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**GOVERNMENT PERFORMANCE AND RESULTS ACT OF 1993  
PILOT PROJECT**

***THE  
NATIONAL HIGHWAY TRAFFIC  
SAFETY ADMINISTRATION***

***FY 1995  
PERFORMANCE PLAN***

**Prepared by**

**the National Highway Traffic Safety Administration  
Office of Strategic Planning and Evaluation**

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## **INTRODUCTION**

The NHTSA Fiscal Year 1995 performance plan for the Government Performance and Results Act of 1993 (GPRA) is the second in the three year pilot phase of the Act. This plan differs from the FY 1994 plan in two respects: 1) it uses a different "performance based" structure for the Agency's program and 2) there are some changes in the intermediate outcome and program performance measures. Major agency programs are covered in the FY 1995 plan. A cross-walk is provided between the new structure and the NHTSA FY 1995 budget.

On a request from the Office of Management and Budget, we included performance measures with our FY 1996 budget submittal. We have used those measures in the FY 1995 plan, with differences in target levels where appropriate. Therefore, we anticipate no significant changes between the measures in this plan and those in our FY 1996 plan.

NHTSA has just completed its first Strategic Plan. An overview presentation of the plan and elements of the Department of Transportation Strategic Plan are presented in Section IV.

Historical data on highway safety factors are presented as part of the FY 1995 Performance Plan. While there are many external factors that have come into play to affect the number of highway fatalities, injuries, and crashes since the creation of the agency, there also is ample evidence of the effectiveness of our programs in producing downward trends in the problems that we are addressing. The most notable contributions to achieving safety performance have been:

- NHTSA has issued 54 motor vehicle safety standards since its inception; as of 1991 these standards, and other NHTSA safety programs were estimated to have saved 173,000 lives.
- NHTSA was the leader in establishing age 21 as the legal drinking age for all States in the U.S. The agency, through its programs and incentive grants also has been the leader in lowering State law limits for driving while intoxicated (DWI) and laws that require Administrative License Revocation (ALR) for DWI offenders. As of September 30, 1994 all States had at least .10 blood alcohol content (BAC) as the legal limit for driving while intoxicated, 11 States had .08 as the limit, 24 States had BAC at .02 or below for under 21 year olds, and 37 States plus the District of Columbia had ALR.
- From 1983 to 1993, safety belts saved an estimated 40,138 lives. In 1993 alone 5,344 lives were saved due to safety belt use. NHTSA has actively promoted and has provided incentive grants to States for the passage and upgrade of safety belt use laws in the States.
- Between 1966 and the end of calendar year 1993 there were 4,644 vehicle and equipment recall campaigns, affecting 167.3 million vehicles, to correct safety defects. NHTSA enforcement activities have directly influenced 725 campaigns involving 97 million vehicles.

## **I. BACKGROUND**

The motor vehicle and highway safety problem in the United States is enormous and costly. Currently, 6.1 million police-reported motor vehicle crashes occur each year, resulting in 40,000 fatalities and 3.1 million non-fatal injuries. There are over 5 million non-fatal injuries when unreported injuries are

included. The cost to society in health care costs, lost productivity, and other costs is at least \$138 billion annually. While certain risk factors have been reduced -- the percent of fatalities in crashes where alcohol was involved decreased from 57 percent in 1982 to under 45 percent in 1993 and safety belt use rose from 14 percent in 1983 to 66 percent in 1993 -- there are still tremendous risks involved in driving and riding in motor vehicles, or interfacing with vehicles on public roads.

Following a continuous downward trend between 1988 and 1992 there was an increase of 865 fatalities in calendar year 1993. There was a continuous downward trend in the overall motor vehicle fatality rate per 100 million vehicle miles of travel from 5.5 to 1.8 between 1966 and 1992. Even with the increase in fatalities, there was no change in this rate between 1992 and 1993. Since 1966, there has been some year to year fluctuation in the number of motor vehicle fatalities per 100,000 population, with an overall decline from 26 to 15.6. However, between 1992 and 1993 this rate increased from 15.4 to 15.6.

### ***External Factors***

There are a variety of external factors that affect the occurrence of crashes, fatalities, and injuries on the road each year. The most significant external factors are: the economy, the population, exposure factors such as miles driven, licensed drivers and registered vehicles, and lifestyle factors such as levels of alcohol consumption. Between 1966 and 1993, the resident population increased by 32 percent, licensed drivers grew by 74 percent, registered vehicles increased by 106 percent, and vehicle miles of travel increased 147 percent.

Decreases and increases in fatalities have correlated fairly strongly with economic activity. Studies of this correlation have focussed primarily on employment indicators and the index of industrial production. Historically, the number of fatalities has risen during periods of economic expansion and fallen during recessions. Both the amount and types of driving change with the economic climate. There is less driving during high risk times which may be a result of more entertainment at home. The figure on page 3 indicates periods of recession since 1970.

However, studies using 1980's data have indicated that the predictive power of economic variables on motor vehicle fatalities may have lessened. It was during the 1980's that significant increases in safety belt use and decreases in the involvement of alcohol in fatalities began to occur. It also marked the beginning of automatic crash protection (belts) and significant improvements in the emergency response to trauma. While the increase in the number of fatalities from 1992 to 1993 appears to be a continuation of the correlation with improvements

in the economy significant increases in the number of vehicles with air bags in the mid- to late-1990s should affect this pattern. However, assessment of progress in the near term must be judged against the back-drop of the current economic expansion.

## II. AGENCY MEASURES

Given the real-world situation of continuous increases in exposure -- miles driven and population increases -- NHTSA assesses its progress in reducing the highway safety problem according to the following measures:

### NHTSA'S OUTCOME MEASURES

Fatalities per 100 million VMT  
Injuries per 100 million VMT  
Crashes per 100 million VMT

Fatalities per 100 thousand population  
Injuries per 100 thousand population

The agency seeks to make improvement in these Outcome Measures through improvements in "intermediate" measures that relate to reducing the occurrence of crashes and reducing the consequences of crashes. Improvements in customer service will provide the public with the information that they need to make safe decisions.

#### Intermediate Outcome Measures

##### Reduce the Occurrence of Crashes

- *Drivers involved in crashes per 100 thousand licensed drivers*
- *Crashes per 100 thousand registered vehicles*
- *Percent alcohol involvement in crashes*

##### Reduce the Consequences of Crashes

- *Safety belt use rates: Percent of front seat occupants*
- *Occupant fatality and injury rates per 100 thousand population*
- *Reduction of preventable mortality through emergency medical services*

##### Customer Service

- *Timeliness*
- *Responsiveness*

## *Trends in Performance Measures*

### Trends in Outcome Measures

[The figures on the following pages indicate trends in NHTSA Outcome Measures.]

- Fatalities per 100 million VMT, 1975-1993: 47.1 percent decrease, 2.2 percent per year; 1992-93: no change.
- Injuries per 100 million VMT, 1988-1993: 23.4 percent decrease, 4.3 percent per year; 1992-93: no change.
- Total crashes per 100 million VMT, 1988-1993: 18.8 percent decrease, 3.5 percent per year; 1992-93: .4 percent decrease.
- Fatalities per 100 thousand population, 1975-1993: 24.7 percent decrease, 1.2 percent per year; 1992-93: 1 percent increase.
- Injuries per 100 thousand population, 1988-1993: 12.8 percent decrease, 2.6 percent per year; 1992-93: .7 percent increase.

Reduce the Occurrence of Crashes [The figures in Appendix 1 indicate trends in other measures of safety.]

- Drivers involved in crashes per 100,000 licensed drivers 1988-1993: Decrease from 7,316 to 6,096, 3.1 percent per year (1992-93: .6 percent increase)
- Crashes per 100 thousand registered vehicles 1988-93: Decrease from 3,644 to 3,101, 2.8 percent per year (1992-93: .2 percent increase)
- The involvement of alcohol in fatal crashes has been declining. From 1988 to 1993 the percent of fatal crashes in which the driver, pedestrian, or bicyclist had positive alcohol decreased from 49.9 to 43.5, 2.5 percent per year. This had an impact on the number of alcohol-related fatalities. Between 1987 and 1992 the alcohol-related motor vehicle death rate per 100,000 population declined from 9.8 to 6.9 and the rate for 15 through 24 year olds decreased from 21.5 to 14.1 (30 and 34 percent decline respectively). The decline in these rates led the decreases in motor vehicle fatalities between 1984 and 1992, a period that encompassed periods of economic expansion and recession. Between 1992 and 1993, while total motor vehicle fatalities increased, alcohol-related fatalities continued to decline, resulting in a population death rate of 6.8. The alcohol-related death rate for ages 15 through 24 decreased from 14.1 in 1992 to 13.8 in 1993. The involvement of alcohol in injury crashes between 1988 and 1993 decreased, increased, then continued to decline for a compound annual decrease of 3.2 percent. It decreased from 1992 to 1993 by 5.2 percent. However the involvement of alcohol in property damage only crashes was the same in 1993 as it was in 1988.



### Reduce the Consequences of Crashes: Trends in Intermediate Outcome Measures

- In 1980 no States had safety belt use laws. By September 30, 1994, 48 States plus the District of Columbia, Puerto Rico, and the U.S. Territories had such laws. In 1992 safety belt use for front seat passenger vehicle occupants stood at 62 percent. With increased emphasis on and funding for enforcement of safety belt laws, this grew to 66 percent by the end of calendar year 1993.

- Occupant fatality and injury rates have been declining. Occupant fatality rates decreased from 16.7 per 100,000 population in 1975 to 13.0 in 1993, a 1.1 percent decrease per year (1992-93: .1 percent increase). Occupant injury rates declined from 1,312 in 1988 to 1,212 in 1993, a 1.5 percent decrease per year (1992-93: 6.2 percent increase).
- Over the past 10 years, studies have shown that with the implementation of comprehensive emergency medical services systems, including systems of trauma care, preventable mortality has dropped as much as 20 percent.

### Serve Our Customers

- FY 1995 is the year that NHTSA will establish a baseline for timeliness and responsiveness to our customers from an agency standpoint. This will be accomplished through our Customer Service Plan. Program activity level measures are tracked under specific program areas.

### **III. FY 1995 Program, Measures, and Targets**

To address the size and complexity of highway crash losses, NHTSA has developed a multi-faceted approach consisting of engineering, enforcement, and education programs. NHTSA is implementing these with a planned FY 1995 employment level of 667 full-time equivalent (FTE) staff years and a Presidential request of \$278 million (FY 1994 appropriation: \$298 million)

The reduction in the agency's appropriation resulted from the elimination of the incentive grant phase of the Section 153 program which provided funds to States that have safety belt use and motorcycle helmet use laws. The sanction phase of this program begins in FY 1995.

This performance plan groups NHTSA's program activities in three performance categories: Reduce the Occurrence of Crashes, Reduce the Consequences of Crashes, and Serve our Customers. We use this structure for our performance plan because we strive for improvements on these three fronts. While all three support the agency mission of reducing the number of fatalities, injuries, and economic costs, we list reduction of crashes first because it is better to save a life or avoid an injury through prevention than through damage containment and repair.

It should be noted that the performance-based structure used in this plan cuts across NHTSA's organizational structure. For example, NHTSA's Rulemaking Program addresses both crash avoidance type standards and standards to reduce the severity of crashes. While the organizational sub-structure within the rulemaking program does make this distinction, NHTSA's budget line items do not. NHTSA's Research and Development Office makes this distinction through its organizational structure, namely, the Office of Crash Avoidance Research and the Office of Crashworthiness Research. However, these distinctions also are not reflected in our budget line item for Research and Analysis. For this reason, we have provided a budget cross-walk by indicating the Program by Activity identifier codes from the *FY 1995 Budget of the United States: Appendix*, with each program entry.

The following targets for FY 1995 have been chosen based on recent trends, Healthy People 2000 proposed revisions for year 2000 fatality rate targets, and expected savings from NHTSA and State programs.

#### **NHTSA'S FY 1995 OUTCOME GOALS:**

Fatalities per 100 million VMT: 1 percent decrease to 1.7

Injuries per 100 million VMT: 1 percent decrease to 135

Crashes per 100 million VMT: 1 percent decrease to 264

Fatalities per 100 thousand population: 1 percent decrease to 15.4

Injuries per 100 thousand population: 1 percent decrease to 1,200

#### **Measurement Sources:**

NHTSA Fatal Accident Reporting System (FARS)

NHTSA General Estimates System (GES)

## **A. REDUCE THE OCCURRENCE OF CRASHES**

NHTSA's program to reduce the occurrence of crashes includes actions directed at vehicle safety and personal behavior. Programs include alcohol prevention, crash avoidance research and development, crash avoidance regulatory actions, and enforcement actions targeted at reducing the number of crashes. Our FY 1995 Intermediate Outcome Goals are:

- *Drivers involved in crashes per 100,000 licensed drivers: reduce from 6,096 to 6,035 (1 percent decrease)*
- *Crashes per 100 thousand registered vehicles: reduce from 3,101 to 3,070 (1 percent decrease)*
- *Alcohol involvement in crashes: reduce from 44 to 43.5 percent (1 percent decrease)*

### **Highway Safety Programs**

FY 1995 Budget Appendix p. 661: 69-0650-0-1-401.03

FY 1995 Budget Appendix p. 662: 69-8020--0-7-401.03

### ***Alcohol Program***

Program Objectives/FY 1995 Program - The goal of NHTSA's alcohol initiatives is to reduce the number of alcohol-related traffic crashes, fatalities and injuries. A near-term target is to reduce the alcohol-related proportion of fatalities to 43 percent by the end of CY 1996. This is a Secretary of Transportation goal. The two strategies of the Office of Alcohol and State Programs to achieve reductions in alcohol involvement in crashes are: information and education; and laws, enforcement, and sanctions. The agency assists States in passing priority alcohol laws, including administrative license revocation, .08% blood alcohol content for adults, and zero tolerance for youth, through the development of national coalitions, alcohol incentive grants, and technical assistance to States and advocate groups.

Our FY 1995 program will extend the FY 1994 strategies by fully implementing Campaign Safe and Sober, our combined alcohol and safety belt program, by using peer-to-peer spokespeople to spread the program, and by increasing our activities targeted to special populations. We will continue our partnerships with cultural groups to develop complete targeted traffic safety programs with these groups. Section 403 funds support these and other research, demonstration projects and safety training programs.

Section 402 Highway Safety Grants provide resources to States to achieve the alcohol goal. Performance is measured by an assessment of the percent of objectives met by the States in their Annual Evaluation Reports of their Highway Safety Plans.

### **FY 1995 Program Performance Goals/Measures/Targets**

- Reduce the proportion of fatalities that are alcohol-related to 43.5 percent. [FY 1994 plan target: 44 percent]

Measurement Sources - Fatal Accident Reporting System.

Barriers to Meeting Targets - Limited resources for DWI law enforcement and DWI offender screening and treatment for alcohol problems; legislative resistance to effective DWI laws in some

States.

Effect on Current Year from Past Activities - If alcohol were still involved at the 1982 level, there would have been 11,159 additional fatalities in 1992 and 12,895 fatalities in 1993.

Effect on Future Years from Current Activities - Continued emphasis on enforcement will have a deterrent effect on repeat drinking driver offenders in the future.

### ***Highway Safety Grants for Crash Avoidance: Section 410 Alcohol Incentive Grants***

Program Objectives/FY 1995 Program - Consistent with the Secretary's goal to reduce alcohol-involved crashes and fatalities this grant program was requested at the full authorized amount of \$25 million for FY 1995. The Section 410 program provides incentives to States to implement innovative strategies to reduce drunk and drugged driving. Increases in the number of States passing Administrative License Revocation (ALR) laws, .08 BAC laws, and .02 BAC laws can be attributed in large measure to a desire to qualify for these incentive funds. It is anticipated that 30 States will qualify for funding in FY 1995.

#### FY 1995 Program Performance Goals/Measures/Targets:

- Increase by 3 (11 percent) the number of Section 410 States (FY 1994 baseline: 27 States).

Measurement Sources: NHTSA Regional Office staff.

Barriers to meeting targets: Legislative obstacles at the State level.

### ***National Driver Register***

Program Objectives/FY 1995 Program - The goal of the National Driver Register (NDR) is to reduce the occurrence of crashes through implementation of the Problem Driver Pointer System (PDPS) that identifies drivers with a history of suspended or revoked licenses or other problems. This computerized system contains driver identifier information and, when queried, "points" one State to driver information in another State. FY 1995 funds will be used to continue regular daily operation of the NDR and to complete the PDPS implementation. During this budget period, PDPS implementation will be in its final stages, and the primary activity will be assisting the few remaining States in completing the conversion process, conducting structured system testing, and certifying States as meeting the PDPS participation requirements. The goal for completion of PDPS implementation is April 30, 1995.

FY 1995 Program Performance Goals/Measures/Targets:

*Goal*

- Implement PDPS in all States.

*Measures*

- Answer 95 percent of all electronic inquiries within 5 seconds (maintain 1994 level).
- System available for inquiries during at least 99 percent of the operating hours of 7 a.m. to midnight Eastern time Monday through Saturday. (maintain 1994 level).

Measurement Sources: National Driver Register Program records.

Barriers to meeting targets: Computer hardware and software problems in individual States and at the NDR central site; lack of money at the State level for conversion to new system.

**Rulemaking**

FY 1995 Budget Appendix p. 661: 69-0650-0-1-401.01

***Vehicle Safety Standards for Crash Avoidance***

Program Objectives/FY 1995 Program - The objectives of the Vehicle Safety Standards Program are: to identify safety problem areas; to develop countermeasures; to collect and analyze information to support the development of and amendments to, Federal Motor Vehicle Safety Standards (FMVSS); and to respond to questions, assertions, and comments on vehicle safety from internal and external organizations.

The FY 1995 program for avoiding crashes focusses on priority rulemaking projects established by NHTSA, rulemaking activities initiated by petitions, and rulemakings mandated in the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA/1991). The ISTEA established legislative requirements and deadlines for vehicle rulemaking in the crash avoidance areas of rollover propensity and passenger car and heavy truck brake performance. The agency will continue to fund research and testing in these areas of high priority.

FY 1995 Program Performance Goals/Measures/Targets

*Goals*

- Complete NPRM for Improved Brake Performance Standards for Passenger Cars.
- Complete final rule for Stability and Control and Stopping Distance Requirements for Medium and Heavy Vehicles.

## *Measures*

- Establish new baseline measurement for rulemaking performance.
- Increase the percent of petitions granted or denied within 120 days to 65 percent (FY 1994 baseline: 57 percent).

Measurement Sources: NHTSA Office of Rulemaking tracking system.

Barriers to meeting targets: Exceptionally high number of rulemaking petitions received; insufficient commitment to achieving the goals within the agency or within the Department.

### Effect on Current Year of Past Activities

Rulemaking actions take several years to have an effect on the "bottomline" of safety. Many years of research and rulemaking activity ensue prior to a regulation being issued. Once effective it will take at least ten years for the required safety features to be incorporated into most vehicles on the road. While the GPRA forces measurement into a fiscal year time frame, the following discussion indicates the time frame of effect of one rule, aimed at crash avoidance.

Center High Mounted Stop Lamps (CHMSL) (Federal Motor Vehicle Safety Standard 108) have been required equipment on passenger cars since September 1, 1985. The purpose of CHMSL is to safeguard a car from being struck in the rear by another vehicle. The CHMSL rule evolved through the full cycle of experimental research, test fleets, regulatory analysis, rulemaking and evaluation. Research conducted between 1974 and 1979, and test fleet experience between 1976 and 1979 with CHMSL equipped cars, demonstrated high levels of effectiveness in reducing rear-end crashes compared to conventional stop lamps. The Regulatory Impact Analysis, published in 1983, projected benefits of 50 percent reduction of CHMSL relevant crashes, injury reduction of 40,000 per year, damage reduction of \$434 million per year; and costs per car of \$4 to 7 (1982 dollars) Following the implementation of the standard in new vehicles, a NHTSA evaluation study found that CHMSL equipped cars were 17 percent less likely to be struck in the rear while braking than the cars without CHMSL; when all cars on the road have CHMSL, they will prevent 126,000 police reported accidents, 80,000 nonfatal injuries and \$910 million in property damage per year; and that the CHMSL requirement added \$10.48 (in 1987 dollars) to the lifetime cost of owning and operating a car. At the effectiveness levels observed in the 1987 data, the CHMSL was found to be a very cost effective safety device.

### Effect on Future Years from Current Activities

The final rule for Stability and Control and Stopping Distance Requirements for Medium and Heavy Vehicles is expected to be issued in FY 1995. If issued in its present form, it will become effective on a graduated basis beginning at the start of CY 1997. Annual lives saved and injuries reduced have been estimated in the range of 300 to 500 and 15,000 to 27,000 respectively.

## Enforcement

FY 1995 Budget Appendix p. 661: 69-0650-0-1-401.02

### *Defects Investigations for Crash Avoidance*

Program Objectives/FY 1995 Program - The Defects Investigation Program contributes to crash avoidance goals by collecting and acting on information related to safety defects that affect the occurrence of crashes. The agency will continue to conduct defect investigations leading to recalls in order to remove defective vehicles and items of motor vehicle equipment from the nation's highways. In FY 1995 the program will obtain and analyze motor vehicle defects reported to the agency from the public through the Auto Safety Hotline (see Customer Service) and from other sources and will conduct rigorous investigations to determine whether such reported defects are creating an unreasonable safety risk. As of the end FY 1994, there were 48 active defects investigations underway involving crash avoidance-related vehicle components and equipment.

FY 1995 Performance Goals/Measures/Targets - The agency's performance measure for the defects investigation program is the average elapsed time to conduct a safety defect investigation. This "process" measure is used because the outcome of investigations is uncertain in terms of recalls that result in removal of unsafe vehicles and equipment. However, we will report the number of recalls in our FY 1995 Performance Report.

- Average elapsed time to conduct a safety defect investigation: 5.7 months (maintain at 1994 level).

Measurement Sources - NHTSA Office on Defects Investigation computerized defect investigation tracking system.

Effect on Current Year from Past Activities - From the inception of the National Traffic and Motor Vehicle Safety Act in September 1966, to December 31, 1993, 167.3 million vehicles have been recalled in 4,644 recall campaigns to correct safety defects. The Defect Investigation Program has directly influenced 725 recall campaigns involving 97 million vehicles. Since 1984, 1,142 recall campaigns were related to crash avoidance. Many of these vehicles are still be on the road today, and if they had not been recalled, would represent an increased safety risk.

Effect on Future Years from Recent and Current Activities - In calendar year 1993, 10.5 million vehicles were recalled for safety defects, with 88 percent of this total influenced by NHTSA defect investigations. There were a total of 187 recall campaigns in CY 1993. Of these, 137 (73 percent) were related to reducing the occurrence of crashes. The 48 defects investigations underway at the beginning of FY 1995 related to crash avoidance characteristics of vehicles may or may not result in recalls, depending on the information and facts obtained during the course of the investigation.



## ***Federal Motor Vehicle Safety Standards Compliance Testing of Crash Avoidance Standards***

Program Objectives/FY 1995 Program - The Office of Vehicle Safety Compliance conducts a yearly test program to determine whether certified motor vehicles and motor vehicle equipment meet all requirements of applicable Federal Motor Vehicle Safety Standards (FMVSS). The FY 1995 Vehicle Safety Compliance Test Program will include tests for compliance verification on 32 of 42 "testable" standards; 12 of these are for crash avoidance standards; these include FMVSS 105, "Hydraulic Brake Systems," FMVSS 106, "Brake Hoses," FMVSS 121, "Air Brake Systems," and FMVSS 131, "School Bus Pedestrian Safety Devices."

FY 1995 Performance Goals/Measures/Targets - Timely completion of all testing within the model year of production.

- Complete all brake system and other vehicle crash avoidance testing by July 15, 1995.
- Complete all other equipment crash avoidance testing by August 15, 1995.

Measurement Sources - NHTSA Office of Vehicle Safety Compliance test reports and dates completed.

Barriers to meeting targets - Inability of contractors to meet time schedules or other contractual requirements.

### **Research and Development**

FY 1995 Budget Appendix p. 661: 69-0650-0-1-401.04

#### ***Crash Avoidance Research***

##### Program Objectives/FY 1995 Program

The Crash Avoidance research program is aimed at reducing the frequency of crashes that are potentially avoidable. The program is focused on providing the research necessary to match solutions to specific problems, to assess their effectiveness through in-service evaluation, and to foster the commercial development of collision avoidance products. The program will enhance the crash avoidance performance of motor vehicles through the application of traditional and intelligent vehicle technology and will help ensure no loss of safety as collision avoidance and mobility enhancement systems are incorporated into motor vehicles. During FY 1992, FY 1993, and FY 1994, major multi-year projects were initiated to develop research tools and knowledge bases, to define crash avoidance problems, to develop performance guidelines, to evaluate countermeasures, and to evaluate the impact on safety of incorporating mobility/ productivity enhancement systems into motor vehicles. The FY 1995 funding will continue this effort. Included in the FY 1995 program is funding for IVHS, the National Advanced Driving Simulator, and Heavy Vehicle Research.

## FY 1995 Performance Goals/Measures/Targets

### *Goals*

- Complete NADS design competition and award Phase II fabrication contract.
- Complete cooperative government-industry program to develop tire traction performance measurement procedures.
- Complete development of preliminary performance specifications for IVHS-based collision avoidance systems.
- Construct research tools developed in previous fiscal years for acquiring human factors data (DASCAR) and for characterizing normal driving behavior (VME).
- Initiate a \$12.2 million cooperative Automotive Collision Avoidance System project as part of the ARPA Technology Reinvestment Project.

### *Measures*

- Timely dissemination of research results as measured by end of year assessment of contractor reports and staff technical papers published and staff technical presentations (FY 1994 baseline: 13 contractor reports, 9 staff technical papers/reports, and 18 presentations).
- Timely response to short-term rulemaking needs (FY 1994 baseline: 2).
- Yearly assessment of the extent to which the program has had in accelerating the development of crash avoidance products by the private sector (FY 1994 baseline: the signing of 5 cooperative agreements with industry to facilitate the development of collision avoidance products).

Measurement Sources - NHTSA Office of Crash Avoidance Research; Research Program Plan.

Barriers to meeting targets - Changes in agency priorities; procurement delays; adjustments in program schedules to respond to unanticipated problems or research results; failure of non-DOT sources to meet the required cost-sharing provisions of the NADS program.

Effect on Current Year from Past Activities - The Crash Avoidance Research Program is long-term in nature. Outcome impacts in terms of the crash avoidance characteristics of vehicles on the road accrue over time, as the results of research result in crash avoidance systems being incorporated into motor vehicles. The crash avoidance research program has supported the widespread availability of antilock braking systems in all classes of motor vehicles in 1995 production vehicles.

Effect on Future Years from Current Activities - The IVHS, Driving Simulator, and Heavy Vehicle Research projects will facilitate the introduction over the next 5-10 years of collision avoidance systems which will yield safety benefits well into the next century.

## **B. REDUCE THE CONSEQUENCES OF CRASHES**

NHTSA addresses the reduction of crash consequences on several fronts. Vehicle occupant crash protection and behavioral issues, e.g. safety belt use are addressed. FY 1995 Intermediate Outcome Goals are:

- *Safety belt use rates: percent of front seat occupants: 70 percent (1993 baseline: 66 percent; FY 1994 target: 68 percent).*
- *Occupant Injury Rates per 100,000 population:  
Fatality: 12.9 (1 percent decrease)  
Injury: 1,212 (no increase).*
- *Reduction of preventable mortality by 3% through implementation of comprehensive emergency medical services systems, including systems of trauma care.*

### **Highway Safety Programs**

FY 1995 Budget Appendix p. 661: 69-0650-0-1-401.03

#### ***Occupant Protection***

Program Objectives/FY 1995 Program - The objective of this program is to increase the use of occupant protection systems through greater compliance with State belt use and child safety seat laws. The Occupant Protection program consists of four major components: public information and education; belt law compliance; target population education; and evaluation and technology sharing. The FY 1995 program will use highly publicized enforcement blitzes, accompanied by statewide media programs, peer-to-peer enforcement outreach, and efforts to upgrade State use laws. These efforts are needed to achieve the Secretary's goal of increasing safety belt use to 75 percent by the end of CY 1996.

Section 402 Highway Safety Grants provide resources to States to achieve the agency's occupant protection goals. Performance is measured by an assessment of the percent of objectives met by the States in their Annual Evaluation Reports of their Highway Safety Plans.

#### **FY 1995 Program Performance Goals/Measures/Targets**

- National safety belt use for front seat occupants at 70 percent. (1993 baseline: 66 percent; 1994 target: 68 percent).

Measurement Sources: Population-weighted, State observational use surveys; National Occupant Protection Survey.

Barriers to meeting targets: Legislative resistance to effective primary enforcement laws; limited police resources for enforcement; competing agendas for education, public information and media time.

Effect on Current Year from Past Activities - From 1983 to 1993, it is estimated that safety belts saved 40,138 lives; 5,344 in 1993. The four percentage point increase in use between 1992 and 1993 resulted in an additional 500 lives saved and 14,000 serious injuries reduced over what they would have been if the usage rate had remained at the 1992 level.

Effect on Future Years from Current Activities - At a 75% usage rate 1,700 lives and thousands of injuries would be saved in passenger cars alone. If all front seat occupants wore safety belts, approximately 14,000 lives would be saved every year.

### ***Emergency Medical Services Program***

Program Objectives/FY 1995 Program - The objective of the Emergency Medical Services (EMS) program is to reduce death, disability and resulting health costs from highway crashes following their occurrence, by enhancing EMS systems, particularly in rural areas. The FY 1995 program will include a rural demonstration project that is based on the results of the rural preventable mortality studies completed in FY 1994. In addition, States will be encouraged to implement the Bystander Care program using State demonstrations to be conducted in FY 1994 as models. The program will continue to provide national expertise and guidance to States on educating the public on how and when to access EMS, and what to do until help arrives. NHTSA also will provide technical assistance to States to improve prehospital data collection to enable States to evaluate the effectiveness of highway safety programs. NHTSA will continue revisions of emergency medical response curricula, will initiate the update to advanced levels of EMT training, and will encourage State adoption of these. The FY 1995 program also will include an assessment of the need to provide curricula in other languages to serve diverse populations.

### FY 1995 Program Performance Goals/Measures/Targets

#### *Goals*

- By CY 1997 achieve reduction in preventable mortality of 10 percent nationwide.
- Reduction in preventable mortality of 3 percent in 1995.

#### *Measures*

- Initiate update to advanced levels of EMT training.
- Complete revised curricula development for Dispatcher, First Responder, and Ambulance Driver Training.
- Initiate rural demonstration program.

Measurement Sources: Office of Enforcement and Emergency Services.

Barriers to meeting targets: Legislative impediments, lack of funds at State level.

Effect on Current Year from Past Activities - The skills of emergency responders have been upgraded by the adoption of the standardized training curricula developed by NHTSA. The statewide assessments have resulted in many legislative changes at the State level to upgrade emergency medical services systems. Reduction of preventable mortality in urban areas has been significant.

Effect on Future Years from Current Activities - The revised standardized curricula developed in this fiscal year will upgrade the skills of people who response to vehicle crashes.

### **Rulemaking**

FY 1995 Budget Appendix p. 661: 69-0650-0-1-401.01

#### ***Vehicle Safety Standards for Crashworthiness***

Program Objectives/FY 1995 Program - The objectives of the Vehicle Safety Standards Program are: to identify safety problem areas; to develop countermeasures; to collect and analyze information to support the development of and amendments to, Federal motor vehicle safety standards; and to respond to questions, assertions, and comments on vehicle safety from internal and external organizations. FY 1995 activities for crashworthiness include research and testing for areas of high priority such as: side impact protection for LTVs and interior head protection, and will complete the remaining rulemakings mandated in the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA/1991).

#### **FY 1995 Program Performance Goals/Measures/Targets**

##### *Goals*

- Complete final rule for Interior Head Protection.
- Complete action on Side Impact Protection for LTV's.
- Complete proposal and final rule to address air bag-child seat interactions in vehicles with no rear seats.
- Complete action on safety of CNG powered vehicles.
- Complete final rule to upgrade Child Restraint Standard.
- Issue ANPRM to upgrade Fuel System Integrity Standard.

##### *Measures*

- Establish new baseline measurement for performance in rulemaking program.
- Increase the percent of petitions granted or denied within 120 days to 65 percent (FY 1994 baseline: 57 percent).

Measurement Sources - NHTSA Office of Rulemaking tracking system.

Effect on Current Year of Past Activities - Federal Motor Vehicle Safety Standard 208, as amended on July 17, 1984, combined a nationwide effort to increase belt use through State belt laws, enforcement and education, and a requirement that automatic occupant protection, such as air bags or automatic belts. The effectiveness of automatic occupant protection is measured by statistical analysis of fatal crashes involving model year 1985-93 passenger cars, based on FARS data from 1986 through mid-1993. Fatality risk of occupants in cars equipped with air bags plus manual belts (at 1993 use rates) were 23 percent lower than in "baseline" cars with manual belts at 1983 use rates. In similar comparisons, the fatality reductions for the four types of automatic belts ranged from 11 to 19 percent. In the 1993 model-year mix of cars with air bags or automatic belts, at 1993 belt use rates, the average fatality risk was 20 percent lower than for manual-belt cars at 1993 use rates.

Effect on Future Years from Recent and Current Activities - The final rule requiring air bags for outboard front seat positions in light vehicles was issued in 1993. Under the revisions to FMVSS 208 the requirement will be phased in on a percentage basis. All passenger cars manufactured after September 1, 1997 must meet the new requirement and all light trucks must meet the requirement after September 1, 1998. The market effect of this rule is that manufacturers have already begun to produce vehicles with driver and passenger air bags. It was estimated that the benefits of air bags over automatic belts will amount to a savings of from 2,000 to 3,700 lives saved annually and to a reduction of from 20,000 to 48,000 moderate to critical injuries.

### **Enforcement**

FY 1995 Budget Appendix p. 661: 69-0650-0-1-401.02

### ***Defects Investigation for Crashworthiness Safety***

Program Objectives/FY 1995 Program - The Defects Investigation Program for reducing the consequences of crashes will analyze motor vehicle defects that relate to the crashworthiness characteristics of vehicles and equipment. Determinations on defects are made using information obtained from the public through the Auto Safety Hotline (See Customer Service) and from other sources, and through rigorous investigations of potential unreasonable safety risk. At the beginning of FY 1995 there were 19 defect investigations underway involving crashworthiness related vehicle components and equipment.

### FY 1995 Program Performance Goals/Measures/Targets

- Average elapsed time to conduct a safety defect investigation: 5.7 months (maintain 1994 level).

Measurement Sources - NHTSA Office of Defects Investigation computerized defect investigation tracking system.

Effect on Current Year from Past Activities - Since 1984 there have been 453 safety-related recalls related to crashworthiness characteristics of motor vehicles and items of motor vehicle equipment. Many of these vehicles are still on the road, and if these crashworthiness features had not been corrected they would pose a risk of higher injury severity.

Effect on Future Years from Current Activities - In calendar year 1993, 10.5 million vehicles were recalled for safety defects, with 88 percent of this total influenced by NHTSA defect investigations. Of the total 187 recall campaigns, 50 (27 percent) were related to the crashworthiness characteristics of vehicles. Seven of these recall campaigns, involving 337,175 vehicles, were conducted to remedy safety-related defects in safety belt systems. This helped to ensure that the safety benefits associated with the agency's priority program to increase safety belt use would be realized.

### ***Federal Motor Vehicle Safety Standards Compliance Testing of Crashworthiness Standards***

Program Objectives/FY 1995 Program - The Office of Vehicle Safety Compliance test conducts a yearly test program to determine whether certified motor vehicles and motor vehicle equipment meet all requirements of applicable Federal Motor Vehicle Safety Standards related to crashworthiness. The FY 1995 Vehicle Safety Compliance Test Program will include tests for compliance verification on 32 of 42 "testable" standards; 20 of these are for crashworthiness standards; these include FMVSS 208, "Occupant Crash Protection," FMVSS 213, "Child Seating Systems," FMVSS 214, "Side Impact Protection," FMVSS 222, "School Bus Passenger Seating," and FMVSS 301, "Fuel System Integrity." The compliance test program will ensure that the safety benefits associated with the levels of performance establishes in the agency's crashworthiness safety standards are being realized.

### FY 1995 Performance Goals/Measures/Targets -

- Complete all vehicle occupant crash protection and other crashworthiness testing by July 15, 1994.
- Complete all child safety seat compliance testing by August 15, 1994.

Measurement Sources - NHTSA Office of Vehicle Safety Compliance test reports and dates completed.

Barriers to meeting targets - Inability of contractors to meet time schedules or other contractual requirements.



## Research and Development

FY 1995 Budget Appendix p. 661: 69-0650-0-1-401.04

### *Crashworthiness Research Program*

Program Objectives/FY 1995 Program - The objective of crashworthiness research is to undertake these activities so as to ensure and promote transportation safety, and to advance U.S. transportation technology and expertise by investing in the national laboratories. Research in FY 1995 will identify and mitigate the safety problems associated with frontal crashes beyond the implementation a Federal Motor Vehicle Safety Standard (FMVSS) No. 208. The focus will be on the development and evaluation of countermeasures required to mitigate the safety problems associated with injuries to the body regions not covered by the standard, including the neck, abdomen, pelvis, and lower extremities; injuries associated with occupant age and size; occupant compartment intrusion; and vehicle aggressiveness. The work for FY 1995 is expected to involve substantial crash testing of modified vehicle designs. In addition, FY 1995 work will include research on reducing occupant ejection injuries through improvements as necessary in glazing, latches, and hinges; improved restraint concepts for children and the elderly. Research will continue to provide the scientific bases for the development of occupant protection devices beyond the scope of those currently used in passenger cars. The FY 1995 efforts will include hardware development of the promising technologies.

### FY 1995 Program Performance Goals/Measures/Targets -

- Complete all planned project tasks in 75 percent of the 65 research projects approved and ongoing in FY 1995.
- Responses to short-term rulemaking needs: no target specified because needs are unanticipated; will report at end of FY (FY 1994 baseline: 8).

### Measurement Sources - NHTSA Office of Crashworthiness Research

Barriers to meeting targets - Changes in agency priorities; procurement delays; adjustments in program schedules to respond to unanticipated problems or research results.

Effect on Current Year from Past Activities - The Crashworthiness Research Program has contributed to the development of the agency's major safety benefit rulemaking actions. These include side impact protection for passenger cars and light trucks, FMVSS 208 for occupant crash protection, and the new proposed rule for interior head impact protection in light vehicles.

Effect on Future Years from Current Activities - Dummy development and crash injury analyses will provide the underpinnings for improvements in crash injury protection. Work in FY 1995 on neck, abdominal, pelvic, and lower extremity injuries will result in reductions in threat to life and lifetime disability. The age-related research to be conducted in FY 1995 will be vital to respond to the injury issues associated with the aging of the population.

In the frontal crash protection research program, the agency has estimated that 7,500 - 8,500 fatalities and 120,000 moderate to critical injuries will continue to occur each year even after full implementation of air bags into all passenger cars and light trucks and vans. The effect of the current activities is to provide the groundwork for mitigating a large part of this safety problem. Also, occupant ejection accounts for almost 10,000 fatalities each year in vehicle crashes. The rollover research program is investigating improved door latches and advanced window glazing. Progress in these areas will significantly reduce these fatalities.

### **C. SERVE OUR CUSTOMERS**

This section describes the elements of NHTSA's Customer Service Plan. This plan will provide the baseline for future performance measurement. The goal for performance measurement in the area of customer service is to develop a "Customer Service Index" that will include individual measurements for NHTSA's major customer service activities. The index will reflect timeliness and responsiveness. We hope to complete the development of this index by the end of the pilot project phase of the GPRA, so that it will be ready for the full implementation phase.

For the current Performance Plan we will identify the baseline measurement that will take place in FY 1995. In order for the agency to complete the baseline development in FY 1995 we will need to be granted a waiver from OMB under the Paperwork Reduction Act (5 CFR 1320) for clearance of surveys. Application for waiver will be transmitted as part of the self-nomination process.

Also in this section of the plan we will present performance goals for three of the agency's major customer service programs: the New Car Assessment Program, the National Center for Statistics and Analysis and the Auto Safety Hotline. Three additional programs have been established by legislation to serve the non-safety needs of the public. These are the Corporate Average Fuel Economy (CAFE) Program, the Odometer Fraud Program, and the Theft Prevention Program. NHTSA plans to address measures for these programs in future GPRA Performance Plans.

#### **NHTSA's Customer Service Action Plan**

NHTSA has developed and published three Customer Service Standards: for National Organizations, for the Auto Safety Hotline, and for State and Community Traffic Safety Programs. Surveys of the general public, broadcast and print media directors, national organizations concerned with highway safety, and State Highway Safety offices are planned for completion by September 1995. These surveys will be by paper and by phone and will probe the extent to which the overall and specific agency programs meet the needs of the public for highway safety information and services.

In addition, continuous surveys are in place or planned for users of the NHTSA Technical Reference Library, the Auto Safety Hotline, the National Center for Statistics and Analysis, and the Traffic Safety Resource Center. By March 1995, NHTSA staff, its internal customers, will be surveyed to determine the extent to which the agency is meeting the substantive and administrative needs of its employees. The information obtained from these surveys will provide the baseline for development of a customer service index for the agency that can be tracked annually for performance improvement. Appendix 2 indicates the details of our FY 1995 customer service baseline measurement.

## FY 1995 Customer Service Program Measures

For FY 1995 measurement, NHTSA will report on performance for the following three major customer service programs.

### *Auto Safety Hotline*

FY 1995 Budget Appendix p. 661: 69-0650-0-1-401.02

#### Program Objectives/FY 1995 Program

The Auto Safety Hotline provides a toll-free, automated mechanism for consumers to request motor vehicle and highway safety information. It also provides a means for consumers to report safety-related problems with motor vehicles and items of motor vehicle equipment. These reports supply important data used by the agency in its Defects Investigation program. Hotline operations funded in FY 1995 will continue improvements in agency responsiveness to the public for information. A FAX for quick response on agency fact sheets and information will begin operation in FY 1995. Future measures of performance will include the effectiveness of the Hotline in collecting defect information.

#### FY 1995 Program Performance Goals/Measures/Targets

##### *Goal*

- By December 1994 provide customers with most popular fact sheets and information within 24 hours through new fax-on-demand service.

##### *Measure*

- Reduce "dropped calls" to the automated portion of the Hotline by 5 percent compared to FY 1994 (FY 1994 baseline: 14 percent drop rate), and to the operator-assisted portion by 5 percent compared to FY 1994 (FY 1994 baseline: 7.1 percent drop rate).

Measurement Sources: Auto Safety Hotline computerized tracking system.

Barriers to achieving targets: If the number of calls frequently exceeds the capacity of the system, the number of dropped calls rises. This can be due to media coverage of motor vehicle and highway safety issues. A significant upgrade of the system is planned for FY 1996.

### *National Center for Statistics and Analysis*

FY 1995 Budget Appendix p. 661: 69-0650-0-1-401.04

#### Program Objectives/FY 1995 Program

The National Center for Statistics and Analysis collects and analyzes crash data bases to support highway safety problem identification, program support for rulemaking, enforcement, research and behavioral modification programs, and program evaluation. These data also are the primary source of information on highway safety for other modes, especially the Federal Highway Administration, the auto and insurance industries, State and local governments, and consumers. The program involves a combination of internal staff and contractor resources, with the staff playing an active role in identifying data needs, developing coding and collection schemes, directing and participating in the creation of electronic data files, and responding to requests from internal and external customers.

#### FY 1995 Program Performance Goals/Measures/Targets

##### *Goals*

- Meet schedule for data systems:
  - 1994 FARS data base created by July 1995.
  - 1994 NASS GES data base created by August 1995.
  - 1994 NASS CDS data base created by September 1995.

##### *Measure*

- Timely response to data requests from internal and external customers as measured by end of year report. (CY 1993 Performance: 230 statistical analyses: primarily for internal clients but many were incorporated into or published in rulemaking support papers, technical papers, and policy papers for consumption by external customers. 4,425 information retrievals: 3,900 for external customers, 525 for internal customers. Additional 1,400 external and 2,100 internal requests.)

Measurement Sources: NCSA tracking system.

Barriers to achieving targets: Limitation of staff resources; unforeseen analytical needs resulting from major NHTSA initiatives.

#### ***New Car Assessment Program***

FY 1995 Budget Appendix p. 661: 69-0650-0-1-401.01

#### Program Objectives/FY 1995 Program

The New Car Assessment Program was established in response to a requirement in the Motor Vehicle Information and Cost Savings Act of 1972 to provide consumers with a measure of the relative crashworthiness of passenger vehicles. The FY 1995 program will include providing data to consumers based on 38 frontal crashworthiness tests. It was hoped that significant improvement in providing the public with needed safety information could be made in FY 1995, namely, information resulting from side impact tests and strategic promotional activities. However, due to the fact that Congress did not appropriate funding for these activities these potential improvements in customer service will not be realized.

#### FY 1995 Program Performance Measures/ Targets:

- Complete tests on 38 new vehicles; complete model year 1995 tests by May 31, 1995. (FY 1994 baseline: 38 vehicles tested).

Measurement Source: NHTSA Office of Market Incentives tracking system and number of Auto Safety Hotline inquiries and news articles.

Barriers to achieving targets: Time for Office of Contracts and Procurement to process procurement actions for promotional activities; weather conditions and scheduling conflicts at the test laboratories.

## IV. NHTSA STRATEGIC PLAN/DOT STRATEGIC PLAN

NHTSA has just completed its first Strategic Plan. The agency started the process of development of the plan by obtaining input from the public (via a Federal Register Notice), interviews with key stakeholders within and outside of the Department, and a series of issue papers developed by teams of NHTSA employees. These issue papers covered external issues such as the economy, demographics, road conditions, and the automotive industry, and internal factors such as human resources and organization and management. Final development of the plan was undertaken by the NHTSA executive staff, including the Administrator, Deputy Administrator, Executive Director, and Associate Administrators. The elements of the plan are:

### **NHTSA's Mission:**

*The National Highway Traffic Safety Administration's mission is to save lives, prevent injuries and reduce traffic-related health care and other economic costs. The Agency develops, promotes and implements effective educational, engineering, and enforcement programs toward ending preventable tragedies and reducing economic costs associated with vehicle use and highway travel.*

### **NHTSA's Vision:**

*NHTSA will lead the nation in creating the highest level of road safety in the world.*

The following Critical Elements and Strategic Goals are contained in the NHTSA Strategic Plan. Each is related to the agency's outcome goals (OG), reduce the occurrence of crashes (RO), reduce the consequences of crashes (RC), and provide quality service to our customers (SC).

### **Critical Elements and Strategic Goals**

#### ***Provide Leadership and Set an Agenda***

**Goal 1** Lead the effort to make traffic and motor vehicle safety a priority of the nation's health care agenda. (OG)

**Goal 2** Lead a national initiative to address the most significant traffic and motor vehicle safety issues. (OG)

**Goal 3** Deliver the highest quality technical and program assistance to States and communities, and promote international cooperation. (RO,RC,SC)

**Goal 4** Improve data collection and analysis to better identify and understand problems and to support and evaluate programs: expedite the availability of information to customers and partners. (SC)

***Support Research and Apply the Results to Education, Engineering, and Enforcement to Reduce Road Casualties and Costs***

**Goal 5** Reduce the number and severity of road collisions. (RO,RC)

**Goal 6** Mitigate the consequences of motor vehicle crashes. (RC)

**Goal 7** Advance the non-safety mandates of the Agency. (SC)

***Transform NHTSA Through Continuous Improvement***

**Goal 8** Improve NHTSA's internal processes, management, and structure to create a more effective and efficient Agency that is better able to pursue its mission.

**Goal 9** Listen to, involve, and serve customers and partners in the planning, programs, and activities of the Agency. (SC)

**Goal 10** Build and maintain a professional, productive, innovative, diverse work force.

**Goal 11** Effectively manage and use information resources.

The NHTSA program responds to DOT Strategic Plan Goal 3: Create a New Alliance Between the Nation's Transportation and Technology Industries; Goal 4: Promote Safe and Secure Transportation; and Goal 7: Transform DOT by Empowering Employees.



**APPENDIX 1**  
**Trends in Highway Safety Measures**

**APPENDIX 2**  
**NHTSA Customer Surveys for GPRA Measurement**

In FY 1995, NHTSA will initiate or continue customer service measurement for 11 customer groupings. Some of the baseline measurement will be completed in FY 1995 and others in FY 1996.

<b>Customer/Program Area:</b>	<b>Information on:</b>	<b>Measurement Mode:</b>	<b>Completed by:</b>
General Public	Whether entire NHTSA program is serving customer needs for information, program funding, regulations, enforcement	Phase I: Public Meetings	December 1994
NHTSA Auto Safety Hotline Callers	Timeliness/ Responsiveness	On-line call monitoring/ On-line caller surveys	Continuous
Broadcast and Print Media Directors (National)	Quality of motor vehicle and traffic safety information being disseminated to media	Telephone survey	September 1995; biennially thereafter
NHTSA Technical Reference Library Users	Improvement of access to publications, highway safety research literature, crash test data, and rulemaking information	Paper survey (self mailer for call-in requests or countertop questionnaire for visitors)	Continuous

NCSA Data Requesters	Timeliness of response to user requests for crash statistics	Paper survey (self mailer enclosed with mailouts)	Continuous
Auto & Traffic Safety Journal Readers	Responsiveness in disseminating latest research findings to research community	Questionnaire insert in journal	Continuous
New Car Assessment Report Readers (including general public, new car buyers, diverse interest groups)	Clarity of comparative information on safety information on safety performance of motor vehicles	Focus groups; on seminar with diverse interest groups; town meetings	October 1994 (Phase I)
Auto and Allied Industry Members	Dissemination of information about motor vehicle safety regulatory actions	Government/Industry Meetings	Quarterly
TSP Resource Center Users	Dissemination of program information, materials, technical and non-technical assistance in promoting traffic safety	Paper survey (self-mailer enclosed with mailouts)	Continuous
State Highway Safety Offices	Responsiveness to needs for information, program materials, technical assistance, and training	Paper survey	September 1995; biennially thereafter
National Organizations Concerned About Motor Vehicle and Traffic Safety	Quality of information, program materials, and technical assistance	Paper survey (mailout)	September 1995; biennially thereafter

Front Line NHTSA  
Employees

Responsiveness to internal and  
external customer requests

Informal feedback; focus group March 1995  
testing; paper survey; electronic  
survey with LAN

**APPENDIX 3**  
**NHTSA's Primary Data Measurement Systems**

***Fatalities, Fatal Crashes: The Fatal Accident Reporting System (FARS)***

FARS, which became operational in 1975, contains data on a census of fatal traffic crashes within the 50 States, the District of Columbia, and Puerto Rico. To be included in FARS, a crash must involve a motor vehicle traveling on a trafficway customarily open to the public, and must result in the death of an occupant of a vehicle or a nonmotorist within 30 days of the crash.

FARS data are obtained solely from the State's existing documents:

Police Accident Reports	Death Certificates
State Vehicle Registration Files	Coroner/Medical Examiner Reports
State Driver Licensing Files	Hospital Medical Reports
State Highway Department Data	Emergency Medical Service Reports
Vital Statistics	

From these documents, the analysts code more than 100 FARS data elements. The specific data elements may be modified slightly each year to conform to changing user needs, vehicle characteristics, and highway safety emphasis areas. The data collected within FARS do not include any personal identifying information, such as names, addresses, or social security numbers. Thus, any data kept in FARS files and made available to the public fully conform to the Privacy Act.

***Police Reported Non-Fatal Injuries, Total Crashes: The General Estimates System (GES)***

GES data are obtained from a nationally representative probability sample selected from all police-reported crashes. The system began operation in 1988. To be eligible for the GES sample, a police accident report (PAR) must be completed for the crash, and the crash must involve at least one motor vehicle traveling on a trafficway and result in property damage, injury, or death. Although various sources suggest that about half the motor vehicle crashes in the country are not reported to police, the majority of these unreported crashes involve only minor property damage and no significant personal injury. By restricting attention to police-reported crashes, the GES concentrates on those crashes of greatest concern to the highway safety community and the general public.

GES data collectors make weekly visits to approximately 400 police jurisdictions in 60 sites across the United States, where they randomly sample about 45,000 PARs per year. The collectors obtain copies of the PARs and send them to a central contractor for coding. No other data are collected beyond the selected PARs--no driver license, vehicle registration, or medical information is obtained.

GES is an accurate count of police reported crashes and injuries, given the limitations of the source. There is no question that significant numbers of crashes and injuries are missed because they are not reported to the police. A 1990 NHTSA study of the costs of motor vehicle injuries estimated the total count of non-fatal injuries at over 5 million compared to the GES estimate for that year of 3.2 million. The National Center for Statistics and Analysis plans to conduct a study in FY 1995 to assess the unreported injury problem.

***Crashworthiness Data System***

Crashworthiness Data System (CDS) collects detailed information on approximately 7,000 crashes

involving light passenger vehicles. CDS data support research into the crash safety of light passenger vehicles and the biomechanics of trauma; the development of test equipment, procedures, and criteria; and the development and support of motor vehicle safety standards for occupant protection, and consumer information programs.

The primary impetus behind the CDS was a need for more detailed information on how a vehicle responds in a crash, and how the interior components of the vehicle injure or protect occupants. Crashworthiness engineers and biomechanics experts need to be able to analyze the nature and severity of occupant crash injuries and relate them to:

- The characteristics of the collision including where and at what angle the vehicle is struck, the force of the impact, and the other vehicles or objects involved;
- The structure and weight of the vehicle; and
- The characteristics of the vehicle interior and its safety protection devices (including safety belts, head restraints, padding, steering systems, and safety glazing).

### *National Occupant Protection Use Survey*

In the measurement of safety belt use, NHTSA has provided assistance to individual states in the design and implementation of probability-based observational surveys of safety belt use and has developed minimum guidelines for these surveys. At the national level, however, there are no reliable data available to assist NHTSA in assessing and monitoring the national rate of safety belt use and the usage rates of child restraint seats and motorcycle helmets. Available state estimates of safety belt use cannot be used to produce a national estimate. Consequently, to assess and monitor occupant safety and restraint use nationwide, NHTSA is conducting a National Occupant Protection Use Survey to calculate the national estimate.

There will be four data collection studies used in the National Occupant Protection Use Survey:

- The Moving Traffic Study will generate an overall national estimate and subdomain estimates of safety belt use for drivers and front seat passengers, separately for cars and light trucks, and helmet use of motorcycle riders.
- The Controlled Intersection Study will provide driver and passenger demographic information, child restraint use, and license plate state and number.
- The Shopping Center Study will obtain estimates of shoulder and lap belt use and shoulder misuse for driver, right-front passenger, and rear-seat outboard passengers.
- The Occupancy Count Study will provide national estimates of the number of occupants by type of vehicle.