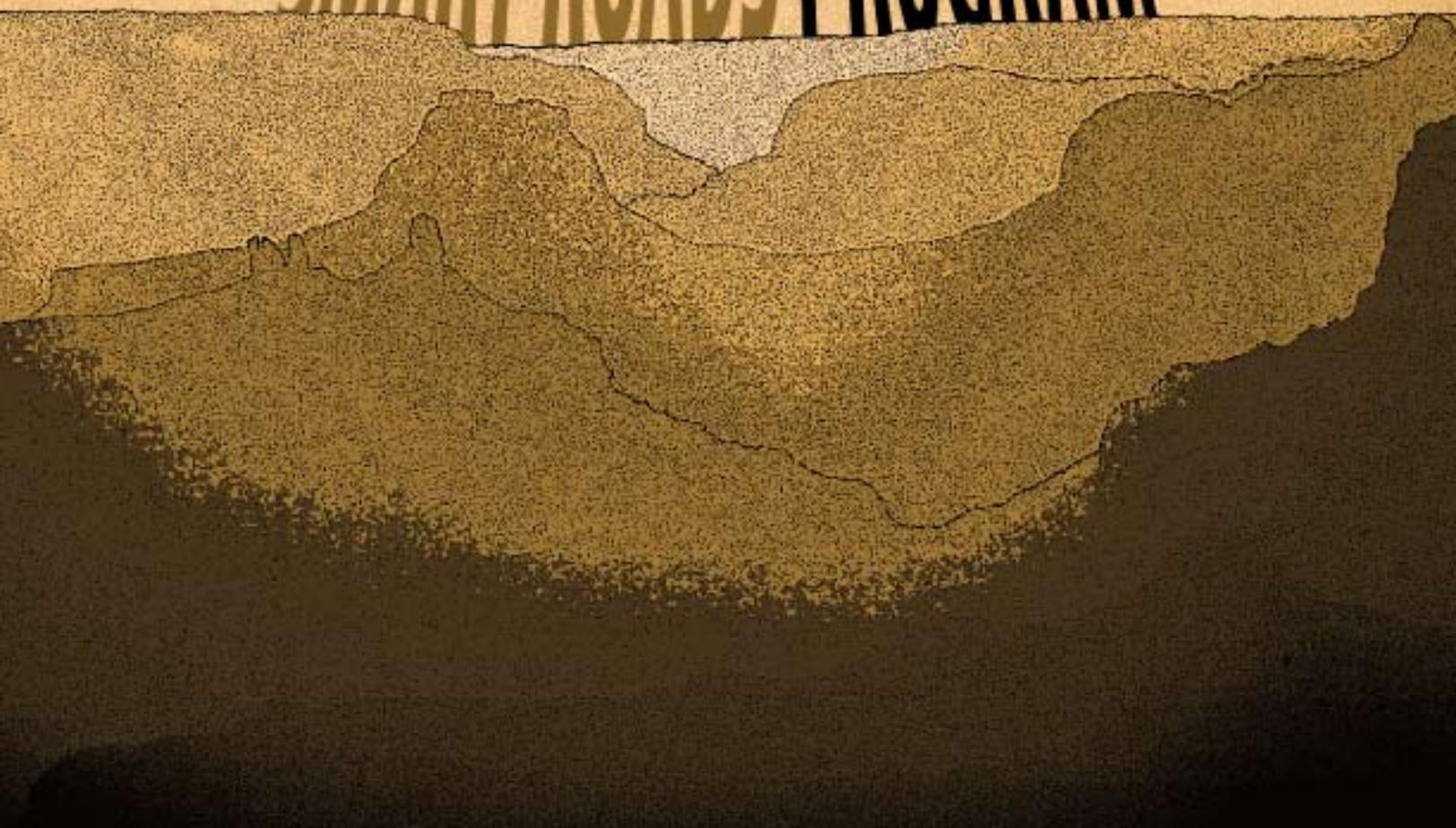


NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

FINAL REPORT

**EVALUATION OF
PUEBLO COUNTY, COLORADO'S
SMART ROADS PROGRAM**



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16. Abstract This is the final report of a project that evaluated the effectiveness of a program aimed at reducing alcohol-related crashes involving drivers age 21-34. The subject program was the <i>Smart Roads</i> program in Pueblo County, Colorado, and the evaluation involved a descriptive analysis of the program and an impact evaluation of the program's effect on alcohol-related crashes. The evaluation found that the program likely reduced nighttime injury crashes (a surrogate of alcohol-related crashes) involving 21– 34 year old drivers in Pueblo County and in eight small surrounding counties as well. Both reductions were statistically significant.			
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EVALUATION OF PUEBLO, COLORADO'S SMART ROADS PROGRAM

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EXECUTIVE SUMMARY

OBJECTIVES AND APPROACH

This project selected and evaluated an operational program aimed at reducing alcohol-related crashes involving drivers 21 to 34 years old. After examining several candidate programs, we selected the *Smart Roads* program in Pueblo County, Colorado, for further study, including a descriptive analysis of the program and an impact evaluation of the program's effect on alcohol-related crashes (a surrogate of alcohol-related crashes) involving the target group of drivers.

THE *SMART ROADS* PROGRAM

The program was initiated in 2000 and has continued through the writing of this report. Initially, it concentrated on male drivers in the 21 to 34 age group, but was later expanded to include drivers of both sexes. The program was designed as a community effort involving two major components, an extensive media campaign and a workplace initiative. The media campaign included highly focused television, radio, and newspaper ads; and billboards. In addition, a variety of other material, including paycheck inserts, table tents, posters, and banners were used. Much of this material was placed with businesses around Pueblo, such as local construction companies and bars.

During the operation period of concern in this report (the years 2000 and 2001), the workplace initiative was mostly developmental, having undergone testing in just one business. It included an educational program designed specifically to stimulate and challenge the thinking of blue-collar workers¹ in the 21 to 34 age group regarding their drinking and driving beliefs and practices. The program consists of three 50-minute sessions at work sites that revolve around interactive activities, emphasizing issues of control, consequences, perceptions of norms, and behavioral beliefs.

PROGRAM IMPACT AND RECOMMENDATIONS

Our evaluation of Pueblo County's *Smart Roads* program used nighttime injury (NI) crashes and nighttime single-vehicle injury (NSVI) crashes (surrogates of alcohol-related

¹ Blue-collar workers are defined by the U.S. Department of Labor as "workers who perform work involving repetitive operations with their hands, physical skill and energy," and includes "non-management employees in production, maintenance, construction and similar occupations such as carpenters, electricians, mechanics, plumbers, iron workers, craftsmen, operating engineers, longshoremen, construction workers and laborers" as examples of such employees. (See www.dol.gov/esa/regs/compliance/whd/fairpay/fs17i_blue_collar.htm)

crashes) involving a driver of the target age group (21-34) as measures of effectiveness. The relatively small size of Pueblo County (approximately 141,000 people) dictated the use of a before-and-after, test-and-comparison group evaluation design with these surrogate measures of alcohol-related crashes. The test group of primary interest was Pueblo County, but because of the nature of the Pueblo County intervention (which had a strong public information component that could have spread to adjoining counties), we also considered a test group composed of Pueblo County plus eight other low-population surrounding counties. These other counties were Teller, Fremont, Custer, Huerfano, Las Animas, Otero, Crowley, and Lincoln counties. The comparison groups were composed of crash-involved drivers 21 to 34 years old in the non-test counties. For the test group containing only Pueblo, the comparison group was all Colorado counties except Pueblo. And for the test group containing Pueblo plus the above eight surrounding counties, the comparison group was all Colorado counties except Pueblo plus the above eight surrounding counties. The “before” period was 1998 and 1999, and the “after” period was 2000 and 2001.

Our evaluation strongly suggests that the program reduced nighttime injury (NI) crashes in Pueblo County involving 21- to 34- year-old drivers, from 38 crashes in the before period to 23 in the after period. The reduction in NI crashes involving this age group of drivers as a percentage of all crashes involving this age group of drivers in Pueblo County amounted to about 43 percent. At the same time, this percentage increased slightly in the rest of the State. These changes were statistically significant ($p=0.045$ for number of crashes and $p=0.041$ for the percent of crashes). The program's effect on nighttime single-vehicle (NSVI) crashes involving age 21-34 drivers could not be determined due to the small number of such crashes in Pueblo County.

There is also evidence that the program had a positive carry-over effect on NI crashes, and also on NSVI crashes in eight small counties adjacent to Pueblo County. In Pueblo County plus the eight small counties, NI crashes decreased from 251 in the before period to 161 in the after period, a decrease of 39 percent. In the rest of the State, NI crashes increased 3.3 percent. These changes were significant at the $p<0.0001$ level. For NI crashes as a percentage of all 21-34 crashes, Pueblo plus the eight small counties showed a decrease from 13.2 percent in the before period to 9.7 percent in the after period ($p<0.0.0001$), while the rest of the State had a small increase. And while the number of NSVI crashes decreased significantly from 153 to 115 (24.8%) in Pueblo plus the eight small counties, and increased slightly in the rest of the State ($p=0.01$), there was no significant decrease in the percentage of such crashes.

We note that these conclusions regarding program effect are only valid within the limitations imposed by the evaluation design. Comparison jurisdictions were used to help account for confounding factors that may have influenced outcomes, but available data did not permit such factors to be treated explicitly. However, these conclusions are supported by evidence of a considerable amount of carefully planned activity devoted mainly to an extensive media campaign that did not occur in the comparison jurisdictions. In addition, the *Smart Roads* program benefited by the involvement by other members of the Pueblo community, including the Pueblo Police Department and the Pueblo County Sheriff's Office; education, medical, and insurance professionals; and staff from two major beer companies and local bars and taverns. Outside direct funding support was mod-

EXECUTIVE SUMMARY

est, consisting only of an annual \$75,000 grant from the Colorado Department of Transportation for achieving full-scale operations.

Interestingly, despite a low rate of participation in the Workplace Initiative component of the program, Smart Roads as a whole still had a positive effect on crashes. This implies that the Workplace Initiative was not necessary to achieve the observed effect in Pueblo, and suggests that the program might have had a greater impact if participation in the Workplace Initiative component could have been increased.

Jurisdictions of similar size, composition, and resources may want to consider the *Smart Roads* approach for reducing alcohol-related crashes among 21- to 34-year-old drivers. Careful planning and community involvement appear to be the essential ingredients for the success of such a program. In particular, although the program was supported by State Department of Transportation funding, significant decision-making and administration happened at the local level. This is important because locals often feel that they have a better sense of what works and what does not work within their own communities, and community leaders are more likely to feel motivated and empowered when they retain a significant measure of control over program development. Also, the amount and quality of the research performed prior to and during the Pueblo campaign was outstanding and helped identify the most effective messages and media delivery methods, as well as to evaluate program effectiveness.

1 - INTRODUCTION

This document is the final report of a project titled “Evaluation of Pueblo County, Colorado’s *Smart Roads* Project.” The objectives of the project were to:

- Identify one or more programs that aim to reduce drinking and driving among 21- to 34- year-old adults. Programs could include awareness campaigns; assessment programs; treatment programs; or traffic safety partnerships with employers, colleges, and the hospitality industry. In any case, the program must have been designed specifically for this age group;
- Prepare a detailed description of one such program and its operations;
- Estimate the effectiveness of the program; and
- Assess the applicability of the program to other jurisdictions.

BACKGROUND

Drivers between the ages of 21 and 34 are more often involved in alcohol-related fatal crashes than are drivers of other ages. Data from the Fatality Analysis Reporting System (FARS) indicates that in 2002, approximately 35 percent of drivers age 21 to 34 had a blood alcohol concentration (BAC) of .01 or more, while only 21 percent of drivers of other ages had such a BAC². Nevertheless, a 1994 report of the National Commission Against Drunk Driving³ stated that very few anti-impaired driving programs were specifically designed for drivers in this age group.

Seeking to encourage States to develop programs targeted at this age group, the Transportation Equity Act for the 21st Century (TEA-21) of 1997 provided that a State may qualify for Federal grant money if, in addition to meeting other criteria, the State had developed a program that aims to reduce driving while under the influence of alcohol in the 21- to 34- year-old population. Furthermore, in December 1999, the National Highway Traffic Safety Administration (NHTSA), an agency in the U.S. Department of Transportation, launched the “You Drink & Drive. You Lose.” Impaired-driving prevention campaign. This campaign serves as the umbrella campaign for Federal impaired-driving initiatives. The campaign targets four high-risk populations, among them, the 21- to 34 year-old group.

Despite these efforts, many States lack a comprehensive strategy for reaching their 21- to 34-year-old populations. Most enforcement and prevention programs use a two-tiered approach to combat impaired driving: One set of programs targets the under-21 population, and another set of programs focuses on the adult drunk driving population as a whole. Few studies have addressed the drinking and driving behavior of the 21- to 34-year-old age group, and the effectiveness of different approaches has not been well documented. It is clear that strategies targeted at this age group need to be defined, studied,

² These numbers are from our own analysis of FARS data using NHTSA’s new multiple imputation model.

³ See National Commission Against Drunk Driving. (1994) *Young Drivers/Legal Drinkers: A National Agenda*. Conference Report. Washington DC: National Commission Against Drunk Driving and The Century Council.

and disseminated. This study is a step toward filling that gap by identifying one innovative and promising program, and estimating its effectiveness and potential for adoption by other communities.

STUDY APPROACH

Our approach to the project started with the program-selection process which involved developing selection criteria, identifying potential programs that best meet those criteria, and recommending a program for NHTSA's consideration.

After selecting the study program (the *Smart Roads* program in Pueblo County, Colorado), we prepared a plan for collecting and analyzing the data needed for describing and evaluating the program. The evaluation focused on the impact of the program on alcohol-related crashes involving the target group of drivers 21 to 34 years old. Execution of the data collection and analysis plan followed, and the final technical report (this document) was prepared.

Chapter 2 of this report describes the process that led to the selection of the study program. Included are summary descriptions of the more promising candidate programs. Chapter 3 provides a comprehensive description of the *Smart Roads* program, including:

- the program site;
- the target group;
- key participants in the program;
- program objectives;
- duties and responsibilities of the staff;
- funding sources and amounts; and
- components of the program.

Chapter 4 presents the results of evaluation of the *Smart Roads* program's effect on alcohol-related crashes involving drivers age 21 to 34, and Chapter 5 presents our conclusions and recommendations.

2 - PROGRAM SELECTION

To identify eligible programs, project staff consulted the following sources:

- NHTSA headquarters -- in particular, information about programs on 21- to 34-year-olds reported by the States as part of their grant applications for 1999
- NHTSA Office of State and Community Services,⁴ and regional staff
- Highway safety representatives for each State
- National Commission Against Drunk Driving (NCADD)
- Students Against Destructive Decisions (SADD)
- Network of Employers for Highway Safety (NETS)
- Mothers Against Drunk Driving -- national headquarters as well as State chapters
- The Century Council

The most important selection criteria were the following:

- The program should be targeted at 21- to 34- year-old drivers to reduce their drinking and driving behavior.
- The program's scope and objectives, funding, and administrative staff should already be in place, and we must be reasonably certain that the program will continue to operate throughout the duration of the study, and hopefully beyond.
- The program should have reasonably good records of its operations, including a well-defined program plan and schedule, distribution plans, demographics of the target group, cost of producing the material, and media schedules.
- The program administrators must be willing to participate in an evaluation of their program, and to share information.

Using these criteria, five candidate programs were identified, as follows:

- Pueblo, Colorado – *Smart Roads*
- Wisconsin – Community-Based Program
- Pennsylvania - *Please Step Away from Your Vehicle*
- New Mexico – *Safety First Initiative*
- Montana –*Most of Us*

OVERVIEW OF CANDIDATE PROGRAMS

“Smart Roads” Program in Pueblo, Colorado

This program is being funded through a renewable three-year grant provided by the Colorado Department of Transportation (CDOT). A local controlled-substance-abuse prevention and treatment center based in Pueblo, Crossroads Managed Care Systems, Inc., is charged

⁴ This office is now known as Injury Control Operations and Resources.

with administering the program. CDOT's interest in funding this initiative in Pueblo resulted in part from a comprehensive research study conducted by BBC Research and Consulting.⁵ The study revealed that the city of Pueblo ranked number one in drunk driving arrests per capita among Colorado cities, and that males between the ages of 21 and 34 comprised 34 percent of all DUI arrests.

The program involves three major components:

- a targeted media campaign
- a workplace initiative
- community involvement encompassing a broad range of organizations

This program was ultimately selected for our evaluation and is described in detail later in the following chapter.

Community-Based Program in Wisconsin

As of December 2000, the Wisconsin Office of Transportation Safety was planning a comprehensive anti-impaired driving campaign targeting 21- to 34- year-old males, which was scheduled for implementation in 2001. Reportedly, this program would go beyond public information and education. The University of Wisconsin's business school had been retained to explore possible program components. Development of specific messages would be accomplished at some point in the spring of 2001. Additional efforts centered on compiling a "toolbox" from which communities and agencies could select ideas and, eventually, messages most suited for their geographic and demographic compositions. Community and business partners were actively being sought to support the program and to supplement program costs.

Examples of tools that might be included in the toolbox included alternative transportation methods, as well as awards for establishments promoting responsible behavior such as designated drivers or ride service programs. The toolbox would provide not only ideas but also implementation assistance and "how to" advice. Also, plans were being made to provide employers statewide with access to a database that would flag individuals who have been convicted of impaired driving (considered public records in Wisconsin).

Evaluation of any program effects would be a key component of the program with a number of communities serving as test and control sites. Proposed sites would be determined, at least partially, through Geographic Information System/Global Positioning System (GIS/GPS) tracking of crash locations, drinking establishments, and law enforcement efforts.

"Please Step Away from Your Vehicle" in Pennsylvania

The Pennsylvania Department of Transportation (PA DOT) conducted focus groups among 21- to 34- year-olds to ascertain the type of messages that were likely to be most effective when attempting to change their drinking and driving behavior. When the focus groups were conducted back in 1985, it was found that the target population's greatest fear was the harm they could inflict on a loved one who was traveling in the passenger's seat. Media messages were tailored to emphasize this.

⁵ See the following publications: BBC Research and Consulting. (1999) *Driver Market Research: Executive Summary*. Denver: Author; and BBC Research and Consulting. (1999) *Drinking and Driving in Pueblo*. Denver: Author.

PROGRAM SELECTION

In 1999, a new round of focus groups concluded that the emphasis had changed, and young adults were more concerned about being apprehended, as well as the legal consequences and monetary expense involved in a DUI arrest. The new campaign, called “Please Step Away from Your Vehicle,” consisted mainly of a series of posters sent to the law enforcement agencies (LEAs) throughout the State. The department asked the LEAs to strategically place the posters in areas such as construction sites, where there might be a predominance of the target group. However, PA DOT had not really monitored or followed up with the LEAs as to when and where the posters were used. A survey to evaluate campaign awareness and effectiveness was planned for 2001.

“Safety First” Initiative in New Mexico

One program mentioned on more than one occasion by the NCADD and NETS is that of Jaynes Corporation, a construction company based in New Mexico. Their “Safety First” initiative” for employees includes the following components:

- employment pre-screening for crashes, speeding tickets, DUI, and other moving violations
- driver education for all drivers
- company-led crash investigations and follow-up
- incentives and rewards for good driving as measured by no crashes or citations

The National Associated General Contractors of America recognized Jaynes Corporation for having the industry’s best safety record in the nation. The program has been running and recording data for over a decade, and seems likely to continue in the near future.

Although the Jaynes Corporation program is quite innovative, the objective of the program is not specifically to reduce drinking and driving behavior among 21- to 34- year-olds. All employees receive training on workplace safety issues, but only a fraction of the company’s employees are authorized to drive the company’s vehicles, and it is they who receive more comprehensive education, screening, and monitoring for DUI. Moreover, many of their drivers tend to be more experienced employees above the age of 35. Finally, the company has not implemented any program components to influence employees’ drinking and driving behavior after they leave the workplace (though one would hope the anti-DUI education received in the workplace is internalized by some employees and would have an effect on their attitudes and behavior outside of work as well).

“Most of Us” Program in Montana

Most States have programs aimed at the college/university population, which often includes a considerable number of students over the age of 21. Colleges and universities are also increasingly participating in coalitions with their local towns or communities.

“Most of Us” is a public health issues campaign in Montana, where one of the goals is to reduce alcohol-related crashes among young adults age 18 to 25. Other issues include tobacco use prevention among youth age 12 to 17, and promoting parent-child communication.

The Montana State University (MSU) Social Norms Project coordinates the program. All messages are being developed in accordance with the principles of the seven-step Montana Social Norms Marketing Model developed by a professor at MSU. The idea is to send positive media messages rather than negative ones. Rather than using messages

such as “One in every five college students has engaged in binge drinking,” the program advocates the use of messages such as: “81 percent of Montana young adults drink four or less drinks when they drink at parties, if they drink at all.” The goal is to change the general perception that most young people drink heavily, and therefore, that if you are a young person and you want to “belong,” you also have to drink heavily. On the contrary, since most young people report they drink moderately or do not drink at all, you can “fit in” with your peer group if you do the same. Heavy drinkers are not the norm, they are the minority. This is a public information and education campaign, with media material sent to local television stations in the target communities.

SELECTED PROGRAM

In 1999, 27 States submitted information to NHTSA concerning their efforts to address impaired driving among 21- to 34- year-olds. Project staff reviewed the materials submitted by the States, and subsequently called the respective highway safety representatives to discuss their programs.

Programs were deemed unsuitable for the present study based on the following three reasons: (1) the program was still in the early stages of development – thus, objectives, funding sources, and targeted strategies were still being determined; (2) the program was integrated with college-based initiatives that also aimed to reach underage drivers; (3) the program was part of a statewide PI&E campaign where it was difficult to distinguish specific messages targeting 21- to 34- year-olds, from those directed at the driving population in its entirety.

The *Smart Roads* program in Pueblo was selected for four main reasons. First, unlike many other impaired-driving programs driven by State government agencies or law enforcement, *Smart Roads* is the only program we identified with key participation from a community-based treatment provider. Crossroads Managed Care Systems is in fact the lead organization charged with administration of the *Smart Roads* program. Crossroads works closely with other members of the city’s Drive Smart Coalition, a group that includes representatives from the University of Southern Colorado and local law enforcement agencies, among others. The program is a true community-wide effort, with cooperation from local beer distributors, taxi operators, and liquor store owners. Although the CDOT is funding the *Smart Roads* program, the department has given considerable autonomy to Crossroads and the Coalition in administering the program, in recognition that they may have a better understanding of what works best in their community.

Second, ongoing research plays an important part in this program. As mentioned above, the CDOT grant to Pueblo was motivated in part as the result of a comprehensive research study conducted by BBC Research and Consulting. BBC was also retained by CDOT to conduct telephone surveys and focus groups to study the target population’s demographic characteristics and self-reported attitudes and behaviors concerning drinking and driving. *Smart Roads* is one of the few programs identified by project staff that possesses such a wealth of information on their target population, and uses this information for the strategic planning of their activities. For example, Smart Road’s public information and education (PI&E) campaign, “DUI: The \$8,866 Hangover,” was based on focus group research with male Pueblo drivers in the target age group, which revealed that the cost, hassles, and embarrassment drivers face if they get a DUI are the most compelling reasons for this population to drink in moderation.

PROGRAM SELECTION

Third, we found that most State programs targeted at 21- to 34- year-olds have focused almost exclusively on PI&E campaigns. Although the largest component of their program to date has been the “DUI: The \$8,866 Hangover” campaign, *Smart Roads* has been working hard to promote an employer-based initiative, “Buzzing & Tooling Down the Road.” This alcohol-awareness training program was specifically designed for delivery at the workplace, to an audience comprised mostly of male blue-collar workers age 21 to 34. This initiative is discussed in more detail in the next chapter.

Finally, the *Smart Roads* program has well-defined objectives and a staff with ample experience in program management – two important factors that we believe will ensure the continuity of the program in years to come. Note that Crossroads and the Drive Smart Coalition were active in Pueblo for many years prior to the award of CDOT’s grant, making it more likely that these two organizations will continue in the future to support DUI prevention and intervention activities in their community.

3 – PROGRAM DESCRIPTION

This section provides a comprehensive description of the *Smart Roads* program, including:

- site description;
- description of target group;
- key participants in the program;
- program objectives;
- duties and responsibilities of the staff;
- funding sources and amounts; and
- components of the program.

Information for this section is based on materials gathered by project staff as well as our discussions with *Smart Roads* personnel.

ORIGINS OF THE PROGRAM

In January 2000, Crossroads Managed Care System (“Crossroads”), a treatment and prevention facility based in Pueblo, was awarded a three-year grant from the Colorado Department of Transportation to develop a program to reduce drinking and driving among 21- to 34- year-olds. It should be noted, however, that even before the grant was awarded, the Pueblo community was very active in the area of DUI prevention and intervention, most notably through the activities of the Pueblo Drive Smart Coalition.

The grant from the Colorado Department of Transportation (CDOT) was one outcome of a multi-year project to market traffic safety to Colorado drivers. During the first year of this project, CDOT used market research to identify communities that were disproportionately home to drivers in alcohol-related crashes, young drivers involved in crashes, and areas where crashes tend to be more serious or fatal due to failure to wear a safety belt. BBC Research & Consulting of Denver was selected to lead this research effort. This targeted marketing approach allowed CDOT to effectively and efficiently attack selected problem behaviors by designing marketing campaigns and other programs to reach out to those who needed it the most. (See citations on page 4.)

Four specific behaviors were selected for analysis: drinking and driving, nonuse of safety belts, young-driver crashes, and aggressive driving. Using crash data and a commercially available market segmentation system, the study team led by BBC identified selected “market clusters” (based on geography, demographics, and economic factors) where each behavior was overrepresented. First, crash records were linked to home addresses/neighborhoods of drivers. Then, geographic market clusters were identified where certain types of crashes were overrepresented. Clusters were identified separately for alcohol-related crashes, nonuse of safety belt crashes, and young-driver crashes. The findings from this analysis yielded three target communities: Montezuma County would be targeted for safety belt use; Douglas County for young drivers; and Pueblo County for drinking and driving.

PUEBLO

Located about 110 miles south of Denver and east of the Rocky Mountains, the city of Pueblo is 41 square miles and has a population of approximately 102,000 people. Pueblo is the seat of a county of the same name; Pueblo County has 141,000 people and covers an area of 2,389 square miles (according to the 2000 U.S. Census).

Pueblo was once Colorado's second-largest city. During the late 1800s, the local steel and mining industries, led by Colorado Fuel and Iron, attracted thousands of job-seekers, including Hispanics, Native Americans, Italians, and Slovenians, among many other nationalities and ethnic groups. By 1888, four major railroads connected Pueblo to the rest of the Nation, and the city had become the smelting capital of the world, refining gold, zinc, lead, and silver. Many of the descendants of these mill and mining workers remain in Pueblo, contributing greatly to the city's diversity.

Pueblo's steel and mining-led economy declined rapidly after World War II, but economic vitality has started to return to the city. The city's recent downtown restoration project and Pueblo's rich diversity resulted in the city being designated as one of America's "most livable communities" by the Partners for Livable Communities in September 2000. Today the major employers are in the areas of education, government, healthcare, retail, and distribution. According to the U.S. Census of 2000, the median household income in Pueblo was \$29,112 and just over 18 percent of people in Pueblo County were living below the poverty line. The county has one four-year college (the University of Southern Colorado, enrollment 3,600) and one two-year college (Pueblo Community College, enrollment 3,230).

Pueblo ranks as number one in driving under the influence⁶ (DUI) arrests per capita among Colorado cities. Pueblo also has more bars and liquor licenses per capita than any other Colorado city. From 1996 through 1998, 8 percent of all drivers from Pueblo County involved in serious crashes were suspected of alcohol or drug use. Drivers from Pueblo County involved in serious crashes were 36 percent more likely than the average driver in Colorado to be suspected of drinking and driving. From 1995 through 1999, men between the ages of 21 and 35 were involved in more than one-third of the Pueblo Police Department's DUI arrests.

CROSSROADS MANAGED CARE SYSTEMS

The *Smart Roads* program is administered by Crossroads Managed Care Systems. Crossroads has been working in the Pueblo community for over 20 years and is currently the only provider of both prevention and intervention services in the State of Colorado. Crossroads was an established addiction treatment center when it broadened its mission to include prevention services. Services include the following:

⁶ Colorado's DUI law makes driving with a BAC of .10 or higher a violation in itself, and no other indicator of impairment is necessary to constitute a violation. Colorado passed a .08 law effective July 1, 2004, although the Smart Roads program was conducted when Colorado still had a .10 per se law.

PROGRAM DESCRIPTION

AAH (Addiction Among Homeless)	Specialized outpatient evaluation and treatment program designed to treat the needs of the homeless population in conjunction with the Pueblo Community Health Center.
SSIC (Strategies for Self Improvement and Change)	Intensive treatment curriculum developed and targeted toward people on parole.
AWAKEN (All Women Against Known Environmental Neglect)	Intensive residential treatment program for women, and women with dependent children.
SWS (Specialized Women's Services)	Outpatient program that offers a variety of treatment needs for women, and women with dependent children.
"Don't Even Go There"	Program designed to meet an array of adolescent substance use/abuse needs.
Reconnecting Youth	School-based prevention program for young people in grades 9 through 12 who show signs of poor school achievement and potential for dropping out of high school.
Life Skills	Program designed to address the most important factors leading adolescents to use one or more drugs by teaching a combination of health information, general life skills, and drug resistance skills.
JCP (Juvenile Court Project)	Program with the Pueblo Municipal Court for adolescent substance use/abuse offenders.
Methadone	Methadone treatment program designed to assist people who are addicted to heroin or other opiates.
TANK (Tobacco and Nicotine Kick)	Program designed to assist people in quitting tobacco use.
GAME (Gambling Addiction Motivational Enhancement)	Program designed to assist people who are compulsive gamblers.
Steps Program	Intermediate residential treatment program designed for people who need the structure of a controlled environment.
Detoxification	Program for assisting people who are intoxicated or under the influence of alcohol and/or drugs to detoxify in a safe and healthy environment.

Prior to the CDOT grant, Crossroads had already initiated a "*Smart Roads 2000*" program with a slightly different focus: to educate young men and women between the ages of 16 and 30 on the negative effects associated with the use of alcohol, especially as it relates to drinking and driving. Program components included:

- Designated driver program: Promotes a positive image for designated drivers and provided an incentive program for the designated drivers (movie passes, free meal tickets, etc.)

- Alternative transportation program: Promoted the “Topsy Taxi” program⁷ providing adult drinkers with alternative transportation.
- “Alive at 25” program: In partnership with the Colorado State Patrol, a defensive driving class offered to Pueblo area high school juniors and seniors.
- Assembly: Presented during prom and graduation season to help educate high school students about the dangers involved with riding in and driving motor vehicles while drinking.

When CDOT contacted Crossroads, the emphasis of the *Smart Roads* program was altered to target males 21 to 34 years old and incorporate the findings from BBC’s market research. The Alive at 25 program and other activities targeting underage drinkers continue to be carried out with other sources of funding.

PROGRAM FUNDING AND STAFF

As mentioned previously, *Smart Roads* is primarily funded through a CDOT grant. For the 12-month period running from September 2000 through September 2001, *Smart Roads* received \$75,000 from CDOT. The CDOT funding is intended to act as seed money, allowing the program to establish itself and grow into a self-sustaining entity. This is a model that CDOT has used successfully in the past for other Colorado community-based programs. The goal of attaining self-sustainability at the end of a specified period is an important one, to ensure program continuity should State funds become unavailable in future years, or should funding priorities change or be redirected to alternative activities.

Each year, in conjunction with the allocation of funds, CDOT and Crossroads (as the administrator of the *Smart Roads* program) agree on a strategic plan that includes a list of tasks to be accomplished. Accordingly, for fiscal year 2001, Crossroads was contracted to accomplish the following tasks:

- Develop and distribute information and material that address education and prevention messages about alcohol-related crashes among 21- to 34- year-old males;
- Conduct at least 20 “Buzzing and Tooling” presentations (workplace initiative described below); and
- Develop and maintain a speakers’ bureau to address alcohol-abuse issues as they relate to driving.

Smart Roads has expressed an interest in increased funding to hire additional staff. Currently, the *Smart Roads* program has only one full-time employee. Ideally, *Smart Roads* would like to bring more employees into the program to train more certified “Buzzing and Tooling” instructors and expand the workplace initiative. Based at Crossroads’ office in downtown Pueblo, the program is able to share office space, meeting facilities, office supplies and equipment, as well as part-time help, with Crossroads. The program is also heavily dependent on volunteer work and donations. For example,

⁷ Evaluated in Lacey, J.H., and Jones, R.K. (2000) *Evaluation of a Full-Time Ride Service Program: Aspen, Colorado’s Topsy Taxi Service*. Washington, DC: National Highway Traffic Safety Administration.

PROGRAM DESCRIPTION

Lamar Outdoor in Pueblo donated the outdoor advertising featured as part of the media campaign.

Note that the *Smart Roads* contract does not reflect any funds paid to BBC for its services; any funds used in the initial research and creative development of the media campaign are in addition to the \$75,000 mentioned above.

MEDIA CAMPAIGN

In addition to its market clusters analysis, BBC was retained by CDOT to conduct a series of surveys and focus groups to understand the lifestyles, attitudes, and beliefs of drivers who exhibit unsafe driving behaviors. This research was used to identify potential themes or approaches for the development of appropriate driving safety initiatives and campaign materials. The findings from this survey also served as a benchmark against which one could evaluate progress toward stated goals. During the summer of 1999, BBC conducted 450 telephone surveys with male drivers in those Pueblo clusters disproportionately associated with drinking and driving crashes, gathering information on demographics, driving behavior, drinking behavior, and attitudes toward drinking and driving. Survey responses from men in the Pueblo clusters were compared with a sample of men statewide. A copy of BBC's survey instrument can be found in the appendix of this report.

Subsequently, in July 2000 BBC conducted four focus groups to test concepts and material in support of an anti-drinking and driving campaign.⁸ Letters were mailed to a list of Pueblo County households, inviting people to participate in a discussion group about driving in Pueblo County. The focus groups found that participants were surprised at the true cost of a DUI, calculated at \$8,866, as the sum of increasing insurance costs, lawyer fees, fines, and other expenses.⁹ The reaction of focus group participants to this figure suggested that an effective messaging campaign might emphasize the financial costs of a DUI.

Participants were also asked for their opinions regarding the storyboards of two public service announcement (PSA) concepts.¹⁰ The winning concept, later turned into a television advertisement, shows the arm of a man playing back messages on his home answering machine. Each message demonstrated how the man's life has been affected by a recent DUI violation. His employer tells him that he has lost his job, his mother and child call with their disappointment, his insurance agent calls with notice of the increase in rates, and his lawyer calls asking for payment of legal fees that are due. The ad ends with the tagline: "DUI, the \$8,866 Hangover." The overwhelming majority of focus group participants expressed a preference for this answering machine PSA concept; they liked how it emphasized the financial and family costs of a DUI.

The public media campaign, which ran from October 1999 through September 2000, and again in the summer of 2001, included the following components:

⁸ See BBC Research and Consulting. (2000). *Pueblo Focus Groups*, Denver, CO: Author.

⁹ This cost will vary widely across States.

¹⁰ Cactus Marketing Communications of Denver, Colorado, prepared the marketing communications plan for this campaign.

Television ads. A total of 595 television ads featuring the PSA described above were purchased, scheduled at 35 percent during prime time, 31 percent late fringe, 3 percent early news, 17 percent prime access and 13 percent early fringe.

Radio ads. The radio ads were based on the audio tracks of the TV ads with the tagline spoken. Three radio stations (including one Spanish-language station) were used to place a total of 698 spots.

Newspaper ads and billboards. Newspaper ads ran in the local publication with the largest circulation, the *Pueblo Chieftain*. The "\$8,866 Hangover" theme was depicted as shown below.

Figure 3-1: Design of Newspaper Ad



Billboards and bus station ads featured the same design as the newspaper ad, as follows:

Figure 3-2: Designs of Bumper Stickers and Bus Station Banners



Other collateral material. Crossroads also printed paycheck inserts, table tents, posters and banners, all stressing the *Smart Roads* "\$8,866.00 Hangover" theme depicted above (See appendix). Materials were placed with different businesses employing blue-collar workers around Pueblo. Posters and banners were used in community event information booths. Table tents were distributed to local construction companies and bars.

PROGRAM DESCRIPTION

In 2001, BBC conducted a post-campaign telephone survey and post-campaign focus groups to measure awareness of the campaign and to compare attitudes and perceptions of impaired driving with the pre-campaign benchmarks indicated above.¹¹ Telephone survey participants were randomly selected using random digit dial methods in the Pueblo County census tracts classified as areas over-represented statewide in crashes involving impaired driving. A total of 450 surveys were completed. All respondents were men. Participants for the four focus groups were drawn from the telephone survey respondents.

BBC concluded that the campaign was successful in communicating the financial cost of a DUI. The most important indicator of this was that 50 percent of men age 21 to 34 reported that a DUI would cost them over \$8,000, compared to a perceived cost of only \$1,000 before the campaign. Statewide, most people believed the cost would be less than \$1,000.

WORKPLACE INITIATIVE

“Buzzing and Tooling” is an educational program designed specifically to stimulate and challenge the thinking of blue-collar workers regarding their drinking and driving beliefs and practices. Sponsored by CDOT, and initially developed by the University of Northern Colorado, “Buzzing and Tooling” differs markedly from most DUI or other safety classes in that it is not based on a traditional information/lecture-type format. Instead, each of its three 50-minute sessions revolves around interactive activities, emphasizing issues of control, consequences, perceptions of norms, and behavioral beliefs. A description of each session is given in Table 3-1

Only three people in the State of Colorado are trained to deliver the “Buzzing and Tooling” educational program; one of these instructors is a full-time staff member at Crossroads. As of the end of the evaluation period (December 31, 2001), Crossroads had offered to deliver “Buzzing and Tooling” at 60 Pueblo firms employing blue-collar workers. There is no cost to the employer: the sessions were originally designed to take place at the place of employment but were later given at the Crossroads Managed Care Systems offices in downtown Pueblo.

Potential advantages to companies that choose to participate were said to include increased safety in the workplace and a reduction in absenteeism. Employee participation in the program is absolutely voluntary. Consequently, the number of participants varies greatly from session to session, and very few individuals complete all three sessions. By the end of 2002, employees at only one local construction firm had completed all three sessions of the Buzzing and Tooling program. Expanding this workplace initiative was one of *Smart Roads*’ key objectives during the remaining years of its CDOT grant.

¹¹ See BBC Research and Consulting (2001). *DUI: The \$8,866 Hangover*. Denver, CO: Author.

Table 3-1: “Buzzing and Tooling” Sessions

Session	Time	Activities	Description
Pre-session	20 minutes	<ul style="list-style-type: none"> ▪ Introduction ▪ Program overview ▪ Questionnaire on drinking and driving beliefs 	Program introduction and measurement of drinking-driving beliefs and attitudes of participants.
Session I: “Untangling Who Said What”	50 minutes	<ul style="list-style-type: none"> ▪ Session overview ▪ String game ▪ They said...you said ▪ Definitions, terminology ▪ Reasons people drink & drive ▪ Written evaluation of session 	<p><u>String game</u>: Two people tied together at their wrists – the goal is to find a solution to work together to unstring themselves; prizes to winners.</p> <p><u>They said...you said</u>: Comparison of participant responses on pre-session survey to larger peer group responses.</p> <p><u>Definitions, terminology</u>: differences between “drunk” and “impaired” driving, “crash” and “accident,” etc.</p>
Session II: Puzzled About Drinking and Driving	50 minutes	<ul style="list-style-type: none"> ▪ Session overview ▪ Bee jigsaw puzzles ▪ FAQs ▪ Outrageous statements ▪ Sober slogans ▪ Written evaluation of session 	<p><u>Bee jigsaw puzzles</u>: Work together on jigsaw puzzles; introduces “worker bee” as a recurring character; prizes to winners.</p> <p><u>FAQ</u>: Information on topics like BAC levels, penalties for DUI, etc.</p> <p><u>Outrageous statements</u>: Beliefs continuum along which participants stand according to how strongly they agree or disagree with statements read by the facilitator, e.g., “getting a DUI is just part of growing up.”</p> <p><u>Sober slogans</u>: Participants compose prevention messages continuing on the “worker bee” theme.</p>
Session III: Juggling Life	50 minutes	<ul style="list-style-type: none"> ▪ Session overview ▪ Group juggling ▪ About Tim 	<p><u>Group juggling</u>: In small teams, groups try to keep as many objects in the air for one minute as they toss them to each other. Objects represent aspects of life, e.g., job, driving, money. Discussion follows.</p> <p><u>About Tim</u>: Oral history with illustrations of a young man who has decision-making points in his life about behaviors such as drinking, partying, choice of friends, driving safely. To foster thinking about responsibility and consequences. Discussion follows the story.</p>

PROGRAM DESCRIPTION

COMMUNITY INVOLVEMENT

Besides having been identified as a target community on the basis of the market cluster analysis described above, Pueblo County had a long history of organized community involvement in DUI prevention and intervention, primarily through the activities of the Pueblo Drive Smart Coalition. In 2001, the coalition had 44 members representing a wide variety of local public and private interests, including:

- Pueblo Licensed Beverage Association
- Pueblo Community Health Services
- City of Pueblo Municipal Court
- Crossroads Managed Care Systems, Inc.
- City Cab
- Allstate Insurance
- Farmers Insurance
- Parkview Medical Center (hospital)
- Standard Sales Co. (alcoholic beverages distributor)
- University of Southern Colorado
- Youth and Family Academy Charter School
- North Mesa Elementary School
- Budweiser
- Coors
- Pueblo City Police Department
- Pueblo Fire Department
- Colorado State Patrol
- Pueblo County Sheriffs' Office
- Pueblo Youth Services Bureau
- Pueblo City/County Health Department

Although Crossroads is the lead organization charged with the administration of the *Smart Roads* program, involvement by other members of the Pueblo community was most important. Law enforcement, including the Pueblo Police Department and the Pueblo County Sheriff's Office, attend all *Smart Roads* meetings and send representatives to program activities. Education, medical, and insurance professionals are all represented in the coalition. Representatives from the hospitality industry, including two major beer companies, as well as local bars and taverns, also attend coalition meetings and cooperate with Crossroads in the distribution of table tents and other collateral materials.

4 – RESULTS

Our evaluation of Pueblo County's *Smart Roads* program used alcohol-related crashes involving a driver of the target age group (21- to 34- year-olds) as the measure of effectiveness. The relatively small size of Pueblo County (approximately 141,000) dictated the use of a before-and-after, test-and-comparison group evaluation design with surrogate measures of alcohol-related crashes. A larger population base would have allowed the use of the more desirable interrupted time series design with measured values of BACs in fatal crashes as a basis of the measures of effectiveness.

The test group of primary interest was Pueblo County, but because of the nature of the Pueblo County intervention (which had a strong public information component which could have spread to adjoining counties), we also considered a test group composed of Pueblo County plus eight other low-population surrounding counties. These other counties were Teller, Fremont, Custer, Huerfano, Las Animas, Otero, Crowley, and Lincoln counties. The comparison groups were composed of crash-involved, age 21- to 34-year-old drivers in the non-test counties. For the test group containing only Pueblo, the comparison group was all Colorado counties except Pueblo. And for the test group containing Pueblo plus the above eight surrounding counties, the comparison group was all Colorado counties except Pueblo plus the above eight surrounding counties. The "before" period was 1998 and 1999, and the "after" period was 2000 and 2001.

Crash data was provided by the Colorado Department of Transportation, which maintains computerized records of police crash reports in the State. We used two types of crashes as surrogate measures of alcohol-related crashes: nighttime injury crashes (NI) and nighttime single-vehicle injury crashes (NSVI). The NSVI measure was applied only to Pueblo plus the eight adjoining counties because of the small number of NSVI crashes in Pueblo County alone. The results of evaluation are presented below in two sections, the first addresses Pueblo County alone as the test group, and the second addresses Pueblo County plus the eight adjoining counties as the test group.

PUEBLO COUNTY ALONE

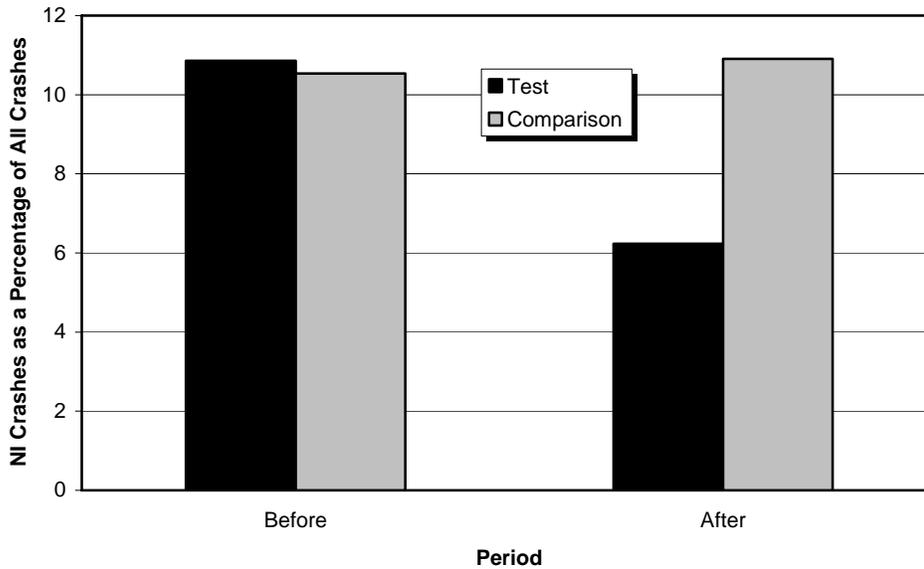
Nighttime Injury Crashes

NI crashes in Pueblo County decreased from 38 in the before period to 23 in the after period, a 40 percent decrease. By comparison, NI crashes in the county's comparison group increased 2 percent from 7,965 to 8,147. These changes were significant at a level of 0.045 ($\chi^2=4.02$, d.f.=1). Similar changes occurred for NI crashes as percentage of all crashes (Figure 4-1). For the test group, the percentage was 10.9 percent in the before period and 6.2 percent in the after period, a decrease of 43 percent ($p=0.041$). And for the comparison group, the percentage was 10.5 percent in the before period and 10.9 percent in the after period, an increase of 4 percent ($p=0.0382$).

Nighttime Single-Vehicle Injury Crashes

As noted above, these crashes were not analyzed because of too few such crashes in Pueblo County alone.

Figure 4-1: Nighttime Injury Crashes as a Percentage of All Crashes Involving Drivers Age 21-34, Test Counties (Pueblo) and Comparison Counties



PUEBLO COUNTY PLUS EIGHT ADJACENT COUNTIES

Nighttime Injury Crashes

In this test group, NI crashes decreased from 251 in the before period to 161 in the after period, a decrease of 39 percent (Figure 4-2). In this test group’s comparison counties, NI crashes increased 3.3 percent from 7,752 to 8,009. These changes were significant at the $p < 0.0001$ level ($\chi^2 = 22.13$, d.f.=1). For NI crashes as a percentage of all age 21 to 34 crashes, the test group showed a decrease of 13.2 percent in the before period to 9.7 percent in the after period ($p < 0.0001$), while the comparison group still had an increase of 10.5 percent to 10.9 percent ($p = 0.0042$).

Nighttime Single-Vehicle Injury Crashes

In the test group, NSVI crashes decreased from 153 in the before period to 115 in the test group, a decrease of 24.8 percent (Figure 4-3). Again, there was an increase for the comparison group, this time from 2,401 to 2,496 (4.0%). These changes were statistically significant with $p = 0.01$.

And while NSVI crashes as percentage of all crashes decreased again for the test group (Figure 4-3), the decrease was smaller than that for NI crashes, amounting to only 13.5 percent (from 8.0% to 6.9%). At the same time, the increase for the comparison group was slightly higher for NI crashes at 4.8 percent. Neither change was statistically significant.

RESULTS

Figure 4-2: Nighttime Injury Crashes Involving Drivers Age 21-34 as a Percentage of All Crashes, Test Counties (Pueblo Plus Eight Adjacent Counties) and Comparison Counties

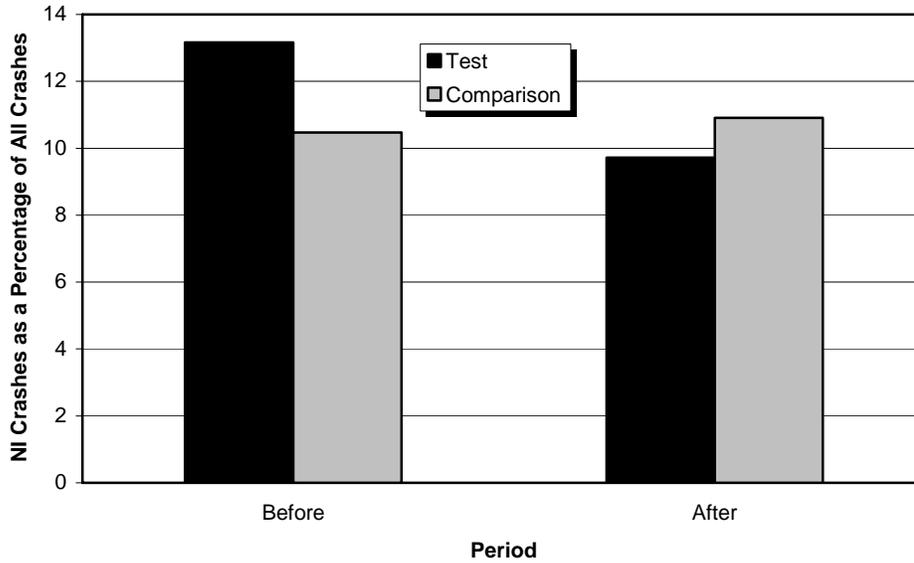
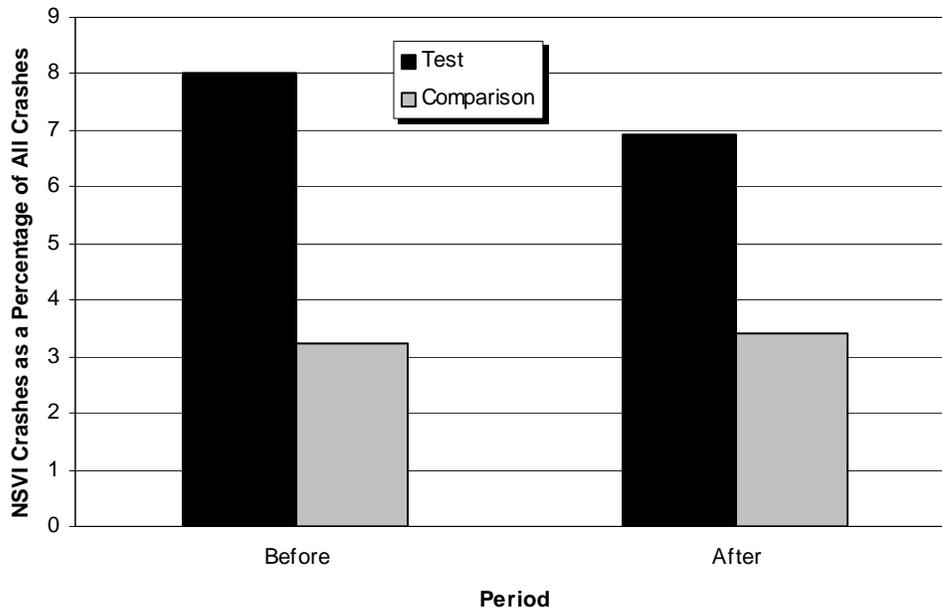


Figure 4-3: Nighttime Single-Vehicle Injury Crashes Involving Drivers Age 21-34 as a Percentage of All Crashes, Test County (Pueblo Plus Eight Adjacent Counties) and Comparison Counties



5 – CONCLUSIONS AND RECOMMENDATIONS

Our evaluation of the *Smart Roads* program for 21- to 34- year-old drivers in Pueblo County, Colorado, strongly suggests that the program reduced nighttime injury crashes involving such drivers (a surrogate measure of alcohol-related crashes) in the county. The reduction in nighttime injury crashes involving this age group of drivers as a percentage of all crashes involving this age group of drivers in Pueblo County amounted to a statistically significant 43 percent. At the same time, this percentage increased slightly in the rest of the State.

There is also evidence that the program had a carry-over positive effect on crashes, and also on nighttime single-vehicle crashes, in the eight small counties adjacent to Pueblo County. In Pueblo County plus these eight counties, nighttime injury crashes involving the target group of drivers as percentage of all such crashes for this group decreased significantly by 26 percent, and nighttime single-vehicle crashes as a percentage of all crashes for this age group decreased insignificantly by 14 percent. Both of these percentages increased slightly in the rest of the State.

These conclusions regarding program effect are only valid within the limitations imposed by the evaluation design. Comparison jurisdictions were used to help account for confounding factors that may have influenced outcomes, but available data did not permit such factors to be treated explicitly. However, these conclusions are supported by evidence of a considerable amount of carefully planned activity devoted mainly to an extensive media campaign that did not occur in the comparison jurisdictions. In addition, the *Smart Roads* program benefited by the involvement by other members of the Pueblo community, including the Pueblo Police Department and the Pueblo County Sheriff's Office; education, medical, and insurance professionals; and staff from two major beer companies and local bars and taverns. Outside direct funding support was modest, consisting only of an annual \$75,000 grant from the Colorado Department of Transportation for achieving full-scale operations.

Interestingly, despite a low rate of participation in the Workplace Initiative component of the program, *Smart Roads* as a whole still had a positive effect on crashes. This implies that the Workplace Initiative was not necessary to achieve that observed effect in Pueblo, and suggests that the program might have had a greater impact if participation in the Workplace Initiative component could have been increased.

Jurisdictions of similar size, composition, and resources may want to consider the *Smart Roads* approach for reducing alcohol-related crashes among 21- to 34- year-old drivers. Careful planning and community involvement appear to be the essential ingredients for the success of such a program. In particular, although the program was supported by State DOT funding, significant decision-making and administration happened at the local level. This is important because locals often feel that they have a better sense of what works and what does not work within their own communities, and community leaders are more likely to feel motivated and empowered when they retain a significant measure of control over program development. Also, the amount and quality of the research performed prior to and during the Pueblo campaign was outstanding and helped identify

the most effective messages and media delivery methods, as well as to evaluate program effectiveness.

APPENDIX

**Driver Lifestyle, Belief and Attitude Survey
Drinking Cluster**

July 1999

[ASK FOR MALE HEADS OF HOUSEHOLDS, OR WHATEVER OTHER ACTIONS WE TAKE TO PROMOTE 100% MALE COMPLETES.]

[READ ALL LISTED RESPONSES WHEN ASKING A QUESTION UNLESS SPECIFICALLY DIRECTED NOT TO READ THEM.]

Hello, my name is _____ and I am calling from Aspen Media Research on behalf of the Colorado Department of Transportation. In order to improve safety on Colorado's roads, we are conducting a survey to better understand people's driving habits and their opinions about driving-related issues. This is a confidential survey, and your responses will be reported only in combination with several hundred other people's responses.

Do you drive? Yes No

Do you live at this address? Yes No Refused

(IF NO TO EITHER QUESTION ASK.) Is there someone else we could talk to who is a driver and who lives at this address? (IF NO TERMINATE).

Driving Background

1. At what age did you begin driving? (CODE 1-99 WHERE 99 IS DON'T KNOW/REFUSED)
2. How long have you been driving? YEARS__ MONTHS ____ Refused
3. How much training in driving did you receive from the following sources? For each response, please answer with 'Extensive,' 'Some,' or 'None.' Record Don't know/refused

	Extensive	Some	None
A parent or step-parent			
Another adult (not a driver's education teacher)			
A sibling or teenage friend			
a driver's education course offered by a school			
a driver's education course offered by a private firm			
Any other source (Name source)			

4. In order to obtain, transfer, or renew your driver's license, have you at any time taken a "behind the wheel" driving test at any state's DMV or Department of Motor Vehicles?

yes
 no
 don't remember
 DK/Refused

5. What things, if any, worry you most about being in a vehicle crash. (DON'T READ OPTIONS, NUMBER ALL THAT APPLY IN ORDER MENTIONED. PROBE ONCE FOR ADDITIONAL RESPONSES.)

Insurance costs could go up
 Incur repair costs
 Be without vehicle while its being repaired
 Have to drive damaged vehicle
 Have to tell spouse/parents/family members
 Could get killed
 Could get injured
 Could kill or injure someone in another vehicle
 Could have a friend or family member in your car killed or injured
 Could lose income if injured
 Could get a ticket
 Could lose your license or get arrested
 No particular worries
 Other _____
 Other _____
 Other _____

6. Have you been driving for more than 2 years?

Yes
 No
 Refused

(IF DRIVER HAS BEEN DRIVING LESS THAN TWO YEARS ACCORDING TO QUESTION 6, GO TO QUESTION 10)

Think back to your first two years of driving.

7. How many motor vehicle crashes were you involved in as a driver in those first two years? For the purposes of this survey, assume that a motor vehicle crash includes any event where your vehicle or another vehicle was damaged while you were behind the wheel. (DON'T READ OPTIONS)

0
 1
 2
 3
 4
 5

APPENDIX

- 6
 - 7
 - 8
 - 9
 - 10 or more
- Don't know
(code=98)
- Refused
(code=99)

8. How many traffic tickets did you receive during those first two years? Do not include parking tickets. [IF ASKED, EXPLAIN THAT A TRAFFIC TICKET IS A MOVING VIOLATION. EXAMPLES INCLUDE SPEEDING, RECKLESS DRIVING, ILLEGAL TURNS, RUNNING STOP LIGHTS OR STOP SIGNS, ETC. RANGE=0 TO 99 WHERE 99=DON'T KNOW/REFUSED]_____

9. Again, please remember that this is a confidential survey. Your responses will only be used in combination with the responses of hundreds of other people. Did you ever drive after consuming alcohol during the first two years after you started driving? [IF ASKED, 'CONSUMING ALCOHOL' MEANS ANY AMOUNT OF ALCOHOL.] (DON'T READ OPTIONS)

- Yes
- No
- Don't Remember
- refused

Think about your present driving.

(IF RESPONSE TO QUESTION 6 WAS "LESS THAN TWO YEARS," GO TO QUESTION 10)?

10. How many traffic tickets have you received in the past two years? Do not include parking tickets. [IF ASKED, EXPLAIN THAT A TRAFFIC TICKET IS A MOVING VIOLATION. EXAMPLES INCLUDE SPEEDING, RECKLESS DRIVING, ILLEGAL TURNS, RUNNING STOP LIGHTS OR STOP SIGNS, ETC. RANGE IS 0-99 WHERE 99=DON'T KNOW/REFUSED]_____

11. How many motor vehicle crashes have you been involved in as a driver over the past two years? (Don't read)

- 0
 - 1
 - 2
 - 3
 - 4
 - 5
 - 6
 - 7
- 8
- 9
- 10 or more
- 98=Don't know
- 99 = refused

EVALUATION OF PUEBLO, COLORADO'S SMART ROADS PROGRAM

12. (IF 1 or more) In how many of these crashes were you the only driver at fault, or more at fault than the other driver? (Don't read)

- | | |
|--------|---------------------|
| _____0 | _____8 |
| _____1 | _____9 |
| _____2 | _____10 or more |
| _____3 | |
| _____4 | _____ 98=Don't Know |
| _____5 | |
| _____6 | _____ 99 = Refused |
| _____7 | |

13. Which of the following type of vehicle do you usually drive? (READ ALL OPTIONS)

- _____ passenger car
- _____ pickup
- _____ sport utility vehicle
- _____ motorcycle
- _____ commercial vehicle
- _____ other _____

14. About how many miles did you drive in the last 12 months? (READ ALL OPTIONS EXCEPT "DON'T KNOW." Would you say...

- _____ Less than 5,000
- _____ 5,000 to less than 10,000
- _____ 10,000 to less than 15,000
- _____ 15,000 to less than 20,000 or
- _____ 20,000 or more
- _____ don't know/refused

15. Has your license ever been suspended or revoked? (DON'T READ OPTIONS)

- _____ Yes. How many years ago? _____ (Range 0-99, 99=Refused/Don't know)
- _____ No
- _____ don't know = 3
- _____ refused = 4

15a. [IF YES] Why was it revoked? (RECORD) _____
(1= Refused; 2= Don't Remember; 3= Specify)

Driving Attitudes and Beliefs

16. In a typical month, about how many times do you use a designated driver (If asked by respondent, the designated driver is the person who does not drink any alcoholic beverages and drives everyone home)? (Range 0-99, 99=refused/don't know) _____
17. In a typical month, about how many times are you the designated driver (If asked by respondent, the designated driver is the person who does not drink any alcoholic beverages and drives everyone home)? (Range 0-99, 99=refused/don't know) _____
18. Now, think about your friends. Would they probably be impressed, not care, or disapprove if they knew you did the following things? (CODE refusals=9 and don't know =8)

	Disapprove	Wouldn't care	Be impressed
Drove home after having 3 or more drinks			
Required that your passengers always wear seat belts when you're driving			
Lost your driver's license due to violations			
Got arrested for drunk driving			
Drove without insurance			
Always wore your seat belt			
Decided to not drink at a party in order to be able to drive everyone home			
Were arrested and spent the night in DETOX (IF asked for clarification, DETOX is a detoxification center where the police send people who are drunk and a danger to themselves or others are spend the night to get sober.)			
Drove with a suspended or revoked license			

Drinking and driving

Now I would like to discuss alcohol consumption and driving. Again, please remember that this is a confidential survey and that your responses will be reported only in combination with those of hundreds of other people.

19. Have you drunk any alcoholic beverages over the past 12 months? (DON'T READ OPTIONS.)
- _____ Yes
- _____ No
- _____ Don't Remember
- _____ Refused

EVALUATION OF PUEBLO, COLORADO'S SMART ROADS PROGRAM

20. How old were you when you drank your first alcoholic drink? (Do not read)
4= ___AGE IN YEARS (specify, and go to question 21)
1= ___Never Drank (Skip to 33)
2= ___ don't know (Go to 21)
3= ___ refused (Go to 21)
21. How many days in a typical week do you consume any alcohol? (READ)
___ 1 day
___ 2 or 3
___ 4 or 5
___ More than 5 days
___ Zero
___ refused (do not read)
22. Do you typically consume alcohol on (READ)
___ Weeknights
___ Weekends
___ Both
___ None of the above (Do not read)
___ Refused (Do not read)
23. On how many days in a typical month do you have three or more drinks at one sitting?
(DON'T READ OPTIONS. IF THEY ASK, ONE DRINK EQUALS ONE BEER, ONE GLASS OF WINE, OR ONE SHOT OF LIQUOR.)
___ Zero
___ One or Two
___ Three to Five
___ Six to Ten
___ More than Ten
___ refused
___ Don't Know
- (IF RESPONSE TO QUESTION 23 IS ZERO, SKIP TO QUESTION 27.)
24. The last time you had 3 or more drinks at one sitting, where were you drinking?
(DON'T READ OPTIONS.)
___ Bar or Tavern
___ Restaurant
___ Home
___ Friend's House
___ Outdoors
___ Other _____
25. After drinking, how did you get to your next destination? (DON'T READ OPTIONS.)
___ Walked
___ Drove

APPENDIX

- Took taxi
- Took public transportation
- Rode with someone
- Didn't go to another location - spent the night where you were drinking
- Other _____
- Don't Know / Remember

26. (IF ANY RESPONSE OTHER THAN "DIDN'T GO TO ANOTHER LOCATION" OR "DROVE.") Before you started drinking, did you plan to use this mode of transportation?

- Yes
- No
- Don't know

27. On a typical night, how many drinks can you have and still consider yourself okay to drive? (Range 0-99, where 98=don't know and 99=refused) _____

28. Do you believe that your friends drink more than you, about the same, or less? (Do not read)

- More
- About the same
- Less
- Don't know / Refused

29. Have you ever driven after drinking so much that you thought you might be in trouble with the police if you were stopped? (DON'T READ OPTIONS.)

- Yes
- No (Go to 33)
- Don't know / Refused (Go to 33)

30. IF YES What worried you most about being stopped?

- Get a DUI
- Other (Record)

31. IF they worried about getting a DUI ASK: What else did you worry about?

- Nothing
- Other (record)

32. (IF RESPONSE TO QUESTION 29 IS YES) How long ago was the most recent time that you thought you might be in trouble if stopped? (DON'T READ OPTIONS.)

- Within the past 12 months
- 1 to 3 years ago
- 4 to 10 years ago
- 11 to 15 years ago
- 16 to 20 years ago
- More than 20 years ago
- Don't know

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33. Do you have any friends or family members that drive after drinking too much?

- Yes
- No (Go to 35)
- Don't know (Go to 35)

34a. IF YES. Do you think that this is (read)

- Unacceptable
- Neither acceptable or unacceptable
- Somewhat acceptable
- Acceptable
- DK/Refused

34b. IF Unacceptable. Why is this unacceptable? _____

34c. IF Acceptable/somewhat acceptable. Why is this (somewhat) acceptable? _____

35. Do you know someone who has (READ EACH and RECORD EACH AFFIRMATIVE RESPONSE)

- a. Had their driver's license revoked
- b. Gotten a DUI
- c. Gone to jail for drunk driving
- d. Spent the night in a DETOX center
- e. Got in a crash after drinking too much
- f. Been injured in a crash when someone else was driving drunk
- g. Been killed in a drinking and driving accident
- h. None of the above (don't read)
- I Don't Know/Refused (don't read)

36. Please tell me if you strongly agree, agree, are neutral, disagree, or strongly disagree with the following statements.

	Strongly Agree	Agree	Neither agree nor disagree (neutral)	Disagree	Strongly Disagree
Practice makes one better at drinking and driving.					
At the end of the night, the least drunk person should drive.					
Drinking and driving is a personal decision and shouldn't be illegal.					
It's okay for the designated driver to have a couple of drinks over the course of the evening.					
If you drive after having too much to drink, there's a good chance that you'll be caught.					
People should choose the designated driver before they begin drinking.					

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One drink does not harm a person's driving ability.					
If you go out for drinks, you should always have a designated driver					
Friends have a responsibility to make sure no one drives drunk.					
Being arrested for DUI is not a big deal.					

37. If your close friend were going to drive after drinking too much, would you try to stop them [(ROTATE RESPONSES a. THROUGH e., DO NOT READ f, g, or h.) CODE 1=YES, 2=NO, 8=DON'T KNOW, 9=REFUSED] by:
- _____ a. taking their keys
 - _____ b. getting them a cab
 - _____ c. driving them home yourself
 - _____ d. walking them home
 - _____ e. have them stay at your house
 - _____ f. Some other way (RECORD) _____
 - _____ g. I wouldn't. It's none of my business. (Don't read)
 - _____ h. Don't know how. (Don't read)

General Opinions

38. How do you know when you've drunk too much to drive? (RECORD)
 _____ 1= dk; 2= Refused; 3= Specify _____
39. In general, which statement best describes your philosophy on rules? (READ ALL OPTIONS)
- _____ I generally try to follow all rules, even if I may not agree with them personally.
 - _____ I generally follow rules that seem sensible to me, and ignore those that don't whenever I can.
 - _____ I generally rebel against rules whenever I can.
 - _____ Dk/ refused
40. On a scale of 1 to 5 where 1 is strongly disagree and 5 is strongly agree, rate your agreement with the following statements (NOTE: 3 is neutral or no opinion, code don't know/refused=6) [ROTATE]:
- _____ The police are trustworthy.
 - _____ The police are unfair.
 - _____ The police are disrespectful.
 - _____ The police are valuable to the community.

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41. Whose opinion do you respect most? (Don't read, record only first response) ROTATE

- your Mother
- your Father
- law enforcement
- your spouse
- your best friend
- the Church
- other (record)

42. Do you remember seeing or hearing any ads about drinking and driving?

- Yes (continue)
- No (skip to 43)
- Don't know (skip to 43)

42a. IF YES What do you remember about the ad you saw or heard? (RECORD)
1=DK/Refused 2= Specify _____

42b. Where did you see or hear this ad?

- Television
- Radio
- Billboard
- School presentation
- Newspaper
- Work
- Other _____
- DK/Refused

42c. Do you think these ads changed how you think about drinking and driving?

- Yes
- No
- Don't Know

42d. IF YES What changed? (RECORD) _____

42e. Do you think those ads changed how your friends or family think about drinking and driving?

- Yes
- No (Go to Q43)
- Don't Know / don't know if they saw it (Go to 43)

42f. In your opinion, in what way did these ads change how your friends or family think about drinking and driving?

(RECORD) _____

APPENDIX

43. Do you read a newspaper (READ)

- a. Less than once per week
- b. Once or twice a week
- c. 3 to 5 times a week
- d. 6 times per week
- e. Daily
- f. Never (don't read the paper)

(IF RESPONSE TO QUESTION 43 IS F. NEVER, GO TO QUESTION 45)

44. Which newspaper do you read most often: (READ)

- a. The Pueblo Chieftain
- b. Pueblo Business Journal
- e. The Denver Post
- f. The Rocky Mountain News
- g. Other. _____
- h. DK

45. On average, how many hours of television do you watch a day? (READ)

- a. Less than one
- b. One to three
- c. Three to four
- d. More than four
- e. None (Don't read)

(IF RESPONSE TO QUESTION 45 WAS E. NONE, GO TO QUESTION 48)

46. When do you watch TV most often? (READ)

- a. Morning (before 12)
- b. Afternoon (12 - 5)
- c. Early evening (5-7)
- d. Evening (7 to 11)
- e. Late night (after 11)
- f. DK/Refused

47. Which type of program do you watch most often? (Read, want the one type of program most frequently watched)

- a. Sport events
- b. News
- c. Sitcoms/comedies
- d. Drama
- e. other (record) _____
- f. DK/Refused

48. How many hours do you listen to a radio each day? (READ)

- a. Less than 30 minutes
- b. 30 minutes to 90 minutes
- c. Over 90 minutes

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- d. None (Don't read)
- e. Don't know (don't read)

(IF RESPONSE TO QUESTION 48 WAS D. NONE or E. Don't know, GO TO QUESTION 52)

49. When do you listen to the radio most often? (Read)

- a. Morning
- b. Afternoon
- c. Early evening
- d. Evening
- e. Late night
- f. Don't know (don't read)

50. Where do you listen to the radio (Record order of mention '1', '2', '3', etc.)
(Don't read choices, prompt once for an additional response)

- a. Car
- b. Home
- c. Work
- d. Other (RECORD) _____
- e. Don't know

51. Which radio station do you listen to most frequently? (Don't Read)

- a. KCSJ
- b. KCCY
- c. KDZA
- d. KFEL
- e. KNKN
- f. KRMX AM
- g. Other _____

52. Which of the following best describes how often do you do the following activities?
(READ POTENTIAL RESPONSES BEFORE READING ACTIVITIES) Record Don't know/refused

	Never	Once Every Few Years	Yearly	Monthly	Weekly	Daily
Go to the Pueblo Motor Sports Park						
Go to the Colorado State Fair						
Go to the Beacon Hill Speedway						
Go to City Park						
Attend a car show						
Go to the Pueblo Greyhound Park						
Socialize with friends after work or						

APPENDIX

school						
Spend time with parents or siblings						
Spend time with other relatives						
Attend church services						

53. [IF RESPONSE TO 'GO TO THE COLORADO STATE FAIR' WAS NOT 'NEVER'] Are you planning to attend any concerts at the Colorado State Fair this year?

- Yes
- No
- Don't know

54. IF YES Which concerts? (Don't read)

- Joey McIntyre
- Terri Clark
- Mark Willis
- Moody Blues
- Willie Nelson
- Chicago
- "Rock Never Stops" Ted Nugent, Slaughter, Night ranger, Quiet Riot
- Creedence Clearwater Revisited
- LeeAnn Womack
- Latin Legends Live: Tierra, Malo and El Chicano
- Joe Lopez and Jennifer Y Los Jetz
- Def Leppard
- Other _____ (specify)

55. Do you belong to any clubs or fraternal organizations?

- Yes
- No
- DK/Refused

56. IF YES Which ones? (RECORD) (Try to close after pretest) _____

Basic demographics

57. What is your current marital status? (DON'T READ OPTIONS)

- Married
- Single
- Divorced
- Widowed
- Separated
- Refused

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58. Who else lives in your household? (CHECK ALL THAT APPLY)

- Spouse/significant other
- Children/step children
- Parent/step parent
- Brothers/sisters
- Other relatives
- Friend/Roommate
- Other (specify) _____
- No one
- Refused

59. What was the last grade of school you had the opportunity to complete? (DON'T READ OPTIONS)

- some high school or less
- high school graduate
- trade/vocational school or some college
- college graduate
- Post-graduate work or degree
- refused

60. What is your current employment status? (DON'T READ OPTIONS)

- Not in labor force (homemaker, student or retired) (Go to 63)
- Currently unemployed
- Employed part-time
- Employed full-time
- refused

61. What type of work do you usually do? (Read options, ROTATE)

- Administrative support/clerical
- Retail/service/sales
- Executive/managerial/professional/technical
- Production/craft/repair/operator/laborer
- Other _____
- Refused

62. How long have you been employed at your current place of work?

- Less than 1 month
- 2 to 6 months
- 6 months to 1 year
- 1 year
- 2 to 5 years
- more than 5 year
- refused

63. How long have you lived in the house or apartment where you live now? (DON'T READ OPTIONS)

- Less than one year
- one year but less than three years

APPENDIX

- three years but less than five years
- five years but less than ten years
- Ten years or more
- refused

64. How long have you lived in Pueblo? (Do not read)
- Less than one year
 - At least one year but less than three years
 - At least three years but less than five years
 - At least five years but less than ten years
 - Ten years or more
 - Refused

65. Which ethnic or cultural group are you a member of? (DON'T READ OPTIONS)
- Anglo/white
 - Hispanic/Chicano/Latino
 - African American/black
 - American Indian/Native American
 - Asian/Oriental/Pacific Islander
 - Other _____
 - Refused

66. Into what category does your total household income fall? (READ)
- Less than \$10,000
 - \$10,000 but less than \$25,000
 - \$25,000 but less than \$35,000
 - \$35,000 but less than \$50,000
 - \$50,000 but less than \$75,000
 - \$75,000 but less than \$100,000
 - \$100,000 or more
 - Refused

Focus Group Recruitment

67. Would you be interested in participating in a focus group in Pueblo about driving and other subjects? A focus group is simply a process where you and about 10 other people gather around a table and provide your opinions on a variety of driving-related topics. The focus group will be about two hours long, and we will provide a payment of \$35 and a light dinner or dessert.

68. (IF YES.) May I please have your name and a daytime phone number, so we can follow up with you if we need your participation?

Name: _____

Daytime phone: _____

Thank you for your assistance.

APPENDIX

ALCOHOL EDUCATION CLASSES.....	\$525
COMMUNITY SERVICE SUPERVISION FEE.....	\$60
LICENSE REINSTATEMENT FEE.....	\$40
CAR STORAGE FEE PER DAY.....	\$10
VICTIM'S PANEL ASSESSMENT (IF ORDERED).....	\$65
MINIMUM FINE.....	\$300
COST TO TOW YOUR CAR.....	\$25

DUI

THE \$8,866 HANGOVER

RESTITUTION COST FOR CHEMICAL TESTING.....	\$50
PROBATION SUPERVISION FEE.....	\$50
BAIL FEE (AVERAGE 10% OF REQUIRED BOND).....	\$70
ALCOHOL EVALUATION.....	\$50
VICTIM'S ASSISTANCE FUND.....	\$60
LAW ENFORCEMENT ASSISTANCE FUND.....	\$60
VICTIM COMPENSATION FUND.....	\$60
AUTO INSURANCE INCREASE.....	\$4,800
(\$1,600 PENALTY FOR THREE YEARS)	
DRIVER'S LICENSE RETESTING AND NEW LICENSE.....	\$25
DEFENSE ATTORNEY'S FEES.....	\$2,500

EVALUATION OF PUEBLO, COLORADO'S SMART ROADS PROGRAM



Hangover The \$8,866 DUI

	Joe Sixpack 123 Hangover Street Pueblo, CO 81001	000911000
	Pay to the order of	DUI EXPENSES \$8,866.00
		<u>Eight Thousand Eight Hundred Sixty Six and no/100 Dollars</u>
	For	<u>Drinking and Driving</u> <u>Joe Sixpack</u>
		00911 Crossroads Managed Care Systems, Inc. SMART ROADS 2000 CDOT

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