

SCHOOL ZONE TRAFFIC MANAGEMENT 2000



**Submission For:
1999 Herman Goldstein Award for Excellence in
Problem-Oriented Policing**

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School Zone Traffic Management 2000

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Abstract

Working in partnership with the community, the Irvine Police Department Traffic Bureau developed and implemented a traffic management program to enhance the safety and efficiency of the traffic flow in and around the public schools within the City of Irvine. The program is called "School Zone Traffic Management 2000". A Community Oriented Policing approach was implemented to address these serious traffic concerns. The Problem Oriented Policing "SARA" problem solving model was utilized to ensure proper management and completeness of the project. The "SARA" format followed is listed below.

Scanning

In this phase the Irvine Police Department Traffic Bureau focused on identifying the school traffic problems. Also noted were who identified the problems and whom the problems affected. Included was an evaluation of the severity of the situation.

Analysis

The Traffic Bureau also researched the history of the problem and statistical data relating to key concerns. The current population and the projected increase in

population were also analyzed. Additionally, the Traffic Bureau met with community groups and others to get their input.

Response

The type of response necessary to successfully address the problems was identified. A Community Oriented Policing problem solving response utilizing the "SARA" problem-solving model was implemented.

A list of all of the involved parties necessary to complete the project was also identified. The goals and objectives of the project were developed, as was a chronological order of events necessary to implement the program.

The potential cost of the program was analyzed. It was identified that implementation of the program throughout the entire school district could be costly to the City of Irvine and the Irvine Unified School District. Grant funding was sought to supplement the cost of the program.

Assessment

The goals of the project were evaluated and the methods of evaluation were identified. Challenges in project implementation and how the challenges were addressed were also brought to light. After assessment, adjustments to the project were made and the response updated to enhance efficiency.

Problem Oriented Policing was successful in reducing pedestrian and bicycle collisions in the school areas. It was also responsible for improving the efficiency of the traffic flow in and around these areas. Education of all parties, relative to the traffic flow, was enhanced. Additionally, many valuable community relationships were formed as a result of this cooperative community effort.

Description

Scanning Analysis Response Assessment

The following is a detailed description of the "SARA" problem-solving model used to manage and implement this project.

Scanning Analysis Response Assessment



The City of Irvine is a master planned community that covers approximately 46 square miles and has a sphere of influence of over 74 square miles. The current population is 133,152. The daytime population, including the business community, is estimated to be 250,000. The City of Irvine has approximately 1372 urban and rural road miles within its jurisdiction. Irvine also has four major freeways passing through it, including the 1-5 and 1-405 interchange, one of the busiest in the State of California. The City of Irvine is located in the County of Orange, approximately 35 miles from Los Angeles.



The City of Irvine has historically experienced traffic safety problems in and around public schools. These problems are due to a high volume of vehicle, bicycle, and pedestrian traffic during drop off and pick up times. The streets that surround the schools are primarily residential type streets, which were built to accommodate light to moderate residential traffic. During prime school traffic times, these streets are overwhelmed. Several common problems exist, which greatly contribute to the lack of safe and efficient traffic flow in these areas.

Students often cross the streets at other than marked crosswalks. They thread their way across the potentially hazardous road and create conflict with motorists in the area. We also find that parents often abandon their vehicles in the school parking lot in other than marked parking stalls, or out in the middle of the street, so they can personally deliver or pick up their child from the classroom. This often causes a complete halt to all traffic in the area. Additionally, other motorists are simply confused and unsure where the appropriate loading and/or parking areas are. No effective traffic management system had been implemented to remedy these problems.

The problems in these areas have routinely been identified by the Irvine Unified School District, PTA groups, crossing guards, the Irvine Police Department, and other members of the community. These problems are often presented as complaints about the traffic congestion, or concerns about the unsafe crossing habits of students traveling to and from school on foot, bicycle or skateboard. Unfortunately, we are also made aware of these problems as a result of collisions where students are injured or killed.

The Irvine Police Department addressed this traffic problem because it has had a major impact on our neighborhoods for many years. Failure to respond to this problem would have unnecessarily left children at risk and would have unfairly left the general public to fend for themselves in congested and chaotic traffic situations. In scanning this problem, we became aware that these issues deserved immediate attention. Also, this problem appeared to be precisely of the type that Problem Oriented Policing was designed to address.

S_{canning} **A**nalysis **R**_{esponse} **A**ssessment



To analyze this problem we looked at its history. In doing so we found that a traffic safety problem in the school areas had existed for at least 10 years. The typical response in the past had been to direct traffic officers to the high complaint areas to work enforcement. The result of this type of response had been minimal. Problems at the targeted locations would decrease for a couple of days, then return to their normal disorder when the officers were no longer present. The fact that the problem continued every school year was further evidence that the one-dimensional approach commonly used had fallen well short of being successful.

The Irvine Police Department also conducted some statistical research to assist in analyzing the problem. We checked national and local statistics. We found that the National Highway Traffic Safety Administration (NHTSA) reported that children are the most inexperienced users of our road system. They account for nearly 43% of pedestrian accidents, yet only comprise approximately 30% of the population. Pedestrian mishaps were also reportedly the single largest cause of death of children between the ages of 5 and 9 years. One major problem noted was that children simply do not perceive moving vehicles in the same way that adults do, and they lack the ability to judge the speed of oncoming vehicles. Also, NHTSA reported that 70% of pedestrian fatalities occurred in urban areas, and 82% of fatally injured persons were at non-intersection locations.

The local statistics also revealed concerns. The statistics brought to light that pedestrian accidents of school aged children in the City of Irvine had increased over 500% from 1997/98 compared to 1995/96. 80% of these reported incidents were in close proximity to public schools. These statistics also showed that between 1997 and 1998 all of the reported bicycle collisions involving school-aged children were near schools.

These statistics were of great concern to a city such as Irvine due to our large juvenile population, which continues to increase. The Irvine Unified School District currently has 21 elementary schools, 6 intermediate schools, and 4 high schools with a student population of 23,265. This is a 6.3% increase in students from just three years ago. The school district is also adding 2 elementary schools and 1 high school in the 1999-2000 school year. The City of Irvine is currently 50% built out and is projected to increase from a residential population of 133,000 to 250,000 within the next 10 to 15 years. This projected increased population will undoubtedly add to the traffic congestion if not addressed.



Irvine Police Department Traffic Bureau staff met with the Irvine Unified School District and PTA groups to get community input. The district shared they have forever felt as though they were standing alone with the school traffic problem. School district personnel said in the past the police had been called and had worked enforcement. The district said the police response was appreciated, but had typically been a temporary fix. They explained, as we already knew, that problems resumed almost immediately after the police left. The district said they also made other attempts

to try to improve the traffic situation. They closed their parking lots to eliminate the on site chaos during the drop off and pick up times. This simply moved the problem out onto the street in front of the schools. They also tried staggering the school start and end times. This alleviated some problems and created others. The district felt that their attempts to solve the traffic problems on their own were futile. They expressed interest in working in a cooperative effort with the police to hopefully effectively address this problem.


The *PTA* groups also expressed concerns and frustrations. They agreed that the safety and efficiency of the traffic flow in the school areas had been a chronic problem for many years. They believed the problem needed to be addressed immediately. They felt in the past the complaints and suggestions they shared had fallen on deaf ears. They said they felt this way because they had seen little or no improvement in the traffic problems. The *PTA* groups expressed strong interest in being involved in a cooperative community effort to solve these traffic problems.

The Irvine Police Department also met with the City of Irvine Traffic Engineering and Public Works Departments. Meeting with these groups revealed that they also had tried many times over the years to remedy some of the school *area* traffic

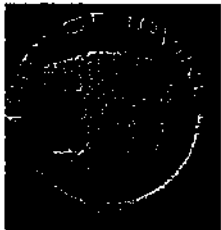
problems. They said they routinely responded to complaints by individual schools and/or members of the community. Traffic Engineering and Public Works agreed that a cooperative effort was necessary to more effectively address the traffic problem.

It was immediately apparent that everyone affected by this problem was experiencing frustration due to the actual traffic problems, or to the inability of any individual or individual group to resolve or reduce the problems on their own. The analysis showed that any group working alone had minimal results, if any. It became evident that a Community Policing effort was necessary to effectively combat this problem. Additionally, the analysis exposed the need for immediate action. It revealed that a problem clearly existed and had existed for quite some time. The analysis affirmed, as we had suspected, that inaction would leave students at risk and would unfairly leave the general public in unnecessary traffic congestion.

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After scanning and analysis, the Irvine Police Department Traffic Bureau clearly identified a need for immediate action.  Our next task was to determine what type of response we would implement. The Traffic Bureau had a choice between modifying the existing traditional ineffective plan, or developing a new Community Oriented Policing/ Problem Oriented Policing approach. We decided to pursue this problem through a cooperative community effort. In doing so, we had to identify the involved parties, as well as determine the goals and objectives of the project.

Involved Parties



The Irvine City Council



The Irvine Police Dept.



The City of Irvine Traffic Engineering Department



The Irvine School Board



The City of Irvine Public Works Department



School Principals



The Irvine Unified School District



PTA groups



Media

Goals

1. Reduce bicycle collisions of school aged children.
2. Reduce pedestrian collisions of school aged children.
3. Increase seatbelt use compliance.

4. Increase child safety seat use compliance.
5. Increase bicycle helmet use compliance.
6. Effectively manage traffic flow in the school areas through engineering, enforcement, and education.
7. Develop and implement a program to award students who bicycle, walk or carpool to school.

Objectives

1. Work with City of Irvine Traffic Engineers on signage and roadway markings to maximize the safety and efficiency of traffic flow in school areas. Also implement uniform parking and drop off areas at all schools.

2. Work with Irvine Unified School District personnel on the traffic flow in the school parking lots so their traffic flow does not conflict with the traffic on the street.
3. Conduct bicycle and pedestrian safety programs, which consist of making presentations and distributing literature.
4. Conduct bicycle helmet education presentations.
5. Conduct seat belt/child safety seat education programs, which include distribution of literature and inspections.
6. Increase seat belt/child safety seat citations to encourage compliance.
7. Increase bicycle helmet citations to encourage compliance.
8. Seek community support in obtaining awards for bike, walk or carpool program.

After determining and recording our goals and objectives we began to work towards our response to the problem. We started by selecting one school that had been identified as having major school related traffic problems. We then worked on developing a chronological list of actions necessary to assist us in achieving the goals of this problem solving effort. As we worked through this first targeted location we modified our response so it would maximize the efficiency of our efforts and results. We developed the following response to be used as a model in implementing this problem solving effort throughout the Irvine Unified School District.

1. Meet with Irvine Unified School district personnel, including the Principals and facilities staff, to discuss specific problems at each school.
2. Meet with the City of Irvine Traffic Engineer to review and discuss identified problems. Included markings, signage, and the effect of the school parking lot traffic with the traffic on the street.

3. Notify the Irvine Unified School District and the City of Irvine Public Works Department of the necessary improvements. Follow up and assist if possible on implementation of the necessary improvements.
4. Prepare and distribute written instructions to parents in reference to the traffic flow plan for their specific school. Prepare and include a map of the surrounding *area*, which displays loading/unloading zones, and parking areas.
5. Organize and implement directed traffic enforcement at schools where traffic flow plan has been put into *effect*.
6. Develop and implement bicycle and pedestrian safety programs. Include information that addressed student and parent responsibilities.

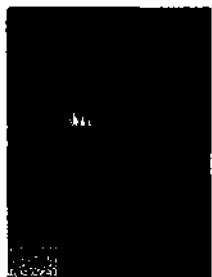
At this point in the chronological order of events we moved into the assessment phase of the process, re-evaluating and making adjustments as necessary.

Shortly into the response we identified that the program would be somewhat costly, mostly due to engineering concerns such as signage and markings. The

Irvine Unified School District assisted in getting the program underway by allocating some funds to make on-site improvements. The City of Irvine also allocated resources to make improvements on city streets. Additionally, the Irvine Police Department Traffic Bureau sought out and submitted a proposal to the Office of Traffic Safety (OTS) requesting grant funding. Such funding would lessen the financial burden on the City of Irvine and the Irvine Unified School District when implementing this program throughout the entire district.

The involvement of multiple entities proved to have great value in the response stage of this project. Involving many groups in this project made it easy to get input on the front end of the project, rather than having to go back and make modifications for issues not originally identified.

Scanning **A**nalysis **R**esponse **A**ssessment



The assessment stage of this project revealed several things. It revealed that the results of the response to the school zone traffic problem were very positive. After implementation of the response, **there were** no reported bicycle, pedestrian or vehicle collisions in the involved areas. The traffic congestion was greatly reduced, and the historical chaos had

greatly decreased. There was, for the first time, a sense of organization to the traffic flow. Officers who had previously witnessed the traffic problems reported marked improvements in the targeted areas. In fact, many officers said they were now experiencing difficulty in working enforcement in these areas because of the high level of public compliance, and due to the efficiency of the traffic flow.

The assessment also identified that several difficulties had been encountered and resolved along the way. One difficulty was in coordinating the schedules of the involved parties for meetings and site evaluations. This issue became less prevalent as the project progressed and the involved parties became more familiar with each other and each other's schedules. Another delay arose in *reference* to receiving hardware (signs and paint) to make the necessary improvements. We learned during the process that ample notification was necessary to allow for ordering, processing, and delivery of the needed items. We also encountered a delay in legal issues that came up during the response. These issues simply required more research to make sure we were proper in the posting and markings of various zones.

Our response was unique because we were able to duplicate it from site to site. That is, we did not have to reinvent the wheel at these locations. By placing the same regulations at each site, officers, parents, teachers and others could go from school to school and encounter the same signage and similar traffic flow plan. Confusion from school to school, concerning traffic flow plans was eliminated. By working with all involved, school commuting was enhanced.

This traffic safety problem was addressed in the spirit of Community Oriented Policing, utilizing a true cooperative community effort. The Problem Oriented Policing "SARA" model of problem solving was implemented to effectively manage the project. Working in this manner allowed the Irvine Police Department Traffic Bureau to develop a partnership with the community, which identified many community resources and established many valuable community relationships.

Agency and Officer Information

Several years ago the Irvine Police Department implemented Community Oriented Policing, including Problem Oriented Policing which utilized the SARA problem-solving model. The department provided formal training in these areas. The Irvine Police Department also implemented preprinted forms outlining the SARA model

(see attached). These forms were used to assist officers in following the SARA problem-solving model. To further facilitate this community partnership, there was complete support in this project from the Chief of Police, the City of Irvine Director of Public Works, the Superintendent of Schools, and the Irvine Board of Education. All agreed that a cooperative community effort was necessary to attain a successful outcome in this project.

As mentioned in the SARA "Response", the City of Irvine and the Irvine Unified School District allocated financial resources to implement the project. Also, grant funding was requested through the Office of Traffic Safety to supplement the cost of the program.

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