusk-to-dawn light	28%	29%
Motion detector, outdoor	23%	36%
Radio/TV turned on	9%	18%
Alarm company sign	19%	36%
Indoor lights on	26%	29%
Indoor timer lights	9%	11%

FIGURE 1: AVERAGE LOSS FROM RESIDENTIAL BURGLARY



Following the crime triangle schema—for which a crime requires an offender, a victim, and a place—police turned their attention to an examination of why certain properties attracted burglars. Chula Vista police conducted more than 100 street-view environmental assessments of burglarized properties. Each home was assessed on 20 variables, including location, landscaping, possible hidden points of entry, relative display of wealth, neighborhood factors, and proximity to escape routes. One of the most important findings of this portion of the project was that, in 94 percent of the burglaries, points of entry other than the front door were hidden from the street, either by high or overgrown shrubbery or by solid wood fencing. This condition most certainly aided burglars by providing the necessary privacy and time needed to break into these homes unseen from the street or by neighbors, as it was found in 75 percent of the "successful" burglaries as opposed to 25 percent of the attempted burglary cases. Solid wood fencing, block walls, and gates also appeared to facilitate successful burglaries: 73 percent of successfully burglarized homes had this feature, while only 26 percent of attempted burglary residences did.

The final stage of analysis involved reviewing the ways the department had responded to the problem of residential burglary in the past. In addition to routinely investigating burglaries that met the criteria for follow-up investigation, police had encouraged community members to participate in Neighborhood Watch and offered residents generic crime prevention tips developed by the National Crime Prevention Council under the McGruff program. In the mid-1990s, the department also employed one half-time staff person who was dedicated to crime prevention. However, that person was responsible for crime prevention efforts aimed at reducing all types of crime, making the amount of time spent on reducing burglary rates negligible.

Chula Vista police also engaged in traditional enforcement and investigative activities to address burglaries. An examination of residential burglary clearance rates from 1994 to 1996 indicated they averaged 18 percent to 20 percent in Chula Vista. While these rates were higher than the national average of the time for cities of the same size (13.5%), police felt that more could be done to prevent a significant number of the burglaries from occurring in the first place.

Taken together, the data from all of the above sources revealed significant patterns of target selection, methods of entry, and burglar deterrence. Key findings from the analysis phase included the following:

- Doors without deadbolt locks—particularly side garage service doors—were targeted;
- Windows with single-paned glass were targeted;
- Windows with simple stock latches were easily defeated;
- Sliding glass doors without specialized pin locks were easily rocked off their tracks;
- Homes that appeared unoccupied were targeted;
- Almost all targeted properties had numerous hidden points of entry concealed by high shrubbery or solid fencing; and
- Neighborhood Watch programs were lacking.

These findings led police to the conclusion that they could take steps to prevent burglaries more effectively than they had in the past.

RESPONSE

Based on findings from the analysis phase of the project, Chula Vista police developed an array of solid, practical solutions that resulted in burglary rate reductions. These responses relied heavily on crime prevention through environmental design (CPTED)

principles, and to a lesser extent, public education efforts.

Police felt that environmental design changes would be among the most effective ways of preventing residential burglaries because they did not rely on behavioral changes of victims or the increased presence of police. Environmental protections were thought to be especially appropriate for Chula Vista, which lacked the around-the-clock surveillance provided by a strong Neighborhood Watch program—particularly in newer residential areas—due to a lack of resident interest and fiscal support for the program. Additionally, environmental changes were considered to be among the least expensive ways of protecting vulnerable locations and people over the long term.

Analysis of the problem of residential burglaries in Chula Vista clearly indicated that the police could have the most impact on the problem by focusing on changing the construction standards for new homes, since they would eventually constitute such a large portion of Chula Vista's housing stock. Police realized that if they could negotiate built-in burglary prevention features for new homes, more than 40 percent of all Chula Vista housing stock would have proven anti-burglary devices in place by 2015. Such an unprecedented and comprehensive initiative would likely help keep burglary rates relatively low for years to come in the face of economic declines, increases in drug use, and other factors relating to burglary rates that inevitably occur over time.

Retrofitting older homes with effective environmental deterrents identified in the analysis phase, particularly proposed changes in window standards, would have been cost-prohibitive. Police also considered seeking funding from Home Depot for upgrades to older homes, and looked into securing insurance rebates for homeowners who made the new construction CPTED changes to older homes. At one point, project staff considered requiring older homes to undergo the new home upgrades as part of the sales process to new owners. Ultimately, due to the costs associated with the above responses, the police developed a two-pronged response strategy: (1) focus on beefing up investigation efforts on existing burglary cases and implementing a version of Mesa, Arizona's Crime-Free Multi-Housing program[iv] in the Western section of Chula Vista to shore up protections for existing homes; and (2) "design" out characteristics of Chula Vista's new housing stock in the Eastern portion of the city that make these homes most attractive to burglars.

In order to negotiate changes in city construction standards for new homes, the police department developed a mutually beneficial, collaborative relationship with the new housing development and building industry. Project staff knew it would be of critical importance to involve the new home industry in the development and implementation of effective burglary prevention measures, because it would help achieve buy-in to the effort. In addition, the police department sought to tap into the expertise of people knowledgeable in the field of new home design and construction to help develop innovative, cost-effective ways of target-hardening new homes.

Finally, the police sought to share ownership of the problem of residential burglary with the homebuilding industry, which has both financial incentives and a responsibility to design homes that are safe based on what is known about burglary prevention.

Project staff decided to approach home development executives, rather than homebuilders, about participating in the effort. Since several builders contract with each developer, involving home developers up front attained better coverage of the industry in less time. Likewise, executives at

the highest decision-making levels were best positioned to make and expedite broad-based decisions in all areas of interest to the project—home building, landscaping, common areas, and community structure.

Five primary developers in Chula Vista were conducting new community development in 1998. Executives from each company were personally invited to attend an individual introductory meeting, and were provided with the key findings of the analysis phase of the project regarding residential burglary deterrents specific to Chula Vista. At these meetings, the police department presented a number of detailed recommendations on ways of target-hardening new homes. These recommendations included:

- Upgrading window locks and installing only double-paned glass;
- Installing on all windows some form of automatic locking mechanism that engaged as the windows closed;
- Installing deadbolt locks on all side and rear standard home doors;
- Installing keyed channel locks or slide bolts on all sliding glass doors;
- Providing new homeowners with anti-burglary landscaping options and a list of local landscape architects who specialized in anti-burglary landscaping methods;
- Installing see-through fences to eliminate fences as hiding places for burglars; and
- Tasking newly created homeowners' associations with the responsibility of forming and maintaining Neighborhood Watch programs.

At the meetings, developers were asked to be partners in the effort and were encouraged to generate additional ideas regarding burglary prevention. More specifically, they were tasked with developing a broad range of ideas on hardware, building design methods, environmental design, or other methods they thought might work well to: (1) discourage burglars from selecting their new homes; and (2) stop burglars who were looking for easy points of entry into new homes. Finally, developers were asked to make calculated estimates of the costs associated with these ideas and the lead-time required for implementation. Project staff arranged a series of follow-up brainstorming meetings with developers to discuss in detail their findings and ideas, and reach agreements on changes that could be implemented.

Ultimately, the developers agreed to make six modifications to new homes as part of a Memorandum of Understanding (MOU). Three of the modifications target-hardened homes. These changes included installing deadbolt door locks on vulnerable garage service doors, using only windows that meet strict forced-entry resistance standards, and installing pin locks on all sliding glass doors to prevent prying or rocking doors off their tracks. Developers also agreed to distribute a safety and security brochure, jointly created by developers and police department personnel, that spelled out additional ways of preventing burglary and was based on earlier findings from the project. Garage burglaries were addressed in the brochure, which warned residents to close their garage doors even when they were only away for a few minutes. Developers also required that garage doors be kept shut, in accordance with homeowner association rules. Additionally, developers agreed to distribute information on anti-burglary landscape ideas and local landscape designers and contractors familiar with anti-burglary landscape techniques. This information was to be given to new homeowners at the point of sale. Finally, developers agreed to task each newly created Homeowner's Association with setting up and maintaining a permanent Neighborhood Watch Program.

Possibly the most important modifi-

cation—upgraded windows—was the most difficult to negotiate. Officers sensed reluctance on the part of one of the five developers to upgrade the windows on his homes so that they would be self-locking. Frustrated by the developer's reluctance, the police called another contact in the building industry who suggested they speak directly with a window manufacturer about the feasibility of self-locking windows. Because the window manufacturer did not service the construction industry in the San Diego area and only produced windows for a very different type of home market, project staff felt his advice would be unbiased. The window manufacturer explained recommended windows with the American Architectural Manufacturer's Association (AAMA) seal as the best and most cost-effective. The AAMA seal meant the windows could withstand 150 pounds of pressure. Armed with new technical knowledge about forced-entry standards and the cost of AAMA-approved windows (approximately $40 per house), officers were able to discuss the finer points of window issues with the reluctant developer, and subsequently convinced him to agree to the AAMA-approved windows. Ironically, the AAMA-approved windows were a much higher grade of window than the type the police had originally proposed and the developer had initially resisted.

Project staff were unable to negotiate several other changes with the developers, however. These included the use of automatically locking windows, which raised liability concerns among the developers, particularly with regard to egress in the event of a fire. The change to see-through fencing was also proposed and not adopted. The developers felt that new homebuyers seeking privacy would not be interested in see-through fencing, despite its ability to deter burglars. Developers also thought see-through fencing would be cost prohibitive.

ASSESSMENT

Although the long-term impact of the anti-burglary project will not be felt for some time, the initial results are very promising. Residential burglary rates in Chula Vista dropped 29 percent in 1999, the first year after the developers signed the MOU. Other neighboring jurisdictions also experienced declines in burglary, but the declines were significantly below those achieved in Chula Vista. Burglaries declined 13 percent in National City, which borders Chula Vista to the North, and 16 percent in the City of San Diego, which borders Chula Vista to the South.

Because residential burglaries crept back up 4 percent in Chula Vista in 2000, police sought to understand the cause. First, they identified a jurisdiction in San Diego County—San Marcos—that had experienced similar explosive rates of growth, hoping that it would provide a meaningful natural comparison with Chula Vista. Located in the Northern section of the county, San Marcos also experienced a tremendous construction boom in the 1990s. Between 1990 and 2000, the number of housing units in San Marcos increased 24 percent; during the same time period, the number of housing units in Chula Vista increased nearly 20 percent. In addition, the median income of San Marcos residents is approximately $40,000; Chula Vista's is $42,500.

The Chula Vista Police Department reviewed burglary rates in San Marcos and found that that city experienced no reductions in 1999, and an increase of 11 percent in 2000. Looking at the two-year period from 1999 through 2000, residential burglaries increased 12 percent in San Marcos, while they decreased by 25 percent in Chula Vista.

Adding strength to the conclusion that the anti-burglary project in Chula Vista hit its mark are the varying burglary rates for the three individual policing sectors in Chula Vista. Sectors 1 and 2, located in the Northwest and Southwest portions of the city, are comprised of primarily older, estab-

lished neighborhoods. Sector 3, which encompasses the entire Eastern portion of the city, is made up of mostly contemporary master planned communities.[v] Interestingly enough, while the number of burglaries in the year 2000 in Sectors 1 and 2 increased 12 percent and 13 percent respectively, the number of burglaries in Sector 3—the area that was targeted by the anti-burglary project—9 percent. Looking at the two-year period from 1999 through 2000, residential burglary rates dropped approximately 50 percent in Sector 3.

Police provided further evidence of the impact of this project through comparison of burglary rates between one swath of homes built almost completely after February 1999 with another similar group of homes built both before and after February 1999. Based on the first nine months of 2001, the "new" home group had an extrapolated annual burglary rate of 5.4 per thousand households, compared to a burglary rate of 8.4 per thousand households for the "mixed age" home group.[vi] In other words, a new home was 37 percent less likely to be burglarized than a home in the adjacent mixed-age neighborhoods, despite the fact that a number of the homes in the mixed-aged neighborhoods were built just prior to the February 1999 developer agreement.

The evidence of impact based on an anticipated reduction in window and side door entries is mixed. The number of window burglaries as a ratio of total burglaries in 2000 is essentially the same for the new home areas and the mixed-age home areas. Side door entries, however, were significantly reduced in the new home areas in 2000. While there were nine side door burglaries in the mixed-age neighborhoods in 2000, there were no side door burglaries in the new home areas.

Normally, at this point in the assessment process, police would look to the possibility of displacement as an explanation for the reduction of burglaries in Chula Vista. However, upon considering the matter carefully, police realized that in order for displacement to occur, offenders must be discouraged away from some targets (i.e., those that have been target hardened) toward alternative targets. In this particular case, though, the targets that were the focus of the police's response did not exist before the POP project commenced. In other words, it would be virtually impossible to displace crime from targets that did not exist. Thus, because the preventive characteristics were designed in at the point of construction, police could conclude with confidence that any burglaries prevented were not simply displaced elsewhere.

It is unlikely that burglary rates were lower in the new home area because offenders were not aware of the existence of the new targets. A major thoroughfare that leads to the mixed-age home area also leads to the new home area and numerous signs along this road point the way to the new developments. New construction areas were also thought to be at least as vulnerable to burglars as more established mixed-age areas. Prospective buyers unacquainted with new neighborhoods typically wander through streets and properties unchallenged; peeking through windows in these neighborhoods is not unusual behavior.

Based on the data on burglary rates in the new home areas compared to rates in the mixed-age areas, it is likely that a significant number of burglaries will be prevented in Chula Vista in the years to come. When Chula Vista's currently planned housing is fully built, it is reasonable to assume that 35,000 households will have estimated burglary rates of 5.4 per thousand as compared to the expected rate of 8.4 per thousand. These estimates indicate that approximately 100 burglaries per year would be prevented at that point in time. Based on average loss figures using 1998 dollars, residents of Chula Vista would not sustain expected losses of

more than $200,000 per year. Additionally, the prospective victim families would be spared the pain of losing irreplaceable valuables with sentimental value, and the enhanced levels of fear that typically accompany burglary victimization.

The City of Chula Vista expects to experience significant savings from the burglary prevention project, both in terms of staff time and salary expenses. A typical burglary report, which is usually handled by community service officers (CSOs), takes an average of two hours to complete. As a result, police believe the burglary project will save 200 hours of CSO time per year by 2015, which equates to more than $4,000 in salary and benefits costs. Along the same vein, they conservatively estimate the project will save 57 hours of investigative time, or at least $1,800 in agent salary and benefits. The saved CSO and investigative time can be dedicated to other pressing crimes affecting the City of Chula Vista.

Another positive outcome of this project is that the participating new home developers received public recognition for their efforts to improve the safety and security of all future homes built in Chula Vista. At the February 1999 MOU signing ceremony, the Chief of Police and City Council presented public thanks and a Certificate of Recognition to developers. The accolades received by the developers came at little expense. For example, forced entry-resistant window pins that became standard in new construction as a result of the MOU cost about $2 each. Developers estimated that full implementation of the agreed-upon target-hardening upgrades in new homes and production of public education brochures would cost under $200 per home—less than 1/100th of a percent of the average new home price in Chula Vista ($300,000). Clearly, the project was a win for the new home industry, which was able to sell buyers on the cost-effective, built-in security measures in their newly designed homes.

The specific aim of the burglary prevention project was to reduce residential burglary levels in Chula Vista. On behalf of the large number of new homes and families that will be added to their community in the next 15 years, the police sought ways of meeting residents' needs with dollar-stretching preventive measures. Without a doubt, all stakeholders in the burglary problem benefited from the project—new homebuyers, community members at large, developers, and city agencies. The use of a collaborative problem-solving model led to a win-win situation that will continue to provide a payoff for all members of the Chula Vista community well into the 21st century.

END NOTES

i The Chula Vista Police Department, 1998 Annual Report.

ii Chula Vista has significantly fewer jobs per housing unit than its neighboring jurisdictions (National City, the City of San Diego, and San Diego County). Additionally, more than 85% of the land designated as urban space in Chula Vista is set aside for residential developments.

iii The finding regarding the ineffectiveness of outdoor timer lights was supported by the residential burglary literature (Wright, Logie & Decker (1995). Criminal expertise and offender decision-making: An experimental study of the target selection process in residential burglary. Journal of Research in Crime & Delinquency, 32(1):39-53.)

iv The Crime-Free Multi-Housing program focuses on helping tenants, owners and managers of rental property keep drugs and other illegal activity off their property through tenant screening, drug nuisance abatement, and other approaches.

v Sector 3 is a mix of homes built predominantly after 1980. It includes most of the homes in Chula Vista built after the developers agreed to change their home designs in 1999.

vi This burglary rate comparison was not done for the year 2000 because families continually moved into the "new" home census tracts;

as a result, population figures for these neighborhoods changed virtually every month. Census 2000 household figures were used to calculate burglary rates for the first nine months of 2001, providing the police with a conservative estimate of the differences in rates between the "new" and "mixed age" home areas.

ADDITIONAL INFORMATION

Primarily one sergeant, Daniel Hardman, and one researcher, Cathy Burciaga, who was hired by the police department under the problem-solving grant, pursued this problem-solving initiative. Sgt. Hardman had received some training in problem solving while pursuing his bachelor's degree in criminal justice, and had also received information on problem solving during several department presentations on the concept. Problem-oriented policing issues were discussed during his promotion process and applicants were evaluated on their abilities to address these issues. Project staff also referred to the publication Problem-Solving Tips to help implement this problem-solving project.

The department committed 90 percent of Sgt. Hardman's time for over a year to work on this project. In addition, the department used approximately $60,000 from the U.S. Department of Justice grant to hire a part-time researcher and contract with SANDAG (San Diego Association of Governments) to conduct offender interviews.

Rogers County Sheriff's Office

TARGETING THE MARKET FOR STOLEN GOODS: PUTTING A NEEDLE INTO THE HAYSTACK

Judge's Commentary

Officers and agencies wishing to engage problem-oriented policing often worry that they lack the essential resources to be successful at their endeavors. There is a common misconception that successful problem-oriented policing projects require a great deal of support—expert guidance and analysis by professional researchers, funding, and dedicated manpower—much of which is not available to small and mid-sized law enforcement agencies. This project is important for many reasons, one of which is the fact that Rogers County Sheriff's Office had a dramatic impact on a serious community problem with a handful of deputies and limited resources, during a time when all available resources were committed to moving into a new building. The scanning, analysis and assessment phases were done by hand in a department with 16 sworn deputies. Rogers County deputies used creativity and innovation, together with community partnerships, to overcome challenges and successfully resolve a theft problem. This project demonstrates that successful problem-oriented policing can be done with agencies of all sizes when people are willing to think outside of the box and beyond their formal job descriptions.

SUMMARY

The Problem: Trailer theft—theft of general livestock, horse, utility, or flatbed trailers—was a serious problem in the rural community of Rogers County, Oklahoma. In the mid-1990s, trailer theft became a growing and costly problem and was adversely impacting the livelihood and recreation of area residents and business. Field deputies first noticed a problem when they were plagued with an unusually high number of "trailer theft" calls for service. During the first eight months of 1996, more than 37 trailers were stolen and only three trailers were recovered. Losses per report were as high as $35,000; with an average loss per report was $2,500.

Analysis: Three data sources were used to identify the nature and scope of the trailer theft problem: crime reports, site visits and conversations with victims, and a community survey. Deputies examined crime data for time and location patterns, and determined that trailers were stolen during specific times of day from specific locations: the use and size of trailers lead owners to place them in highly accessible, remote locations without sufficient security. Furthermore, they found that stolen trailers were not registered or licensed; decreasing the likelihood of recovery. Rogers County deputies also examined research on theft to place their findings into context and craft a solution.

Response: The Sheriff's Office worked with regional associations, residents and the mass media to implement a strategy to identify property, remove the disposability of stolen property, and to inform likely offenders of these new measures. Marking property with a rice-grain-sized Radio Frequency Identification (RFID) microchip and creating an ownership database enables the monitoring and tracking of property while reducing the market for stolen goods.

Assessment: Trailer theft has been virtually eliminated in Rogers County. During the past two years, only one trailer was stolen. The owner of the stolen trailer had not participated in the Rogers County theft reduction program.

SCANNING

As a former frontier town, Rogers County has its share of rodeos and equestrian events, drawing cowboys and girls from across the country. Breed associations, equestrian clubs, civic groups and 4-H clubs are very active in Rogers County. Much of the commerce in this region relies on agriculture or livestock, couple with the heavy involvement in the aforementioned associations, most residents own trailers—general livestock, horse, utility, or flatbed trailers.

In the mid-1990s, trailer theft become a growing and costly problem in the booming rural county. Field deputies first noticed a problem when they were plagued with an unusually high number of "trailer theft" calls for service. During the first eight months of 1996, more than 37 trailers were stolen and only three trailers were recovered. The average loss per report was $2,500; the highest reported losses were $35,000 (a result of stolen Hot-Air Ballooning Equipment) and $29,000 (a result of stolen tractors and matching trailers from a business).

At about the same time, the theft problem came to the attention of community leaders as some key community members were victimized. Residents of Rogers County and members of the Professional Rodeo Cowboy Association, Quarter Horse Association, Farm Bureau (Insurance underwriter to many rural areas), and the Cattleman's Association held meetings with community leaders to discuss the great financial and emotional losses incurred by victims of trailer theft. Trailers in Rogers County are used not only to transport various types of farming/construction equipment, cattle and horses, but are also used as means to participate in equestrian and rodeo shows. Theft of a trailer can involve theft of prized tack and horses, personal equipment, and trophies representing years of participation in rodeo competitions.

ANALYSIS

In 1997, a Problem Solving Partnership grant from the U.S. Department of Justice's Office of Community Oriented Policing Services (COPS) enabled the Sheriff's Office to analyze the trailer theft crimes more closely. Three data sources were used to identify the nature and scope of the trailer theft problem: crime reports, site visits and conversations with victims, and a community survey.

Crime Reports

Deputies began their analysis with a review of the 1996 and 1997 theft cases. Analysis of the 1996 theft reports indicated that 54 trailers were stolen and/or broken into with no discernable seasonal or monthly patterns. The 1997 theft reports showed a similar pattern of about three to four trailer thefts each month (approximately 42 reports for the year). Examination of the time of day for thefts showed two general trends; thefts of privately owned equipment occurred between 8 a.m. and 3 p.m., while thefts of commercially owned equipment occurred during the early morning hours—midnight to 4 a.m. Few trailers were recovered; this led deputies to hypothesize that the stolen trailers were being repainted and sold at the region's monthly auctions.

Turning to other features of the reported incidents, deputies found that in 95 percent of the cases the theft location was remote and easily accessible via one of the county's four major highways.

Site Visits

Site visits of theft locations and conversations with victims showed that, for convenience, most trailers were parked out of sight from residential dwellings in an open area near the owner's barn or with other farming equipment, in a location close to the edge of the property with access to the road. These parking locations typically offered no means of securing the trailer and little natural surveillance. In each case, few security measures were used; trailers were merely chained and padlocked to the ground or a tree, a

GEOGRAPHY

Rogers County is highly accessible and centrally located in Oklahoma. Travelers can reach most places in Kansas, Missouri or Arkansas (approximately 90 miles) or Texas (about 200 miles) in a few hours by using one of the major highways intersecting Rogers County: the Will Rogers Turnpike (I-44), legendary Highway 66 (a.k.a. Route 66), and state highways 88 and 20.)

security measure defeated with the common bolt cutter. Then, almost anyone with one of the standard trailer hitches could remove the "secured" trailer and be in another state before the theft was reported.

Community Survey

Deputies also randomly surveyed approximately 200 Rogers County residents. This survey provided information about unreported events and degree of community concern about the issue. Deputies learned that citizens were concerned about crime and felt that trailer theft was growing to be a serious problem in Rogers County. While most citizens had not been victims of trailer theft, they were interested in protecting their property in the event a theft occurred.

Putting It All Together

Examination of theft patterns revealed that thieves targeted goods that were: concealable, removable, available, valuable, enjoyable, and disposable (CRAVED). Trailers were easily concealed in the sense that it was extremely difficult to determine legitimate ownership by merely looking at the property; the lack of legislated licensing or registration of trailers led many to believe that once a trailer was stolen, it would be impossible to find at a private sale or auction. Trailers were removable and available because their size and maneuverability; unlike motor vehicles, trailers are generally too large to fit into garages or park in driveways, and they are not easily "locked." Many people residing in rural counties own trailers in order to transport livestock, equipment, and/or farming goods, thus making them readily available. Trailers and the equipment inside were considered quite valuable and could be quickly sold or used as a trade-in for a cash value of up to $20,000 at farm auctions, flea markets, or on the black market. The relatively low risk of being caught selling stolen goods at the auction contributes to the disposability of trailers, thereby increasing the lure of this crime (made it more enjoyable).

Following the arguments of Cornish and Clarke (2000), offenders appeared to be reacting to enticing opportunities where the anticipated rewards of the theft were substantial and the lack of guardianship provided minimal risks or costs. Utilizing the theft reports, site visits a geographic analysis of theft locations, and community surveys, the Rogers County Sheriff's Department concluded that several key factors contributed to the high rate of trailer theft: trailers were high risk property due to the their perceived value; parking locations and common security measures offered little protection; and, inability to verify legitimate ownership provided opportune conditions for trailer theft.

RESPONSE

Rogers County began their response phase in March of 1998. In order to maximize the community effort in preventing trailer theft, the Rogers County Sheriff's Office partnered with the Cattlemen's Association, Farm Bureau, and the mass media. Deputies employed four prevention approaches specific to theft offenses in their area based on the key findings of the project analysis. The response amounted to putting a needle into the haystack and advertising its presence widely and loudly.

1. Educate the community. Sheriff's deputies attended meetings with residents and association members to make the community aware of: the rising larceny rate, the locations where this type of larceny was

most likely to occur, and the ways in which new technological equipment for tracking and monitoring trailers could help prevent the thefts.

2. Offer the installation of a tracking and monitoring microchip into at-risk property for a low fee. Utilizing the Situational Crime Prevention technique of identifying property, Rogers County held public clinics to permanently identify various types of trailers and equipment. New technologies enabled a rice-grain-sized Radio Frequency Identification (RFID) microchip to be embedded in property and equipment for later monitoring and tracking. The microchip contains a predetermined sequence number that cross-references to a police database showing: an owner's name, address, and phone number; property description and location; and, a photo of the property (an additional field of the database includes information as to whether or not the equipment was reported missing). Microchips were installed into trailers and equipment by a certified National Microchip Horse Registry (NMHR) technician. Along with the microchip installation, property and equipment owners were given cards and warning bumper stickers to identify themselves as registrants in the program.

Sixteen trailers were registered, digitally photographed, microchip tagged, and identified with warning stickers during the spring kick-off clinic. In clinics to follow, 144 trailers were registered and tagged. Property owners were charged $35.00 for the first microchip installation, $30.00 for any item after, and $15.00 for tack equipment (saddle, bridle, etc).

3. Take Polaroid and digital pictures of the trailer and equipment to accompany a police registry. Not only were a registrant's property and equipment information entered into a new police database, but photos of the trailer and property were also filed. This additional feature of the database gave officers the ability to place pictures of stolen property and equipment directly onto the Internet after a theft had occurred, permitting information to be quickly dispatched to neighboring law enforcement agencies, auctions, and community members.

4. Notify possible offenders of project. The Sheriff's Office engaged in an extended media campaign detailing increased risk for offenders and potential buyers. The press releases and promotional advertisements ran for the length of the response, March 1998 to December 1998. One press release ended by stating "if a trailer is found in the possession of person(s) other than the owner(s), without the owners permission, that person(s) will be going to jail." This media campaign involved radio stations, television news stations, and newspapers from all over the state. The mass-media coverage ensured a large portion of the trailer and equipment owners, as well as theft offenders, would become acutely aware of new strategies for theft prevention and detection.

All four responses work together and are critical to the success of the program. Educating the public about theft patterns, installing microchips, publicizing the program, and marking property with warning bumper stickers were intended to make it more difficult to steal and dispose of trailers and stolen property. Consequently, trailers became a less desirable target for offenders. Together the features of this program put potential offenders on notice that stolen property could be easily tracked, while informing the potential buyers of the stolen property that they could no longer surreptitiously purchase stolen property.

ASSESSMENT

Since the responses were implemented, Rogers County has experienced a substantial decline in the occurrence of trailer theft. When the response phase first began in 1998, 13 trailer thefts were reported, a reduction of

69 percent from 1997. In subsequent years, trailer theft has been virtually eliminated in Rogers County. During the past two years, only one trailer was stolen, and the owner of that trailer was not a participant in the program. (See Figure 1.)

The long-term success of this project can be calculated into savings of approximately $300,000 for the citizens of Rogers County and their insurance companies since implementation first began in 1998. This figure does not represent the prevented loss of materials inside the trailers or the personal impact on victims—emotional loss and financial losses in terms of not being able to conduct business.

Community satisfaction with the program is evident in the fact that there is now a waiting list to have the microchips installed. Currently, there is a list of over 100 trailers waiting to be registered and tagged. The huge success of installing the microchips in the trailers has lead the Rogers County Sheriff's Office to expand the installation of microchips to tractors, recreational vehicles, and all-terrain vehicles.

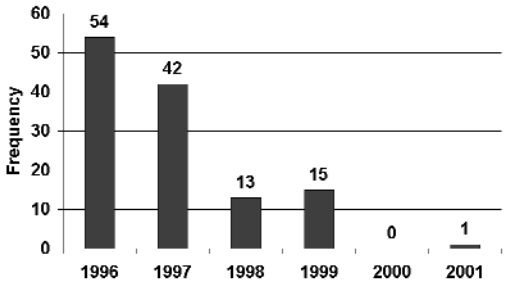
Displacement was an important concern because deputies believed the offenders were local residents seizing upon opportunities. Preliminary investigations show that, with one exception, the county has not experienced a lasting or significant displacement to other targets since the implementation of this program. During the response phase, offenders began targeting commercially owned trailers at a higher rate than before; 60 percent of thefts during the response phase involved commercially owned property compared to 40 percent prior to the project implementation. However, none of the trailers stolen since the project was implemented had microchips installed. The utilization of the media to put the offenders on notice is credited with reducing the opportunity to commit crime.

The perception from surrounding departments is that Rogers County theft prevention program had no effect on theft rates in their areas; with this said, it is possible that offenders have gone on to commit other types of larceny. After speaking to several surrounding law enforcement agencies, it was determined that the record systems in the area do not enable most agencies to accurately differentiate trailer theft from other vehicle/property theft.

ADDITIONAL INFORMATION

The next steps for the Sheriff's office are to bring the technology to the consumer and increase participation. The Rogers County Sheriff's Department is working towards the purchase of a mobile installation unit. A mobile unit will allow deputies to complete numerous installations at remote locations on equipment that is not easily brought to the station. Furthermore, to encourage even greater community participation, deputies are inviting more insurance companies to offer the community a discount on their policies if their property has a microchip installed. Efforts are also being invested into educating and encouraging the surrounding local and state agencies to become involved in the program. To date, Rogers County is the only law enforcement agency to implement microchip technology for crime prevention.

FIGURE 1:
REPORTED TRAILER THEFTS FOR EACH PROJECT PHASE, ROGERS COUNTY,OKLAHOMA*



* The 2001 figure reports the number of thefts from January to October 2001.

The Rogers County Sheriff's Office continues into the 21st Century by maintaining a long-lasting relationship with Destron-Fearing Electronic Identification Microchip Corporation, the maker of the scanner used by Sheriff's deputies. Destron Fearing recently joined with Digital Angel Corporation. This merger allows the technology platform to provide a data delivery system that is the first of its kind, one that wirelessly transmits location data in real time—to find a person, animal or object—anywhere in the world, anytime. Scheduled for released during the fall of 2001, the future uses of this wireless identification technology are only limited by the reader's imagination. The microchip is so small it has the capability to be embedded into a majority of personal and commercial property for use in identification and soon for tracking.

Salt Lake City Police Department

THE FALSE ALARM SOLUTION: VERIFIED RESPONSE

Judge's Commentary
The Salt Lake City Police Department's verified response to alarms stands out for several reasons. Most obvious is the impact that verified response has had on reducing the amount of police resources consumed by highly unproductive responses to intrusion alarms. Verified response achieves reduction levels that no other response to the false alarm problem has even come close to achieving, while at the same time showing evidence that it improves the overall community response to the very problem that alarms are intended to address burglary..

Salt Lake City's experience with false alarms prior to adopting the verified response approach was typical of that faced by so many police agencies. Salt Lake City officials justified verified response by detailed documentation of the problem through hard data and professional expertise. They carefully explored and noted the limitations of alternative strategies for reducing the false alarm burden. They methodically built up internal, community, legal, and political support for making the dramatic shift in police policy. Perhaps most importantly, they continue to work closely with the private alarm and security industry to ensure that all aspects of verified response, from legislation to private security training to police operations, remain aligned to advance the community's ultimate interest, the protection of property from burglary.

SUMMARY

The Problem: False alarm calls were draining patrol resources, comprising 12 percent of all dispatched calls. They contributed to a significant backlog of calls for service. The average police response time to alarm activations was up to 40 minutes, well beyond the time when police could reasonably hope to apprehend an intruder. More than 99 percent of all alarm calls proved false. Responding officers were getting increasingly complacent and they risked injury just driving to alarm calls.

Analysis: Past efforts to reduce the volume of false alarms through permits, warnings, fines, and suspensions had only modest effect. An examination of other approaches tried elsewhere, from cost recovery to alarm industry regulation to outsourcing alarm administration, similarly proved only moderate effectiveness. Police response to alarms was most effective and efficient if the police had verification that an alarm activation was indicative of suspicious activity. Private security guards were ideally suited to make this initial verification.

Alarm owners were receptive to the possibility of having private guards verify alarms once they realized how this option could improve response times and lower their costs. A few other jurisdictions had positive experiences with verified response. A legal opinion established that police were under no legal obligation to respond to all alarm activations. A sufficient number of alarm companies and private guard companies were willing and able to provide initial verification service in a timely fashion.

Response: The police department proposed a verified alarm response ordinance to the city council. A campaign to inform the public, elected officials, and the alarm industry about the purposes and advantages of verified response was undertaken. The city council passed the ordinance and the police department conducted training for private

guards to prepare them for their new responsibilities.

Assessment: The volume of alarm-related police calls for service dropped by 90 percent during the first nine months the verified response ordinance was in effect, compared to the same time frame one year prior. Average private guard response times to alarm activations has been much faster than the previous average police response times. Average police response time to other high priority calls for service dropped from five to three minutes. There has been no increase in the number of reported burglaries and the apprehension rate of burglars caught on site actually increased. Revenues for alarm companies and private guard companies have increased through collection of a modest additional monthly fee from alarm owners. Average costs to alarm owners have reduced due to reduced city alarm fines.

SCANNING

The Salt Lake City Police Department (SLCPD) has struggled with the problem of false alarms for the past 20 years. False alarm calls were draining patrol resources and often created a significant backlog of calls. This problem had been apparent since 1980 when the department first began tracking false alarm statistics.

Police administrators were concerned that officers responding to alarm calls were getting increasingly complacent, knowing that 99 percent of alarm calls in Salt Lake City proved false. Complacency put officers checking buildings at risk. Moreover, officers risked injury just driving to alarm calls. Concern was partially based on the awareness that at least four officers in the United States and Canada had been killed in accidents responding to alarm calls in the past two years.

Stakeholders

The Salt Lake City Police Department identified taxpayers without alarm systems, alarm owners, alarm companies, city government and the police department as stakeholders in this problem. Stakeholders had different interests in the problem:

- Taxpayers without alarm systems were subsidizing the costs for police response to alarms, and those police resources were therefore not available to address other public needs.

- Alarm owners wanted a quick response to their alarm signal and wanted to minimize the costs they incurred from false alarm fines.

- City government tried to balance citizen welfare with consumption of municipal resources.

- The police department was interested in conserving resources by not responding to so many false alarms. They were also interested in ensuring that alarmed properties were adequately protected from burglary.

- Alarm companies were interested in maximizing their profit, which they believed they could do best by having police investigate alarm signals at public expense. Alarm companies' interests were summarized in a recent report on false alarms:

> Alarm dealers view police as a gift to their business. They sell a system, charge monthly fees for managing effective response that is provided and paid by the general taxpayers. Dealers consider false activation to be an issue merely between the police and the customers. There is also little (apparent) interest by individual dealers to spend resources in order to solve their own and the communal problem.[i]

The Impact of False Alarms on City Resources

False alarms appeared to be a universal problem for police. Studies indicate that 97 to 99 percent of all alarm activations police respond to nationwide are false and they consume about 12 to 30 percent of patrol resources.[ii] Salt Lake City's false alarm problem did not appear to be unique. A number of important findings emerged from a local examination of the problem, including the following:

- In 1999, the Salt Lake City Police Department responded to 8,213 alarm activations. Only twenty-three cases, or three-tenths of one percent, of these calls justified a police report of any sort. Only a few of these reports were for actual burglaries.

- False alarm calls comprised 12 percent of all dispatched calls.

- Nearly $500,000 of the police department's budget (1.2%) was attributable to false alarms. The personnel time alone was the equivalent of five full-time officers.[iii] This figure does not include the amount of time complaint takers and dispatchers spent handling incoming alarm activations and the 2,100 canceled false alarm calls for 1999.

- $150,000 in alarm fines was collected in 1999, which only partially offset the costs of alarm response, creating a net deficit of about $350,000. Alarm permits were required, but were free of charge. (The SLCPD did not support charging for alarm permits because it created an unwritten promise that police would respond on alarm activations.)

- Processing alarm permits and false alarm fines and adjudicating appeals created a significant workload for the police department alarm unit, the city treasurer's office, and the small claims court of appeals.

- All taxpayers, regardless of whether they had alarm systems or not, were subsidizing alarm response for the 12 percent of the city's residences and businesses with alarms.

- The average response time to an alarm activation was 40 minutes. Occasionally, alarm response took as long as two-and-a-half hours. Some aggressive alarm sales representatives were making false and unrealistic promises to their customers about how quickly the police would respond to alarms. Due to the tremendous number of alarm activations and the number of false alarms, the priority for alarm activations was downgraded in 1992 to preserve resources for higher priority calls for service such as domestic violence.

- Locally, alarm owners expressed frustration over false alarms and the consequent fines. They vented their frustration at both the police department and their alarm companies. Sixty percent of the phone calls received by the police department's alarm unit were from frustrated citizens.

- False alarms in Salt Lake City had three main causes: user errors due to insufficient training;[iv] inadequate verification by alarm company monitoring stations; and improper installation, inferior equipment and application at the alarm site.

ANALYSIS

Part I: Available Alternatives and Current Response

As early as 1980, Salt Lake City officials realized that preventive measures were needed to reduce false alarms. The city adopted a

false alarm ordinance in 1981 that required a permit, established fines for false alarms that exceeded specified limits, and required the alarm owner to disconnect the alarm after excessive false alarms. There were no means to enforce the disconnection provision, however. In 1994, a more stringent alarm ordinance was adopted allowing four "free" false alarms and charging a $100 fine on the fifth alarm. Alarm owners were charged even for false alarms caused by faulty equipment or faulty alarm installation. This 1994 ordinance resulted in a 16 percent decrease in false alarms in the first year after it was adopted. However, the following year false alarms increased by 13 percent.

These ordinances were only marginally effective, and, considering the rising number of new alarm owners, the permit and fine approaches were like putting a finger in the dam to stop the flooding. These responses helped manage, but did not solve, the false alarm problem.

Alternative Responses to False Alarms

The SLCPD researched other police departments' efforts to manage their false alarm problems, and found everything from smaller jurisdictions doing nothing to larger jurisdictions dedicating up to 12 employees to deal with false alarms. Police officers were being utilized for a variety of tasks, such as inspecting alarm systems and hanging notices on citizens' doors to increase awareness of the problem. Alarm unit staff were billing and tracking false alarms, and sponsoring false alarm awareness courses. Despite intense efforts by many police departments, alarm rates persisted at over 97 percent false and alarm calls constituted from 12 to 30 percent of total dispatched calls for police service.

Salt Lake City examined the following false alarm reduction efforts attempted in other agencies:

Traditional Regulatory Ordinance

Of the reduction efforts examined by SLCPD, the most common was the regulatory ordinance, consisting of processing permits, warning letters, a certain number of "free" false alarm responses, fines, and suspension of police response to alarm systems with excessive false alarms.

Salt Lake City Police Department adopted this approach in 1981. This ordinance attempted to manage the problem, but had no significant long-term impact on reduction. It was very labor intensive for the alarm unit and the treasury department, and required an extensive software program. With four "free" alarms, alarm owners were often negligent about solving the problem until the fifth alarm was imminent. Alarm owners placed on suspension received no response to their alarm from the police department and usually had not selected an alternate provider to do so. Thus, when their alarm signaled, no response was forthcoming. Suspension provisions in this traditional ordinance dealt with the chronic false alarm abuser. However, new alarm owners who were poorly trained and unfamiliar with the use of their alarm system caused the bulk of false alarms. The fines seemed punitive to citizens, complaints were vigorous, and most alarm owners blamed their alarm company for their false alarms.

Cost Recovery

This method requires a permit with an annual renewal fee and is very labor intensive for the alarm unit, generally requiring additional personnel. There are usually no suspension features and police continue to respond to all alarm signals. In order to recover all costs of patrol response under this alarm response approach, the SCLPD would have to significantly increase fees, imposing a financial burden on many alarm owners. Further, the police department would not likely retain the monies from alarm response, as fee revenue would go directly to the municipality's general fund.

Alarm Industry Regulatory
This seldom-used false alarm reduction effort requires the alarm company to collect false alarm fines from their customers and remit the revenue to the city. For example, The City of Toronto, Ontario charges $73 for every alarm call coming into the communications center. Alarm companies typically resist this approach, even to the point of threatening legal challenges.

Another regulatory strategy has police agencies attempting to restrict the alarm monitoring stations' actions. It requires the alarm monitor to place a telephone call to the alarm site to determine if the alarm signal was in error and whether the person who answered the telephone knew the pass code. Another approach requires the monitoring company to receive signals from two different alarm zones before requesting a police dispatch. Alarm monitoring stations are not necessarily located in the same city as the customers they serve. They may be located hundreds of miles away, deal with thousands of police departments, and answer alarm signals for millions of alarm customers. Each police jurisdiction may require different specifications for alarm response, but that does not mean the monitoring company will comply. It is difficult for a police department in California, for example, to try to dictate an approach to alarm response to a monitoring company in Florida. The Salt Lake City police department were aware of at least one monitoring company that refuses to cancel a request for a police dispatch if the dispatch has aged more than 15 minutes, even if the alarm owner can verify the alarm is in error.

Outsourcing Collection Agency
In this approach, the police department responds to alarm calls, but the administrative tasks of issuing permits, sending out fine notices, and collecting fines is contracted to a private firm. Usually, the private firm returns a small percentage of the fines collected to the municipality. As with other methods, the SLCPD officers gathered that this method merely manages the problem and does not solve it.

Conclusions from Alternative Response Analysis
The Salt Lake City Police Department's attempt to manage false alarms with ordinances consisting of warnings, fines, and permits had no significant long-term effect and only minimal short-term effect on the overall reduction of alarm activations or the percentage of false alarms. Nearly all alarm activations were false and the current system was yielding slow police response times that were of little value to either the police or alarm owners. The probability of catching burglars in the act after 40 minutes was slim. Even the alarm industry did not believe that police response added much value. Members of the Utah Alarm Association conceded to police that they believed signs and stickers posted on the premise indicating an alarm system provided far greater deterrent value than the value of a police response. The public costs of the current system far exceed the revenues recovered in fines. Continuing to waste police resources was not in the best interest of public safety.

The SLCPD concluded that police response to an alarm signal only made sense if some eyewitness could first verify the validity of the alarm signal. Private security guards were a logical fit for this role. The police department further concluded that the initial verification of alarm activation was a private sector responsibility. Consequently, Salt Lake City began to explore the feasibility of shifting the primary responsibility for verifying alarms signals from the police to the private alarm and security companies. This practice is termed "verified response."

Part II: The Feasibility of Verified Response in Salt Lake City
To explore the feasibility of implementing verified response, the SLCPD alarm unit

began a campaign to increase alarm owners' awareness that they could contract first response to their alarm signal with a private guard company. Most alarm owners were otherwise unaware of this option. The first step was to include a listing of private guard services in the mailing with all new alarm permits issued in 1998 and 1999. The number of false alarms decreased by 7 percent from 1998 to 1999, perhaps partially due to offering alarm owners this private response option. Indeed, many alarm owners commented that they appreciated having the option of paying for the less expensive services of a private guard responder instead of paying false alarm fines to the city. Alarm owners also informed the SCLPD that they didn't want the department's officers wasting time on false alarm calls. Such comments reflected a preference among citizens that the city's officers be made available for response to genuine emergency calls.

The alarm unit concluded that alarm ownership is a private, personal choice, not mandated by law, the city, or the police department. An examination of verified response implementation in agencies in Las Vegas and Henderson, Nevada; Lane County, Oregon; and West Valley City and Taylorsville, Utah, found no legal challenges to these verified response ordinances and policies. According to the Salt Lake City Attorney's Office, "Law enforcement did not have a legal liability to respond to alarms and the alarm contract is a civil contract between two private entities."[v] An article on verified response in the Las Vegas Metro Police Department concluded:

> The police have no legal responsibility to respond to any given situation unless mandated by local law. Litigation aimed at forcing response compliance is unlikely to succeed because this law is so clearly stated and so well understood by judiciaries.[vi]

Members of the Salt Lake City Police Department's alarm unit examined costs associated with verified response and concluded that private alarm companies could feasibly recover the costs of responding to alarms from their customers. When West Valley City (located eight miles to the west of Salt Lake City, population 100,000) adopted their verified response policy in May 2000, alarm companies operating in that community began charging their customers an additional $5 per month to cover the cost of private guard response.

To gauge availability of private guards responding to alarm activations, the police department sent a survey to all private guard firms listed in the Salt Lake City telephone directory. The survey asked if the firms would be interested in responding to burglar alarms and, if so, what they estimated their average response time would be. Nine companies responded positively, with estimates of average response times ranging from three to 15 minutes. As noted by several researchers, "Already private security guards fulfill most security functions and they number more than three times the total number of federal, state, and local law enforcement personnel."[vii]

On the basis of the research, the SLCPD concluded that enough private security companies were willing and able to respond to alarm signal activations and that a verified response policy was indeed feasible.

RESPONSE

In May 2000, the Salt Lake City Police Department proposed a new ordinance to the city council. The major elements of the proposed verified response alarm ordinance were:

- In all alarm activations, eyewitness verification of suspicious activity is required of alarm company personnel or a private guard prior to police department notification.

- Continued police response to human-activated alarms such as robbery, panic and duress[viii] alarm signals. The first false alarm of these types incurs a $50 fine, with subsequent fines based on an escalating fine structure.

- Alarm owners participation in a false alarm prevention course in lieu of one false alarm fine per year.

- False alarms that are caused by the alarm company technician charged to the alarm company rather than the alarm owner.

The police department realized that educating citizens, business owners, and the city council on false alarm issues would be crucial to passage of the verified response alarm ordinance. Police encounters with citizens had revealed many misperceptions of the police resources and taxpayer monies involved in false alarm response. The city council members were astonished to learn of the high percentage of false alarm calls.

Salt Lake City police contacted local television stations and newspapers to briefed them on the proposed policy and the rationale behind it. All were willing to cover the story and most reported favorably on the proposed policy.

Upon hearing of the proposed policy, some citizens called the alarm unit to express concern. When alarm unit staff explained that the public would receive faster response to their alarm activation from the private guard service than they could expect from the police, would pay a small fee rather than the $100 ordinance fines, and, if the alarm was valid, would experience faster police response than they had in the past, a vast majority of the citizens became supportive of the ordinance. In the first month after the news stories broke, SLCPD received more than 100 phone calls, with only two callers remaining opposed to the proposed policy.

The department approached the local alarm companies again to present the proposed verified response policy. Salt Lake City and several other local police agencies had been meeting with some of the alarm companies and members of the Utah Alarm Association for the past five years, so the industry was familiar with the verified response concept. One of the Utah Alarm Association's early objections to verified response was the cost to alarm companies of responding to and investigating false alarms. This concern was addressed when alarm companies realized they could pay for this added service by charging alarm owners a modest, additional $5 monthly fee. One alarm company even allowed their customers three "free" responses before charging a fee.

The Salt Lake City Police Department offered a three-hour training course to all state licensed guard companies. Improving cooperation between police and the private guard sector was one of the goals of this training. The training stressed that the private guards' role was only to observe and report at the alarm activation scene, and not to enter or search the building or try to apprehend offenders. Guards were instructed that, if they discovered an open door, they were to contact the police department and not enter the premise. A call from a guard discovering an open door, broken window or any criminal activity would result in a "possible burglary in progress" call—a top priority call. Other subjects covered in the training included safety tactics, initial approach, cover and concealment, crime scene containment, and suspect identification. One of the most popular subjects was the review of Utah state statutes and codes governing the elements of the crimes of burglary and criminal trespass, and laws governing private guards' authority to use force to arrest and defend themselves and others. The Salt Lake City Police

Department attorney reviewed and approved the lesson materials.

A public hearing was scheduled one month after the initial briefing to give the alarm industry sufficient time to participate in the discussions involving the proposed ordinance changes. Police administrators briefed the city council on false alarm issues. The police union president wrote a strong letter of support for the verified response ordinance to the city council.

The ordinance was passed by the city council on a 4-2 vote on September 12, 2000. Some of the comments from city council members were:

> The better argument supports taking the resources now being used to address situations which were not of the highest priority and use them to address needs of a higher priority.
>
> No matter what side a person was on, it was an undisputed fact that there is a 99 percent false factor involved in alarm system calls. There is not a program in the City which, if only 1 percent effective, would survive scrutiny for even a moment. If properly implemented, an appropriate method of having security companies show up made a lot of sense. This would free up officers to do what they were supposed to do. The police department was not asking to change the ordinance because they did not want to serve the citizens; they were asking to change it because it was not effective and did not work.

The city council further decreed that the ordinance would take effect three months after it was enacted to allow the alarm companies time to mobilize their private guards and educate the public on the upcoming changes. The police department provided a list of nine state-licensed and bonded guard companies to those alarm companies that needed to subcontract with guard companies in order to respond to alarm activations. The ordinance took effect December 1, 2000.

Certified letters were sent to all alarm and monitoring companies to inform them of the changes. In order to reach all citizens of Salt Lake City, an article explaining the drain on police resources caused by false alarms and the new requirements for private guard response was included in two issues of the water bill. This was an efficient way to reach all affected citizens.

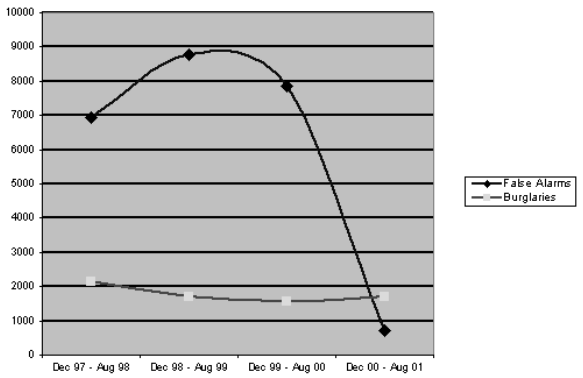
ASSESSMENT

Benefits to the Police Department

The Salt Lake City Police Department experienced a 90 percent decrease in alarm-related calls for service during the first nine months the verified response ordinance was in effect, from December 1, 2000 to August 1, 2001, compared to the same time frame one year prior (see Figure 1).

This represents 6,338 fewer calls for service, or the equivalent of five full-time police officers (valued at about $400,000). This time and money is now available for higher priority police services. There are fewer backlogs of calls for service and

FIGURE 1:
FALSE ALARM RESPONSES AND BURGLARIES



responses to high priority calls for service have dropped from five to three minutes. Said Salt Lake City Watch Commander Zane Smith, "In the first three months of enforcement, this alarm ordinance has returned more patrol hours to our department and helped to decrease the backlog of calls better than anything attempted in the past 15 years." There has been a corresponding decrease in the workload of police call takers and dispatchers, the alarm unit, the city treasury department, and the court of appeals. Today, the probability that a crime has in fact occurred when police are called to an alarm activation is much higher.

Initially, alarm company spokespersons said they believed that burglaries in the city would increase when police ceased to become the first responders to the alarm signal. Thus far, this has not proven to be the case in Salt Lake City. The number of burglaries have remained consistent over the past two years, and have decreased by 24 percent from burglaries in 1998. Passage of the ordinance on December 1, 2000 made no significant impact on the number of burglaries (see Figure 1).

Six burglars were arrested by police as a result of private security guards' response to alarms on 720 police responses during the first nine months of the ordinance enactment. By comparison, in 1999, prior to adoption of verified response, only five burglars were arrested on 10,200 police responses to alarm signals.

Benefits to Alarm Owners

The benefits of verified response to alarm owners include a six- to fifteen-minute alarm activation response time from private guard companies, far lower than the 40-minute average the police were able to provide. Further benefits include lower monthly fees than most alarm owners were paying in fines for false alarms and continued police response to human-activated alarms such as robbery, panic or duress signals.

Benefits to the Alarm Industry

Under verified response, the alarm can now provide their customers with a valued quick response to alarm activations. They can also redirect time and effort into serving their customers rather than trying to appease police. Some alarm companies have actually increased their revenue from the additional monthly fees charged to customers.

Verified response has shifted the management of the false alarm problem from the police to alarm owners and the alarm companies they hire. Economic supply and demand will now govern the delivery and cost of private security responses to alarm activations. If a guard company's performance proves unsatisfactory, the competition will provide another company to take its place. Alarm company representatives indicated that their sales have not been impacted by the shift to private guard response. Citizens are continuing to purchase alarm systems.

Salt Lake City's verified response alarm ordinance is a long-term solution to the false alarm problem, a problem that the department had been struggling with for twenty years. By no longer attempting to manage a private sector problem, the Salt Lake City Police Department believes is has solved its false alarm problem.

END NOTES

i Erwin Blackstone, Simon Hakim and Uriel Spiegel. "Government Competes and Retreats, Public Gains:
Shedding Police Response to Burglar Alarms." January 23, 2001. Center for Competitive Government at Temple University: Philadelphia, Pa.

ii Jennifer Seelig. "Salt Lake City Council Office Audit on Comparable Cities Alarm Policies and Response." 20 July 2000.

iii Each alarm call requires two officers for an average half hour on each alarm call at an average wage of $60 per hour. This figure includes salary, benefits, and the amortized costs of the police car, computer and equipment.

iv Commercial intrusion alarms accounted for two-and-a-half times the number of residential alarms, mostly due to employees who did not have or remember the alarm code, and to cleaning crews inadvertently setting off the alarm while working. Residential alarms tend to be activated by children and relatives who do not know how to use the alarm system, and by the motion of pets, insects, ceiling fans, and even floating balloons. The National and Burglar Alarm Association calculate that 76 percent of alarm activations are caused by user error.

v Salt Lake City Attorney's Office. Roger F. Cutler, City Attorney. Salt Lake City and County Building, Room 505, Salt Lake City, Utah 84111, Tel. (801) 535-7788.

vi "Las Vegas PD Gambles on No Response Policy and Wins." Donna Englander, Security Sales magazine, December 1998.

vii Erwin A. Blackstone, Simon Hakim and Uriel Spiegel. "Response to Alarms: A New Type of Club Good." March 2000. Drs. Blackstone and Hakim are professors of economics and members of the Center for Competitive Government at Temple University in Philadelphia.

viii "Duress" alarm signals occur when a code is entered that indicates the operator is not deactivating the alarm voluntarily.

South Euclid Police Department

THE SOUTH EUCLID SCHOOL BULLYING PROJECT

Judge's Commentary

Each year the judges of the Goldstein Award look at dozens of deserving POP projects from around the world. Many have attributes that characterize quality problem-solving—clearly defined problems, partnerships, thorough analysis, tailor-made solutions, and shared responsibility for resolving problems. Only rarely do projects possess a majority of those attributes. The South Euclid (Ohio) School Bullying Project is one that does.

The first attribute one notices in this project is clarity. Problems in policing rarely appear in simple form. A clear definition of the problem's scope, and its interconnection to the broader community, is a necessary ingredient for successful results. In this case, project managers sought geographic clarity by focusing the problem of bullying at specific schools in the South Euclid/Lyndhurst School District. They obtained demographic clarity by focusing specifically on the 7th to 12th graders in their jurisdiction. They created a specified definition of "bullying" behavior. That definition became part of the school districts new bullying policy, was taught in student assemblies, and was included into student handbooks.

Another attribute is the way South Euclid officers obtained this clarity: the numerous, and varied, methods of analysis and response. The project planners used interviews, focus groups, surveys, mail-outs to parents, GIS mapping, and meetings with students and parents to achieve better understanding (and more effective resolution) of the problem. Partnerships were used extensively—an attribute that appears frequently in problem-oriented policing.

Attention to tailor-made individual responses in a broader, more holistic, fashion is another attribute of successful projects. In South Euclid, Crime Prevention Through Environmental Design (CPTED) -style, modifications were paired with better teacher supervision of "hotspots." Role-playing training for teachers in conflict resolution was paired with anti-bullying education for students and parents. Combining physical prevention with social and managerial prevention strategies is called "2nd Generation CPTED." It represents the most advanced form of crime prevention. The South Euclid project provides an excellent example.

Finally, the South Euclid project highlights what can happen when police share, in a fundamental way, their crime prevention mandate with others. It shows how three practitioners in three different professions—a police school resource officer (SRO), a social worker and a researcher from Kent State University—became champions for change and helped a school district and its community tackle bullying.

SUMMARY

The Problem: Unchecked disorderly behavior of students in South Euclid, Ohio led the school resource officer to review school data regarding referrals to the principal's office. He found that the high school reported thousands of referrals a year for bullying and the junior high school had recently experienced a 30 percent increase in referrals for bullying. Police data showed that juvenile complaints about disturbances, bullying, and assaults after school hours had increased 90 percent in the last 10 years.

Analysis: A researcher from Kent State

University conducted a survey of all students attending the junior high and the high school. Interviews and focus groups were also conducted with students—identified as victims or offenders—teachers and guidance counselors. Finally, the South Euclid Police Department purchased a Geographic Information System to complete crime and incident mapping of hotspots within the schools. The main findings pointed to four primary areas of concern: the environmental design of school areas, teachers knowledge and response to the problem, parents' attitudes and responses, and students perspectives and behaviors.

Response: The School Resource Officer worked in close collaboration with a social worker and university researcher throughout the project. They coordinated a Response Planning Team with membership from many stakeholders to respond to each of the areas identified in the analysis. Environmental changes included modifying the school bell times and increasing teacher supervision of hotspot areas. Counselors and social workers conducted teacher training courses in conflict resolution and bullying prevention. Parent education included mailings with information about bullying, an explanation of the new school policy, and discussion about what they could do at home to address the problems. Finally, student education focused on classroom discussions with homeroom teachers and students, and assemblies conducted by the SRO. The Ohio Department of Education also contributed by opening a new training center for "at risk students" to provide a non-traditional setting for specialized help. The SRO responded by helping to develop the new school bullying policy, conducting assemblies for students, and opening up a new substation within the school next to a hotspot.

Assessment: The results from the various responses were dramatic. School suspensions decreased 40 percent. Bullying incidents dropped 60 percent in the hallways, and 80 percent in the gym area. Follow-up surveys indicated there were positive attitudinal changes among students about bullying and more students felt confident teachers would take action. Teachers also indicated that training sessions were helpful and that they were more likely to talk about bullying as a serious issue. Parents responded positively to the mailings and wanted more information about the problem in future mailings. The overall results suggested that the school environments were not only safer, but that early intervention was helping "at risk" students succeed in school.

SCANNING

In the 1990's, interpersonal harassment among juveniles at school (bullying, threatening and intimidation, hereafter referred to as "bullying") led to problems in both the junior and senior high schools in the community of South Euclid. Incidents that occurred in the community occasionally resulted in altercations in the schools and vice versa. To make matters worse, parents were often unsure whom to contact when their child had been the victim of bullying. They often turned to the police for resolution. It was clear that a better response was needed.

The 39 officers of the police department, along with the staff in the South Euclid/Lyndhurst School District, are responsible for the safety of 4425 students in six elementary schools, one upper-elementary school, one junior high school, and one high school in the region. In August 1997, a new school resource officer (SRO) began duties with the South Euclid/Lyndhurst School District in all of its schools. He was stunned by the students' disorderly behavior and how much of it appeared to go unchecked.

He began to talk with students about why they were sent to the principal's office and found that the majority was there for bullying. Through informal polling, the

SRO also discovered bullying to be the major concern of administrators in the schools.

The SRO reviewed school data regarding referrals to the principal's office and found that the high school reported thousands of referrals a year for bullying and the junior high school had recently experienced a 30 percent increase in referrals for bullying. Police data showed that juvenile complaints about disturbances, bullying, and assaults after school hours had increased 90 percent over the last 10 years.

In 1997, the school board and the police department sought a new, long-term solution to juvenile altercations in the school. Together, they applied for a grant from the Office of Community Oriented Policing Services (COPS) for developing innovative ways to respond to bullying in local schools.

ANALYSIS

The police department and the school district recognized that data needed to be collected to understand the prevalence of bullying. It was also necessary to have a clear definition of both the problem and the strategies currently employed to address bullying (as well as their effectiveness) before any intervention could be created.

This project focused on students in 7th through 12th grades. School, juvenile court, and police records all indicated that students in this age range were more likely to physically hurt each other. Often these events would escalate into a criminal matter with juvenile court involvement, so the criminal justice system was a vested interest in stopping the behavior before it went too far.

Additional data were collected in three ways:

Student survey

A researcher from the school district developed a survey instrument in conjunction with consultants from Kent State University's Justice Studies program. A team comprised of school administrators, staff and university faculty reviewed it. Kent State researchers administered the survey to all students attending the junior high school and high school in the spring of 1999. The survey assessed a variety of behaviors, including physical violence, verbal threats, verbal put downs, thoughts of bringing a weapon to school and actually bringing a weapon to school. Students were asked how many times they had been victims; perpetrators or witnesses of bullying; whether or not people deserve to be bullied; who gets picked on; and their perceptions of school safety, fear and the likely causes of bullying. Inquiries were made about students' reactions to bullying, the reactions of their parents and teachers, and the locations and times in which they thought bullying was most likely to occur.

Interviews and Focus Groups

Kent State researchers conducted one-on-one interviews with students identified as bullying victims or offenders. The researchers also held focus groups with school administrators, guidance counselors, teachers, security and custodial personnel to understand their perspectives on bullying. The focus groups were also conducted with several different peer groups (groups identified by school guidance counselors as bullies, victims, popular kids, etc.) who were neither victims nor offenders. To determine what students were likely to report, students participating in focus groups were asked what they considered to be a "weapon." Many categorized only guns and large knives as weapons. They did not include pocket knifes, box cutters and other potential implements.

Mapping Program

The South Euclid Police Department purchased Geographic Information System (GIS) software that allowed them to create a

computerized map of the junior high and high schools and surrounding areas. All reported incidents of bullying (along with other violations of school policy) were entered into the program and analyzed. Combining student responses with the mapping data revealed three "hotspot" locations of a high number of bullying incidents: hallways, the cafeteria and the gymnasium. This mapping program was both a tool used to analyze and assess data and a response tool that helped to enhance communication between the schools and police.

Summary of Main Findings

Kent State researchers divided the findings from the various data that were collected into four areas: environmental design, teacher, parent, and student responses.

Environmental Design Findings

- Locations in the school with less supervision or denser population (primarily the hallways, cafeteria and gymnasium) were more likely to have higher rates of bullying.
- Students avoid certain places at school because fear of being bullied (for example, students avoid hallways near lockers of students who are not their friends or who are not in their classes).
- Race and ethnicity was not a primary factor in bullying.
- A vast majority of students reported witnessing bullying or being bullied in the classrooms during class.

Teacher Issues

- Although bullying occurs frequently, teachers and students infrequently intervene.
- When students were asked what would happen if they told a teacher about an incident of bullying, more than 30 percent said "nothing."
- In interviews, students said they wouldn't tell teachers about bullying incidents because they were afraid of further retaliation, they expected the teacher to "do nothing" or were afraid the teacher wouldn't believe or support them, especially if the bully was popular or well liked by the teacher.
- Teachers agreed that students who bully are often considered "popular" or leaders by their peers.

Parent Issues

- Students who reported being physically disciplined at home were more likely to report that they had been bullied.
- More than one third of parents who had talked to their kids about bullying had instructed them to fight back. Students said they would not tell a parent if they are bullied because they believed their parents would "overreact."

Student Issues

- Kids who reported that they engaged in bullying typically perceive their own behavior as "playful" or "a normal part of growing up." They say that everyone gets picked on but some "don't know how to take it," "take things too seriously," or "just don't know how to fight back."
- Victims of bullying did not perceive this behavior as "fun" or "normal."
- Victims viewed bullies as "popular."
- Only 23 percent of students were likely to tell their parents they were a victim of bullying.
- Students were more likely to seek adult help for someone else who is bullied than for themselves.
- Students with lower grade point averages were significantly more likely to physically hurt someone else.
- Students who were secure in a peer group were more likely to intervene in bullying and less fearful of retaliation.
- Students suggested that involvement

in school activities helped them to form a niche where they felt safe, supported, and free from victimization.

As a result of these findings, a Response Planning Team was developed to create responses to bullying.

RESPONSE

Response Planning Team

The SRO partnered with a social worker and researcher to help develop and implement the response. They believed that teachers, administrators and police officers would be more likely to participate in responses if they were personally committed to them. Therefore, the first response strategy was to ensure the participation and commitment of many different stakeholders.

In particular, they formed a team of Kent State researchers, police officers, school administrators, teachers, students, and parents to interpret the analysis data and develop and implement responses. The team convened twice. In the first session, the team formed small groups to discuss the findings of the survey, interviews, focus groups and literature and then consider the implications of those findings. During the second session, the team again worked in their small groups and brainstormed realistic responses. These interventions were related to the specific goal of reducing the incidence of bullying and increasing the likelihood that students would report bullying at school. The team sessions allowed those who work daily with the school, community and students to share their expertise with the researchers. It also greatly contributed to the analysis and response, helping to reduce implementation obstacles.

The response planning team developed five main responses for implementation during the fall of 2000. The team realized that bullying was a complex problem and interventions aimed at reducing it should reflect that complexity. The planning team agreed that interventions should be built on a partnership between the police and the schools to be successful.

Environmental Adaptation

Mapping data analysis and information from student surveys had revealed three high-activity locations of bullying in the school: hallways, the cafeteria, and the gymnasium.

The team's first intervention strategy was aimed at changing the school environment to reduce bullying in particular locations. Prior to this project, all of the middle school students changed classes simultaneously throughout the day. Between classes, approximately 725 7th and 8th grade students would fill the hallways. During these times, teachers primarily remained in their classrooms. The school administration changed the class schedule to a staggered bell system so that only half the students would be changing classes at the same time. Further, the bell system was staggered by grade level so that older 8th grade students would not change classes at the same time as those students in the 7th grade. The administration also required teachers to work in teams to monitor the hallways.

The administration also increased the number of staff members present in the cafeteria during lunch. Increased lunch supervision was implemented to both deter students from bullying in the cafeteria and ensure discovery of bullying incidents that did occur. Supervision was also increased in the gymnasium.

Focus group participants and interviewees revealed that high school students were either unaware of the contracted private security staff or unclear of their role. Teachers and administrators were generally dissatisfied with the management of contracted security and with the lack of enthusiasm and caring they demonstrated. Teachers likened them to study hall monitors, which

was not their intended role in the school. In response, the school district approved the hiring of a new security staff. The new staff was hired as school district employees and was more focused on security-specific tasks at school. They were highly trained and very professional.

Teacher Training

The alarming findings that students were reluctant to tell teachers about incidents of bullying were made worse by the fact that 34 percent of students said that they were unlikely to tell a teacher if they knew someone had brought a weapon to school. Further, only 13 percent of students thought things would get better if a teacher were told about incidents of bullying.

In response to these concerns, interviews with teachers revealed a variety of attitudes about the severity of the problem as well as their likely reaction to it. Many teachers felt that "bullying was just something kids do." Others wanted to address issues of bullying but were either constrained by time and class size or were not sure what the best response should be.

Although students tended to feel safe in the classroom, 60 percent of students reported bullying in classrooms during classes. Consequently, the team addressed three specific areas of concern:

- Teacher tolerance of bullying
- Teachers' inability to effectively address the bullying due to other priorities
- Need for increased training.

The response dealt with each of these issues. First, school psychologists and social workers conducted teacher training to bring to light the seriousness of bullying. Next, counselors and social workers conducted training with teachers at both the junior high and high school. Training included information on what bullying is, general characteristics of victims and offenders and strategies for addressing and preventing bullying. In addition, teachers practiced techniques for addressing bullying through role-playing activities. Finally, teachers were instructed to discuss bullying with their students and to encourage them to report incidents as well as weapons at school.

Parent Education

Kent State social workers prepared and sent three mailings of educational material on bullying to parents. All of the mailings required parents to read over the material with their kids and acknowledge they read it. The first mailing informed parents about the school district's new revised policy on bullying. The second mailing provided information on anger management and how to deescalate situations when their teen is angry. The final mailing, in addition to information about bullying, included a parent questionnaire asking about the material received through the year, the degree to which it was helpful and whether or not they had discussed the material and the issue of bullying with their child.

Student Education

Students were educated on the effects and consequences of bullying both in the academic setting and in the juvenile justice system. This information was reinforced in three ways:

- The school district mailed information to the home, to be discussed with the child by a parent;
- Classroom discussions between home room teachers and students; and
- Student assemblies with the SRO community.

In response to the correlation to grade point average and problems with bullying, funding was secured through the Ohio Department of Education to open a technical training center. Academically "at risk students" were enrolled in this non-traditional setting. As they became successful in school their involvement in bullying decreased.

Suspensions for assault decreased by 40 percent.

School Resource Officer

The SRO targeted his activities specifically toward the goal of dealing with the bullying problem in school. First, he helped the school district revise its student handbook to include bullying as a specific offense and created a statement on the seriousness of this violation in the South Euclid/Lyndhurst schools. The statement clarified that police and juvenile court actions were distinct possibilities and that bullying would be taken seriously.

Next, the SRO presented this new policy to the students through a series of assemblies. The assemblies focused on the definition of bullying, the seriousness of bullying behavior among youth, and the role that law enforcement would play in the incidents that occurred in school and community. Students were also encouraged to report incidents to the two SRO's, teachers or administrators.

Finally, the junior high school administration made an office available for use as a police substation, allowing students and staff access to the SRO. The office is located in the cafeteria, one of the bullying hotspots. This allows for additional supervision of the cafeteria and an area of the gymnasium.

ASSESSMENT

In the assessment phase of this project, Kent State researchers conducted:

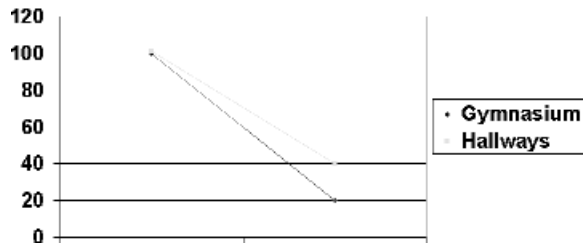
- A follow-up survey with students; Focus groups with parents, teachers, administrators and students;
- One-on-one interviews with bullies and victims;
- A brief survey of parents;
- Incident analysis at school using the GIS software; and
- Training evaluation surveys for teachers.

Findings from the assessment phase of the project are discussed below.

Environmental Adaptation

The most dramatic results of this project derived from the interventions targeting the school environment. The junior high school, experienced a 60 percent drop in incidents in the hallways and an 80 percent drop in the gym area. This decrease may be attributed to the increased presence of teachers in the hallway, the staggering of the bell schedule to reduce the number and mix of students in the hallways, or the increased monitoring of the gymnasium. Most of the bullying literature examined in research for the project did not describe responses regarding the physical environment of the school or the structure of the school day. However, in this project, these proved to be very effective strategies.

FIGURE 1:
BULLYING INCIDENCES
BEFORE AND AFTER



Education about reporting bullying and changes in teacher/staff responses initially led to an increase of reported incidents in these locations in the first quarter of the 2000-2001 school year. However, over the course of the school year, reported incidents of bullying were reduced by 40 percent. This is potentially due to the fact that there were fewer incidents of bullying to report.

The use of the mapping system in the schools continues. This year, for example, one hallway in the junior high school had a higher number of incidents than any other location in the school. The SRO took this information to the school principal. The

principal described that first year students—who are primarily separated from the rest of the school—must pass through a row of lockers of upperclassmen.

In focus groups, first year high school students reported a fear of being hassled by upperclassmen. Eighth graders also discussed the fear of being at the high school with older kids. This suggests that students in their first year of junior high school and high school may be justified in their fears of bullying by upperclassmen.

As a result of these findings, the principal made staff assigned to that area of the building aware of this problem. After supervision of these areas was increased, there were only two incidents of bullying reported during the remainder of the school year. This wing had experienced eight incidents in the first quarter of the school year.

Teacher Training and SRO Assemblies

Findings from the follow-up student and teacher surveys reveal attitudinal changes among students with regard to bullying that may be related to the teacher training. In the follow-up survey, students reported an increased likelihood they would tell a teacher if they saw someone else bullied. However, they are still reluctant to tell teachers if they themselves are the victims. The follow-up survey also reveals that fewer students perceive that teachers would "do nothing." More students agreed the school district is taking bullying more seriously.

The teacher survey revealed that they were satisfied with and benefited from the training sessions. Teachers' and administrators' attitudes about bullying were vastly different from the previous year. The survey respondents were more likely to talk about bullying as a serious issue and see themselves as potential conduits for intervention.

Parent Education

Focus groups with parents revealed that they responded positively to the mailings. Parents also requested that more mailings be sent to them in the future relating to social concerns involving their children. More students this year, nearly 1 in 3, were instructed by their parents to "tell a teacher" in order to deal with bullies compared to 1 in 5 the previous year. Eighty-four percent of students stated they would likely resolve an incident of bullying using nonviolent means.

The administration hoped that the materials sent home to parents would reduce the number of parents that would instruct their children to fight back. In the initial phase of the project, students who indicated that their parents told them to "fight back" were found to be more likely to victimize others. The assessment showed no change. At the time this submission was written, it still appears that more work is needed to educate parents on bullying and find ways to help their kids resolve problems through non-violent or non-bullying means.

The partnership between the South Euclid Police Department and the South Euclid/Lyndhurst City Schools can be modeled by other agencies and school districts. The partnership approach helped both the school community and the community at large combat bullying.

When this submission was written, bullying and suspensions for fighting by junior high school students had been significantly reduced simply because of early intervention. More students who were academically "at risk" are succeeding and graduating.

In this case, a police officer thinking "outside the box" teamed with a social worker and researcher with the same vision and helped lead a school district to change. The changes were painless and inexpensive, yet made the district a safer place for students.

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