

***Traffic Safety  
in Minnesota  
1997***

***Annual Evaluation  
Report***





# Traffic Safety in Minnesota

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## A Progress Report for 1997

This report is prepared by the Office of Traffic Safety (OTS) in the Minnesota Department of Public Safety (DPS). OTS is responsible for the federal grant monies available under the State and Community Highway Safety Program (402 funds).

Each year, OTS prepares Minnesota's Highway Safety Plan, which describes the activities to be conducted with the 402 funds. The projects selected for funding have a common goal: to reduce the number and severity of traffic crashes and to improve systems related to traffic crashes.

This report summarizes the progress made in Minnesota in the projects supported by 402 funds during federal fiscal year 1997. More detail about any of the activities described here is available from the following address:

Office of Traffic Safety  
Minnesota Department of Public Safety  
444 Cedar Street, Suite 150  
St. Paul, MN 55101-5150

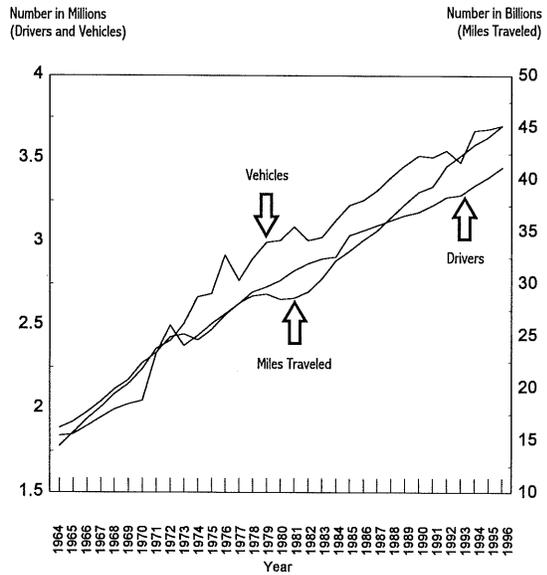
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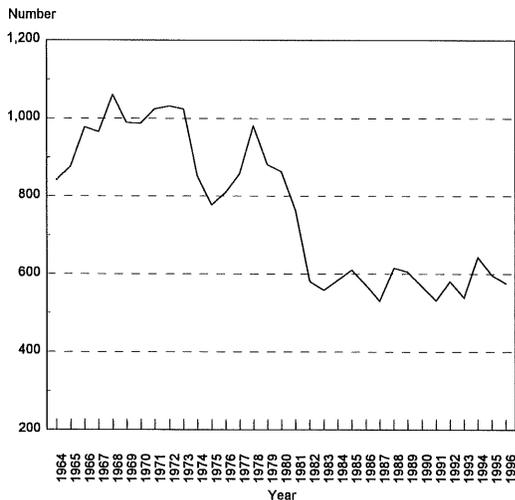
## Minnesota's Traffic Fatality Rate Per 100 Million Miles Traveled, 1964 - 1996



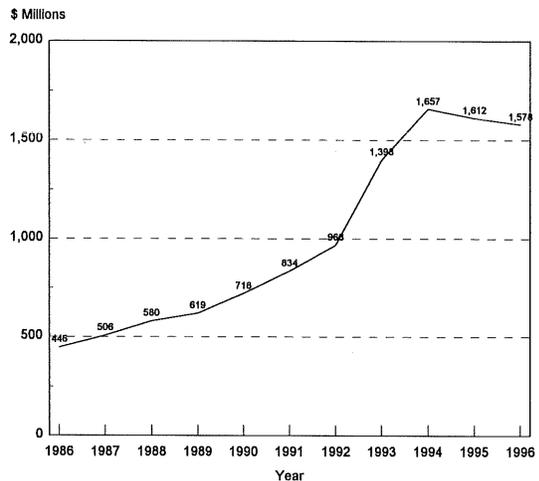
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# **Traffic Crashes in Minnesota: Background**

Motor vehicles are a part of our lives. Most people in Minnesota travel from one place to another every day; for all but a few, interacting with motor vehicle traffic (whether as a driver, a passenger, a bicyclist, or a pedestrian) is a daily occurrence.

In addition to the conveniences and freedoms that motor vehicles bring to our society, there are costs to be paid. The ever-increasing numbers of drivers, vehicles, and miles traveled almost inevitably result in traffic crashes, injuries, and fatalities. More people between the ages of 1 and 34 die from traffic crashes than from any other cause (including homicide, suicide, disease, drownings, and fires). In addition, crashes can be the cause of terrible, life-changing injuries; they are the most frequent cause of adult-onset epilepsy and of paraplegia and quadriplegia for people of all ages.

In 1996, Minnesota had a traffic fatality rate of 1.27 per 100 million vehicle miles traveled (VMT) — the lowest rate on record for the state. This was below the national rate of 1.7, and astoundingly lower than the record rate of 23.6 deaths per 100 million VMT set by Minnesota in 1934. Minnesota's traffic fatality rate per 100 million VMT has shown a progressively downward trend since the mid-1960s. This has happened despite a steady increase over the same time period in the number of drivers, the number of vehicles, and the number of miles traveled. The VMT-based fatality rate is a widely accepted measure of a state's traffic safety record because it takes into account the exposure a state's citizens have to potential traffic crashes.

Discussing Minnesota's traffic safety record in terms of rates provides a means to compare our progress across years and across state boundaries, but it can distance us from the harsh reality of traffic crashes. In 1996, 576 people died in traffic crashes in Minnesota; low fatality rates are cold comfort to the grieving families of those 576 people.

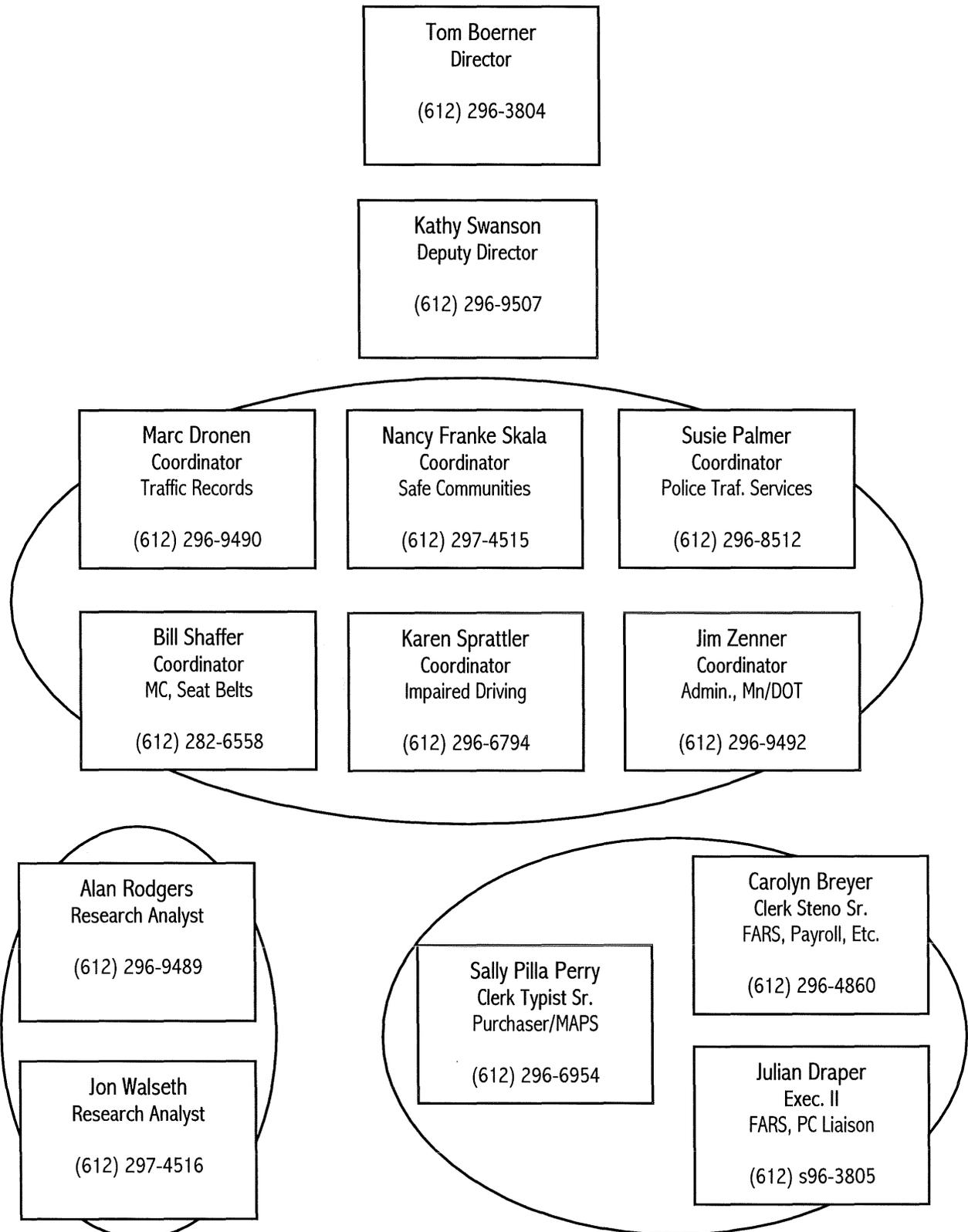
We believe that if people knew of an illness or disease that killed 600 Minnesotans and injured 47,000 more each year, they would all work together to find ways to eliminate that illness or disease. Since this is the number of people killed and injured in crashes in Minnesota each year, OTS believes that describing traffic crashes as a serious public health problem — in fact, an epidemic — will help to raise society's awareness of the costs we pay for traffic crashes.

In addition to the emotional cost of traffic crashes — the needless deaths and injuries of loved ones — there is an economic cost to be paid. In Minnesota in 1966, the economic cost of traffic crashes was estimated to be just under \$1.6 billion. Despite continually-increasing health care costs, the economic cost of crashes has declined slightly in the past few years — primarily, we believe, because increased seat belt use has led to a reduction in serious injuries.

OTS believes the decades-long improvement in Minnesota's traffic safety record is the result of many agencies working on the problem from many angles (such as enforcement, prevention, engineering, and so forth). Even though immense progress has been made since the inception of this program, a staggering amount of work remains to be done. Many in this field believe that the easy gains have already been made. Any future improvements either will come in very small increments or will come only after a society-wide consciousness raising.

**Despite the lowest fatality rate in history and a substantial decrease in the number of traffic deaths, traffic crashes remain a leading cause of death and injury, and they pose a serious and costly public health problem for the state.**

# Office of Traffic Safety Organization Chart



# **Who We Are and Why We're Here**

The Office of Traffic Safety (OTS) in the Minnesota Department of Public Safety coordinates Minnesota's participation in the National Highway Traffic Safety Administration's and the Federal Highway Administration's federal grant program. (MS 4.075 establishes the basis for this structure in Minnesota.) In addition, OTS manages several state-funded traffic safety programs, including the motorcycle safety program, the child seats for needy families program, and the bicycle safety program. OTS also produces *Minnesota Motor Vehicle Crash Facts* to satisfy the requirements of MS 169.10.

The structure of OTS is shown in the organization chart on page 4. Safety Program Coordinators serve as grant administrators who interact with project directors (grant recipients) and funding agencies (usually NHTSA); coordinators also act as program experts who testify before the legislature, answer questions from the media and the general public, and advise policy makers and legislative staff on issues related to the program areas they coordinate.

Two research analysts analyze traffic crash data, produce *Minnesota Motor Vehicle Crash Facts*, identify traffic safety problem areas, answer questions from the general public, and evaluate the effectiveness of various traffic safety programs.

Minnesota participates in collecting data for the Fatal Accident Reporting System (FARS), a national database on fatal motor vehicle crashes which is internationally known and respected. The FARS staff (an analyst and a backup) are part of OTS.

When OTS staff members review project applications, they compare the stated goals of each project with the OTS mission, values, and goals. We believe that supporting projects clearly in line with our values and goals helps to ensure that we are able to accomplish our mission.

***Mission: Reduce the number and severity of traffic crashes in Minnesota.***

***Methods: Plan, manage, coordinate, and evaluate traffic safety projects using federal, state, and local resources; provide statistical information about traffic crashes; conduct research on traffic safety issues.***

## **MISSION**

The mission of OTS is to reduce the number and severity of traffic crashes in the State of Minnesota. We strive to accomplish this by planning, managing, coordinating, and evaluating traffic safety activities using federal, state, and local resources; by providing statistical information about traffic crashes; and by conducting solid research on traffic safety issues.

### **Values:**

- Informed Public**
- Support for Safe Communities**
- Effective/Efficient Traffic Law Enforcement**
- Improved Data and Records**
- Well-Managed and Innovative projects**

## **VALUES**

### **V1: Informed Public**

We value a well-informed populace that sees traffic safety as an important public health issue, supports traffic safety legislation, and understands the benefits of driving safely; we value the perception that traffic violations are likely to result in arrests, citations, fines, and/or injuries.

### **V2: Support for Safe Communities**

We value supporting existing traffic safety and injury prevention groups who share our mission; we value activities that contribute to an increased sense of community and support our Safe Community model.

### **V3: Effective/Efficient Traffic Law Enforcement**

We value a well-trained and well-equipped enforcement community that is motivated to enforce traffic safety laws and able to successfully support its actions with testimony; we value the efficiency and effectiveness of cooperative efforts between law enforcement agencies, communities, and other entities; we value efficient methods of law enforcement so that officers are quickly back on the road after making an arrest.

### **V4: Improved Data and Records**

We value improving our crash database and other data systems so that we have confidence in our project selection process; we value improving our fiscal and administrative system so that we have confidence in the vouchers and other fiscal reports.

### **V5: Well-Managed/Innovative Projects**

We value identifying new approaches to problems; we value well-trained staff who serve as dedicated traffic safety professionals; we value carefully-managed traffic safety projects that meet their objectives and move Minnesota towards our goal of reducing traffic crashes, injuries, and fatalities.

## **Goals**

### **G1: Reduce Fatality Rate**

It is our goal to reduce the fatality rate per hundred million vehicle miles traveled to 1.00 by 2005. This measure is calculated by dividing the number of traffic fatalities (available from the accident records database) by the number of vehicle miles traveled (available from the Minnesota Department of Transportation).

### **G2: Reduce Severe Injury Rate**

It is our goal to reduce the severe injury crash rate per billion vehicle miles traveled to 60 by 2005. This measure is calculated by dividing the number of severe injury crashes (crashes in which the most serious injury was an "A" injury, available through the accident records database) by the number of vehicle miles traveled.

### **G3: Increase Seat Belt Use**

It is our goal to increase use of seat belts to 85% by 2005. This measure is made available through the annual observation survey of seat belt use in Minnesota, which is conducted every August by the Department of Public Safety.

### **G4: Increase Child Seat Use**

It is our goal to increase child seat use by toddlers to 90% by 2005, and to maintain infant car seat use at or above the present rate of 85%. This goal is measured through child seat observation studies conducted in the parking lots of shopping centers. The next observation study is scheduled to be conducted in the year 2000 by the Department of Public Safety.

### **G5: Increase Metro and Non-Metro Seat Belt Use**

It is our goal to increase seat belt use in the metropolitan area to 90% and to increase seat belt use in the rest of Minnesota to 80% by 2005. This measure is made available through the annual seat belt observation study.

### **G6: Standard Seat Belt Law**

It is our goal to pass legislation allowing primary enforcement of the seat belt law by 2000. This measure is available by following the bills passed and signed into law each legislative session.

## **Goals:**

- **Reduce Fatality Rate**
- **Reduce Severe Injury Rate**
- **Increase Seat Belt Use**
- **Increase Child Seat Use**
- **Increase Metro and Non-Metro Seat Belt Use**
- **Enact Standard Seat Belt Law**
- **Reduce Alcohol-Related Fatalities**
- **Enact .08**
- **Reduce Speed-Related Fatal Crashes**
- **Reduce Speed-Related Injury Crashes**
- **Reduce Economic Loss to Minnesota from Traffic Crashes**

**G7: Reduce Alcohol-Related Fatalities**

It is our goal to reduce impaired driving so that, by 2005, no more than 30% of traffic fatalities are alcohol-related. This measure is calculated by NHTSA and is made available to Minnesota when the estimates are complete.

**G8: .08 Law**

It is our goal to pass legislation lowering the legal limit for drinking and driving to .08 by 2000. This measure is available by following the bills passed and signed into law each legislative session.

**G9: Reduce Speed-Related Fatal Crashes**

It is our goal to reduce speed-related crashes so that no more than 22% of the fatal crashes are speed related by 2005. This measure is available through the accident records database.

**G10: Reduce Speed-Related Injury Crashes**

It is our goal to reduce speed-related crashes so that no more than 15% of the injury crashes are speed related by 2005. This measure is available through the accident records database.

**G11: Reduce the Economic Loss to Minnesota from Traffic Crashes**

Crashes are costly, and severe crashes are more costly than minor ones. It is our goal to hold the economic loss from crashes to less than \$1.5 billion in 2005. This measure is calculated using the National Safety Council's economic loss estimates.

# ***Progress Toward Goals***

We suffered several setbacks during the most recent legislative session. Our effort to pass standard (primary) seat belt enforcement was defeated; attempts to lower the alcohol limit to .08 were rebuffed; and speed limits on certain roadways were increased. Despite these setbacks and although we have much room for improvement, we are pleased with our recent progress towards some of our goals. Specifically, we have seen the following five improvements in the past two years:

## ***Reduced Fatality Rate***

For 1996, we estimate that our fatality rate was 1.27 deaths per 100 million vehicle miles traveled. This is the lowest rate in our history; we matched this rate in 1993.

## ***Reduced Severe Injury Crash Rate***

In 1996, we met our goal for 2000 in terms of the severe injury crash rate. The rate of severe injury crashes per billion vehicle miles traveled was 65. We have adjusted this goal down to 60 by 2005.

## ***Increased Seat Belt Use***

In 1995, we saw an eight percentage point increase in seat belt use in Minnesota. This increase was sustained in 1996. We believe that increased seat belt use is a direct contributor to our lowered fatality rate, the lowered severe crash rate, and the reduction in the economic loss from crashes.

## ***Record Number of DWI Arrests***

In 1996, a record number of DWI arrests were made. The reported number of DWI arrests (38,925) was 19% higher than the average number of such arrests over the past five years. This suggests a high level of traffic law enforcement – probably enhanced by our *Safe & Sober* efforts – which should translate into improved alcohol-related crash and fatality figures.

## ***Reduced Economic Loss***

In an era of ever-increasing health care and insurance costs, it is virtually unheard of to have a reduction in the economic loss from traffic crashes. Nevertheless, in both 1995 and 1996, we saw a decrease in the dollar amount of economic loss calculated to arise from traffic crashes in Minnesota.

The following table shows the current status and recent trends of several important measures of traffic safety in Minnesota. Comparing this table to the previously-stated goals provides a sense of how much we must improve to reach those goals.

**Crash, Fatality, and Injury Summary for Minnesota, 1986 - 1995**  
**(Includes Goals for 2005)**

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	Goal for 2005
Traffic Crashes	94,095	102,094	105,996	99,236	101,419	96,808	100,907	99,701	96,022	105,332	
Persons Killed	530	615	605	568	531	581	538	644	597	576	
Persons Injured	42,091	44,415	45,404	44,634	42,748	43,249	44,987	46,403	47,161	48,963	
Motor Vehicles (Millions of Vehicles)	3.31	3.39	3.46	3.52	3.51	3.55	3.48	3.67	3.68	3.70	
Drivers (Millions of Drivers)	3.10	3.13	3.16	3.18	3.22	3.27	3.28	3.34	3.39	3.46	
Miles Traveled (Billions of Miles)	35.1	36.4	37.6	38.8	39.3	41.3	42.3	43.4	44.1	45.2	
Fatality Rate Per Hundred Million Miles Traveled	1.51	1.69	1.61	1.47	1.35	1.41	1.27	1.48	1.35	1.27	1.00
Severe Injury Crash Rate Per Billion Miles Traveled	130	120	109	104	85	82	76	73	67	65	60
Observed Seat Belt Use Rate (Statewide)	32%	47%	44%	47%	53%	51%	55%	57%	65%	64%	85%
Percentage of Fatalities that are Alcohol-Related	45%	47%	48%	45%	43%	41%	39%	38%	44%	38%	30%
Percentage of Fatal Crashes that are Speed-Related	30%	32%	29%	28%	29%	24%	27%	24%	27%	27%	22%
Percentage of Injury Crashes that are Speed-Related	17%	17%	18%	17%	19%	18%	18%	17%	17%	19%	15%
Economic Loss to Minnesota (Millions of Dollars)	506.4	579.9	619.0	717.9	834.1	965.8	1,397.8	1,656.6	1,611.8	1,578.1	1,500.0

# ***What We Funded in FFY97***

As stated earlier, the mission of the Office of Traffic Safety is to reduce the number and severity of traffic crashes in the State of Minnesota by planning, managing, coordinating, and evaluating traffic safety activities using federal, state, and local resources, and by providing statistical information about traffic crashes. As a result, the Office of Traffic Safety is deeply involved in seeking ways to reduce the number and severity of traffic crashes in Minnesota.

To carry out its mission, OTS serves as the staff office for the Governor's Representative for Highway Safety and coordinates Minnesota's participation in the National Highway Traffic Safety Administration's and the Federal Highway Administration's federal grant program. (MS 4.075 establishes the existence of the highway safety program.) In addition to the federal grant programs, OTS coordinates and manages several state-funded programs, including the motorcycle safety program, the child seats for needy families program, and the bicycle safety program.

## ***Method for Selecting Projects***

In general, we support the following three types of projects with the federal funds:

- Projects that directly support traffic safety efforts in communities.
- Projects that support traffic safety efforts at the state level or which indirectly support the activities in communities.
- Projects that support our on-going efforts to coordinate and monitor the other projects.

## ***Direct Community Support***

For projects that directly support community traffic safety efforts, we issue a request for proposals (RFP) to local units of government. In the RFP, we define the types of projects that can be funded (for example, *Safe & Sober* enforcement activity), the timeframe for the projects, and the total dollar amount that we have committed to the program. Our coordinators review the proposals that are submitted and rank them according to a variety of factors related to the proposals' potential for success. After careful consideration and thorough discussion, a list of projects to be funded is created. Each coordinator is assigned a certain number of projects to assist and monitor throughout the year.

## ***Indirect Community Support***

Many of our projects provide indirect support to local and statewide traffic safety programs. For these projects, the coordinator responsible for that program area determines what types of support (such as public information materials or improved crash data analysis) are most needed. Within the constraints of our available funding, the OTS coordinators reach a consensus about which of these projects to fund and at what level.

## ***Coordination/Monitoring Support***

In addition to our Planning and Administration activities (which support more than half of the staff in our office), we use the 402 funds to support program area "experts" in the following five traffic safety program areas: Alcohol, Passenger Protection, Police Traffic Services, Traffic Records, and Safe Communities. In addition, federal funds are used to support the computer run costs generated by our research staff, who are charged with conducting our Problem Identification efforts.

## ***Process to Identify Each Year's Projects***

In the early spring of each year, the coordinators from the Office of Traffic Safety meet to determine what mix of projects to support in the coming federal fiscal year. Coordinators come to this meeting armed with information from their professional experience, suggestions from colleagues, ideas gathered from other states' projects, unsolicited proposals from other agencies, and other plans for potential traffic safety projects. In addition, we have the complete data analysis provided through our *Minnesota Motor Vehicle Crash Facts* document; this forms the basis of Problem Identification in Minnesota.

At this meeting, we also calculate the amount of federal funding that will be available in the coming year. This figure is based on estimated new money, estimated carry-forward funds, and (if applicable) estimated special funding (such as 410 funds or earmarked money). We attempt to make a conservative estimate of the funds available for the coming year; this becomes the target figure for our decisions about which projects to support.

As a rule, we have many more sound project ideas than we can fund. As a result, we discuss each new project idea and challenge the budget assumptions for each proposed project. During the discussions, it often becomes clear that some of the proposals address problems that are not a high enough priority to receive funding at this time. Other proposals may be more appropriately funded by another organization. In the end, we strive to arrive at a balanced, comprehensive traffic safety program for Minnesota.

Once the slate of projects for the coming federal fiscal year has been established, each project is assigned to a coordinator who is responsible for working with the project directors to ensure that the necessary applications, budgets, and approvals are in order prior to the beginning of the federal fiscal year. The coordinator also monitors the project throughout the year to ensure that the project stays on track, to offer suggestions and assistance if necessary, and to evaluate the success of the project.

The projects described in the remainder of this report formed the core of our traffic safety program in federal fiscal year 1997 (October 1, 1996, through September 30, 1997).

# Campaign Safe & Sober

## **The Challenge: To Change Driver Behavior**

We've all seen it and been affected by it — children standing in the front seat of a car, cars in the ditch or on their roofs after a crash, and drivers moving close to the speed of light or swerving all over the road. Traffic crashes are preventable. But how do we change the behavior of dangerous drivers?

## **The Answer: Campaign Safe & Sober**

Research has consistently shown enforcement efforts do not have a lasting effect on drivers' behavior if the majority of the public is not aware of them. Combining increased enforcement activity with adequate public awareness efforts, has been found to result in long-lasting improvements. By increasing the number of arrests and raising the perceived risk of arrest, compliance with laws is increased. Minnesota's highly-publicized enhanced enforcement effort is called *Safe & Sober*.

The program includes:

- Periodic, intensified enforcement efforts consisting of saturation patrols or other enforcement tactics.
- Media materials that tell the public when, where, how, and most importantly, why such laws are being enforced.
- Local impact and activity data such as crashes, injuries, belt use rates, and citations are gathered to provide important feedback to the public and officers regarding the results of their efforts.

This type of program has also been found effective in fighting crime, often resulting in felony, weapons, and drug arrests. In addition, opinion polls indicate that 72% to 86% of the public support enforcement activities to reduce impaired driving and increase seat belt use.

*Safe & Sober* is a national and statewide campaign to decrease crash-related deaths and injuries through a combination of overtime enforcement and public information and education. This was Minnesota's third year of participation in the campaign. In 1997, the OTS funded 34 proposals covering 14 county and 52 city enforcement agencies and a single proposal covering all districts of the Minnesota State Patrol.

## **But did it make a difference?**

During the 1997 *Safe & Sober* campaign, officers worked over 27,000 hours of overtime during which they arrested 930 drunk drivers and 955 people driving after their licenses had been revoked, canceled or suspended. Over 200 drivers



***Safe & Sober — intensive traffic law enforcement combined with publicity about traffic crashes and related issues.***



area of the state to cover through one-on-one contact, as well as, attending enforcement agency meetings throughout the state. The liaisons act as consultants for the local officers, sharing their enthusiasm and ideas, and providing referrals, materials, and small incentives such as pens and pins. They bring OTS programs to the agencies and the agencies needs and ideas back to OTS. They have allowed OTS to assist more enforcement agencies than we have ever reached in the past. They make things work.

## ***Safe & Sober Challenge***

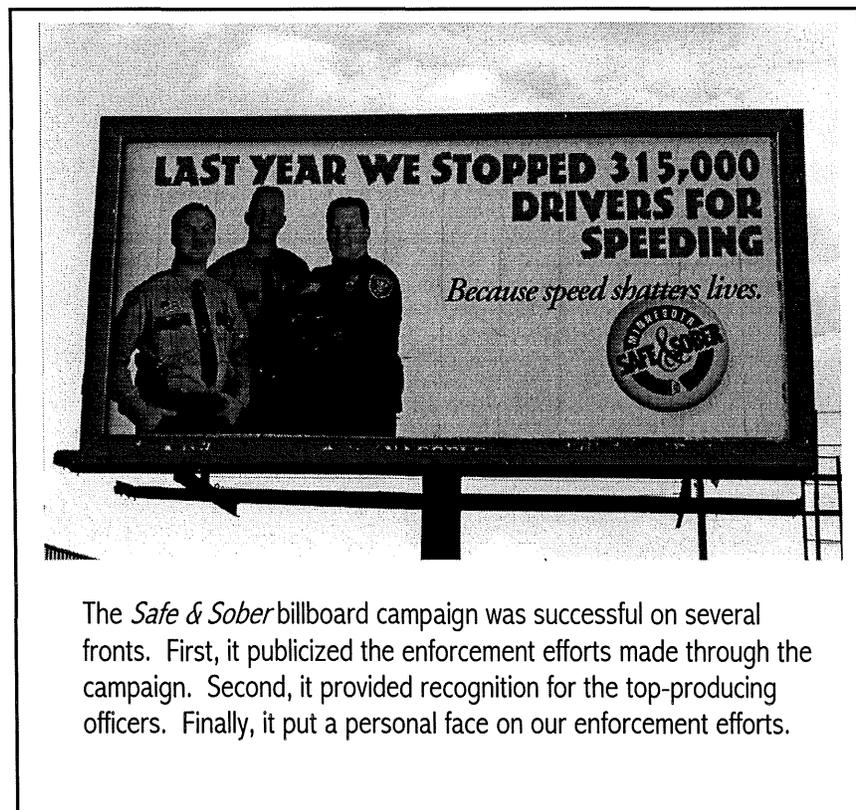
The Safe & Sober Challenge is designed to recognize the dedication and excellence of the Minnesota enforcement community in their fight against the leading killer of children and young adults from six months through 34 years. Because OTS is unable to provide a grant for overtime hours to every enforcement agency that asks for one, we use the Challenge to provide tangible support to agencies that are interested and concerned.

The law enforcement liaisons visit with and encourage sheriffs and police departments to emphasize impaired driving and seat belt or child seat use on their regular patrols and to educate the public on the many benefits of doing so. The agencies receive examples of public service announcements, news releases, and editorials; they are provided with opportunities to nominate people for Saved by the Belt awards and businesses for Honor Roll awards; and they are given access to Vince and Larry (the crash dummies) costumes, brochures, posters, and other traffic safety materials printed or purchased by OTS or NHTSA. The liaisons give them names and addresses of people to contact — people who can help them plan a media event, design a presentation, or host an officer course related to traffic safety. Perhaps most important, all sorts of ideas implemented by other agencies working on the Challenge are shared.

At the end of the year, Challenge participants report to OTS on their *Safe & Sober* activities. Participants compete with agencies of similar size, and up to ten first-, second-, and third-place prize winners are selected to receive mini-grants of \$1,500, \$1,000, or \$500 respectively. Twenty-seven mini-grants were distributed in 1997 in recognition of the outstanding work done by the police departments in Alexandria, Anoka, Caledonia, Cannon Falls, Circle Pines-Lexington, Detroit Lakes, Frazee, Fulda, Gaylord, Hector, Janesville, Long Prairie, Madelia, Marshall, Milaca, Morris, New Prague, North Mankato, Plainview, Savage, St. James, Wabasha, and Willmar, and the sheriffs' departments in Renville, Le Sueur, Meeker, and Watonwan counties.

## ***Larger than Life-Sized Officers***

Eighty billboards were posted across the state during each of the four waves of the *Safe & Sober* campaign. Each set of billboards pictured three different officers (one each from the State Patrol, a municipal police department and a sheriff's office) and reminded drivers of a different traffic safety law (DWI, speeding, seat belts, and not a drop of alcohol when under



The *Safe & Sober* billboard campaign was successful on several fronts. First, it publicized the enforcement efforts made through the campaign. Second, it provided recognition for the top-producing officers. Finally, it put a personal face on our enforcement efforts.

age 21). Officers were nominated by their *Safe & Sober* project directors. Funded by a grant from a private corporation, this project allowed the OTS to increase recognition of the *Safe & Sober* program and its goals, and to recognize individual officers who do outstanding community work by enforcing these traffic laws. We found no need for market research to re-assure us that the billboards had been seen: one legislator commented on them several times while on the House floor.

## **Safe & Sober Media Relations**

Overall, media relations and public education contributed significantly to the success of *Safe & Sober*. Not only does the general public hear our message, but law enforcement officers are also motivated and encouraged by what they hear and see around them. *Safe & Sober* experienced both the benefits and the drawbacks of conducting media relations efforts in a campaign in its third year. To our delight, the name, logo and message had found an audience. To our frustration, our message was old news to many segments of the media. Once again, we found the metro media difficult to capture, while the media in greater Minnesota was eager to use our message.

To meet the challenges of working with an "old message," we found new ways to spin our safe driving message. Beginning with the yearly kick-off in December 1996, we focused on the costs of traffic crashes and the dollars saved by our investment into *Safe & Sober*. Law enforcement officers used the *Safe & Sober* campaign to talk about everything from parking lot safe driving to new technologies such as the digital PBT. We also utilized a concept called "tip cards," which are 1/3 the size of an 8 1/2 by 11 sheet of paper (landscape) and contain safe driving tips coupled with entertaining graphics. The tip cards were used by businesses as well as the law enforcement officers. We formed a partnership with the Tires Plus corporation and offered a coupon on the bottom of card.



Public Safety Commissioner Don Davis speaks at a *Safe & Sober* news conference. The news conference publicized the 1997 Teal Ribbon campaign.

Working with the Office of Communications, the OTS conducted simultaneous statewide news conferences for each of the three summer waves. The news conferences, which were held at each State Patrol district office and a few additional sites, heightened the media opportunities for all the of the media outlets. Previously, a single news conference to announce each wave served only the metro area. The main message and the news alerts were handled from our central office. In addition to serving our media well, the simultaneous news conferences became a media training ground for law enforcement officers throughout the state. Officers who had never organized a news conference put

the old-timers to shame.

We brought back the Teal Ribbon promotion, tying 10,000 ribbons — twice as many as last year — on speed limit signs throughout Minnesota. Mn/DOT worked with us this year to ensure that ribbons were indeed on every roadway. The 3M company donated half of the ribbons; a news conference at one of their sites helped to bring the safe driving message to

all their employees. Using the franchise model of media and public education again was a success.

## **NHTSA/OTS Sponsored Advanced Traffic Training**

A critical factor in the success of *Safe & Sober* is the training required for participating officers. Officers want and need advanced training to keep up-to-date on the laws and techniques that will help them save lives and prevent injuries. In addition, the work of organizations such as MADD, and the increasing acknowledgment of evidence that enforcing traffic laws cuts down on crime, has enhanced the public's support for traffic safety training. With the curriculum development of the National Highway Traffic Safety Administration and the financial support of that agency through the Department of Public Safety's Office of Traffic Safety, the traffic-related training given to Minnesota's officers by the Minnesota State Patrol is recognized as some of the very best in the nation. An added benefit to the local agencies is that there are no tuition charges for the classes conducted by the Patrol.

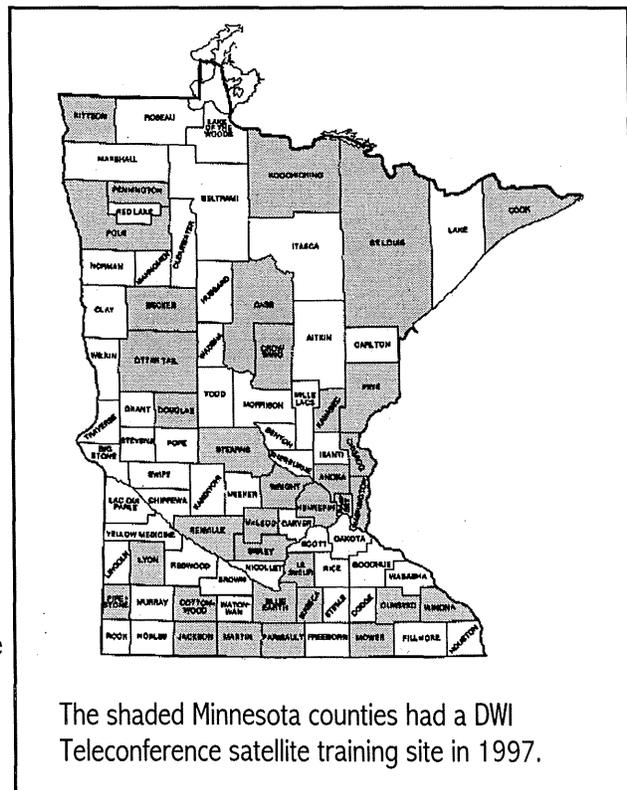
Interest in Drug Recognition Experts (DREs) continues to increase as the need for their services has been better defined and the benefits they provide have been better understood. Since the inception of the program in Minnesota, 20 local police agencies and the State Patrol have trained at least one officer in the recognition of drugs other than alcohol that cause impairment.

In 1997, one DRE class was held in Minnesota resulting in 15 new DREs on the job. Committing an officer's time to completing DRE training is not a decision that an agency administrator can take lightly. In addition to nine days of classroom work, each candidate must be certified by completing evaluations of drug impaired suspects in the field while under the supervision of a current DRE. The first Minnesota DRE certification process (in 1991) took twelve weeks of each officer's time and involved spending a week out-of-state. The class held in 1997 had a certification time of four weeks -- all of it in-state. The dramatic decrease in certification time is largely the result of more officers on the street knowing about the program and/or having taken *Advanced SFST: Drugs that Impair* training; these officers recognize the possibility of drug impairment and call in DREs to evaluate the subjects. Since late 1994, the State Patrol has assigned a full-time officer to coordinate and oversee the DRE program with a grant of NHTSA/OTS funds. This has proved to be an incalculable benefit to the state as a whole.

Obviously, not all officers can be DREs. However, all can take the two prerequisites to that program; Standardized Field Sobriety Testing (SFST) and Advanced SFST: Introduction to Drugs That Impair courses. The State Patrol schedules and conducts the two SFSTs, along with Occupant Protection Usage and Enforcement (OPUE), at locations across the state for sheriffs' and municipal agencies. Over time, nearly 5,000 officers have received the basic SFST training; 736 of them in 1997 alone. That same year, 784 officers received the Advanced SFST class.

## **DWI Teleconference**

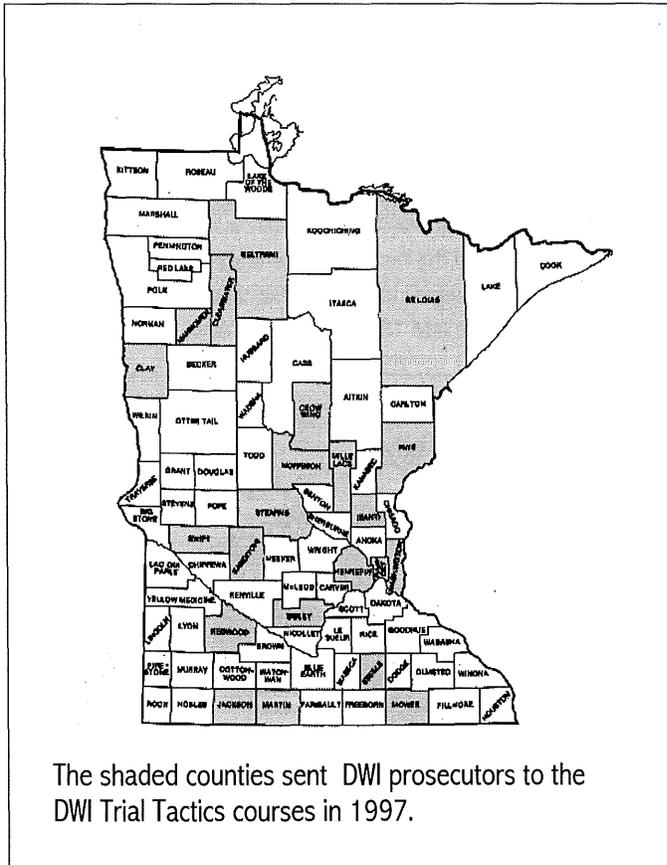
In 1993, OTS first supported an interactive teleconference for law enforcement officers and prosecutors to update knowledge and disperse confusion about traffic laws, especially those related to impaired driving. Now an



annual event, the four-hour seminar is broadcast via satellite to approximately 500 officers and 50 prosecutors at 40 sites around the state. Under contract to OTS with NHTSA funding, the Minnesota County Attorneys Association schedules and designs the course, which emphasizes changes in DWI statutes. The course includes time for questions from the participants, who can phone or fax them back to the broadcast center. A panel of experts is assembled to answer the questions and give the lectures. A county attorney is also present at each site to discuss issues and solutions with officers.

## **DWI Trial Tactics**

The county and city attorneys assigned to prosecute DWI offenses are sometimes the most inexperienced staff in the offices. In order to increase their prosecutorial skills, a two-day seminar on DWI trial tactics was designed and conducted by the Minnesota County Attorneys Association. Sessions included jury selection, case strategy, opening and closing comments, issues regarding expert witnesses, and direct and cross examinations. The 30 students prepare a DWI case before the seminar begins and are videotaped delivering portions of each of the above topics during the seminar. Feedback on skills and tactics is provided to each student by a facilitator immediately after taping.



# Seat Belts and Car Seats

## ***Buckle Up Minnesota!***

The Buckle Up Minnesota! Program continued its safety belt use educational effort with activities to reach Minnesota drivers through their schools, workplaces, local media, and community events.

Twenty-five high schools and seventeen Girl Scout troops participated in this year's Safety Belt Challenge. Fifty-three businesses requested participation packets for the Safety Belt Honor Roll Program. Sixteen businesses were successful in making the Safety Belt Honor Roll this year. Twenty-nine crash survivors received Saved by the Belt awards this past year. Recipients of the Saved by the Belt Award were honored during Buckle Up Night at the Dome. Vince and Larry (the crash test dummies) were loaned out for 61 public appearances, and over 300,000 pieces of safety belt program materials were distributed to the public at a variety of presentations, meetings, events, and on request.

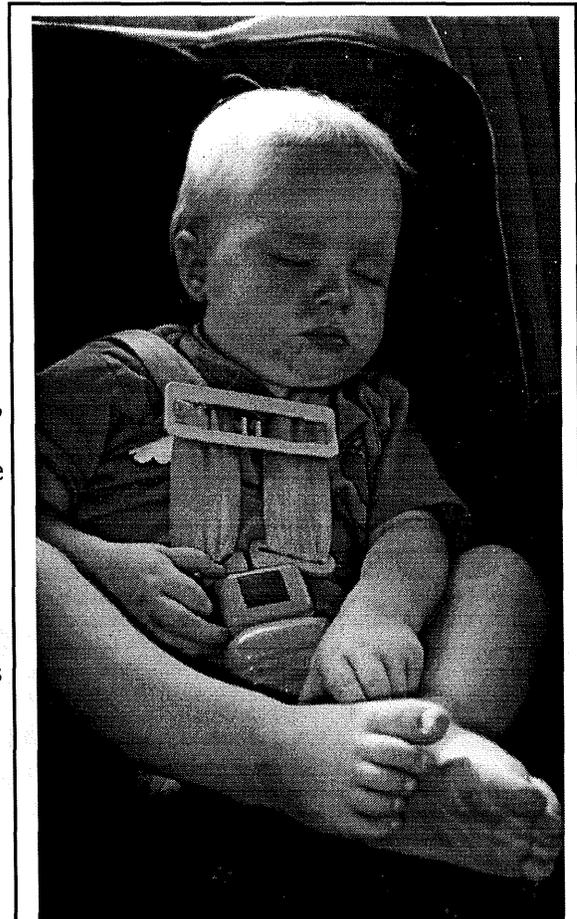
The Buckle Up Minnesota! project also contacted all of Minnesota's media outlets requesting that safety belt use be reported in fatal crashes and that the reporters begin reporting "accidents" as "crashes". Additionally, safety belt information facts and opinion editorials were sent to all of these outlets as well.

## ***Minnesota SAFE KIDS Buckle Up!***

SAFE KIDS Buckle Up! has established and supports over 140 child safety seat distribution programs across Minnesota. This supports includes child safety seat training, technical assistance, continual updates on child safety seat recalls and airbag issues as well as the monthly MN SAFE KIDS Update. SAFE KIDS Buckle Up! also provided 1,371 safety seats to these distribution programs, and continued to operate a loaner program for people with temporary child safety seat needs.

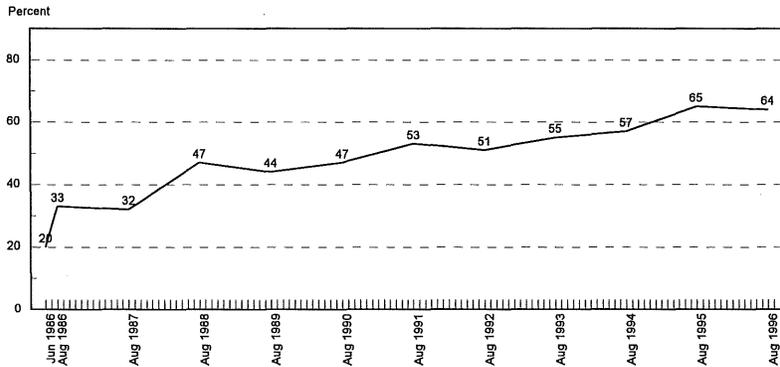
Seventeen workshops were held for network recruitment and training of child passenger safety advocates with 281 advocates attending. This effort expanded the Child Passenger Safety Network to over 400 advocates from all areas of the state.

Twenty-five child passenger safety clinics were conducted serving over 500 families. These clinics were held throughout the state and provided families with an easy "drive-in" opportunity to have their child car seats inspected for correct use and recall. Mis-use rates ranged from 47% to 88% at the individual clinics. Additionally, over 140,000 pieces of child safety seat program materials were distributed to the public at a variety of presentations and meetings, and on request.



The national discussion on airbags increased awareness this year of the need for kids to be in car seats, securely buckled in the back seat.

## Observed Seat Belt Use in Minnesota 1986 through 1996



Minnesota's seat belt law allows only "secondary" enforcement, which means that tickets for non-use can only be written if the vehicle is stopped for a hazardous moving violation or another offense. The increase seen in 1995 was sustained in 1996, and (although not shown on this graph) was also sustained in 1997.

It is interesting to note how changes in observed belt use correspond to changes in the seat belt law.

- In August of 1986, the first belt use law became effective. Even though it did not require a fine for non-use, usage moved from 20% to 33%.
- In August of 1988, a \$10 fine was imposed for non-use of belts. Statewide usage moved from 32% to 47%.
- In August of 1991, the fine was increased to \$25. Statewide usage moved from 47% to 53%.
- The increase seen in August of 1995 is the first substantial increase that has occurred without a change in the seat belt law.

## Safety Belt Observational Study

The Office of Traffic Safety conducts an annual Safety Belt Observational Study to assess safety belt usage rates in Minnesota and any impact that the Buckle Up Minnesota Program and other special traffic enforcement programs, such as *Safe & Sober*, may be having in encouraging Minnesotans to buckle up.

The 1997 estimated safety belt usage rate was approximately 65% as compared to 64% in 1996 and 65% in 1995 which indicates a plateau in safety belt usage after a dramatic increase from 1994 (57%). Safety belt usage in Greater Minnesota (59%) continues to lag behind usage rates in the Metro Area (68%), and continues to be a factor in the higher fatal crash rates in Greater Minnesota.



Buckle everybody — every time!

# Impaired Driving

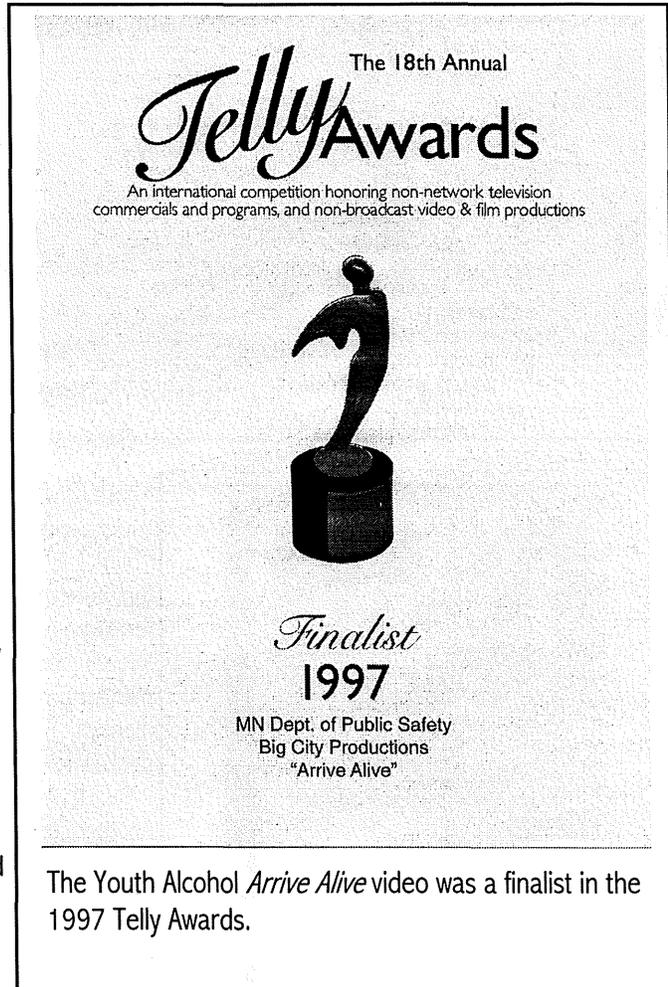
## Youth Alcohol *ARRIVE ALIVE*

FY97 marked the third full academic year that the Minnesota State Patrol's Youth Alcohol *ARRIVE ALIVE* has been available to Minnesota schools. The original multi-projector slide presentation was replaced with an updated video version in January 1997, and the response from students and faculty throughout the state was outstanding. The production company responsible for creating the video entered it in the 18th Annual Telly Awards Competition, a nationally recognized and highly respected competition that gives recognition to outstanding non-network and cable TV commercials as well as film and video production. Over 9,200 entries were received in the 1997 competition and the MSP Youth Alcohol *ARRIVE ALIVE* video was chosen as a finalist.

Since the inception of the *ARRIVE ALIVE* program in 1994, two Minnesota State Troopers have devoted almost all of their working hours to bringing this program to high schools throughout Minnesota. Since it began, the MSP Youth Alcohol *ARRIVE ALIVE* program has been hosted by 439 Minnesota schools and has presented 691 shows for an estimated 141,726 students and 6,166 adults. This program, with its message about the choices involved in teen alcohol use and the need for seatbelts, has been very effective in communicating these important traffic safety messages to this challenging population.

## New Technology Projects

Improvements in traffic equipment technology created the reason for several federally-funded impaired driving-related projects in FY97. In a project entitled Alcohol Testing Equipment, monies were spent to update the capabilities of breath alcohol testing instruments throughout the state. The new Intoxylizers are continuously connected with the Bureau of Criminal Apprehension via modem and are capable of collecting and compiling important information about the DWI offender and his/her breath test results. In other projects, in-squad video cameras were purchased for the Minnesota State Patrol and for two local police departments. These are very useful in DWI prosecution and have already proven helpful in disproving allegations of officer misconduct. Yet another project funded the purchase of 500 digital Preliminary Breath Test (PBT) instruments for the Minnesota State Patrol. These state-of-the-art PBTs were approved for use in Minnesota earlier this year and are especially useful in enforcing the youth "not a drop" law.



## Alcohol Public Information

As a part of the omnibus DWI bill passed during the 1997 legislative session, the Minnesota Department of Public Safety

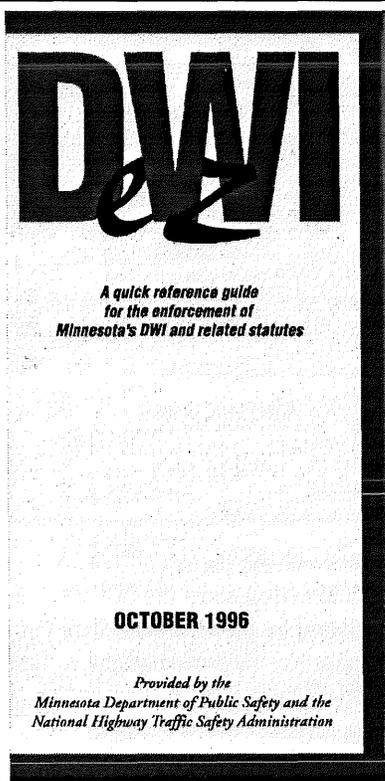


Filming the "Don't Lose the Ones You Love" PSA.

received \$50,000 of state money to publicize the new DWI laws that take effect on January 1, 1998. Carol Mockovak from the DPS Office of Communications is 50% funded by the federal Alcohol Public Information project and was assigned responsibility for these state funds. She has helped to parlay the \$50,000 of state money into a much greater public information effort due to a partnership with the Minnesota Department of Natural Resources (DNR). By using federal impaired driving monies in combination with the DNR's state and federal

boat and water safety and snowmobile funds, an exciting campaign was planned in FY97 to kick off in FY98. This campaign, entitled "Don't Lose the Ones You Love" will focus on the new DWI vehicle forfeiture law that allows law enforcement officers to initiate civil forfeiture proceedings on a third time DWI offender's motor vehicle, snowmobile, All Terrain Vehicle, or boat. The 1997 NHTSA funds paid for planning and creative development costs, leaving the state money to pay for placement of the new TV, newspaper, and radio public information spots.

Another crucial piece of alcohol public information produced in FY97 was the DWI EZ card. This laminated card provided a quick reference of Minnesota's DWI laws and related statutes. DWI EZ was prepared for law enforcement officers as an aid to them in arresting impaired drivers. The card was well-received, and we have decided to update this information piece on an annual basis.



The DWI EZ card was popular and useful.

# **Safe Communities**

Injury control and prevention became more ingrained into the fiber of OTS in 1997. As our injury control partnerships grew, we developed more ways to get the traffic safety message to new audiences such as various businesses, cellular phone service providers, fire fighters, civic groups, and city leaders.

## **Richfield Safe Community Project**

The city of Richfield has embraced the NHTSA Safe Communities concept. Getting started was slow, as the Safe Communities project found itself in the center of city politics. With some tender fence-mending, all civic and community leaders discovered that being selected as our pilot site was something of which they could be proud. As with most Safe Communities projects, the Richfield project found the data linkage and evaluation of data to be the most tedious. The Safe Communities project found a home in the Richfield Community Council (RCC), a coalition of community service providers. Within the RCC, we are able to tap into all the community programs already in place.

The Richfield police department worked *Safe & Sober* as a part of Safe Communities. They quickly got on board with both the media and enforcement aspects of the campaign. In addition, two officers were trained to be child safety seat advocates and conducted two clinics with the assistance of Hennepin County Medical Center's trauma services unit/paramedics.

The Richfield Safe Communities project will enjoy much more success in 1998, as we get into the implementation stage of the project. All indications show we will have a great year.

## **Out of Hospital Run Report**

This was the last of the three years of this project. During this year, our contractor (the Arrowhead EMS Association — AEMSA) developed a survey of all EMS providers in Minnesota. The purpose of the survey was to compile a comprehensive assessment of the needs of services for data collection purposes. Several pilot sites have continued to work with various software packages which helped the AEMSA identify the best method of collection and data management. The AEMSA also worked with a vendor to develop a data base package for state-wide distribution.

The AEMSA will continue to work with the Minnesota EMS Regulatory Board to pass new legislation for statewide data collection. The three years of this project will serve as the basis for all discussions and decisions regarding any legislative action.

## **EMS in Rural Minnesota**

OTS continued to fund the EMS in Rural Minnesota project for a second year and last year. This project developed and pilot tested a Comprehensive Advanced Life Support (CALS) course for rural physicians. During the 1997 legislative session, the CALS project was given state funding. We claim this project a success. As one of a few funding sources, the OTS financial support was instrumental in creating and testing the CALS program so that its merits could be heard by our legislators.

## ***Safe Communities/EMS PI&E***

This project allowed OTS to support the *Safe & Sober* Communities with public education and media relations materials. OTS was able to purchase mugs and other smaller incentive items that were used by the law enforcement officers and their partners throughout the year. The Minnesota Community Bicycle Safety Project was also supported by this project. Working with our Office of Communications, several bicycle safety brochures were updated, redesigned and printed.

# ***Motorcycle Safety***

## ***Minnesota Motorcycle Safety Program (MMSP)***

The MMSP acquired a new logo and became the Minnesota Motorcycle Safety Center (MMSC) to present an image to the motorcycling community as more user friendly one stop shopping for any motorcycle safety information or rider training courses. Minnesota's motorcycle safety public information campaign focused on full protective gear in 1997. Rider training course enrollments continued to grow as 3,719 motorcyclists completed courses in 1997. The MMSC participated in and organized many high visibility events such as the state fair, the Motorcycle Skills Challenge and Rodeo event, and the Spring Washout, to promote safety to riders and motorcycle awareness to the general motoring public.

MMSC project staff again partnered with the Department of Public Safety's Division of Driver and Vehicle Services to conduct evening motorcycle skills testing hours for the third consecutive year. This project was partially funded with NHTSA 403 motorcycle safety demonstration grant funds this year. The MMSC will be offering this special program permanently on a state funded basis beginning next year as the project continues to be very well received by the riding community. In 1997, 811 motorcyclists participated in the evening skills testing project.

Rider/participants were surveyed this year to provide the MMSC with some basic demographic information; to gauge the value of this project to the target community; and most importantly to see if rider/participants would have taken the riding skills test without evening testing hours. The survey response rate was 80% as 647 of 811 participants completed the survey.

In response to the survey question, "Would you have taken the riding skills test without evening testing hours?", approximately one third of the participants (32% of males and 33% of females) said they would not have taken the riding skills test for endorsement without evening testing hours. Clearly, this project appears to be hitting its target of offering one solution to the problem of unendorsed motorcycle riders on our highways.

# Traffic Records Systems

Traffic records form the foundation for managing safety programs and policies within the state. Traffic records information revolves around the Police Accident Report (PAR), which is completed by law enforcement officers throughout the state at every crash that meets the definition of a motor vehicle accident. Minnesotans are involved in roughly 100,000 crashes each year. A law enforcement officer completes a PAR for each crash and routes it through the system for processing. The routing takes the PAR from the field to a district office, where the PAR is reviewed for accuracy, and then to the Minnesota Department of Public Safety in accordance with MS169.09. The process is currently all paper-based, and routing and processing of the PAR is tedious and slow. The Minnesota Office of Traffic Safety continues to fund projects to make processing the PAR efficient and accurate. Our partners for this endeavor include the Minnesota Department of Public Safety - State Patrol, Minnesota Department of Transportation - Management Data Services, Arrowhead Emergency Medical Services, and County Sheriff and Local Police Departments throughout the state.

## **TRANSFER/TECHNOLOGY PROJECTS**

The five projects listed in the following table are among those currently managed by OTS. Each project aims for a better accident records system that would enable records to be collected and transmitted more quickly and more accurately than currently possible. With a better system in place, safety management and policies can be more accurate and timely than they were in the past.

These five projects conducted together have the potential to reap far greater benefits than if each had been developed on its own. The process is set up as follows:

- A crash occurs and officers respond and fill out the appropriate automated forms.
- A GPS code is placed within the automated form denoting the exact location of the crash.
- Copies of the crash report are digitally transferred to the Unified Transportation System and the Accident Records Database in Driver and Vehicle Services.
- An Out of Hospital Run Report is initiated which will track all hospital costs for those involved in the crash which will be used to help develop our future safety programs.



Key members of the MARS (Mobile Accident Reporting System) pilot project team meet to plan the future of the project.

<b>Name of Project</b>	<b>Department and Division</b>	<b>Basic Project Description and Highlights</b>	<b>Project Enhancements</b>
Mobile Accident Reporting System (MARS)	MN Dept. of Public Safety, State Patrol - County Sheriff/Local Police Departments	PILOT: Automate the Police Accident Report form, include GPS field for crash location, and transmit via alternate means. Provide hardware needed for this purpose. Test & evaluate for statewide use by State Patrol, Sheriff, and Police Departments.	In conjunction with Mn/DOT's GPS project, the automated form will include GPS coding for accident location. This project will work closely with Mn/DOT's UTS project of identifying points (crashes) on a roadway.
GPS/GIS Global Positioning	Minnesota Department of Transportation	Purchase necessary hardware for GPS/GIS capability for roadway data information and accident location. Mn/DOT has agreed to share its experience, expertise and resources with the State Patrol in order to purchase compatible GPS/GIS equipment for the MARS.	Minnesota has a GIS map created down to a trunk highway level of detail. We plan to upgrade this map to include street level detail. An added piece of equipment will allow for a location to be pinpointed anywhere from 1-5 meters of accuracy.
Unified Transportation System (UTS)	Minnesota Department of Transportation	Design a client/server, relational database system to replace the current Transportation Information System. The new system will be used to manage transportation roadway and accident data, provide improved safety management functions and GPS/GIS capability to users of Mn/DOT and Dept. of Public Safety.	The project will make a "build or buy" decision for the new Unified Transportation System. Many different departments and divisions will have access to the UTS database. As a result, project participants represent many state departments/divisions.
Accident Records Imaging	Minnesota Department of Public Safety, Driver and Vehicle Services	Create a means for accident records from the State Patrol and citizens to be scanned into the database. This project will provide faster and more accurate crash information for safety policy and safety project development.	The Imaging System will scan crash reports currently stored in DVS. The new system will be used as a pilot to evaluate division wide scanning implementation.
Out of Hospital Run Report/Out of Hospital Data Collection	Arrowhead EMS Association on contract with Minnesota Department of Public Safety/OTS	Use ruggedized hardware and software in the ambulance for mobile EMS pre-hospital data collection. Eventually develop a technically accurate, statewide EMS pre-hospital data collection network. Information collected will be used to develop specific safety management policies.	After studying the cost of providing all ambulances with necessary hardware/software, a decision was made to outfit all ambulance home stations and emergency rooms in the pilot area with hardware/software. Information will then be uploaded to a central storehouse for analysis. Surveys were conducted to assess what hardware/software is currently used in the field.

# **Roadway Safety**

## **Traffic Engineering Services**

Funding was used to purchase various types of equipment to improve roadway safety through operations, data collection, and design. Operations will be enhanced in the vicinity of the City of Moorhead with the acquisition of a changeable message sign. Opticom emergency vehicle preemption (EVP) emitters were purchased for the Mn/DOT Metro Division for the testing of new or revised EVP installations at signalized intersections. Laser speed guns were purchased as replacements of old radar guns for each Mn/DOT District Office. The new laser guns were combined with computer software which creates a powerful tool for collecting and processing speed data. Design of traffic engineering features for new roadway construction or roadway reconstruction has been improved through the purchase of computer aided design (CAD) stations for the Metro Division and an outstate District. The CAD stations will provide improved design capabilities through access of multiple data bases of design, survey, crash and cost data.

## **Safety Management System**

Funding was utilized for various safety management system programs including school bus safety, safety conferences, and an equipment purchase.

Funding was used to create a page in the Kids Cool activity book on school bus loading and unloading safety information, plus to help pay for the printing of the book. The funds were also used to create and produce two 30-second vignettes for television public service announcements about school bus loading and unloading safety.

Funding provided safety conference participation for five Mn/DOT employees who represented Mn/DOT at five conferences across the country. These conferences were: Region 5 Work Zone Safety Conference, American Traffic Safety Services Association Conference, Lifesavers 15 Conference, Fog Visibility Conference, and a "Train the Trainer" Course for the Pedestrian Roadshow.

The Second Annual "Partners for Roadway Safety" conference was partially funded under this program. Conference costs not recouped through registration and exhibitor fees were paid by 402 funds. In addition, funding was used for the pre-conference costs of the Third Annual Conference (which was held in federal fiscal year 1998) such as printing costs for flyers and the purchase of other conference related materials.

The Office of Traffic Engineering was partially reimbursed for leasing camera equipment being tested for data collection on various traffic situations. The camera allows the office to visually record moving violations. Three types of violations have been tested which include red-light running, construction work-zone speeding, and railroad gate violations. The study has tested the accuracy of the equipment under Minnesota climatic conditions as well as providing useful information regarding the number of violations occurring.

## **Basics of Safe Bicycling Training**

A course given during the summer of 1997 concentrated on several aspects of bicycling. The instruction included teaching different level of riders the engineering that goes into the bicycle facilities on and off the road, rules of the road for bicyclists and actual bicycle handling techniques. A real effort was put forth to incorporate three E's of bicycling:

engineering, education, and enforcement. Each training session lasted approximately three and a half hours and took place in different community centers around the St. Paul/Minneapolis Metropolitan area. Nearly 100 participants received the training in approximately 20 classes, averaging five students per class. Surveys of the participants showed that most nearly 84% rated the training highly informative. This was training was put on in partnership with the Minnesota Community Bicycle Safety Project directed by Cynthia McArthur. Gary Sjoquist, Executive Director of Minnesota Coalition of Bicyclists, was also a principle architect involved with this training.

### ***Pedestrian Safety Road Show***

The Pedestrian Safety Road Show, developed by the FHWA and NHTSA, is a four hour workshop that assists communities in identifying and solving the problems that affect pedestrian safety and walkability. By working with the stakeholders of a community, ranging from law enforcement personnel to recreational organizations, the workshop seeks to generate concern about pedestrian issues and channel that concern that into a realistic plan of action at the community level. To achieve these goals the Road Show focuses on:

- Promoting the benefits and practical aspects of having a safe pedestrian environment .
- Reviewing the needs of local agencies.
- Identifying potential pedestrian problems.
- Introducing the available tools, techniques to aid in creating a safe pedestrian environment

This workshop is available to interested communities through Mn/DOT's Sustainable Transportation Initiatives Group.



