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# GOVERNMENT PERFORMANCE AND RESULTS ACT OF 1993 PILOT PROJECT

# THE NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

# FY 1994 PERFORMANCE PLAN

Prepared by

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

**March 1994** 

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#### **EXECUTIVE SUMMARY**

The Fiscal Year 1994 performance plan for the pilot phase of the Government Performance and Results Act of 1993 (GPRA) covers the entire program of the National Highway Traffic Safety Administration (NHTSA). The FY 1994 plan presents program performance measures and goals for NHTSA's major programs that account for significant portions of the agency budget and/or make a major contribution to the reduction of safety risks. The plan is designed to adequately reflect the performance of a diverse program that responds to the complexity of the highway safety problem. NHTSA's Strategic Plan is still under development. Therefore, goals and measures that have been developed for NHTSA's Priority Plan, the Department of Transportation Goal Based Management System, and program office five year plans provide the basis for the current performance plan.

The FY 1994 plan covers the entire Fiscal Year and uses the NHTSA program structure as it appears in the *Budget of the U.S. Government: Fiscal Year 1994*. The agency is in the process of developing performance-based program groupings for future year plans. OMB has requested that the FY 1994 plan indicate any potential changes in performance measurement for future pilot years. Therefore, a discussion of conceptual issues, definitions, and a potential new structure for performance measurement are included in the document. We plan to use this or a similar new structure for our FY 1995 and 1996 pilot performance plans.

NHTSA has traditionally measured its program performance against goal-oriented measures, such as reduction of fatality rates and decreases in alcohol involvement in crashes. Although clear linkages have been established between program activities and highway safety outcomes the agency recognizes that while it influences these measures, it does not have complete control over them. This plan identifies some of the external factors that will influence overall highway safety performance, such as the economy and demographics. Barriers to achieving targets for specific program performance measures also are highlighted. Because many of our program activities have effects over many years, we have chosen in some cases to use process measures tied to specific Fiscal Year activities rather than expressing a program's performance in terms of reduced crashes, fatalities, and injuries. Some of the key goals in the current performance plan are:

- Reduce motor vehicle fatality and injury rates per 100 million vehicle miles travelled and per 100,000 population.
- Reduce involvement rates of drivers in fatal and injury crashes as a proportion of licensed drivers.
- Progress toward achieving the Secretary of Transportation's goal to reduce the alcoholrelated proportion of fatalities to 43 percent by 1997.
- Progress toward achieving the Secretary of Transportation's goal to increase safety belt use to 75 percent by 1997.

# I. INTRODUCTION

The National Highway Traffic Safety Administration as a whole is a pilot project under the Government Performance and Results Act (GPRA). We are still developing our Strategic Plan. We expect to complete it in the summer of 1994. Nevertheless, our mission has been clear and strong since the inception of the agency in the late 1960s: to reduce motor vehicle crashes, fatalities, and injuries on the nation's highways. The first objective of Goal 4 of the Department's Strategic Plan, *Promote Safe and Secure Transportation*, is to "Significantly reduce deaths and injuries on our transportation system, which will reduce the burden on our health care system." NHTSA currently has a number of well articulated goals. These are listed in Appendix 1.

The motor vehicle and highway safety problem in the United States is enormous and complex. Currently, close to 6.4 million police-reported motor vehicle crashes occur each year, resulting in nearly 40,000 fatalities and 3.4 million non-fatal injuries. There are about 5 million non-fatal injuries when unreported injuries are included. The cost to society in health care costs, lost productivity, and other costs amount to 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 45 percent in 1992 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.

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 an employment level in FY 1994 of 683 full-time equivalent (FTE) staff years and a budget of under \$300 million (FY 1994 appropriation: \$298 million; President's FY 1995 submission to Congress: \$277 million).

Because our resources have been, and continue to be sparse in comparison to the problems we must address, prioritization and efficiency of effort are very important. Accordingly, performance measurement has always been a key feature of the NHTSA program. Over the years our programs have proven to be exceptionally cost effective. In 1991, in response to a request from the Office of Management and Budget, NHTSA and FHWA assessed the costs and benefits of the Federal Government's highway safety programs since their inception in 1966. The results of the analysis found that the economic benefits of these programs in reduced crashes, fatalities and injuries have well exceeded their costs in government expenditures and increased consumer costs. In fact, the benefits exceeded the costs by a factor of about three to one.

There is a considerable amount of momentum in our efforts to reduce motor vehicle crash losses. The money invested in NHTSA's programs in previous years will provide benefits well into the next century as the public continues to use safer cars and operate them more safely. The investment in NHTSA's FY 1994 programs will continue this trend and show important dividends in the years and decades ahead.

#### **II. CONCEPTUAL FRAMEWORK FOR PERFORMANCE MEASUREMENT**

Our FY 1994 plan is based on the current NHTSA organizational structure and includes many previously established goals. However, one of the purposes of the NHTSA pilot project is to develop and refine a conceptual framework for performance measurement in the future. We started the process by looking at our program from the perspective of what intermediate results were critical to achieving our ultimate goals. Performance measurement should focus on these objectives. What we found was that our current organizational and budget structure did not track with a performance-based structure.

Appendix 2 displays the performance-based structure that we have developed thus far and its measurement components. While we are not using this structure in our FY 1994 plan, OMB guidance indicates their desire for advance information on possible changes in measures for subsequent years of the pilot period. We expect to use the definitions and performance-based structure presented in Appendix 2, or a variation of it, in our FY 1995 and 1996 plans. The definitions are those conventionally used in performance measurement. Outcome measures, or quantitative statement of goals, are at the top of the measurement hierarchy and program activities measures are at the bottom.

All of NHTSA's safety programs fall under one of the three performance categories: reduce the occurrence of crashes, reduce the consequences of crashes, and serve its customers. Each of these feeds directly into our outcome measures. Some of the activities under the first two have a direct linkage to outcomes, for example, issuing standards that require safety improvements in vehicles and removing unsafe vehicles from the road. Others such as education campaigns designed to change people's behavior have a less direct influence on safety performance. There are many other factors that will affect highway safety risks.

In developing this model, one of the things we recognized was that the agency performs a number of activities for its internal and external customers. These fall within several program areas. For example, we provide information to external customers on the crashworthiness characteristics of vehicles through our New Car Assessment Program and we provide statistical data on highway safety through technical reports and press releases. What the public chooses to do with this information and how manufacturers respond are outside our control. What is appropriate to measure is how well the customers' needs are being served. Our FY 1995 and 1996 plans may address Customer Service as a unit, composed of program elements from a number of our programs.

There are two key issues regarding the NHTSA program that need to be addressed in moving toward a performance based measurement structure. These are: 1) the timing of outcomes relative to program activities, and 2) the linkages between program activity and outcome measures.

#### Accounting for Long-term Programs

The GPRA requires Federal agencies to: (1) identify quantifiable performance goals and objectives; (2) prepare annual performance plans and base their budgets on such plans; and

(3) report on actual performance compared with the goals and objectives in the performance plan after the end of each budget year. This works best for programs that achieve results within one year. The nature of our program activities, especially activities today that affect safety on the road in the long-term future, has created challenges for us in defining year-specific performance measures. Our program requires a research or development base, demonstration phases, time to implement, and time for results to accrue to the point that they can be measured.

New Federal motor vehicle and traffic safety programs often have long life cycles. They may take many years to go from problem identification and countermeasure conception, through research, development, demonstration, implementation, and evaluation. In order to ensure a continuing flow of benefits into the 21st century, and an absolute reduction in motor vehicle trauma, the NHTSA FY 1994 program is a set of activities in different phases of their maturity.

This situation makes it difficult to measure the effects of agency programs for any given year. For example, rulemaking actions pose particular problems in the measurement of performance due to these development and timing issues. In any given Fiscal Year the agency makes progress on or issues a number of rulemaking actions. These include research and development, Advance Notices of Proposed Rulemaking (ANPRMs), Notices of Proposed Rulemaking (NPRMs), and final rules. The benefits of these actions will occur after the rule is published and goes into effect. The timing of benefits (e.g. injury savings) will depend on the effective date of the rule and whether there is a multi-year phase-in, among other things.

Therefore, for purposes of defining rulemaking performance measures for a given year one of three approaches could be taken:

- Include all of the benefits of a final rule, including anticipated future benefits, measured in fatalities, injuries, and crashes reduced, as the measure for the Fiscal Year in which the final rule was issued (as would be done in a benefit-cost analysis);
- Measure the characteristics of new vehicles sold during the Fiscal Year (via annual crash tests) during that Fiscal Year, "a snapshot picture," which reflects agency actions for a number of years prior to the Fiscal Year being measured; or
- Measure the number of significant benefit final rules issued, including efficiency and timeliness factors.

For this Performance Plan, we have chosen the third approach. While this approach does not specify actual fatality and injury savings from the rules, it has the advantage of measuring actual program performance during the Fiscal Year. It should be noted that the agency does measure the performance of its vehicle safety standards by reductions in fatalities and injuries.

Appendix 3 presents an assessment of the cumulative fatality reductions attributed to our motor vehicle crashworthiness standards. We are investigating the viability of using fatality and injury benefits as performance measures for our vehicle safety standards program for use in future performance plans.

Research and development activities also pose the problem of timing. Developmental work in this Fiscal Year will not be applied to regulations or programs until later Fiscal Years. In addition there is the substantive issue of what constitutes performance for research and development activities. For these reasons, for the current plan, we are measuring research and development performance at the program activity and program output levels.

#### Factors that Affect Program Performance

NHTSA addresses highway and motor vehicle safety problems in ways that have a direct relationship to the number of fatalities, injuries and crashes and in ways that have a more indirect linkage. Some agency actions directly affect the safety characteristics of vehicles, for example motor vehicle standards and the recall and remedy of vehicles and equipment with safety-related defects. Public information and education on safe driving practices, safety belt use, and driving while intoxicated, and distribution of information on the crashworthiness characteristics of vehicles influence personal safety behavior which, in turn, improves safety performance.

While there is ample evidence of the positive linkage between agency activities and improvements in safety, external factors influence all of our program efforts to some extent. Most important of these factors are the economy, demographics (the age and gender mix of the population), the amount and distribution of driving (vehicle miles of travel), the consumption of alcohol, and economic and political factors at the local, state, and Federal government levels. For example, there have been a number of studies that have shown a correlation between the number of fatalities and expansions and recessions in the economy. In addition to the external factors that affect safety in a general way, there are barriers relevant to achieving specific program goals. These are identified in Section III.C. for individual programs.

The current Fiscal Year plan includes some measures that are based on safety performance and some measures that are process oriented. Some of these measures relate directly to our goals, while others relate to activities and efficiencies that will help us meet our goals. Over time we will seek to develop a consistent set of performance measures that relate to improvements in safety that we can directly influence, moving toward goal-based measures wherever possible.

#### **III. FY 1994 PROGRAM PERFORMANCE GOALS AND MEASURES**

This section presents our FY 1994 plan goals and measures by the program structure identified in the FY 1994 U.S. Budget: Appendix.

# A. Program Categories and Resources Available in FY 1994

#### NHTSA Budget Categories

NHTSA pursues its goals through a regulatory program for motor vehicle and equipment safety; by providing grants and technical assistance to states and local communities; by distributing consumer information; and by conducting research and development in crashworthiness, crash avoidance, biomechanics of injury, human factors, and more. Our budget line items categories in the FY 1994 Budget Appendix are as follows:

Identification code:	Program by activities: FY 19		Full Time
Operations and Reserved (69-0650-0-1-401)	arch: (page 835)	(Dollars in Thousand	ls) <u>Positions</u> :
00.01	Rulemaking Programs	\$10,622	95
00.02	Enforcement Programs	17,801	103
00.03	Highway Safety Programs	40,539	208
00.04	Research and Analysis	49,521	130
00.05	Office of the Administrator	3,490	41
00.06	General Administration	8,280	90
	Total Operations and Research	ch 130,188	667
<u>Highway Traffic Safe</u> (69-8020-0-7-401)	ety Grants: (page 837)		
00.01	Section 402 Formula	\$123,000	
00.02	Section 408 Alcohol		
	Incentive Grants	10,500	
00.03	Section 410 Alcohol-Impaire	·	
	Driving Countermeasure G		
00.04	Section 153 Safety Belt and	,	
	Motorcycle Helmet Grants	12,000	
00.05	National Driver Register	3,500	
	Total Highway Safety Grants Less: Grant Administration	5 174,000	
	Reimbursements	(6,043)	
	TOTAL PROGRAM	\$298,145	

#### **B. FY 1994 Program Performance Goals**

NHTSA is developing a Strategic Plan that will establish its mission, vision, and goals. However, there are several measures that the agency assesses. Three of these are presented here as the agency's overall goals for our FY 1994 plan. Given the time frame for development of this first plan, FY 1994 targets have not been established for these goals. However, our FY 1994 Performance Report will report on the following goals:

# Reduce the driver involvement rate in crashes (CY 1992 baseline: 6090 crash involved drivers per 100,000 licensed drivers).

*Performance Measure*: Drivers involved in fatal and injury crashes.

*Data Sources*: NHTSA Fatal Accident Reporting System (FARS) and General Estimates System (GES).

and

Reduce the motor vehicle fatality rate per 100 million vehicle miles travelled (VMT) (CY 1992 baseline: 1.8; continuous decline from 5.5 in 1966); reduce the motor vehicle non-fatal injury rate per 100 million VMT (CY 1992 baseline: 137.2; continuous decline from 169 in 1988).

*Performance Measure*: Number of fatalities and injuries per 100 million vehicle miles of travel.

*Data Sources*: NHTSA Fatal Accident Reporting System and General Estimates Systems, Federal Highway Administration (VMT).

and

Reduce the motor vehicle fatality rate per 100,000 population (CY 1992 baseline: 15.38); reduce the motor vehicle non-fatal injury rate per 100,000 population (CY 1992 baseline: 1204).

Performance Measure: Number of fatalities and injuries per 100,000 resident population.

*Data Sources*: NHTSA Fatal Accident Reporting System and General Estimates Systems, U.S. Bureau of the Census.

#### C. FY 1994 Program Performance Measures

The following goals for major program activities will be assessed in our FY 1994 Performance Report. Achievement will be stated in quantitative terms (unless otherwise specified), even in cases where advancement toward an out-year goal is specified in lieu of a FY 1994 target. Due to the short time frame for developing the FY 1994 Performance Plan, some NHTSA goals for FY 1994 are stated in terms of progress toward meeting previously established goals. Future performance plans will be based upon the goals and objectives outlined in the agency's strategic plan that will be completed this summer.

In this performance plan some of our measures are final and intermediate outcome measures, while others are program output or program activity measures. A number of the measures relate to timeliness of agency processes and customer service. Among these are producing crash test results earlier in the year so that consumers can have the new model year information in time to affect their vehicle purchases and decreasing the time it takes to complete a motor vehicle rulemaking. We have included a comprehesive set of performance measures because our project covers the entire agency and our measures must reflect the diversity of our major programs. However, it should be noted that in order to keep our performance measures to a reasonable number we are including only measures for programs that involve significant portions of agency resources and/or make a significant contribution to safety.

It is anticipated that some of our performance measures and our program groupings will change for our FY 1995 and 1996 plans. The goals and targets for our major programs in this section cover the full Fiscal 1994 Year.

#### Highway Safety Grants and Programs

FY 1994 Budget Appendix p. 835, 69-0650-0-1-401.03 and p. 837, 69-8020-0-7-401.01-.05

# Section 402 Formula Grants

Under the Section 402 grant program states can receive funds following approval of their annual Highway Safety Plans by NHTSA and the Federal Highway Administration. The activities conducted under Section 402 funds are generated and managed by state governor's highway safety representatives rather than by the Federal agencies. Section 402 grant money is aimed at providing seed money to the states for developing effective highway safety countermeasure programs and leveraging expenditure of additional state monies. The National Priority Programs Areas are alcohol/drug countermeasures, occupant protection, police traffic services, emergency medical services, motorcycle safety, pedestrian/bicycle safety, and roadway safety. Section 402 also provides support for community traffic safety programs. Section 402 funds provide the underpinnings for meeting the Secretary's goals of increasing safety belt use and reducing the involvement of alcohol in fatalities, and for meeting the overall goals of NHTSA.

#### Alcohol

The goal of NHTSA's alcohol initiatives is to reduce the number of alcohol-related traffic crashes, fatalities and injuries. 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. Youth and special populations are areas of specific emphasis in FY 1994. National alcohol safety messages are directed at specific high-risk populations. Youth activities include a model youth community demonstration project in Washington, DC and training workshops for local police on underage drinking and driving. Section 403 funds support these and other research, demonstration projects and safety training programs.

Section 408 and 410 Alcohol Incentive Grants make a major contribution to meeting goals in the reduction of alcohol involvement in crashes and fatalities. States are eligible to receive Section 408 grants if they have: a prompt driver's license suspension or revocation system; mandatory sentencing for repeat driving while intoxicated (DWI) offenders; a law establishing .10% blood alcohol content as the legal limit for DWI; increased enforcement and education activities. This grant program is being discontinued at the end of FY 1994. The Section 410 grant program will replace Section 408 after FY 1994. In FY 1994, both 408 and 410 grants funds are available. To qualify for Section 410 monies a state must satisfy certain basic criteria, including prompt driver's license suspension, legal blood-alcohol content levels, sobriety checkpoints, self-sustaining community alcohol programs, mandatory sentencing for repeat offenders, and control of access to alcohol by youth.

**<u>Goal</u>**: By CY 1997, reduce the alcohol-related proportion of fatalities to 43 percent. (Secretarial goal)

**Performance Measures**: The proportion of highway traffic fatalities that involve alcohol.

**FY 1994 Target**: Reduce the proportion of fatalities that are alcohol related to 44 percent. (FY 1992 baseline: 45 percent; Trend: continuous decline from 57 percent in 1982)

Data Sources: NHTSA Fatal Accident Reporting System

*Barriers*: Legislative resistance to effective laws; limited police resources for enforcement; court overload; competing agendas for education, public information, and media time; alcohol industry advertising.

### **Occupant Protection**

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 1994 program will support states in their efforts to continue to upgrade their occupant protection laws and provide program materials that will help states make use law enforcement and public awareness activities a permanent part of their ongoing highway safety efforts. FY 1994 marks the initiation of some combined occupant protection and alcohol activities. Section 403 funds contribute to the achievement of NHTSA's occupant protection goals.

Section 153 Safety Belt and Motorcycle Incentive Grant funds are used to promote the passage of and compliance with state safety belt and motorcycle helmet use laws, and compliance with the laws. A state must have both laws in effect to receive funds in the first year and reach usage rate goals in subsequent years. FY 1994 is the last year of a three-year grant program under this section. Beginning in FY 1995 this program will not appear in NHTSA's budget since it enters its penalty transfer phase: certain highway construction funds will be transferred to the Section 402 program from states that do not have both safety belt and motorcycle helmet laws in effect.\*

Goal: By CY 1997, increase safety belt use nationwide to 75 percent. (Secretarial goal)

Performance Measure: Percent of front seat vehicle occupants wearing seat belts.

**FY 1994 Target**: National safety belt use for front seat occupants at 68 percent. (1993 baseline: 66 percent; Trend: 1983: 14 percent; 1987: 42 percent; 1990: 49 percent)

Data Sources: Population-weighted, state observational use surveys.

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

\* No performance measure is included for motorcycle helmet use due to measurement deficiencies which are being addressed by the agency (see Section IV).

# National Driver Register

The National Driver Register (NDR) is a computerized index of state reports on driver histories. Using this system states can routinely check driver license applications to screen for potential problem drivers -- those with a suspended or revoked license or with a history of driving problems -- to deter unsafe drivers from receiving a license. NHTSA's current objective is to implement a new Problem Driver Pointer System (PDPS) which will contain only identifier information. The

new system directs the user to the state(s) with the substantive information on the driver. The advantage of the new system is to quickly provide the inquiring state with more current driving history than was provided in the past. In FYs 1992 and 1993, the NDR program provided states with technical assistance grants to convert to the new system.

Goals: Implement PDPS in all states and answer all PDPS interactive inquiries within 7 seconds.

**<u>Performance Measures</u>**: 1) Number of states fully operational under the new PDPS; 2) proportion of PDPS inquiries that are answered in 7 seconds or less.

**<u>FY 1994 Targets</u>**: 1) Seventeen states fully operational under the new PDPS (1993 baseline: 0 states); 2) 97 percent of PDPS inquiries answered in 7 seconds or less (System not operational in 1993).

Data Sources: National Driver Register Program records.

*Barriers*: 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.

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

NHTSA's Emergency Medical Services (EMS) program encompasses research, technical assistance, demonstration projects, and development of training standards for emergency medical technicians. NHTSA's statewide EMS technical assistance program assists states in developing comprehensive EMS systems, including trauma care systems. NHTSA works closely with the State Highway Safety and EMS Offices to assess state EMS systems according to 10 standards of excellence. These standards encompass legislation, resources and training, facilities and

communications among other things. All of these standards relate in some way to quality and effectiveness of the overall EMS system in reducing injuries and death.

**<u>Goal</u>**: By CY 1997, achieve a reduction in preventable mortality of 10 percent nationwide, through implementation of comprehensive emergency medical service systems, including systems of trauma care.

<u>**Performance Measures</u>**: Reduction of preventable mortality (fatalities that are potentially savable with appropriate response and medical treatment) as measured by preventable mortality studies.</u>

**<u>FY 1994 Target</u>:** 1) Progress toward Goal (1993 baseline: preventable mortality represents 25 percent of total deaths) 2) number of preventable mortality studies supported by NHTSA program (Baseline: 2 studies initiated in FY 1993)

Data Sources: NHTSA Office of Enforcement and Emergency Services.

Barriers: Lack of data, legislative impediments, lack of funds at state level.

#### **Rulemaking Programs**

FY 1994 Budget Appendix p. 835, 69-0650-0-1-401.01

#### Motor Vehicle Standards

NHTSA issues Federal Motor Vehicle Safety Standards (FMVSS) to ensure that the public is protected against unreasonable risks of crashes occurring and unreasonable risks of injury or death when crashes do occur. Vehicle manufacturers must certify that each new vehicle or new equipment item conforms to all applicable FMVSS. Safety standards are amended periodically to address new safety concerns or to eliminate barriers to the use of new technology. Vehicle safety standards directly affect lives and injuries saved. The Intermodal Surface Transportation Efficiency Act of 1991 established legislative requirements and deadlines for vehicle rulemaking in the areas of automatic crash protection, rollover propensity, side impact protection, interior head protection, safety belt and child booster seat design, and passenger car and heavy truck brake performance. NHTSA also engages in rulemaking activities for improved fuel economy, theft prevention, and odometer fraud. The efficiency and timeliness with which we perform rulemaking tasks and issue final rules will affect how soon the benefits will accrue to the public (see discussion in Section II). Therefore, we have tied our measures for this program to these process factors.

**<u>Performance Measures</u>**: 1) Average length of time to complete rulemakings; 2) percent of petitions granted or denied within 120 days of receipt.

**<u>FY</u> 1994 Targets**: 1) Reduce the average length of time to complete rulemakings to 19.6 months (Baselines: 1992: 21.8 months, 1993: 20.4 months); 2) increase the percent of petitions granted or denied within 120 days to 60 percent (Baselines: 1992: 53%, 1993: 50%).

Data Sources: NHTSA Office of Rulemaking tracking system.

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

#### New Car Assessment 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. Each year a selection of new vehicles are subjected to frontal crash tests at 35 miles per hour into a fixed barrier. Measurements are taken in the head, chest, and upper leg on two instrumented crash dummies positioned in the front seat; all available restraints are used, e.g., air bags, safety belts. The number of vehicles tested is dependent on annual funding levels. To better serve the needs of its customers, in FY 1993 and FY 1994, the program developed and published a new rating system to indicate the results of these tests, and initiated a customer outreach program.

<u>**Performance Measures**</u>: 1) Number of vehicles tested, timely completion of test program; 2) number of new actions taken to reach consumers.

#### FY 1994 Targets:

1) Complete tests on 39 new vehicles; complete model year 1994 tests by May 31, 1994. (FY 1993 baseline: 37 vehicles tested; Trend: previous years tests were not completed until July or August)

2) Complete at least 57 percent of actions (4 out of 7) to promote the program and reach consumers. (No baseline; new program)

*Data Sources*: NHTSA Office of Market Incentives tracking system and number of Auto Safety Hotline inquiries and news articles.

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

#### Enforcement Programs

FY 1994 Budget Appendix p. 835, 69-0650-0-1-401.02

#### Defects Investigation Program

The objective of the Defects Investigation Program is to identify and remove from the nation's highways vehicles and items of motor vehicle equipment with safety-related defects. The program obtains data from consumers on potential defects, performs tests and surveys, and conducts detailed investigations to identify safety risks. When unreasonable safety risks are identified, efforts are initiated to have the vehicles or equipment recalled by the manufacturer and the problem(s) corrected.

**Goal**: Removal of unsafe vehicles and equipment and corrective actions taken.

**Performance Measure**: Average elapsed time to conduct a safety defect investigation.

**<u>FY 1994 Target</u>**: Reduce the average elapsed time to conduct a safety defect investigation to 5.7 months, a 5 percent reduction. (1993 Baseline: 6.0 months)

*Data Sources*: NHTSA Office of Defects Investigation computerized defect investigation tracking system.

*Barriers*: Excessive number of safety defect investigations opened in year may result in overload for the office.

# Auto Safety Hotline

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.

**<u>Goal</u>**: To efficiently provide timely, high quality customer service.

**<u>Performance Measure</u>**: Improve customer service by reducing the percentage of callers who hang up without getting service.

**FY 1994 Targets**: Reduce "dropped calls" to the automated portion of the Hotline by 5 percent compared to FY 1993 (FY 1993 baseline: 13.2 percent drop rate), and to the operator-assisted portion by 5 percent compared to FY 1993 (FY 1993 (FY 1993 baseline: 13.3 percent drop rate).

Data Sources: Auto Safety Hotline computerized tracking system.

*Barriers*: If the number of calls exceeds the capacity of the system on a frequent basis, the number of dropped calls rises at a disproportionate rate; this can be related to media coverage of motor vehicle and highway safety issues at specific points in time.

# Federal Motor Vehicle Safety Standards Compliance Testing

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). Critical compliance test programs are for child safety seats (FMVSS 213) and vehicle occupant crash protection (FMVSS Nos. 208, 214, and 301).

Goal: To bring vehicles and equipment into compliance with FMVSS.

**<u>Performance Measure</u>**: Timely completion of all testing within the model year of production.

**<u>FY 1994 Targets</u>**: 1) Complete all child safety seat compliance testing by June 15, 1994; 2) Complete all vehicle occupant crash protection compliance testing by July 1, 1994

Data Sources: NHTSA Office of Vehicle Safety Compliance test reports and dates completed.

Barriers: Inability of contractors to meet schedules or other contractual requirements.

# **Research and Analysis**

FY 1994 Budget Appendix p. 835, 69-0650-0-1-401.04

#### Office of Crash Avoidance Research

NHTSA's Office of Crash Avoidance Research program is aimed at improving motor vehicle safety by reducing the frequency and/or severity of crashes through improved driver performance, driver-vehicle compatibility, and vehicle response. It encompasses general crash avoidance issues, research on heavy vehicles, the Intelligent Vehicle Highway Systems (IVHS) program, and the National Advanced Driving Simulator (NADS) program. The IVHS component is designed to demonstrate that improved crash avoidance can be achieved through intelligent vehicle technologies and to ensure that no loss in safety results from the incorporation of new technologies into vehicles. The NADS program will develop a state-of-the-art driving simulator facility to support a variety of research needs.

**<u>Goal</u>**: To improve motor vehicle safety by conducting research aimed at reducing the frequency and severity of crashes.

**<u>Performance Measures</u>**: 1) Completion of project tasks anticipated in the Fiscal Year Budget Execution Plans; 2) Research reports/papers and analyses completed; 3) Response to short-term rulemaking needs.

#### FY 1994 Targets:

1) Initiate 22 new contracts/tasks; complete 8 contracts/tasks (FY 1993 baseline: initiation: 19 targeted, 14 accomplished (74%); completion: 3 targeted, 2 completed (67%)

Contractor reports published; technical papers published: no targets specified; will report at end of FY (FY 1993 baseline: 7 contractor reports, 4 technical papers published)
 Responses to short-term rulemaking needs: no target specified because needs are unanticipated; will report at end of FY (FY 1993 baseline: 2)

Data Sources: NHTSA Office of Crash Avoidance Research; Research Program Plan

*Barriers*: Changes in agency priorities; procurement delays; adjustments in program schedules to respond to unanticipated problems or research results.

# Office of Crashworthiness Research

The Office of Crashworthiness Research program consists of two major programs: Safety Systems Research and Development and Biomechanics Research. The Safety Systems research component seeks to advance scientific understanding of crash injury problems and injury prevention strategies for crashes that occur frequently. The program analyzes real world crash injuries, crash tests vehicles, and develops cost beneficial injury countermeasures. The biomechanics program studies injury mechanisms through analysis of medical and engineering data on injuries, computer modeling, laboratory testing, and the development of crash test dummies.

<u>Goal</u>: To prevent deaths and injuries in crashes through research, development, testing, and evaluation programs that improve the crashworthiness performance of vehicles.

#### Performance Measures:

- 1) Completion of project tasks anticipated in the Fiscal Year Budget Execution Plans;
- 2) Research reports/papers and analyses completed;
- 3) Responses to short-term rulemaking needs.

# FY 1994 Targets:

1) Planned project tasks in FY 1994: 52; anticipated completion: 75%;

2) Number of reports/papers and analyses completed will be reported at end of the Fiscal Year;

3) Number of responses to short-term rulemaking needs will be reported at end of the Fiscal Year.

Data Sources: NHTSA Office of Crashworthiness Research.

*Barriers*: Changes in agency priorities; procurement delays; adjustments in program schedules to respond to unanticipated problems or research results.

# National Center for Statistics and Analysis

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. There is considerable variation in the nature of internal and external requests: some are for transmittal of documents or data already published while others require extensive staff analysis. 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.

<u>Goal</u>: To provide high quality products in a timely manner in response to the data needs of internal

and external customers.

**Performance Measures**: 1) Collect data and create electronic data sets in a timely manner for NHTSA Fatal Accident Reporting System (FARS), National Accident Sampling System (NASS) General Estimates System (GES), and NASS Crashworthiness Data System (CDS); 2) service the data and analytical requests from internal customers (e.g. rulemaking, research and development) and external requests (e.g. other Federal agencies, interest groups, individuals).

# FY 1994 Targets:

1) Meet schedule for data systems:

1993 FARS data base created by July 1994 1993 NASS GES data base created by August 1994 1993 NASS CDS data base created by September 1994

2) Since this is a customer service program, the number of analyses and responses to data requests cannot be predicted at the beginning of each Fiscal Year. However, we will report on the total number of responses to internal and external customers in our FY 1994 Performance Report.

(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 (custom data retrievals, descriptive statistics): 3,900 for external customers, 525 for internal customers. Additional 3,500 requests not documented: 1,400 external, 2,100 internal.)

Data Sources: NHTSA National Center for Statistics and Analysis

*Barriers*: Reductions in FTEs have created barriers to achieving performance in the areas of response to changing data needs in the highway safety community, quality control functions, creation of data sets in a timely manner, work with states to improve data collection, and response to customer requests. In the latter case, the number of programmers and statisticians have a direct impact on the quality, timeliness, and number of studies available to the user community. At the same time the number of FTEs has declined the number of requests from internal customers has been increasing significantly.

# Office of the Administrator and General Administration

FY 1994 Budget Appendix p. 835, 69-0650-0-1-401.04

Performance for activities in these programs fall under internal and external customer service. These include the Office of Public and Consumer Affairs contacts with the public and administrative and other support functions provided under these budget line items. For the FY 1995 and 1996 plans we will include several measures from these elements under Customer Service.

# IV. MEASUREMENT VALIDATION AND REQUIREMENTS

For the FY 1994 performance measures we will use the measurement instruments currently in place at NHTSA. The primary sources include:

- The Fatal Accident Reporting System a census of all fatal crashes in the U.S.; contains general and specific (e.g. alcohol) information on fatalities; annual report is on an annual year basis but fatalities are reported monthly so Fiscal Year reporting is possible.
- The General Estimates System a nationally representative sample of crashes of all severity levels based on police accident reports; special runs will be necessary for Fiscal Year reporting.
- Safety belt usage is currently from state surveys, although plans for an new NHTSAsponsored national survey are underway; percentage use are for specific points in time.
- Regulatory tracking system in place in the Office of Rulemaking.
- Other program office tracking systems, e.g., Auto Safety Hotline.

# Current Measurement Deficiencies Being Addressed by NHTSA

# National Occupant Protection Measurement

In FY 1994 we are unable to include child safety seat usage, motorcycle helmet usage, and bicycle helmet usage as performance measures for our highway safety and grants programs, even though they are important and fit the criteria of performance measures. Plans are underway to initiate a new national usage survey but limitation of resources will determine the availability of data. Funding of this survey is critical so that valid performance measurement on safety belt, child safety seat, and motorcycle use can be incorporated into later year performance plans. It is hoped that funding will be available so that measures for child safety seat and motorcycle helmet usage can be included in our FY 1995 and 1996 plans.

# Measuring Customer Service

NHTSA has formed a Customer Service Working Group in conjunction with the National Performance Review. This group plans to conduct consumer surveys encompassing all of NHTSA's programs that serve our external customers to determine how well we are serving their needs. It is hoped that we will be able to incorporate any measurements resulting from these efforts into our FY 1995 and 1996 plans.

In addition to this activity that is related to the survey of our external customers, as part of our Strategic Plan activities, we are instituting an internal E-mail survey of NHTSA employees, in headquarters and in our regional offices. This survey instrument will be in place and available for continuous tracking of internal customer needs and how they are being met. It is anticipated that this system will be in place to obtain customer service measurements by summer 1994.

#### Side Impact Crash Testing - NCAP

As part of the President's FY 1995 budget submittal the New Car Assessment Program will be expanded to include side impact testing. This will enhance the agency's ability to assess the performance of its side impact standards. Plans are to test 14 vehicles in FY 1994 for side impact crashworthiness. Funding will need to be provided in the FY 1995 budget (Congress deleted these funds in the FY 1994 budget) in order to meet this measurement goal.

# **APPENDIX 1**

### **NHTSA Published Goals**

The following is a list of the goals that have been established for some of NHTSA's major programs. The published source of each goal is provided. Many of these goals will be considered for inclusion in NHTSA's FY 1994 GPRA pilot project performance plan.

Goal

Published Source:

Plan

#### Rulemaking

 Rulemaking activities in FY 1994 on rollover risk, improved child safety seats, extension of passenger car side impact protection to light trucks and vans, improved head impact protection for interior components in light vehicles, improved brake performance for passenger cars and heavy trucks, and improved safety belt design.
 Rulemaking activities in FY 1994 on rollover Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)

#### Enforcement

• By end of CY 1994, increase current average NHTSA Priority motor vehicle recall completion rate by 3 to 5 percent (1993 rate: 68 percent)

#### Highway Safety Programs and Grants

Increase safety belt use to 75 percent NHTSA press release by 1997 • (1993 rate: 66 percent) (Secretarial goal) • Reduce the alcohol-related proportion of NHTSA press release fatal motor vehicle crashes to 43 (Secretarial goal) percent by 1997 (1992 rate: 45 percent) By end of CY 1994, have safety belt laws DOT Goal-Based in all states (Current status: 48 states, Management the District of Columbia and Puerto Rico) By end of CY 1994, have universal motorcycle **DOT Goal-Based** • helmet laws in 44 states (Current status: Management & NHTSA 25 states, DC, Puerto Rico) Priority

•	By October 1994, achieve compliance in all states for legislation requiring drug offender's license suspension (Current status: 42 states, DC, Puerto Rico)	DOT Goal-Based Management
•	By end of CY 1994, have laws for blood alcohol content (BAC) limit at .08% in 15 states (Current status: 10 states)	NHTSA Priority Plan
•	By end of CY 1994, have laws requiring prompt license suspension for DWI in 44 states (Current status: 34 states plus DC)	NHTSA Priority Plan

### APPENDIX 2 PERFORMANCE BASED STRUCTURE

### **Definitions**

We are incorporating the following definitions into our performance based model:

Outcome Measures: The mission goals of the agency, e.g., reduction of fatalities per 100 million vehicle miles of travel.

Performance Measures (also referred to in the literature as Intermediate Outcome Measures): Measures that are critical to achievement of, and directly tied to, Outcome Measures, e.g., percent of alcohol involvement in fatalities, injuries, and crashes.

Output Measures: Measures that are directly tied to program activities but represent some contribution to achieving progress in performance measures, e.g., number of states with laws specifying .08% as the legal limit for driving while intoxicated.

Program Activity Measures: Measures that are directly tied to expenditures in a given program activity area, e.g., number of public information and education campaigns aimed at not drinking and driving or number of state alcohol assessments. (Denoted by PA in Appendix 2)

# Sample Structure

The sample structure appearing on the following page represents progress thus far in creating a performance based structure for our FY 1995 and 1996 plans.

# Appendix 3

# Estimated Annual and Total Fatality Benefits Resulting from Crashworthiness Safety Standards, 1967-1990

Federal Motor Vehicle Crashworthiness Safety Standards

Source: Moving America More Safely: An Analysis of the Risks of Highway Travel and the Benefits of Federa l Highway, Traffic, and Motor Vehicle Safety Programs, Report to the Office of Management and Budget by the National Highway Traffic Safety Administration and the Federal Highway Administration, September 1991.