Evaluation of The Austin Police Department DWI Enforcement Unit

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16. Abstract

This report summarizes a study of a program implemented by the Austin, Texas Police Department (APD) that was designed to solve problems encountered in performing enforcement and adjudication functions of the DWI enforcement system. This project assessed the impact of the program on the effectiveness of the system as a whole. The APD program elements included: creation of a new, full-time team of DWI specialists to enforce DWI laws and to assist other units of the Department in processing DWI suspects; provided enhanced training of all officers in DWI enforcement; required rookie officers to accompany members of the specialist team to gain hands-on experience; assigned court liaison officers to ascertain exactly when officers are required in court; and allowed officers to participate in administrative license revocation hearings by telephone. Program analysis showed increases in the number of DWI arrests and in the DWI conviction rate. These improvements in system performance most likely were responsible for a 25% reduction in drivers in alcohol-related fatal crashes. Still, some of the attempted improvements were not realized. Overall DWI processing times did not decrease and DWI arrests for general patrol units did not increase.

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The findings, conclusions and recommendations presented in this report are those of the authors who are responsible for any errors of fact and/or interpretations.

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This project evaluated a particular anti-DWI[1] enforcement program that was designed to solve or ameliorate problems encountered in performing individual enforcement and adjudication functions of the system, and assessed the impact of the program on the effectiveness of the system as a whole. In performing this objective, we located a site that had identified problem chains and points of interdiction, and was in the process of implementing a program to correct or reduce the problems that had been recognized. This report details the findings of an evaluation of the program implemented by the Austin, Texas Police Department (APD).

RESULTS

The APD adopted a strategy for its anti-DWI enforcement program that incorporated the following elements:

- Establishing anti-DWI enforcement as a priority within the Department.
- Identification of specific areas where improvements in the Department's anti-DWI enforcement effort would most likely benefit the performance of the anti-DWI enforcement system as a whole in reducing alcohol-related crashes.
- Developing new organizational arrangements and procedures for accomplishing these improvements.
- Providing the resources to operationalize these arrangements and procedures.

Program elements included:

- Creation of a new, full-time team of DWI specialists to enforce DWI laws and to assist other units of the Department in processing DWI suspects.
- Providing enhanced training of all officers in anti-DWI enforcement, including participation in the adjudication of DWI cases.
- Requiring rookie officers to accompany members of the DWI team for four weeks to gain hands-on experience in identifying and processing DWI suspects.
- Assigning officers to liaison with the court to track each case and only call in an officer when it is certain the officer will need to testify.
- Allowing officers to participate in administrative license revocation (ALR) hearings by telephone.

We examined both the performance of the APD program as well as its impact on alcohol-related fatal crashes. We found positive changes in both, lending support to the hypothesis that

[1] The acronym DWI refers to the criminal action of driving a motor vehicle while intoxicated by either alcohol or drugs.

the program has been an effective alcohol-crash countermeasure. By reassigning some general patrol personnel to the new anti-DWI Team and increasing command emphasis of anti-DWI enforcement, DWI arrests nearly doubled. Further, the number of alcohol-impaired drivers in fatal crashes has decreased by an estimated 25% since the start of the program. Several new procedural initiatives designed to increase DWI conviction rates were placed into operation, and DWI conviction rates increased by an estimated 10%.

Despite these positive results, some of the hoped-for improvements were not accomplished. Overall, DWI processing times did not decrease, possibly at least in part, due to the physical and procedural changes brought about by a new jail facility operated outside of the control of the APD. Processing times involving DWI suspects may even have increased slightly for the anti-DWI Team, possibly because of an increase in the quality of the arrests by the Team. Also, the number of DWI arrests by the general patrol units did not increase, but remained at about the same level as in the year before the program.

CONCLUSIONS AND RECOMMENDATIONS

We conclude that the anti-DWI enforcement system improvements developed and implemented by the APD had a measurable positive effect on two critical system performance parameters, namely, increases in the number of DWI arrests and in the DWI conviction rate. These improvements in system performance most likely were responsible for a 25% reduction in drivers in alcohol-related fatal crashes. The success of this program clearly shows that a carefully designed effort addressing critical DWI law enforcement problems can be implemented without major changes to the existing organizational structure of a police department in a large city, and without the acquisition of large amounts of additional resources, including personnel, equipment and facilities.

We recommend that metropolitan police departments in other cities consider taking a similar approach to anti-DWI system improvement, adopting some of Austin's techniques where they are appropriate and devising new ones where they are not. We note that some of Austin's problems for which improvements were sought but not realized involved other organizations that did not have significant participation in the program. Foremost among these was the problem of time-consuming post-arrest processing of DWI suspects. In many instances, the involvement of other organizations (often with different priorities and constraints) will be difficult to obtain, but should nevertheless be sought.

1. INTRODUCTION

PROJECT BACKGROUND

The National Highway Traffic Safety Administration (NHTSA) FARS (Fatality Analysis Reporting Systems data, as reported in the 2001 state of the knowledge report (Jones and Lacey, 2001), show that nationwide in 1982, approximately 58% of all fatalities were alcohol-related fatalities. This means that the driver had a BAC level of .01 or higher. That percentage declined to approximately 43% by 1994. However, this percentage has flattened out in recent years, and the most recent FARS data indicates 41% of fatalities in 2001 were alcohol-related.

Despite the fact that there were nearly 1.5 million DWI arrests in 2002, it is estimated that there is only one arrest for every 88 incidents of a person driving with a blood alcohol concentration (BAC) over the legal limit (Zador, 2001). Two reasons that are often cited for why there are not more arrests, are the complexity of the DWI arrest process, and the length of time the officer must devote to processing the offender and completing the paperwork (Jones, Lacey, and Wiliszowski, 1998).

The objective of this study was to evaluate the impact of the enforcement program targeting alcohol-impaired drivers in Austin, Texas. In 1998, the Austin police department modified their DWI enforcement program to address public safety and procedural problems they were experiencing.

ORGANIZATION OF THE REPORT

Chapter 2 describes a program undertaken by the Austin Police Department in Austin, Texas to improve the effectiveness of its anti-DWI enforcement operation. Included are a description of that agency and the evolution of its special anti-DWI enforcement unit, and the details of the procedures that were followed in enforcing DWI laws. Chapter 3 presents the details of our assessment of the program's effect on anti-DWI enforcement activity and estimates the program's impact on alcohol-related fatal crashes within the city. Conclusions and recommendations are presented in Chapter 4.

2. PROGRAM DESCRIPTION

Austin, the capital city of Texas, is centrally located between San Antonio, Dallas and Houston. Austin has a population of 667,000 in the city limits and over 1 million in the metropolitan Austin area. The city covers a land area of 238 square miles and the Austin metropolitan area encompasses 2,705 square miles. Located within the city limits of Austin are two of a chain of seven lakes that comprise the Highland Lakes. The other five lakes are located to the northwest of the city. The University of Texas in Austin is the largest component of the University of Texas System and is home to over 50,000 students, 3,000 faculty and 18,000 staff members.

PROGRAM BACKGROUND

The Austin Police Department (APD) estimates that, in their jurisdiction, motorists who drink and drive are involved in approximately 50% of fatal collisions and an equal percentage of serious injury collisions.[2] The Austin Police also estimate that after 2 a.m., two out of every four motorists on the road are driving under the influence of alcohol. The estimated numbers of drinking drivers, and the high percentage of serious injury and fatality crashes, prompted the APD to take additional action to protect local citizens. The APD launched a trial anti-DWI task force in January 1998, followed by a permanent anti-DWI Enforcement Unit in August 1998.

In addition to public safety, these specialized anti-DWI enforcement teams helped to address a procedural problem within the Department. Prior to the creation of the dedicated unit, officers spent an inordinate amount of time, shown by early dispatch data to be between three and four hours, handling a DWI arrest. The result was that officers were out of service and off the roadways for much too long a period of time. Part of the time required to process a DWI arrest involved waiting for video facilities to become available at the police station. Having a specialized team dedicated to handling DWI suspects, implementing revamped procedures, and installing video cameras in the specialized team's patrol units streamlined the process, and allowed arresting officers to return to service more quickly.

The main goal of the Austin Police Department anti-DWI enforcement team was to increase public safety on the highways by detecting and removing more impaired drivers. This goal was to be fulfilled by meeting the following objectives:

- Increase the number of arrests for DWI through the addition of this special enforcement unit.
- Allow all APD officers to hand over suspected impaired drivers to the special enforcement officers for testing and processing, thereby reducing the amount of time required by all officers to process DWI suspects to allow officers more road time.
- Provide additional equipment and support to assist in the reduction of the processing time.

[2] City of Austin, Texas Police Department website, DWI Enforcement Team, www.ci.austin.tx.us/police/dwi

- Provide officers with tools to make their court appearances more effective, thus, theoretically, increasing the conviction rate and decreasing the officers' time required to obtain a conviction.

LAW ENFORCEMENT AGENCY DESCRIPTION

In 2002 there were 1,198 sworn officers and 586 civilian employees working at the Austin Police Department. The APD, as with all large urban law enforcement agencies, is a police department ever evolving to meet the needs of the citizens.

In 1998, the Department decentralized its operations to create a neighborhood-based model of law enforcement. In this reorganization, the City of Austin was divided into six area commands (described in the *Geographic Jurisdiction* section below), with resources transferred to the neighborhood level to solve problems at their source. In September 2001, a seventh area command was added to focus on the downtown-central business district. Two additional sectors are to be added in late 2003.

Each area command is managed by a commander and staffed with its own patrol units, detectives, street response teams, motor units and civilian support staff. The theory is that decentralizing operations and empowering area commanders with the resources to serve law enforcement needs at the neighborhood level enhance both the response to crime and the ability to prevent crime. Patrol officers have the opportunity to develop stronger ties to the community, communicate effectively with residents and businesses to prevent crime, and build a relationship of mutual respect and trust with the community they serve.

To provide a liaison between patrol officers and neighborhoods, the district representative (DR) program was implemented citywide in 1998. First tried as a pilot program in the Northeast Area Command, the DR program assigns a district representative, a sworn police officer, to target specific districts within an area command. The DR officer develops close working relationships with citizen groups, neighborhood associations and businesses. When special problems arise within a district, the DR officer can focus on the problem and manage resources to best address the issue.

Geographic Jurisdiction

When this project began, there were six different APD command centers covering the city of Austin:

- The *Northwest Area Command* is a large district that includes residential, business and industrial areas. Units of the Northwest Area Command include Patrol, Motorcycles, Support, Relief, Division Detectives, Street Response, and District Representatives.
- The *Northeast Area Command* is a large diversified district. It includes residential, business, and industrial areas. A coalition of neighborhood associations, businesses, and law enforcement representatives has implemented a "Weed and Seed" program, and are working together to "weed out" crime and "seed in" positive growth. This program is directed toward established neighborhoods, empowering them to remove criminal activity and return the area to a safe place to live.

- The *Central West Area Command* is representative of the larger Austin area. Its population varies depending on many factors, such as whether the many local colleges are in term, whether the legislature is in session, whether special events are occurring, or residents are commuting to and from the business or public sector districts downtown. Central West is home for the seats of local, county, and state government. It is the base of the largest collegiate campus of the University of Texas system. It also has the 6th Street entertainment area. Due to the compact and varied nature of the people and activities in this area, the primary mission of this law enforcement agency is to ensure the safe movement of traffic and to act as the safeguard of all of its inhabitants and visitors. The Central West area is unique from other area commands in that it has the only mounted unit and walking beat unit within the city. (During the course of the project, the *Downtown-Central Business District Command* was separated out to cover the downtown business district and the entertainment area.)
- The *Central East Area Command* is made up of a rich diversity of residents and cultures. Reportedly, it contains some of the most unique and vital neighborhoods in the City. At the same time, the Central East area contains pockets of poverty with serious crime problems ranging from drugs to gangs to prostitution.
- The area of Austin within the boundaries of the *Southwest Area Command* has had problems with traffic due to high growth in the 1990s. In addition, large numbers of residential neighborhoods, apartment complexes and shopping malls all have the kind of law enforcement problems common to these areas, ranging from barking dogs to car burglaries.
- The region of Austin within the *Southeast Area Command* had rapid growth and development in the 1990s, partially because the Austin-Bergstrom Airport brought additional services and traffic into the area. The Southeast Area Command contains both residential neighborhoods and light industry and commercial areas. As in any urban area, the Southeast Area Command has its share of property crimes, gang problems and illegal drug activity.

Special Enforcement Teams

Within the Austin Police Department, there are also various special enforcement teams such as: Motor officers, License and Weight officers, Rapid Deployment officers, CISB detectives, Organized Crime/Narcotics officers, and Selective Traffic Enforcement Programs (STEP). STEP officers are focused on specific tasks (e.g., anti-DWI enforcement efforts), and are monitored for performance. Motor officers are decentralized and operate within each area command. There is one STEP officer who coordinates overtime, but all STEP officers are hired on overtime.

Within the current APD is a traffic unit comprised of a lieutenant, twenty officers in a weights and measures unit, ten in a collision investigation unit and eight on a permanent anti-DWI task force, along with other administrative and supervisory staff. The traffic unit has been regularly supported and enhanced by supplemental Selective Traffic Enforcement Programs (STEP).

EVOLUTION OF A SPECIAL DWI ENFORCEMENT UNIT

Historically, general patrol officers were responsible for enforcing traffic laws when not responding to calls for service. During the 1990s, the Austin Police Department developed more specialized enforcement units, such as those mentioned above, resulting in fewer general patrol officers. This, coupled with a shrinking officer to population ratio, meant that fewer general patrol officers were available to handle traffic law enforcement. Fewer available officers, or less time spent by general patrol officers, placed an additional burden on traffic units to operate efficiently in their efforts to provide safe roadways.

In January of 1998, an operations plan was developed[3] for a DWI task force. From February through August of that year, APD officers were placed on assignment to work on this task force for specified periods of time. The goal of that task force was to reduce alcohol-related fatalities by 15 percent, compared with the same period in 1997. The Traffic Office Lieutenant was responsible for analyzing data submitted by task force officers to determine the effectiveness and efficiency of the program.

A schedule was set up that assigned the numbers of officers needed to staff the task force from the various divisions, but the Division Commanders determined the individual assignments. The anti-DWI task force operated seven days a week from 8:00 p.m. to 4:00 a.m. Sundays through Fridays, it operated from 8:00 p.m. to 4:00 a.m., with two teams of two officers on Sundays through Wednesdays, and four teams of two officers on Thursdays and Fridays. On Saturdays it operated from 8:00 p.m. through 4:00 a.m., with two teams of two officers working along with five officers from the DWI Selective Enforcement Program (STEP). STEP officers were the only officers who were not required to work in pairs. The numbers of officers and times varied slightly throughout the seven-month project.

While all APD officers had received DWI enforcement training at some point at the APD police academy, many officers would not have had recent experience in handling the complicated processing required by this type of arrest. A training videotape was utilized by the Traffic Office to brief all officers assigned to the task force on the proper DWI enforcement procedures. The supervisors of officers requiring additional training notified the Traffic Office for additional training assistance. All DWI task force officers worked in uniform and drove marked police units when they were available. Otherwise, the Traffic Office provided unmarked vehicles equipped with lights and sirens.

DWI task force officers were responsible primarily for enforcing laws related to driving while intoxicated or under the influence of alcohol, but also were responsible for enforcing all traffic laws. Officers working the task force processed their own arrests, and were also called upon to process DWI or DUI arrests for patrol officers. DWI task force officers were instructed, when called upon, to relieve patrol officers by the "most expeditious means, either by going to the scene of the arrest, or arranging to meet the patrol officers at the station."[4]

Patrol officers were instructed to complete written supplements to the incident report detailing the probable cause for the original stop. They were also responsible for completing adequate tests to determine that the suspect was DWI before turning the arrest over to a task force officer. DWI task force officers were responsible for completing all necessary incident reports, affidavits, and booking sheets on the patrol officers' arrests they had relieved. Additional administrative tasks for DWI task force officers included completing a nightly activity sheet to

[3] The following information was taken from a January 1998 APD memorandum outlining the DWI Task Force Operations Plan.

[4] From a March, 1998 APD memorandum to DWI task force officers outlining DWI Task Force Duties.

istrative tasks for DWI task force officers included completing a nightly activity sheet to which they attached a copy of their CAD (computer aided dispatch) sheet. These were sent to the Lieutenant in the Traffic Office. The CAD sheets were used to analyze data on time required to process DWI and DUI arrests.

During the evolution and operation of this special DWI enforcement team, general patrol officers, once again, became more familiar with the DWI arrest process that had become more streamlined. Consequently, general patrol officers became more comfortable with making DWI arrests and began handling more of their own cases throughout the process, without relying on specialized DWI enforcement officers.

At the start of this study, DWI suspects were usually brought to APD headquarters to be processed into the jail. Reportedly, suspects were held temporarily at headquarters and then, periodically, were transported in mass by jail personnel to the jail facility. Upon completion of a new jail, law enforcement officers now typically have to transport suspects directly to the jail and wait with those suspects until personnel at the jail complete the processing procedures. Many APD officers believe this has increased the amount of time they spend processing DWI arrests.

DWI ARREST PROCEDURES

The following description briefly outlines the standard procedures followed by all APD officers when handling a typical DWI arrest (although it may be difficult to describe a "typical" arrest, as many DWI arrests are unique and complicated due to the intoxicated state of the driver). After probable cause has been ascertained, the suspect driver is stopped as soon as is safely possible, with the officer calling in the vehicle's registration number at the time of the stop. Once alcohol impairment has been determined, or is suspected by observing the suspect's demeanor, walk, speech, odor of alcoholic beverage, and manual dexterity, the officer will administer the SFST (standardized field sobriety test) and HGN (horizontal gaze nystagmus) while videotaping the procedures. If, as a result of this investigation, the officer determines the driver is impaired or intoxicated, the arrest will be made at the scene, with the Miranda warning read to the individual immediately after the arrest. The officer will revoke the driving license, and will inform the offender of the right to a hearing on the automatic license revocation. Then, the offender will be transported to the jail where a breath test will be given, and the individual will be booked and remanded to the Travis County Sheriff's Office personnel at the jail. The officer will complete all paperwork and have the reports reviewed by APD arrest review officers, who have offices at the jail. The officer will then report back into service.

PERMANENT DWI ENFORCEMENT UNIT

A new DWI enforcement unit was created in September of 1998 "to increase enforcement of DWI laws and send a message to motorists who drink and drive" that this behavior is not tolerated in Austin. The unit is under the direction of the Traffic Administration Section. The enforcement team, comprised of eight patrol officers and one sergeant, concentrates its patrol efforts on detecting and apprehending impaired drivers. Each officer assigned to the DWI enforcement unit received training in administering the Standardized Field Sobriety Tests. They also became certified Intoxilyzer operators, and several completed a drug recognition course.

The dedicated unit concentrates enforcement efforts on areas where DWI offenses are most likely to occur (e.g., entertainment areas featuring bars and nightclubs) during times when

most impaired drivers are on the road (i.e., evenings, weekends and holidays). Typically, the DWI units are dispersed throughout the city, but at times saturation tactics are utilized. In addition to initiating their own alcohol-related arrests, members of the Enforcement Team are able to provide support to regular patrol officers during peak offense times, relieving patrol officers by handling the lengthy processing of DWI arrests.

If asked to assist in a supporting role, the special officer may supervise the process, or may advise at certain points, such as validating the HGN results. Or, if asked, the special officer may completely take over the arrest, which allows the general patrol officer to return to service quickly. In this case, the initiating officer would then be responsible for writing a supplement to the DWI unit officer's report. The supplement to the main report contains the reasons why the general patrol officer stopped the vehicle, what was observed and that the process was turned over to the DWI unit. If there is not a sober occupant in the vehicle to drive it, the general patrol officer may wait for the police wrecker to tow the vehicle.

Reportedly, general patrol officers process a DWI arrest in approximately three hours, while a DWI special enforcement unit officer usually requires about half that time, roughly 90 minutes. However, data from the APD computer assisted dispatch system (CAD) discussed on page 15 indicates the processing times by the DWI unit officers and general patrol unit officers do not differ greatly.

The entire DWI enforcement unit works every Friday evening. The unit is split with half working Tuesday through Friday evenings, and the remaining working Wednesday through Saturday evenings. The shifts are rotated every four weeks. Reportedly there is a low turnover rate within the unit and several officers have been with the unit for four years. The DWI enforcement unit is not an assigned unit, meaning APD officers must apply for any open positions. The current sergeant for the unit reports that officers serving on the Unit are passionate about making quality arrests, as well as quantity. DWI arrests are one of the few areas in law enforcement where the arresting officers can follow a case from detection to arrest to adjudication to sanctioning; this is very satisfying work for the officers.

As was discussed earlier, while all APD officers have, at some point, received training on detecting and arresting DWI offenders, many have not actually handled this type of arrest, or at least not recently enough to feel comfortable about properly handling the complicated procedures and paperwork. If this is the case, general patrol officers, upon stopping a suspected impaired driver, may elect to call in a DWI special enforcement unit officer to support or handle the arrest process. Or new officers with less experience, who do want to handle the arrest, may need assistance, because during the time that rookie officers initially spend riding with training officers, they may never encounter a DWI. When they eventually do detect and stop a DWI suspect, enough time may have passed since their academy training that they may wish to have an experienced DWI officer present to offer guidance and assistance.

In fact, in August 2002, a new aspect of the cadet training program[5] began in an effort to expose new officers to the actual DWI arrest process. Under this program, each area commander sends one rookie officer per week to the DWI unit for a three-week assignment. The first week, each cadet rides with a DWI unit officer and observes procedures and reviews their skills in administering the roadside tests. On the second and third weeks of their temporary assignment,

[5] An ongoing cadet training program assigns academy graduates to six of the seven area commands (the downtown area command does not receive cadets due, in part, to the large 6th Street entertainment district where only experienced officers are assigned) to learn proper procedures and to gain experience while under the supervision of a training officer.

they ride alone but work with the DWI unit taking hand-off arrests and making some of their own DWI arrests. Therefore the cadets, while learning proper procedures, strengthen the number of officers serving on the DWI unit. The fourth week they report back to their shift at their assigned area command. By this time, they are familiar with apprehending and processing their own DWI offenders and with taking hand-offs from fellow officers in their area command. This training program should help to maintain, and perhaps further increase, the number of DWI arrests.

Arrests

These cooperative efforts have resulted in an increased number of DWI and DUI arrests (see Chapter 3). First, the DWI enforcement team increases the number of patrol units on the streets, making apprehension of DWI offenders more likely. At the same time, regular patrol officers who make DWI arrests are able to turn suspects over to the DWI enforcement team for processing through the system, allowing them to resume patrol duties and apprehend other DWI offenders.[6] However, as noted earlier, general patrol officers have become more comfortable with making DWI arrests and handling the process themselves. In fact, by 1999, it was reported that general patrol handled three-quarters of the Department's DWI arrests.

Court and ALR Hearing Appearances

Initially officers spent an inordinate amount of time waiting outside courtrooms which, although guaranteed them overtime pay since court and ALR hearings are always held during the day, also meant too many long hours. It was not unusual for an officer to work, for example, until 6 a.m. due to overtime connected with a late-shift DWI arrest, and then have to report for court during the day, and then back that evening for his or her regular shift. Court liaison officers have now eliminated unnecessary waiting on the part of the DWI enforcement unit officers. They track each case and only call in an officer when it is certain that the officer will need to testify. Officers may participate in ALR hearings by telephone, rather than needing to be physically present at the hearing site.

As is problematic for other law enforcement agencies, APD DWI enforcement unit officers complain that attorneys attempt to use probable cause hearings for discovery purposes. But these officers are well versed in handling court and ALR hearing appearances.

[6] APD website (*www.cityofaustin.org/police*).

3. PROGRAM EVALUATION

APPROACH

We used a two-pronged approach in estimating the effect of the Austin DWI enforcement program on alcohol-related crashes. Ultimately, we wanted to know if the number of such crashes was reduced, but first, we wanted to see if there had been any positive changes in APD performance that might plausibly be expected to reduce alcohol-related crashes. Performance measures examined were: DWI arrests, DWI processing time, and DWI conviction rates. These measures were selected as indicative of the kinds of positive effects sought in the program as described in the prior chapter. If the changes were in the right direction and large enough, then any reduction found in alcohol-related crashes would more likely to be due to the program rather than some other factor.

Our analysis of alcohol-related crashes in Austin used number of fatal-crash involved drivers with a BAC of .01 or more as the measure of effectiveness. We compared changes in such crashes to changes in the rest of Texas as another device for accounting for non-programmatic effects on program effectiveness.

RESULTS

Performance

DWI Arrests. Figure 3-1 shows that the annual number of DWI arrests by APD officers had been trending down from about 3,500 in 1990 to only 2,200 in 1996, but holding fairly steady from 1994 through 1997. With the start of the DWI enforcement task force in 1998, arrests increased to 4,077, an increase of 48% over the 2,747 arrested for DWI in 1997. A further increase to 4,500 occurred in 1999 during the transition from the DWI task force to the full-time DWI unit. The arrest rate remained at a high level in the following two years, with only a slight dip in 2001. These numbers for the latter part of the time period shown are reflected in data from the APD computer aided dispatch system (CAD). Police officers routinely report their involvement in incidents to a dispatcher who enters data for determining response time (time from receipt of a call for service to arrival at the scene of the incident) and time to perform any duties pertinent to the call, including any arrest and post–arrest processing. Incidents initiated for reasons other than a call for service (for example, flowing from a traffic stop) are also entered into the CAD, with a response time of zero.

Figure 3-1: DWI Arrests by the Austin, Texas Police Department, 1985-2001

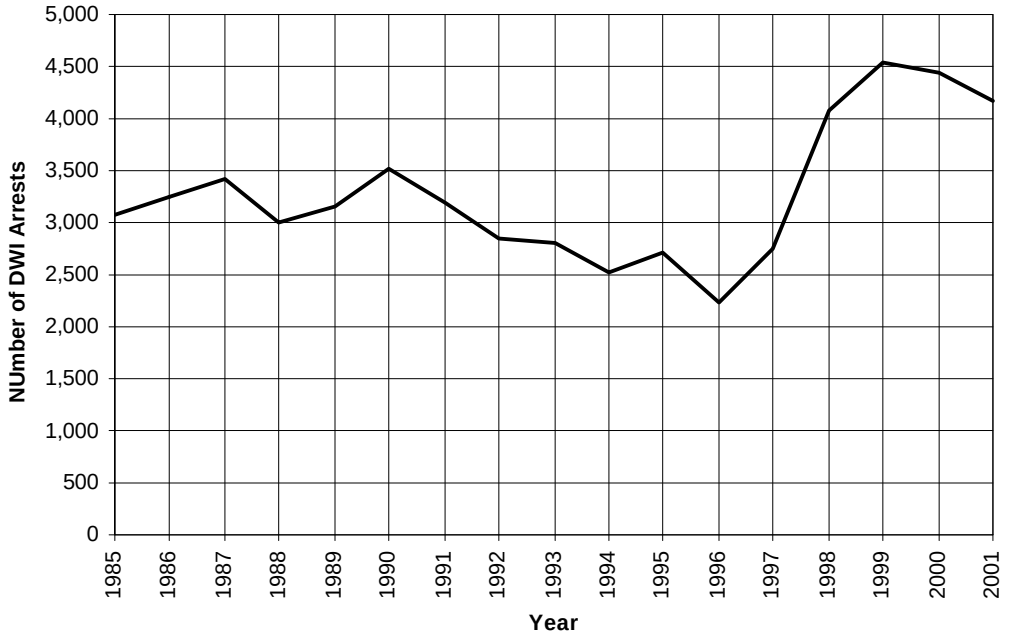


Figure 3-2 superposes the number of incidents initiated in any way (e.g., call for service or traffic stop) and cleared as DWI, on the above arrest data in monthly form. The data are shown in monthly form for units of all types, including general patrol units and the DWI team. It is seen that the arrest data track very well with the CAD data for the period in which CAD data were available, but indicate slightly more arrests in a given month than incidents reported to the CAD. This suggests that not all DWI incidents resulting in arrests were reported to the CAD, and suggests also that there may have been a systematic bias in reporting DWI incidents to CAD, since the two curves follow the same pattern.[7]

Available data do not permit a breakdown of DWI arrests by type of police unit, but CAD data are available for use as a surrogate. The CAD data indicate that, after an initial high of about 100 – 150 per month, calls answered by the DWI team have settled down to about 50 – 100 per month (Figure 3-3). Calls involving general patrol units have remained fairly constant throughout the period, fluctuating about a mean of roughly 225 per month. This indicates that the increase in calls since the start of the DWI team in September 1998 has been due to the additional calls answered by that team and not to more calls involving general patrol units. Since officers drawn from other elements of the APD have staffed the DWI team, the increase in DWI-related calls suggests an overall increased efficiency with respect to DWI enforcement.

Data are available for DWI arrests by the DWI team for the year 2000 through most of 2002. Figure 3-4 compares the number of arrests made by the team with calls reported by the team for an overlapping period of time. In addition, the figure also shows the number of arrests in which the team participated, including both unassisted arrests and arrests in which

[7] Note: The purpose of the CAD system is to dispatch an officer to the call. Officers are not required to update the nature of the call following their response. Therefore, the DWI CAD calls used in our analysis do *not* reflect *all* DWI calls, but are a measure of this type of call.

Figure 3-2: Number of DWI Arrests (1985-2001) and Number of Incidents Cleared as DWI Reported to the Austin Police Department Dispatcher (1997-2001)

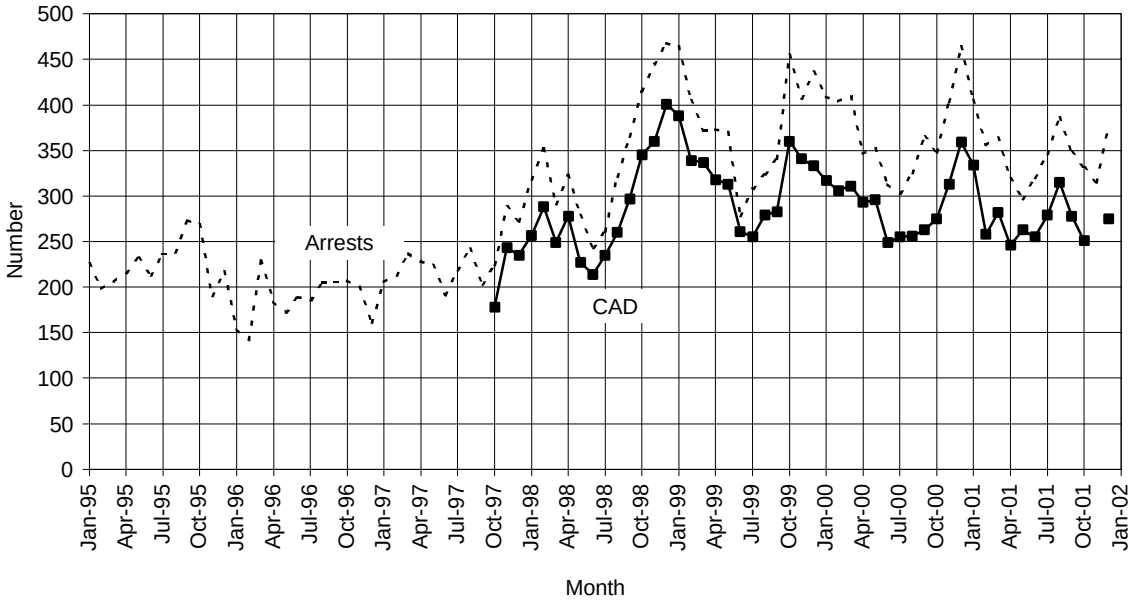
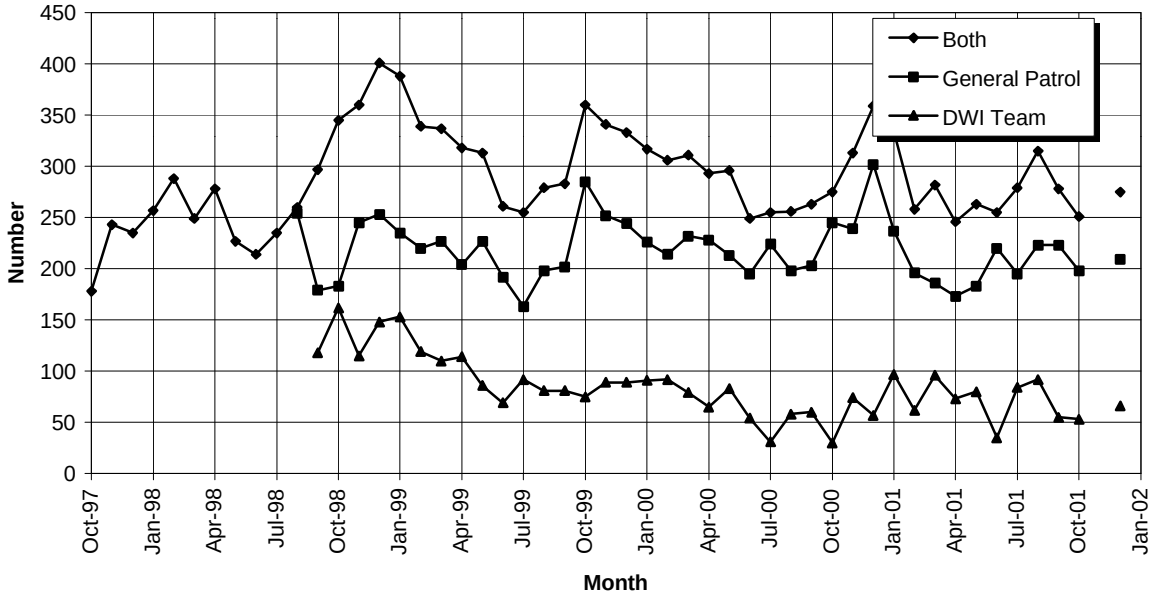
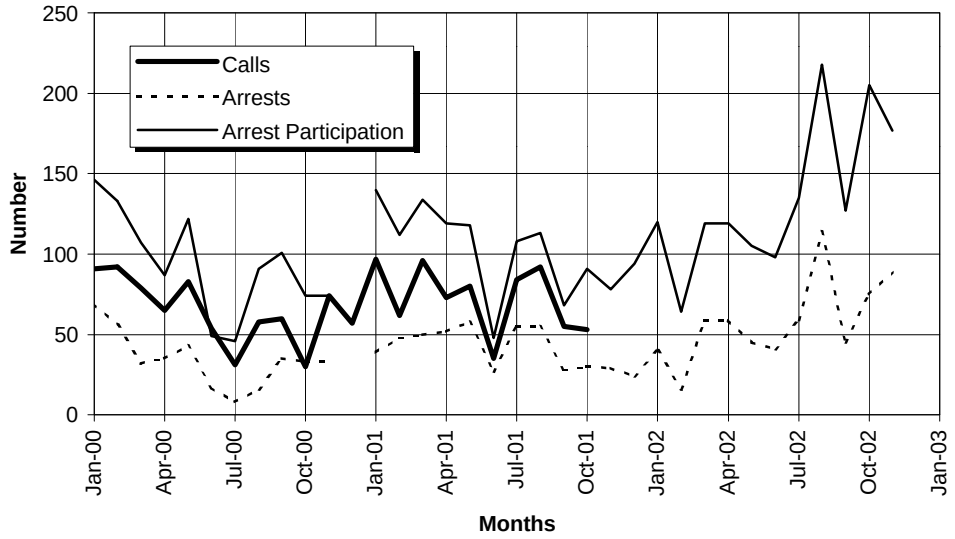


Figure 3-3: Number of Incidents Cleared as DWI Reported to the Austin Police Department Dispatcher by Type of Police Unit, 1997-2001



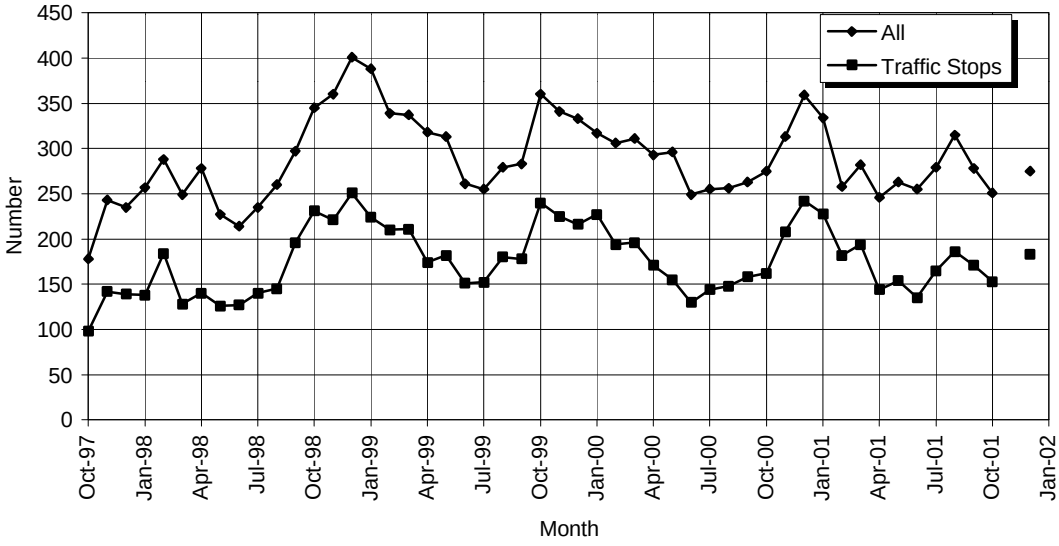
assistance was given to general patrol units. Again, arrest patterns track well with call patterns, with the number of calls falling about halfway between the number of unassisted arrests made and the number in which the team participated.

Figure 3-4: Calls, Arrests, and Arrest Participation for the APD DWI Team, 2000-2002



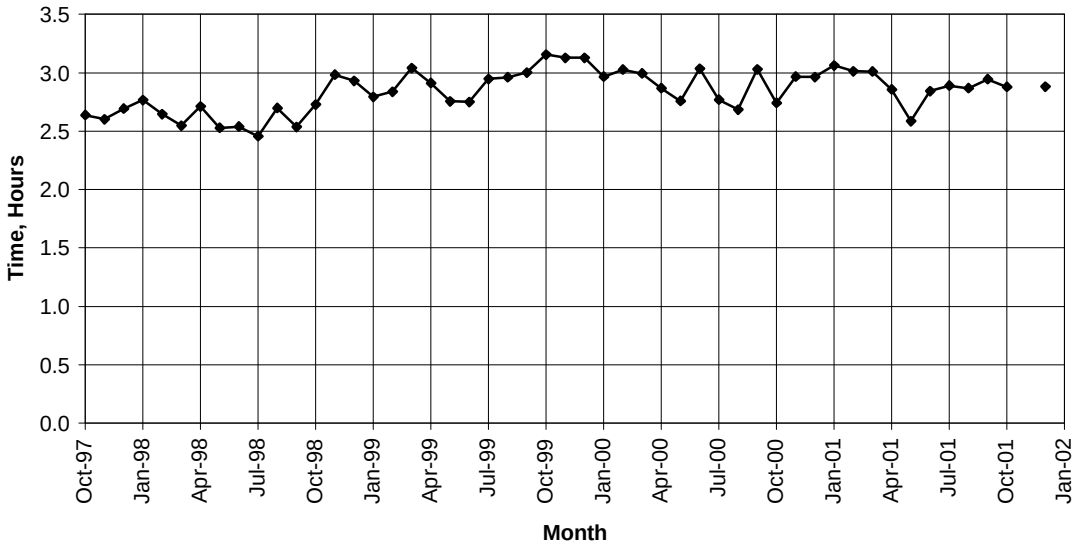
Finally, the CAD data indicate that calls initiated by a traffic stop comprise the largest percentage of DWI calls (Figure 3-5). For example, in December 1998, 251 calls out of 401 (63%) were initiated by a traffic stop, and in December 2000, 242 calls out 359 (67%) were initiated by a traffic stop.

Figure 3-5: Number of Incidents Cleared as DWI Reported to the APD Dispatcher by Type of Call Initiation, 1997-2001



DWI Processing Time. The CAD data described above provide a means for estimating DWI arrest processing time. Overall, mean processing time has remained in the 2.5 – 3.0 hours range during the 1997 – 2001 period, starting at the lower end of this range and rising slightly toward the higher end in late 1998 (Figure 3-6). The data indicate slightly higher processing times for the DWI team and lower processing times for general patrol units. A possible reason is that general patrol units may be the handing off the more complicated cases to the DWI team, and may in some instances, be reporting back in service after hand-off but before processing. The data also indicate that calls initiated as traffic stops require slightly higher processing time than do calls in general.

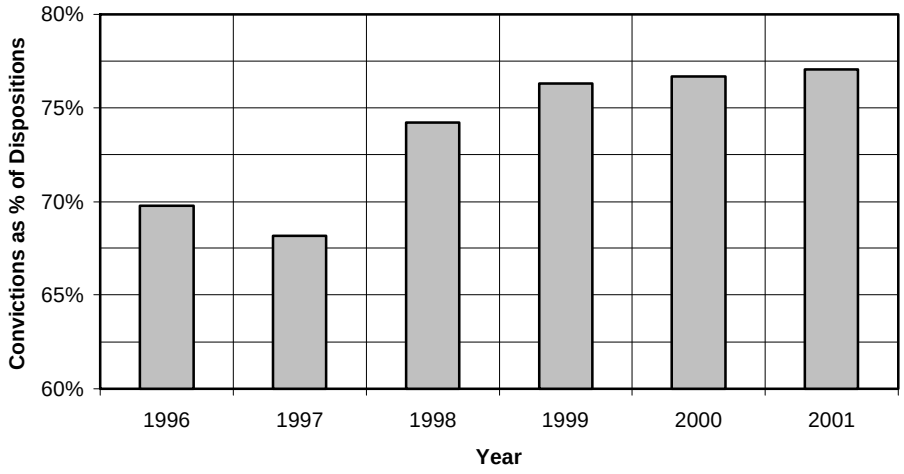
Figure 3-6: Mean Processing Time for an Incident Cleared as DWI Reported to the APD Dispatcher, 1997-2001



DWI Convictions. A majority of DWI arrests in Travis County involve first-time offenders and are initiated by the Austin Police Department. In Texas, the County Courts and the County Court of Law Courts handle first-time DWI offenders as mandated by Sections 49.04 or 49.09 of the Texas Penal Code, unless the arrest involves a felony charge, for example, due to a fatality. Multiple offenders and/or felony cases are handled in District Courts.

During a past NHTSA-sponsored project (Wiliszowski, Jones, and Lacey, 1999), it was calculated that in fiscal year 1996, statewide, County Courts in Texas had a 63% conviction rate in DWI-related cases. Based on published court activity, project staff extracted Travis County convictions and dispositions for that year and calculated a conviction rate for DWI cases of almost 70% (69.78%). In this project, we looked at DWI convictions as a percent of total DWI dispositions from fiscal year 1996 through 2001. Conviction rates for this period are shown in Figure 3-7. Conviction rates for DWI cases adjudicated in County Courts located in Travis County increased from 70% before the start DWI enforcement improvement program to 77% immediately after the start of the program. This 10% increase in conviction rate remained in effect through the year 2001.

Figure 3-7: DWI Conviction Rate in Texas County Courts in Travis County, 1996-2001



Impact

As indicated above, our impact analysis used number of fatal-crash involved drivers at a BAC of .01 or more as the measure of effectiveness. Data from the NHTSA Fatality Analysis Reporting System (FARS) were used in the analysis, with missing BAC data estimated using NHTSA's new multiple imputation procedure (Subramanian, 2002). An interrupted time series model employing the autoregressive integrated moving average (ARIMA) technique was used in the analysis. Two different time series were analyzed, the first consisting of semi-annual counts of the target drivers in Austin, Texas, and the second consisting of a comparison series of semi-annual counts of the same types of drivers in the remainder of the state. A step-function intervention was placed at the point corresponding to the start of the DWI enforcement program, taken to be January 1, 1999.

The model for Austin was differenced by one period and had moving average components at lags of one period and two periods. Figure 3-8 shows the results for the model, indicating a statistically significant 25% reduction in drivers at .01+ compared to what would have been expected with no program ($p=0.037$). By contrast, the comparison model for the rest of the state showed no significant change in drivers at .01+ after the intervention point ($p=0.807$).

We also examined a time series composed of drivers at a BAC of .10 or more and found a similar positive effect in Austin (Figure 3-9). The effect equated to a 19% reduction in such crashes, but the reduction was not significant at the .05 level ($p=0.1097$).

Figure 3-8: ARIMA Analysis of Number of Drivers at a BAC of .01+ in Fatal Crashes in Austin, Texas, 1990-2001

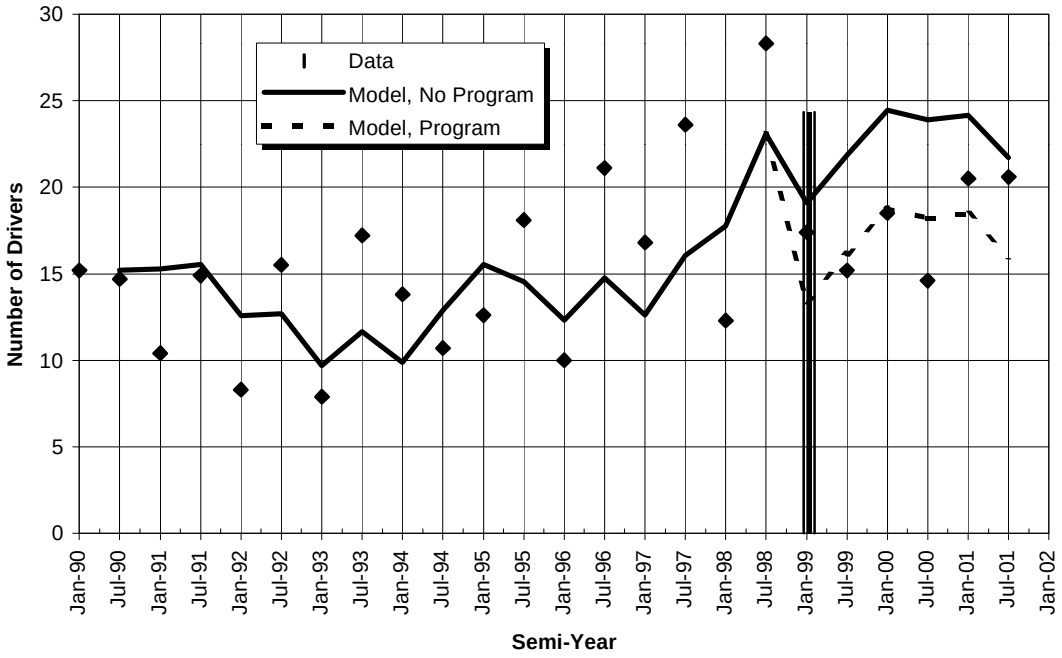
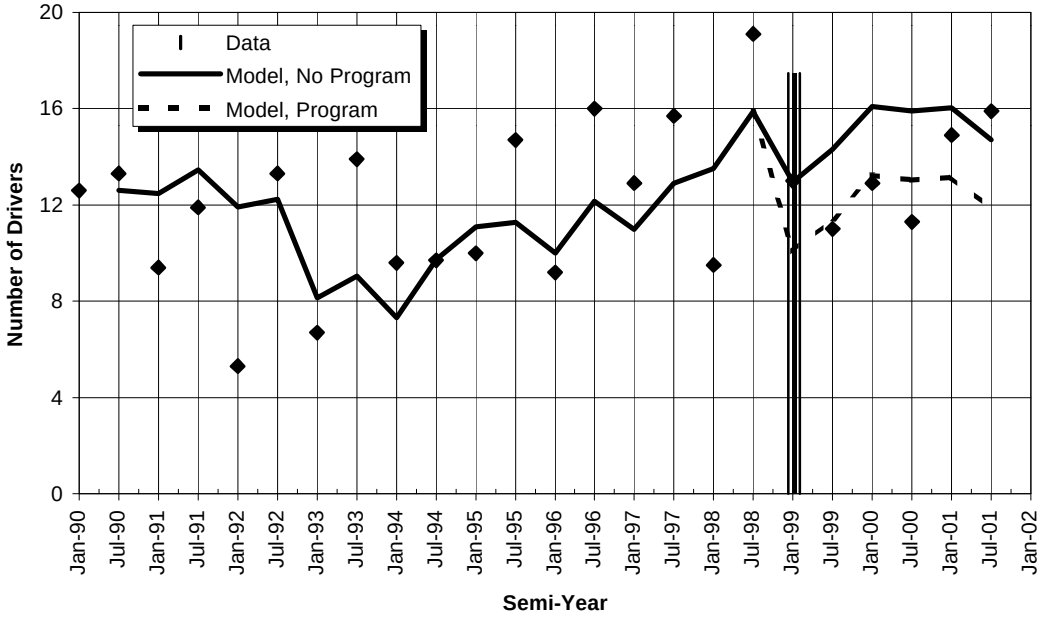


Figure 3-9: ARIMA Analysis of Number of Drivers at a BAC of .10+ in Fatal Crashes in Austin, Texas, 1990-2001



SUMMARY AND CONCLUSIONS

We examined both the performance and the impact on alcohol-related fatal crashes of the APD DWI enforcement program. We found positive changes in both, lending support to the hypothesis that the program has been an effective alcohol-crash countermeasure. By reassigning some general patrol personnel to the new DWI team and increasing command emphasis of DWI enforcement, DWI arrests nearly doubled. Further, the number of alcohol-impaired drivers in fatal crashes has decreased by an estimated 25% since the start of the program. Several new procedural initiatives designed to increase DWI conviction rates have been placed into operation, and DWI conviction rates have increased by an estimated 10%.

Despite these positive results, some of the hoped-for improvements were not accomplished. Overall, DWI processing times did not decrease, possibly at least in part, due to the physical and procedural changes brought about by a new jail facility operated outside of the control of the APD. Processing times may even have increased slightly for the DWI team, possibly because of an increase in the complexity of cases handled by the team. Also, the DWI-arrests of the general patrol units did not increase, but remained at about the same level as in the year before the program. Nevertheless, the program overall must be viewed as successful and worthy of consideration by other jurisdictions.

4. CONCLUSIONS AND RECOMMENDATIONS

The Austin Police Department developed and implemented a number of measures designed to overcome identified problems related to the Department's role in the DWI law enforcement system. These improvements had a measurable positive effect on two critical system performance parameters, namely, increases in the number of DWI arrests and in the DWI conviction rate. These improvements in system performance most likely were responsible for a 25% reduction in drivers in alcohol-related fatal crashes. The success of this program clearly shows that a carefully designed effort addressing critical DWI law enforcement problems can be implemented without major changes to the existing organizational structure of a police department in a large city, and without the acquisition of large amounts of additional resources, including personnel, equipment and facilities.

We recommend that metropolitan police departments in other cities consider taking a similar approach to DWI enforcement system improvement, adopting some of Austin's techniques where they are appropriate and devising new ones where they are not. We note that some of Austin's problems for which improvements were sought but not realized involved other organizations that did not have significant participation in the program. Foremost among these was the problem of time-consuming post-arrest processing of DWI suspects. In many instances, the involvement of other organizations (often with different priorities and constraints) will be difficult to obtain, but should nevertheless be sought.

5. REFERENCES

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