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BY THE COMPTROLLER GENERAL

Report To The Congress

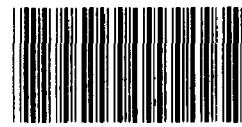
OF THE UNITED STATES

QMB

Evaluation Of Programs In The Department Of Transportation-- An Assessment

This report suggests better ways for the Department of Transportation to serve the oversight needs of the Congress and executive branch policymakers through improved evaluation of its programs. The Department needs to

- continue its initiatives to develop a Program Monitoring and Evaluation System;
- develop a means for clarifying program objectives and measures of performance with the appropriate congressional committees, the Office of Management and Budget, and agency officials; and
- establish an evaluation planning process which gives adequate consideration to priority transportation objectives identified by the Department, the Congress, and others.

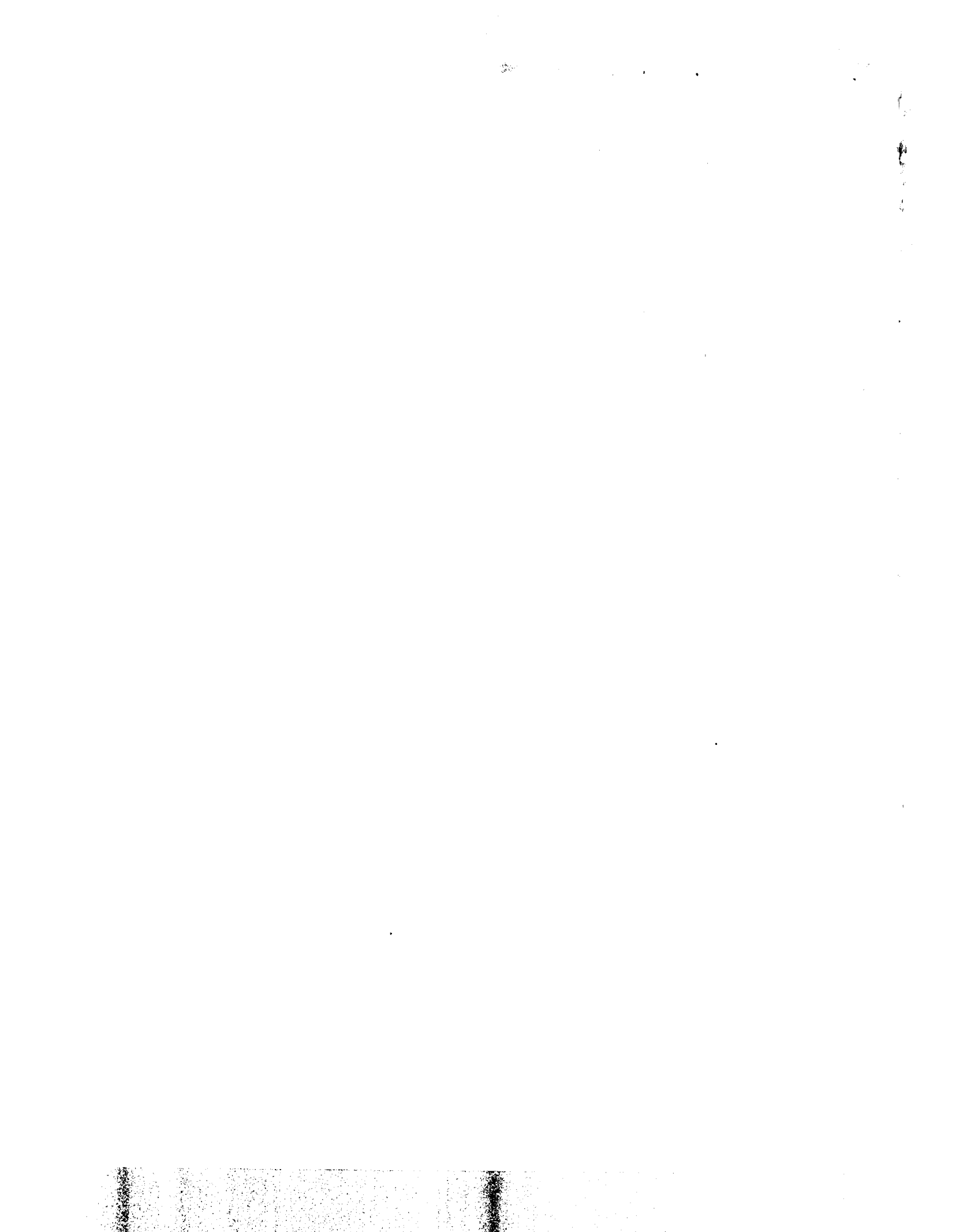


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COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

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To the President of the Senate and the
Speaker of the House of Representatives

This report assesses the extent to which evaluation within the Department of Transportation is an established part of the management process and the extent to which evaluation activities are aimed at serving congressional and executive branch decisionmaking needs. The report also contains recommendations on how the usefulness of these activities can be improved.

We initiated this review because of our concern over the need for improving the management and policy of Federal program evaluation. To effectively deal with many issues, concerns, and problems in evaluation, we are undertaking a variety of efforts, including work aimed at developing agreed upon Federal management evaluation policies.

Copies of this report are being sent to the Director, Office of Management and Budget, and the Secretary of Transportation.

James R. Abate
Comptroller General
of the United States

D I G E S T

This review was undertaken to assess the extent to which (1) the Department of Transportation's evaluation of its policies, programs, and activities are an established part of its management system and (2) evaluation activities are aimed at serving congressional and executive branch decision-making needs. Each of the several operating administrations within the Department of Transportation is responsible for establishing its own evaluation system. Since there are no Department-wide guidelines or standards to follow in evaluating agency programs, the administrations vary in their emphasis on and treatment of evaluation.

In most cases the system is decentralized and evaluative activities, with the exception of a few legislatively mandated studies, are aimed primarily at providing program managers with information on operational and technical deficiencies. GAO found that:

--Most formal evaluation studies provide information on whether program operations meet the expectations of program managers. (See pp. 15, 22, 27, and 30.)

--Evaluations are viewed as adequate and useful by program managers. (See pp. 17, 23, 27, 31, and 36.)

--Program success is generally measured in terms of operational achievements. (See pp. 16, 22, 27, 28, and 38.)

--There is no formal evaluation planning mechanism. (See pp. 8, 17, 21, 26, and 30.)

Relatively few Department evaluations have assessed the impact of programs on legislative expectations. Most of the studies compared the status of a program's operation to what had been planned. These studies basically focused on whether specific tasks and transactions had been accomplished. Since most evaluation studies are conducted primarily by program personnel for program managers, there is limited use of formal departmental evaluation results by other levels of decisionmakers and policymakers.

PROGRAM SUCCESS IS GENERALLY MEASURED
IN TERMS OF OPERATIONAL ACHIEVEMENTS

Most departmental programs have been established by law to provide a service to the public. In most cases information is collected on the number of inspections completed in specified time intervals; the amount of money being dispensed; and the adherence to and acceptance of applicable laws, regulations, and procedures. Program managers believe such information is sufficient indication of how well program operations are being carried out.

With the exception of the National Highway Traffic Safety Administration, none of the Department's operating administrations have a formal evaluation planning process which identifies major areas of concern and allocates resources to these areas for evaluation purposes. Each administration allocates resources to evaluative efforts generally as the need arises, with little advance planning.

The Department is, however, in the process of developing a Departmental Program Monitoring and Evaluation System, which will be under the direction of the Assistant Secretary for Budget and Programs.

The system is intended to (1) assess progress of selected major operating activities, projects, and/or programs in meeting stated departmental milestones and objectives (program monitoring) and (2) assess the effectiveness, efficiency, and economy of major programs in accordance with a systematic review process for use in decisionmaking (program evaluation). The establishment of this system could improve Department evaluations and satisfy problems and needs GAO noted in this review (see pp. 9 and 10).

EVALUATION ISSUES RAISED

GAO's review of the Department's evaluation system raised the following major issues concerning the role of program evaluation in the decisionmaking process:

--Audiences to be served by evaluation:
Should agency evaluation activities be organized and designed to serve different users of evaluation?

--Information to be collected in evaluations:
What types of information are needed to measure program performance? (See ch. 9.)

There is no agreed upon Federal evaluation management policy at this time. Since evaluation is a fundamental part of program management, the development of key indicators of the effectiveness of program evaluation efforts should be related to how well a program itself is performing. To determine how well evaluation efforts meet the management decisionmaking needs of departmental program managers and meet a broader set of oversight needs of Department, executive branch, and congressional policymakers, the extent to which the following four conditions apply to a program might be measured.

- There is agreement between the Congress and executive branch policy-makers regarding statements of program expectations.
- Program activities are in place which make these expectations achievable.
- There is sufficiently valid and reliable data on expectations and actual program performance for measuring any gaps.
- Actual program performance is acceptable to the Congress and the executive branch. (See ch. 9.)

To effectively deal with many of the issues, concerns, and problems in evaluation, GAO is aiming at developing agreed upon Federal management evaluation policies.

RECOMMENDATIONS TO THE
SECRETARY OF TRANSPORTATION

We recommend that the Secretary of Transportation:

- Continue Department initiatives to develop a Departmental Program Monitoring and Evaluation System, including the formulation of Department-wide guidelines for evaluation. In addition to meeting the information needs of Department program managers and policy officials, the Program Monitoring and Evaluation System should be developed to serve the oversight needs of the Congress and executive branch policymakers.
- Review the manner in which departmental program objectives are specified and measured for evaluation purposes, given the apparent inconsistencies between

many program objectives and the measures used to assess performance. The Secretary should also develop a means for clarifying objectives and measures with the appropriate congressional committees, the Office of Management and Budget, and agency officials.

--Establish an evaluation planning process in which adequate consideration is given to priority transportation objectives identified by the Department, the Congress, and others.

AGENCY COMMENTS

The Department of Transportation agrees with the findings and recognizes the need to improve departmental program management through introducing a formal evaluation process. (See app. VII.) This is its primary objective in developing a Departmental Program Monitoring and Evaluation System. Problems raised by the Department concerning the implementation of recommendations are recognized throughout the report and are discussed in chapter 9. The Department endorsed GAO's recommendations; however, it noted that the recommendations may be difficult to implement.

MATTERS FOR CONSIDERATION BY THE CONGRESS

Where evaluations are to be mandated by legislation or are needed by a committee, the Congress should work with agency officials to seek a common understanding on the process or approach to be used for (1) clarifying program objectives for evaluation and (2) reaching agreement on acceptable evaluation measures and data for each program to be evaluated.

One approach for developing objectives and using evaluation in congressional oversight is outlined in the GAO report, "Finding Out How Programs Are Working: Suggestions for Congressional Oversight," (PAD-78-3, Nov. 22, 1977).

To assist in the development of such an approach, GAO developed, in cooperation with various agency personnel, a matrix for each of the operating administrations. Each matrix outlines major program areas and objectives, major performance measures used by agency personnel for periodically measuring how well programs are doing, and the major evaluative activities undertaken in each program area during the review time frame. (See apps. I-VI.)

The information provided could be used by the Congress for helping to oversee the Department's evaluation function and to decide upon the role program evaluation should take in the Department.

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ABBREVIATIONS

BART	San Francisco Bay Area Rapid Transit System	
<u>DOT</u>	Department of Transportation	00029
<u>FAA</u>	Federal Aviation Administration	00030
<u>FHWA</u>	Federal Highway Administration	00063
<u>FRA</u>	Federal Railroad Administration	00213
GAO	General Accounting Office	
<u>NHTSA</u>	National Highway Traffic Safety Administration	00425 00164
OMB	Office of Management and Budget	
OPE	Office of Programs and Evaluation	
OST	Office of the Secretary of Transportation	
PMES	Program Monitoring and Evaluation System	
<u>UMTA</u>	Urban Mass Transportation Administration	00230
	Coast Guard	00164



CHAPTER 1

INTRODUCTION

A basic agency management responsibility is to establish and maintain adequate management control systems. One such control, the evaluation system, involves determining whether program objectives are being met. These objectives have been established by various levels of responsible federal officials--that is, congressional committees, executive branch policymakers, agency policy officials, or program managers. This review--the second of its type 1--was undertaken to assess the extent to which (1) evaluation within the Department of Transportation (DOT) is an established part of the management process and (2) evaluation activities are aimed at serving congressional and executive branch decisionmaking needs.

GROWING DEMAND FOR OVERSIGHT AND ACCOUNTABILITY

In the 1970s, there has been an increased interest in program oversight and accountability. Program officials, legislators, and the public are more interested in whether

- programs are being implemented as intended;
- programs are producing desired results and achieving intended purposes; and
- programs and the legislation authorizing programs should be continued or modified, in the light of experience, to achieve greater economy, efficiency, or effectiveness.

The lack of comprehensive and reliable systems to measure program effectiveness has been cited as a crucial weakness in the management and oversight of Federal programs. With uncertainty about the effects of past and present programs, it is difficult, if not impossible, to plan for future programs. In recent years, the Congress has taken steps to improve its oversight of Federal programs and is currently considering proposals for further improvements in program oversight and accountability.

1/The first is entitled "HUD's Evaluation System--An Assessment" (PAD-78-44, July 20, 1978).

In many recent pieces of legislation, the Congress has required programs to be periodically reauthorized and agencies to study and report to the Congress on the performance of these programs. In 1978 the Congress enacted legislation establishing an Office of Inspector General in various Federal departments and agencies to review and report on programs.

Various legislative proposals for further improving oversight and accountability of Federal programs were considered by the 95th Congress. Perhaps the most comprehensive oversight reform proposal considered was S.2, the Sunset Act of 1978, which passed the Senate on October 11, 1978.

As a result of the increasing interest in program oversight and accountability, various information gathering and analytical activities in the Federal Government, sometimes referred to as "program evaluation," have become more important.

DEFINITION OF EVALUATION

The Federal Government does not have a universally accepted definition of program evaluation, and many other terms have been used synonymously with the term "program evaluation" (for example, performance audit, performance monitoring, systems analysis, and program analysis). We believe program evaluation can be viewed as the process of appraising the manner and extent to which programs are

- achieving their stated objectives,
- meeting the performance perceptions and expectations of responsible Federal officials and other interested groups, and/or
- producing other significant effects of either a desirable or undesirable character to assist future policy and management decisions.

Three points should be noted about the definition of program evaluation. First, evaluation is concerned with measuring the performance of an existing program. Evaluation does not necessarily include a prospective element; the evaluation may, but need not be, concerned with identifying and assessing alternative proposals. Second, evaluation

does not assign values to a given program; the hypotheses and criteria for evaluation must come from sources other than the evaluator. In an evaluation, a program and its outcomes are tested against objectives, expectations, or values assigned by others (for example, responsible legislative, executive, or judicial officials in Federal, State, or local governments, individuals, and groups affected by the program). Third, evaluation provides feedback in the continuing process of policy and program development, execution, refinement, and reconsideration. In this sense, evaluation is use oriented; evaluation fails when it does not assist future policy and management decisions.

The lack of a precise definition of program evaluation should not obscure the actual methods used in studying programs. There can be many different emphases in evaluation studies. Most studies, however, tend to focus on some combination of program inputs, processes, and outputs and impacts. The selection of the appropriate evaluation emphasis and the corresponding techniques and methodologies should depend on the particular management and oversight questions being asked, the programmatic issues being addressed, and the stage of the program's implementation.

For example, it is often better to examine a program's implementation and process before attempting to assess the outcome of a program. This is true to verify that a program is actually in place and is producing intended effects. Likewise, a review of the relative effectiveness of alternatives may need to await an assessment of the outcomes of ongoing programs; the effectiveness may be difficult, if not impossible, to predict with any degree of certainty until the actual outcomes of existing programs have been identified.

For these reasons, it is useful to discuss program evaluation in terms of the following three general aspects.

1. Examination of program implementation/process:

Examining whether the implementation and execution of actual program activities and operations (processes) meet the perceptions and expectations of responsible political officials and individuals and groups affected by the program, and comply with applicable laws, regulations, and guidelines governing the implementation and operation of the program.

2. Appraisal of program outcome:

Examining whether programs have outcomes which achieve legislative/program objectives, meet the perceptions and expectations of responsible political officials and individuals and groups affected by the program, and/or produce other significant effects, whether desirable or undesirable. An evaluation of program outcome may include one or both of the following types of studies:

- a. Primary results review: The process of examining whether program activities and operations are having immediate, primary, and direct results. Immediate and direct results generally relate to management goals for the program; program performance on such goals can usually be controlled by management.
 - b. Long run, secondary, or indirect impact review: The process of examining whether program activities and their immediate and direct results are contributing to long-term impacts and effects which achieve long-term objectives, perceptions, and expectations, or which are considered desirable or undesirable by responsible Federal officials and individuals and groups affected by the program.
3. Assessment of the relative effectiveness of alternatives:

Identifying and examining two or more programs or program strategies to determine which is more effective. This type of evaluation may compare program processes, costs, results, and/or impacts, or may compare the relative effectiveness of alternative proposals for changing the program or for new programs.

RELATIONSHIP OF THE INTERNAL AUDIT
FUNCTION AND THE EVALUATION SYSTEM

Maintaining an effective system of management control should be contributed to by agency management and the internal auditor. Our report, "Standards for Audit of Governmental Organizations, Programs, Activities and Functions" states that it is management's responsibility

to continually evaluate their programs and activities to determine the progress being made in achieving established objectives. The role of the internal auditor is to test management's procedures and controls to see whether they are working and, if not, to suggest ways to make them work. In addition, the full scope of an audit of a governmental program includes reviews of program effectiveness, as well as reviews of financial/compliance and economy/efficiency.

An agency's internal audit function is, therefore, an important component of any evaluation system, both in terms of the program audits it performs and in reviews of management control systems. This relationship with program evaluation systems will be further emphasized in the future with the recent enactment of legislation establishing an Office of Inspector and Auditor General within various Federal departments and agencies and requiring reports to the Congress on the reviews performed.

SCOPE AND METHODOLOGY OF THE REVIEW

Our review concentrated on evaluation activities undertaken from the beginning of fiscal years 1976 through 1977. Because DOT's evaluation system is decentralized, we reviewed each administration separately, with the exception of the Saint Lawrence Seaway Corporation and the Research and Special Programs Administration. Contact was made with these two organizations, but no detailed analysis was conducted because of the limited evaluation activities involved. In the case of the Saint Lawrence Seaway Development Corporation, it is recognized that an organization of this size (186 full-time permanent employees) has no need for an elaborate evaluation mechanism. It appears that the Corporation's internal review and evaluation process is adequate for an operational organization of its type. The Research and Special Programs Administration had just been formed and, at the time of our review, was still in the organizational stage.

Our review concentrated on DOT's formal evaluation system. It did not include the informal systems through which policy officials and managers obtain a great deal of information on program performance--telephone calls, letters, the media, and meetings with constituents and interest groups. We recognize the existence and value of informal evaluation as an integral part of any decision-making process. Despite their importance, informal

evaluation systems are not presently susceptible to the type of assessment underlying this report and, therefore, were not assessed in this review.

Our analysis of each administration focused on four aspects of an evaluation system:

- Specifying program objectives and measures of effectiveness.
- Planning evaluation activities to support decisionmaking needs.
- Conducting formal evaluation studies.
- Using evaluation results.

We also reviewed the evaluation activities of the Office of the Secretary in terms of (1) the extent to which the Office has performed Department-wide evaluations and (2) the Office's role in coordinating and monitoring the evaluation activities of the operating administrations.

Most of our review was conducted at the headquarters' offices of the DOT organizational units. In addition, discussions were held with officials from the following organizations:

- Regions 15 and 3, Federal Highway Administration, Arlington, Virginia, and Baltimore, Maryland, respectively;
- Regions 5 and 6, National Highway Traffic Safety Administration, Homewood, Illinois, and Fort Worth, Texas, respectively;
- Transportation Systems Center, Cambridge, Massachusetts;
- Transportation Test Center, Pueblo, Colorado;
- Maryland State Highway Administration, Baltimore, Maryland;
- Bureau of Transportation Safety, Ohio Department of Transportation, Columbus, Ohio;

--Oklahoma Highway Safety Office, Oklahoma City,
Oklahoma; and

--Office of Traffic Safety, State Department of
Highways and Public Transportation, Austin, Texas.

We also interviewed staff members of congressional committees concerned with DOT programs, the Office of Management and Budget, the Office of Technology Assessment, the Transportation Research Board, and the Transportation System Acquisition Review Council.

Program/Matrices

For each administration a program matrix was prepared which outlined major program areas and objectives, major performance measures used by agency personnel for periodically measuring how well program operations were being carried out, and the major evaluative activities undertaken in each program area during the time frame of our review. The program matrices are included as appendixes to provide an overview of agency programs, objectives, performance measures, and evaluative activities.

The matrices are not an official, comprehensive list of objectives and performance measurements. They have been, however, generally prepared with agency personnel. Because the administrations of DOT are decentralized, program structure varies somewhat among administrations. As a result, the matrix formats appear slightly different.

CHAPTER 2
EVALUATION IN THE
OFFICE OF THE SECRETARY
OF TRANSPORTATION

The Department of Transportation was established to assure the coordinated, effective administration of the transportation policies and programs conducive to the provision of fast, safe, efficient, and convenient transportation at the lowest cost possible. DOT consists of the Office of the Secretary of Transportation (OST) and eight operating administrations. The heads of these organizations report directly to the Secretary and have highly decentralized authority. A breakdown of fiscal year 1977 total Federal outlays for DOT (\$12.6 billion) is shown in Table 1.

DOT is administered by the Secretary of Transportation, who serves also as the principal advisor to the President in all matters relating to Federal transportation programs except maritime subsidy. OST has broad responsibilities for the development and coordination of the Nation's transportation policies and programs, including policy formulation, resource allocation, interagency and intradepartmental coordination, and program evaluation. Several organizational units within OST are involved in program evaluation, the primary of which is the Office of Programs and Evaluation.

There are no Department-wide guidelines or standards for evaluation. Each of the operating administrations and OST plan and conduct their evaluation efforts independently. Generally, the system established within each administration is also highly decentralized and evaluation is, for the most part, integrated into program management activities. Although OST has the responsibility for supervising, monitoring, and reviewing all departmental evaluation activities, evaluation within the administrations is essentially independent of OST. Office of Management and Budget (OMB) figures in the most recently published Government-wide survey (fiscal year 1977) show that DOT devoted 242.7 staff years and \$14.5 million (including contracted studies) to evaluation.

Table 1
DOT Expenditures For Fiscal Year 1977

<u>Agency</u> (note a)	<u>Total Federal outlays</u> (000 omitted)
Office of the Secretary	\$ 62,443
Coast Guard	1,158,788
Federal Aviation Administration	2,368,910
Federal Highway Administration	6,145,043
Federal Railroad Administration	940,951
National Highway Traffic Safety Administration	168,559
Urban Mass Transportation Administration	1,708,910
Saint Lawrence Seaway Development Corporation	<u>b/(1,284)</u>
Total	<u>\$12,552,320</u>

a/The Research and Special Programs Administration was established September 23, 1977, and, therefore, was not included in the survey.

b/Negative figure.

DEPARTMENTAL PROGRAM
MONITORING AND EVALUATION SYSTEM

DOT is developing a Departmental Program Monitoring and Evaluation System (PMES) which will be under the direction of the Assistant Secretary for Budget and Programs. The system is intended to assess (1) the progress of selected major operating activities, projects, and/or programs in meeting stated departmental milestones and objectives (program monitoring) and (2) the effectiveness, efficiency, and economy of major programs in accordance with a systematic review process for use in decisionmaking (program evaluation).

Program monitoring procedures will entail tracking the performance of selected programs against the milestones set forth in planning or other documents which establish expected program performance or objectives. The programs selected will include: (1) all major systems acquisition programs in accordance with OMB Circular No. A-109, (2) selected programs designated as a result of interest by the Transportation System Acquisition Review Council, and (3) a limited number of additional programs which require systematic oversight by departmental management because of their importance, magnitude, and/or high executive branch or congressional interest.

PMES' evaluation component provides a process for identifying candidates for program evaluations, selecting them, assigning responsibility for their conduct, monitoring their performance, assessing their results, and taking appropriate management actions consistent with evaluation findings. When the system starts operating, each departmental element will be required to submit an annual listing of planned evaluation activities for the current and succeeding fiscal year and recommendations on evaluations for which OST should be primarily responsible.

The DOT Order which will officially establish PMES was issued to departmental units on July 10, 1978, for review and comment. The establishment of PMES may improve DOT evaluations to satisfy unmet needs noted in this review.

OFFICE OF PROGRAMS AND EVALUATION

Under the direction of the Assistant Secretary for Budget and Programs, the Office of Programs and Evaluation (OPE), 1/ is responsible for developing, implementing, and managing a departmental program evaluation process to assess the effectiveness of DOT programs in achieving statutory and departmental objectives. Its mission also includes performing evaluations and analyses of the impact and effectiveness of departmental programs. In actual practice, the efforts of OPE are directed more toward shorter term issue analyses than longer term evaluations. OPE typically identifies areas in need of evaluation and

1/Before November 3, 1977, the Office was referred to as the Office of Planning and Program Review.

directs the operating administrations, and sometimes other OST offices, to carry out the evaluative efforts. Although it conducted no studies of its own during our review time frame, OPE reported 10 staff years and \$283.2 thousand devoted to evaluative activities during fiscal year 1977.

OPE's basic approach is to deal with specific issues or questions as they arise either before or during the budget process. The issues or questions are often raised by activities or organizations outside of OPE--either by other elements of DOT or by external organizations, such as OMB. Studies which OPE directs to be conducted are generally associated with the budget process. In some cases, the studies are conducted as part of the annual budget justification process. The operating administration in these instances will usually be required to initiate an evaluation study to address issues or problems that are expected to arise during budget formulation and development. In other cases, OMB directly requests the evaluation to substantiate some particular element of its budget request. The approach and methods used for conducting evaluations are decided on a case-by-case basis; because of the widely differing nature and scope of DOT's evaluations, uniform guidance has not been considered necessary.

OPE reviews all reports developed as part of the budget process or as a result of an OMB request. OPE does not routinely review other evaluative efforts performed by the DOT operating administrations unless such reports have important programmatic or legislative implications.

In a recent OPE study, for example, staffing for air traffic and systems maintenance was identified as a major Presidential interest within DOT. The Federal Aviation Administration (FAA) subsequently prepared a "preview paper" which summarized its current assessment of the potential for further productivity increases--a major factor affecting future staffing. The document was deemed useful; OPE then instructed FAA to prepare a "zero-based evaluation document" from the preview paper results which could be presented to OMB to support DOT's fiscal year 1979 budget estimates for Air traffic and systems maintenance personnel requirements. FAA was requested to summarize relevant data and analyses which would cover

--aviation activity forecasts,

--productivity of developmental controllers,

- productivity assumptions,
- assumptions or added productivity in fiscal year 1979 from already installed equipment, and
- assumptions and plans regarding decommissioning of towers and reductions in the hours of tower operation.

OFFICE OF AUDITS

As mentioned in chapter 1, the internal audit function can complement an agency's management control system through independent examinations of program operations and performance and tests of individual management control systems. DOT has established an Office of Audits under the direction of the Assistant Secretary for Administration. 1/ In carrying out its responsibilities, the Office conducts audits of three types of agency activities:

- Administration and support.
- Operations (program oriented).
- Unique installations.

The Office identified 25 evaluative studies completed during our review time frame. The studies cost about \$1.1 million and took about 38 staff years to complete. Most of the studies were compliance audits or economy and efficiency audits. Nine, however, were specifically identified as program results reviews; that is, a determination was made concerning whether a program was satisfactorily achieving some desired level of performance. These audits generally required 1 to 2 staff years to complete and were intended for use by management officials to improve program operations.

The Office of Audits has also recently completed a review of the evaluation function in FAA. The objective of this audit was to determine the adequacy of the administration's evaluation function in improving program operations. Work was performed at FAA headquarters and in the New England, Eastern, and Great Lakes regions. The audit included a review of pertinent laws, regulations, and

1/We recently evaluated DOT's internal audit coverage of financial operations. (FGMSD-79-11, Jan. 19, 1979.)

orders; the informational content of studies; methods used to obtain program information; scheduling procedures; and evaluation followup procedures. The audit resulted in four separate reports, the results of which are summarized in chapter 4.

EVALUATION IN OTHER OST ORGANIZATIONS

Eight other OST components identified some involvement in evaluation. These eight offices completed 28 studies--9 under contract--during the period of our review at a cost of \$10.3 million, and expended about 42 staff years. This work included 19 studies, among them the BART Impact Program (see below), that were identified as evaluations of the relative effectiveness of alternative program approaches.

Most of the impact and effectiveness evaluations focused on broad policy issues and did not address the success of individual programs. As an example, a study entitled "Transportation To Fulfill Human Needs in the Rural/Urban Environment" discussed a variety of transportation modes and their effects on meeting current and future transportation needs of a particular sector of the populace. The study did not concentrate on any one program.

A few of these studies fall under the classification of applied research and were performed under contract by various universities. Other status reports have been prepared annually and compare present with past program performance. These studies were initiated, designed, and conducted for use within OST.

The BART Impact Program

"The BART Impact Program" deserves special recognition. This study was a comprehensive review and evaluation of the impact of the San Francisco Bay Area Rapid Transit (BART) System on travel behavior, land use, the regional economy, the environment, the government, and other aspects of life in the San Francisco Bay Area. The Forecasting and Evaluation Division 1/ in OST managed the program as part of its function to evaluate alternative transportation systems and assess the present performance of the Nation's transportation system. The Department of Housing and Urban

1/At the time, this division was a part of the Office of Transportation Systems Analysis and Information. Currently, it is within the Office of Intermodal Transportation.

Development and the State of California were also involved. The objective was to provide answers to four main questions:

--What is the impact of BART on travel conditions, economic activity, land use, public policies, and other aspects of life in the metropolitan region?

--Why do these effects occur?

--Who is affected?

--How can the greatest benefits be obtained from the Bay Area's investment in BART?

This study was a massive undertaking which took a number of years and cost \$7.5 million. Congressional and departmental staff generally believe it is too soon to judge whether the study will effect policy decisions in any way. However, because BART is the only regional rapid transit system to be built in this country during the past 50 years, the study provides a unique source of information about the contemporary financing, construction, and operation of such systems. The information produced by the BART Impact Program is expected to help decisionmakers throughout the country in making future transportation and urban development policy.

CHAPTER 3

EVALUATION IN THE COAST GUARD

The Coast Guard is the smallest branch of the United States Armed Forces and functions primarily as the DOT service unit responsible for maritime transportation. In time of war or at the President's direction, the Coast Guard operates as part of the Navy. The Coast Guard is a multimission organization responsible for such actions as minimizing loss of life, injury, or property damage on U.S. waters; maintaining short range and radio navigation aids; and providing national icebreaking services. Also, as a result of recent statutory requirements, the Coast Guard is now responsible for marine environment protection, maritime laws and treaties enforcement, and boating and marine safety. (See app. I for a more detailed explanation of Coast Guard programs.) The Coast Guard has assumed responsibility for many of these activities in recent years without substantial increase in its budget.

Each program manager is responsible for evaluation. Most evaluation activity appears to be program monitoring with few formal reports issued. The Plans Evaluation Division, consisting of 11 staff members at the chief of staff level, is responsible for providing policy guidance and coordination of evaluation activities, along with certain other duties. This group does not, however, conduct any evaluation studies of its own.

The Coast Guard does not have a formalized evaluation system or process that is separate and distinct. Based on our analysis, evaluation activity, while integrated into the programming and planning process, is not planned and conducted on a regular and systematic basis. Evaluation studies are usually undertaken only at the request of OST or OMB; evaluations are also done when program managers desire information on how program operations may be improved.

SPECIFYING PROGRAM OBJECTIVES AND MEASURES OF EFFECTIVENESS

In 1976 the Coast Guard began to formulate analytic measurements that would enable program managers to measure the effectiveness of Coast Guard programs. The measurements, called "program standards," are defined as quantified expressions of tasks deemed necessary to attain the most effective

level of a program's objectives. These standards, along with program-related subobjectives, goals, and milestones supporting formal Coast Guard objectives, are identified in the operating program plan; this document provides policy direction and analysis for Coast Guard programs over a 10-year planning period.

In theory, program standards are designed to translate program objectives into resource requirements and measurements of how effectively the program is achieving its objectives. In reality, however, we found that this was not the case. Program standards do not encompass all of the tasks necessary and important to achieve program goals; that is, the standards focus almost exclusively on routine tasks accomplished by field units. Furthermore, major activities performed at Coast Guard headquarters, such as the formulation of regulatory rules and regulations, are generally not identified by program standards.

In the Commercial Vessel Safety Program, for example, program standards describe mandatory work activities, such as the rate of investigations of reported marine accidents, casualties and violations of laws and regulations, and the percentage rate of supervised seamen discharges. Other programs, such as Port Safety and Security and Aids to Navigation, identify typical work activities, such as the number of waterfront facilities surveyed and inspected, and the inspection of daybeacons and buoy moorings within a specified time period. Program managers have found this system of program measurement useful in monitoring program operations.

The Coast Guard has begun a study of its program standards. The purpose of the study is to develop and validate data used to formulate performance standards and to reassess the selection of performance criteria. This kind of analysis will be important in determining the adequacy and validity of program standards.

In 1976 the Coast Guard completed a study, "Measures of Program Effectiveness," that addressed the need for improved outcome measures in the Marine Environmental Protection Program. These measures have been useful in monitoring program activities. The report also identified improved effectiveness measures designed to measure oil spillage volume in U.S. coastal waters. We believe that the Coast Guard should consider performing similar studies for other programs so that program outcomes may be more adequately assessed.

PLANNING EVALUATION ACTIVITIES

Although the Coast Guard's programing, planning, and budgeting processes are well integrated, organized, and structured, there is neither a provision for systematic planning of evaluation activities nor a separate Coast Guard evaluation plan. Study recommendations and suggestions directed at modifying resource requirements, such as positions and equipment, are incorporated into program plans from time to time. This type of input is infrequent, however, and occurs only when there has been a request, such as from OMB or OST, for a particular activity or program to be evaluated or analyzed.

CONDUCTING EVALUATION STUDIES

The Coast Guard identified eight major studies completed or in process from July 1, 1975, to September 30, 1977. All of the studies were done under contract. As previously noted, evaluation studies are undertaken only when (1) there is a request from OMB or OST or (2) a program manager has identified a specific problem area that needs improvement and organizes a study team to find out how this may be done. Several Coast Guard program managers indicated that the Coast Guard programing, planning, and budgeting processes and program standards are adequately serving the Coast Guard's needs. These managers do not believe the evaluation process needs to be improved.

The Coast Guard has established specific guidelines for requesting evaluations or special analytic studies. For example, the Coast Guard's Planning and Programming Manual outlines the procedures that managers must follow in requesting approval to conduct studies. These procedures address the development of study proposals, including problem definition, the identification of required resources, tentative time schedules, and a statement of requirements for progress reporting.

USING EVALUATION RESULTS

Dissemination of analytic studies in the Coast Guard, evaluative or otherwise, is usually performed by the Plans Evaluation Division and program managers involved in a study. The distribution of a study usually depends upon several factors, such as the relevancy of the study results to other program managers, the scope of the findings, and the coverage of issues and topics in the report. OMB, the Congress, and other organizations receive reports only upon request.

A very useful Coast Guard evaluation report is, "A System of Measuring Program Effectiveness." This study was used to improve the quality of program effectiveness measures for the Port Safety and Security Program and the Marine Environmental Protection Program. It was also used as part of the budget justification and program planning formulation for these programs.

Congressional committee staff members with Coast Guard oversight responsibility have not used evaluation results in their work and have not requested any specific evaluation studies. Most congressional staff members acknowledged that they would read and use evaluation reports if they were made available.

OMB indicated that it needs more evaluative information on the economy and efficiency of Coast Guard programs and comparative data on alternative program strategies. OMB has also recognized the need to work closely with the Coast Guard in planning requested studies to ensure that study results are relevant to OMB's informational needs.

CHAPTER 4
EVALUATION IN THE
FEDERAL AVIATION ADMINISTRATION

The Federal Aviation Administration is responsible for the dual mission of regulating and fostering civil aviation. FAA is specifically charged with regulating air commerce to foster aviation safety, promoting civil aviation and a national system of airports, achieving efficient use of navigable airspace, and developing and operating a common system of air traffic control and air navigation for civilian and military aircraft. Some of FAA's activities to meet these responsibilities include the (1) operation of facilities to control air traffic, issuance and enforcement of orders, rules, regulations, standards, and specifications, (2) certification of airmen, pilot schools, and aviation maintenance schools, (3) type-certification of aircraft and components, (4) issuance of operating certificates to airlines and airport operators, and (5) provision of grants-in-aid for the development and improvement of airports. Agency responsibilities and activities are further broken down by program office in app. II.

To assure that FAA is effectively carrying out its mission and achieving established goals, it established a decentralized evaluation system in 1974 whereby associate administrators, regional and center directors, and heads of other offices reporting directly to the Administrator (28 in total) are responsible for evaluating their own programs. Responsibility for monitoring agency evaluation programs has been assigned to the Program Review Staff (PRS) within the Office of the Associate Administrator for Administration.

Most of FAA's evaluation activity is performed by the regional offices in their overview of some 1,100 facility/field office operations. Most regionally conducted evaluations are technical reviews that focus on whether equipment and facilities have been inspected for compliance with agency policies, standards, and regulations. There are wide variances in the resources committed to evaluation by the regional offices and the manner in which regional evaluation teams are staffed.

OST's Office of Audit's recent reviews of the evaluation function in FAA's Eastern, Great Lakes, and New England

regional offices showed that regionally conducted evaluations were generally useful in disclosing problem areas and bringing them to management's attention. However, the audits also found that evaluations' usefulness could be improved if management placed a higher priority on evaluation, took steps to improve the monitoring of evaluation programs, required that evaluation reports provide a complete description and statement of findings, and established better follow-up controls.

Headquarters' program offices have committed most of their evaluation resources to assessing overall accomplishment within specific regions. They focused mainly on how effectively programs are administered and examined specific functions or program areas requiring immediate attention. Of the six major program areas included in our review (see app. II), three have full-time evaluation staffs. The remaining offices conduct studies by forming ad hoc teams composed of various types of program personnel (such as administrative officials, technical specialists, and medical doctors).

Beyond establishing an evaluation system in 1974, we found that top agency management placed little emphasis on formal program evaluation. We also found that there was no systematic process whereby comprehensive program evaluation studies are planned or conducted. While FAA has devoted considerable effort to compliance reviews and technical studies of equipment/facility inspection activities, the evaluation system is producing little evidence of how well FAA programs are meeting the objectives contained in authorizing legislation. In its audit report on the evaluation function within FAA headquarters, DOT's Office of Audit also found that top management officials are not receiving important information concerning the performance of FAA systems and whether approved programs are achieving established objectives.

SPECIFYING PROGRAM OBJECTIVES AND MEASURES OF EFFECTIVENESS

In FAA, major program objectives have been broadly stated in nonspecific terms of efficiency and safety. For example, the objective of the Airports Program is to foster and promote the development and maintenance of a safe and efficient national system of airports. Similarly, the Air Traffic Service Program is charged with assuring the safe separation of aircraft and efficient use of airspace in the Air Traffic Control System.

To determine how successfully these programs are achieving objectives contained in legislation, an evaluator must understand what constitutes a safe national system of airports, what represents the efficient use of airspace, and when expected levels of program performance will be revised. However, before useful information regarding overall program accomplishment can be supplied to decision-makers (in the form of program evaluation), more emphasis needs to be placed on clarifying FAA's program objectives.

We found that most of the measures of program effectiveness developed and used by FAA officials provide the information needed by program managers to effectively administer daily program operations; for example, the number of inspections performed and the number of incidents of noncompliance with rules and regulations. These indicators primarily provide feedback on specific program activities and cannot be used to measure overall program effectiveness. For example, the performance indicators established by the Airports Program are made up of workload accomplishment statistics collected annually on 32 operational activities. These statistics are analyzed to (1) identify work trends, (2) compare workload demand with work scheduled, (3) compare work accomplished with work planned, and (4) determine how effectively personnel is used. While such indicators provide program managers with useful information, the indicators do not relate directly to assessing the impact of FAA program activities and policies on the development and maintenance of a national system of airports. To provide this type of feedback to decisionmakers and policymakers, indicators would need to be developed which relate more directly to and address the safety and efficiency aspects of the airports system as a whole.

PLANNING EVALUATION ACTIVITIES

Within FAA's decentralized evaluation system, planning is performed almost entirely to meet individual program management needs. There is no agencywide evaluation planning process whereby major areas/issues of concern are identified and decisions are made regarding which problems FAA should study. Program and regional managers generally decide which activities should be evaluated, the evaluation techniques and approaches to be used, and the resources that should be committed.

As required by FAA's Evaluation Order, evaluation agendas are drawn up annually by each organizational unit with evaluation responsibility. The information in the

agendas is not uniform. Furthermore, we noted that the agendas do not always (1) identify specific areas to be studied or types of studies to be performed or (2) indicate the resources which will be committed to evaluation. These agendas are forwarded to the Program Review Staff for review.

CONDUCTING EVALUATION STUDIES

During fiscal years 1976 and 1977, FAA conducted approximately 2,900 evaluations. Most were compliance or staff performance reviews performed by regional offices. Some of these reviews did not result in written reports. A few of the studies discussed whether a specific program had undertaken the activities that were planned and, if so, to what extent. Additionally, some evaluation studies assessed the quality of FAA services by obtaining feedback from users and industry.

We have identified two major factors which we believe have greatly influenced the design of FAA's evaluation system and, consequently, the types of evaluation studies FAA undertakes. The first factor was discussed earlier in the chapter--that objectives in legislation are broad and vague regarding efficiency and safety. As a result, most evaluation resources have been devoted to observing and measuring performance in areas where standards of achievement are clearly stated.

The repetitive nature of many agency activities is a second factor that has affected the types of information needed and produced (that is, controlling aircraft arrivals and departures, inspecting equipment, and certifying airmen and aircraft components). These types of activities are a major concern of program management. The efficiency with which they are performed can be assessed over a relatively short time because of (1) the high frequency at which these routine events occur and (2) the relative ease with which measurements can be taken and reported. For some activities, a large number of observations/measurements can be taken daily (for example, monitoring the number of operational errors in the Air Traffic Control System). Evaluators have, therefore, been directed to obtain continuous feedback on these types of program elements. As an example, the objectives of the Air Traffic Service's evaluation program are to (1) keep regional division chiefs, regional directors, and the Director, Air Traffic Service, informed of conditions in the field, (2) identify problem areas, (3) spotlight causes, and (4) recommend solutions and follow up on corrective action.

As was mentioned earlier, the Program Review Staff is responsible for monitoring the performance of evaluation functions throughout the agency. Although the amount of written evaluation guidance provided has been minimal, the staff has devoted much of its efforts to informally assisting organizational units develop their evaluation programs. Additionally, we noted that the staff does not receive copies of studies performed by the various offices, primarily because of the large volume of products the system produces annually. To effectively monitor the quality of evaluation in the agency, however, we believe the staff should review evaluation products on a selective basis. By doing so, it would be able to identify useful/appropriate evaluation techniques and methodologies which could be passed on to other evaluation units.

The staff is taking steps to improve its effectiveness in monitoring and coordinating FAA evaluation activities. A new evaluation order has recently been issued which emphasizes the importance of determining agency progress in achieving stated goals--national, departmental, agency, and local. Other plans include developing a detailed set of evaluation guidelines and conducting formal reviews of program and regional office evaluation programs, including the preparation of written reports detailing study findings and recommendations.

USING EVALUATION RESULTS

As previously mentioned, FAA's decentralized evaluation system is generally designed to meet the informational needs of one level of decisionmaker, the program manager. We found that FAA's evaluation activities have adequately met this group's needs and, in some cases, have affected the direction a program takes. For example, at the request of the Federal Air Surgeon, the activities of FAA's Aviation Medicine Program and related activities of the Flight Standards Service were reviewed to determine if they were effectively acquiring and applying information about the medical and human factors from aircraft accidents. The approach consisted of extensive interviewing of program personnel and careful review of pertinent FAA orders, report forms, and data processing systems manuals, statistics, and other materials. A number of deficiencies concerning Aviation Medicine's participation in accident investigation and reporting were found and reported to the Federal Air Surgeon. As a result of this 3-month review, major program changes are being implemented.

Congressional committee staff members and an OMB official indicated that FAA has done a good job in meeting their primary informational needs. These needs generally relate to specific areas and concerns. Much of the information supplied--usually on request--is project oriented and technical (for example, Concord noise level data and cost benefit analyses). With regard to FAA's evaluation studies, we were told that they are not very useful because they contained little or no analysis concerning whether a program is meeting its objectives. Comments included that it would be useful to receive studies which assess the achievement of major program objectives and discuss what FAA is doing in anticipation of future technological and staffing requirements. The officials we spoke with have not requested FAA to conduct any of the comprehensive evaluations of the type just mentioned. They said that FAA resources are already "stretched thin" with regard to supplying information and that requests for impact evaluations would overburden administration personnel.

CHAPTER 5

EVALUATION IN THE

FEDERAL HIGHWAY ADMINISTRATION

The Federal Highway Administration (FHWA) is responsible for those DOT responsibilities concerned with the highway mode of transportation. FHWA's primary mission is to assure that the Nation's highway transportation system is safe, economical, and efficient with respect to the movement of people and goods, while giving full consideration to the highways' impact on the environment and social and economic conditions. FHWA is also responsible for assuring that DOT's motor carrier safety regulations are obeyed. FHWA controls about one-half of the total DOT budget (about \$6.1 billion for fiscal year 1977).

FHWA resources for program evaluation were reported from two offices--the Office of Program Review and Investigations and the Office of Management Systems. The first office serves as the central program unit responsible for conducting comprehensive reviews and evaluations of the effectiveness of FHWA programs and operations. During the time frame of our review, however, program evaluation was not emphasized as much as FHWA's other duties, and, consequently, only a limited amount of evaluation was performed.

Although the Office of Management Systems does not consider itself a central program evaluation unit, it does perform evaluative activities. Most of its reviews are concerned with improving the economy, efficiency, and effectiveness of FHWA's internal management and operations.

We also identified other program and regional offices which evaluate program effectiveness (mostly operational performance and program monitoring type activities). Most of these offices do not have full-time evaluation staffs, and studies are conducted by ad hoc teams of program personnel. Appendix III gives a detailed listing, by major program area, of the evaluative activities as supplied by FHWA.

SPECIFYING PROGRAM OBJECTIVES AND MEASURES OF EFFECTIVENESS

Most of FHWA's program objectives are broad and general: FHWA is instructed to "assist," "repair," "fund," and

"cooperate," but guidelines for carrying out these duties are not specified. Because objectives are stated so generally, it is difficult to precisely measure the achievement of program objectives. For example, an objective of the primary, urban, and secondary Federal aid to highway programs is

" * * * to assist the states in the construction and improvement of a system of main roads * * * in order to bring the system up to current structural and operational standards, to improve safety characteristics, and to slow the rate of highway deterioration."

One possible means of measuring this program's achievement, identified by FHWA, is to keep track of the funds obligated to the program (see app. III).

As another example, FHWA's emergency relief program has an objective "to repair and/or reconstruct highways * * * in the event of natural disasters or catastrophic failures." This program's only performance indicator is the number of emergencies responded to.

These examples are typical of many FHWA programs where the lack of specific program objectives has greatly affected the type of studies performed by evaluators. One congressional staff member said that the Congress has not provided FHWA with clear program objectives and that the Congress should provide clarification of objectives.

PLANNING EVALUATION ACTIVITIES

FHWA has a well organized, comprehensive, and detailed planning process with respect to program implementation. However, our review showed the absence of any formal Administration-wide program evaluation planning process which identifies major areas of concern and allocates resources to these areas for evaluation purposes. Each office allocates evaluation resources as the need arises, generally with little advance planning. Some offices, such as the Office of Highway Safety which has a Program Evaluation Division, list future evaluations and establish criteria to be used by headquarters, field offices, and the States in conducting highway safety studies. Other offices, such as the Bureau of Motor Carrier Safety, perform only program monitoring activities and do not conduct any formal evaluation studies. Consequently, evaluation does not enter into their planning process.

CONDUCTING EVALUATION STUDIES

For the time of our review, FHWA identified 64 evaluation studies, plus numerous other program-monitoring activities from which evaluative information was published. We collected information on all 64 studies and performed an in-depth review on 12 reports that were identified as impact evaluations, relative effectiveness evaluations, and evaluations of demonstration projects. Four evaluated program effectiveness in terms of meeting legislative objectives; a few others dealt sparingly with program effectiveness. Although several of the studies contained recommendations for program change, most of the other FHWA studies resulted in reports to program managers describing the status of program operations in relation to what had been planned.

USING EVALUATION RESULTS

Based on discussions with FHWA evaluators, program managers, and administrators, we found that evaluative information produced is used primarily by program managers. Program managers found the results of program performance studies useful in their day-to-day management activities.

An OMB official and congressional committee staff members stated that compared to the other DOT administrations, FHWA is doing a good job in supplying evaluative information. Most of this information, however, pertains to the "status" of programs and does not address program accomplishments. While this type of information is filling a need, a strong interest has been expressed in obtaining comprehensive impact analyses.

An example of an FHWA study which has influenced departmental and congressional decisionmakers is, "Evaluation of the Highway Related Safety Program Standards." The study was required by Section 208(b) of the 1976 Highway Safety Act and was conducted as part of a larger DOT study, "An Evaluation of the Highway Safety Program," published in July 1977. FHWA's factual analysis of safety standards has served as a basis for discussion and debate and has been used to draft legislation dealing with aspects of highway safety and roadway environment.

CHAPTER 6
EVALUATION IN THE
FEDERAL RAILROAD ADMINISTRATION

During the past few years, the mission of the Federal Railroad Administration (FRA) has changed substantially. Recent legislation, such as the Railroad Revitalization and Regulatory Reform Act of 1976 (4R Act), has added new programs and altered the focus of the agency. At its beginning, FRA was concerned largely with matters of railroad safety; now its mission has expanded to include financial assistance in developing the rail industry, financial assistance to national passenger service, and aiding railroad's contribution to national goals, such as energy conservation and environmental protection.

There is no formal evaluation system in FRA. In the Office of Safety, however, there is an evaluation office that is newly created and still in the process of being developed and staffed. Evaluative activities in the rest of the agency occur in a number of offices and units which generally place most emphasis on monitoring program activities. Most of the systematic review of agency programs is now concentrated in the Office of Program Review, which is part of the Office of Planning and Budget Development. This unit reviews programs as part of the overall budget process, but it does not issue reports based on assessments of how well program objectives are being met.

Although FRA may produce few evaluation reports, the agency does carry on a variety of reviews and assessments of program activities. For example, recently the Appropriations Conference Committee of the House and Senate mandated a route study of AMTRAK by FRA. Although the information developed is not an evaluation of an entire program, the route study surfaces a number of program issues. Furthermore, several recurring reports required from the Secretary of Transportation by legislation also led to "program reviews" in the course of developing those reports.

In the future, FRA plans to expand its evaluation efforts. For example, the Minority Business Resource Center has designed a Request for Proposal for developing an extensive monitoring, budgeting, planning, and evaluation system for the activities of the Center. The management of FRA is also considering an evaluation process that would have

ties to the budget office or to the Office of Policy and Program Development. No definitive decisions have been made, however, about implementing this new evaluation process.

SPECIFYING PROGRAM OBJECTIVES
AND MEASURES OF EFFECTIVENESS

Some program objectives in FRA are specifically stated; others are broad and vague. The authorizing legislation for the Northeast Corridor Project stated clear objectives for the program to achieve: by 1981, the Northeast Corridor Project is to reduce trip times between Boston and New York to 3 hours and 40 minutes and between New York and Washington to 2 hours and 40 minutes.

While these are clear objectives for the program and easily measured, other programs do not have such specific legislative purposes. For example, the Minority Business Resource Center is directed "to assist minority business firms * * * in securing contracts and subcontracts arising out of the restructuring and revitalization of the Nation's railroads." FRA has since developed an objective that 15 percent of all contracts for the Northeast Corridor Project should be earmarked for minority business firms (see app. IV).

The objectives of FRA's Research and Development Program are not as specific. For example, one objective of the program is to provide for the operation and support of the Transportation Test Center. Exact purposes beyond maintaining such a test facility are not defined. We found this to be the case in many newer programs.

Because program objectives are not always clearly defined, the performance indicators or effectiveness measures for each of these programs also vary in their degree of clarity and precision. The Alaska Railroad has a very clear measure of performance--the railroad is to operate out of revenues earned for its services. The measure of performance for that program is the yearly profit and loss statement. On the other hand, many programs rely on multiple indicators of performance. One program in the Office of Financial Assistance has at least four indicators, including the "long-term profitability of the railroad industry."

It can be difficult to develop reliable indicators to measure program effectiveness. FRA's Office of Safety's

attempts to determine the effectiveness of the Federal railroad safety program have been difficult and time consuming because of the inherent problems in using the only obvious criterion for assessing program effectiveness-- the number of train accidents and casualties. These cannot be used as an accurate measure of program success because the causative factors of train accidents and casualties vary and, in many cases, are directly tied to the industry's economic condition, as well as to industry employee morale and attitude. The Office of Safety, however, has developed and maintains an extensive historical record of railroad accidents. In this record, major causes of serious accidents (such as track, equipment, and human factors) have been identified and listed in order of their prevalence to identify areas most in need of inspection attention. Also, in December of 1977, the Transportation System Center in Cambridge, Massachusetts, agreed to undertake a 3-year project designed to improve FRA's ability to determine and measure underlying causal factors and to use this knowledge in providing a rational foundation for applying FRA resources to inspection, enforcement, and regulatory activities.

PLANNING EVALUATION ACTIVITIES

FRA's evaluation activities are carried out in several ways, such as monitoring program development, reviewing programs during the budgetary cycle, and developing reports for the Congress. These activities, however, are not part of a formal evaluation system. There is no attempt to coordinate these activities as part of an overall decision-making process within the agency; that is, there is no evaluation planning process. Instead, decisions are made to meet the needs of particular demands when and where they occur.

CONDUCTING EVALUATION STUDIES

The small number of FRA studies that might be considered evaluations are essentially process or management studies. They examine activities within a part of the agency and make recommendations on how those activities might be improved. For example, two studies have dealt with staffing levels in the Office of Safety and how to improve the operations of that office. ("Minimum Staffing Requirements for the Office of Safety," 1977, and "Development of the Proposed Safety Program Plan," 1975, conducted by Arthur Young and Company). These studies made recommendations, and some were

adopted. One recommendation, to create an evaluation unit in the Office of Safety, is being done, although the functions of that unit have not been fully implemented.

Our review found that FRA has not developed a uniform approach for developing information about programs and their results. In addition, no agency guidelines have been developed to direct the conduct of evaluation studies. As stated before, reports to the Congress are approached on a case-by-case basis.

USING EVALUATION RESULTS

Program evaluation has received little attention in FRA over recent years, and no comprehensive evaluations of its programs have been performed. By confining its program review efforts largely to monitoring activities, FRA has met the needs of some decisionmakers in the agency. Monitoring data meets the needs of program managers concerned with meeting milestones or controlling work loads. However, other unfilled information needs exist within the agency.

For example, the Office of Policy and Program Development is required to make policy decisions relating to loan and grant program decisions and, thus, needs information, such as the expected rates of return on investments. In calendar year 1979, FRA expects to expand its evaluative efforts to meet a broader range of information needs and to develop a system for assessing selective program accomplishments and effects in relation to program objectives and standards.

Beyond FRA, other decisionmakers have information needs which should be considered. Comments received from congressional committee staff members we spoke with concerning FRA's evaluative information included that the information is not timely and does not indicate overall program accomplishment.

CHAPTER 7

EVALUATION IN THE

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

The primary mission of the National Highway Traffic Safety Administration (NHTSA) is to reduce the Nation's traffic accidents and deaths. This mission is carried out primarily through two major programs:

- Motor vehicle safety standards on auto manufacturers.
- Traffic safety standards and related technical and grant assistance for States.

NHTSA also administers fuel economy standards and several consumer protection activities.

Between 1966 and 1974, motor vehicle standards imposed on auto manufacturers have cost passenger car owners about \$14.5 billion in increased automobile prices. NHTSA's estimate of the average price to consumers of safety features in a model year 1978 automobile is about \$250--about 5 percent of the vehicle price. Additionally, State and local governments have spent up to \$4 billion annually on various traffic safety activities governed by NHTSA's traffic safety programs. NHTSA has consequently been under considerable pressure to prove the benefits of its various programs from the auto industry, State and local governments, and consumers, as well as OMB and the Congress.

In response to this, NHTSA has estimated its program evaluation expenditures to be about \$1.6 million for fiscal year 1977--\$1.2 million of which represented contracted evaluation efforts. These figures, however, do not include its systematic evaluation of demonstration programs since evaluation is an intrinsic part of the program operations and, therefore, difficult to single out.

Organizationally, NHTSA has established a centralized evaluation unit at the associate administrators level--the Office of Program Evaluation--which is responsible for providing overall evaluation policy, coordination, and control, and for conducting major comprehensive program evaluations. The individual operating program units are also responsible for program evaluation.

One other formal evaluation unit, which is closely integrated with the program operations activities of demonstration projects, is the Demonstration Evaluation Division, which is responsible for traffic safety and demonstration project evaluations. Most of this division's efforts are devoted to demonstration project evaluations performed under contract. This division also provides consulting services to NHTSA regional offices and to States and localities.

SPECIFYING PROGRAM OBJECTIVES AND MEASURES OF EFFECTIVENESS

NHTSA's major programs are aimed at reducing traffic accidents, deaths, and injuries due to highway accidents. The agency has found it much easier to measure achievement of objectives for its motor vehicle safety programs than its traffic safety programs. Trends in national traffic accidents and death rates are used as general indicators of the performance of its regulatory activities in the area of motor vehicle standards. For example, since the enactment of the Highway Safety Act of 1966, NHTSA estimates that the fatality rate has been reduced 40 percent--from 5.7 to 3.3 deaths per 100 million miles of travel. Although this decrease cannot be attributed wholly to motor vehicle safety standards, the agency believes the standards played a significant role in the decrease.

An objective of NHTSA's traffic safety program is to promote improvement in the level of State/local traffic safety activities. To measure achievement of this objective, NHTSA monitors trends in State/local safety efforts, using performance indicators reflecting growth in standard implementation, funding, activities, and output for the various program areas. Such performance measures do not, however, provide a basis for judging the adequacy of State/local safety efforts or the extent to which NHTSA's safety programs have been responsible for such efforts.

The absence of adequate data for relating accident avoidance to preventive measures has, for the most part, prevented NHTSA from reliably measuring the impact of its programs on the Nation's traffic accidents and deaths. Recently, however, NHTSA has taken a number of steps to improve its ability to measure the impact of its programs. It is developing a major national accident data system which is expected to eventually provide data for evaluating

existing safety countermeasures and identifying new countermeasures. NHTSA also is undertaking a long-term systematic evaluation of the performance and impact of its individual motor vehicle standards and now requires that future standards include evaluation plans. For example, in NHTSA's systematic evaluation of motor vehicle safety standards, the effectiveness of the standards will generally be evaluated by comparing accident, death, and injury rates for vehicles equipped with required safety features versus vehicles not equipped with such features.

PLANNING EVALUATION ACTIVITIES

NHTSA has established guidelines for systematic planning and coordination of its evaluation efforts, which are linked to its overall program planning and budgeting process. Under NHTSA's system, each program office is required to include evaluation plans and results as part of its budget submission. The Office of Program Evaluation makes sure that these submissions are consistent with evaluation policy and coordinates the overall effort. This office also provides guidance on evaluation techniques and assists the program offices in developing their evaluation plans and work statements.

CONDUCTING EVALUATION STUDIES

NHTSA's major evaluation efforts over the past few years have been directed primarily toward its two major programs--motor vehicle safety standards and the traffic safety program, including demonstrations. The motor vehicle safety standards include accident avoidance components, such as brakes and steering assemblies, and accident survival devices, such as seat belts, side-door beams, and head restraints. At the time of our review, NHTSA had not yet completed an evaluation of any of the standards but was developing the evaluation methods and data that will be needed to evaluate them. (Preliminary results were expected by the end of 1978.) The methods and data are being developed under contract, while the actual evaluation will be performed by NHTSA. Although some people question how vehicle standards can be reliably evaluated, NHTSA is planning to review most of its existing standards. All future standards will also be evaluated since NHTSA recently established a requirement that all new standards include an evaluation plan.

During our review time frame, three comprehensive studies of the traffic safety program activities have been conducted and a number of traffic safety demonstration projects have been evaluated. NHTSA is also engaged in long-range efforts aimed at assessing the impact of its traffic safety programs on traffic accidents and deaths. This assessment, which is being performed in phases, will attempt to link Federal programs to trends in State and local traffic safety efforts, and ultimately relate such State and local efforts to trends in accidents and deaths. To date, NHTSA has formally assessed trends in State and local traffic safety efforts based on selected performance measures and is developing a management information system for periodically providing such trend data. As part of the final and most challenging phase, NHTSA is undertaking the complex task of exploring conceptual methods for determining the relationship between safety program outputs and accident occurrences.

In addition to efforts at the Federal level, NHTSA recently has begun to promote increased traffic safety program evaluation efforts at the State level. Under recently imposed requirements for NHTSA's traffic safety grant program, States are required to (1) develop evaluation plans and (2) conduct impact evaluations of at least one federally supported project and administrative (management process) evaluations of all federally supported traffic safety projects. NHTSA has developed a comprehensive evaluation manual to assist States in carrying out evaluation of their traffic safety activities and has provided States with other evaluative technical assistance. Such evaluation efforts by the States, however, are not expected to produce meaningful results in the near future. Evaluation requirements are limited primarily to federally supported safety projects which represent only about 2 percent of total State and local traffic safety expenditures.

NHTSA also has begun or is planning evaluation of other programs and demonstration projects, including seat belt usage, the 55 m.p.h. speed limit, and auto fuel economy standards. Additionally, some special surveys have been undertaken concerning public attitudes to motor vehicle recall campaigns and print and broadcast advertising of the drunken driver problem.

In spite of NHTSA's recent efforts toward evaluating the impact of its programs on the Nation's traffic accidents and deaths, there is still considerable uncertainty concerning the potential for reliably measuring the impact of its

motor vehicle and traffic safety programs. According to NHTSA, impact evaluations of future traffic safety demonstrations may not be practicable because of the high cost and difficulty of producing conclusive results. Much of the difficulty in showing impact lies in the cost of affecting the behavior of a large enough group of people to show a statistically significant result; this question of sufficient sample size is one of the considerations used in screening proposed demonstrations. However, public demands for a countermeasure program to address a particular safety problem may dictate funding projects with less than optimal sample sizes.

USING EVALUATION RESULTS

Under NHTSA's evaluation structure, program evaluation results are to be fed back into NHTSA's overall planning-budgeting process as an input to management decisions. Some of NHTSA's evaluation results appear to have influenced program, budgetary, and management decisions, since NHTSA's major evaluations were undertaken to provide OMB or the Congress with a basis for major budgetary or legislative decisions. Such decisions included changes in program funding, priorities, and management.

NHTSA decisionmakers generally considered NHTSA's evaluation efforts satisfactory, given the difficulties in developing adequate information for reliably evaluating their various program activities. The reaction to NHTSA's evaluation efforts by congressional committees and OMB staff members was generally mixed, ranging from negative to acceptable.

There has been considerable controversy and disagreement over the reported results of NHTSA's traffic safety demonstration projects. Critics frequently disagreed with findings and conclusions or found results inconclusive. The limited adoption of demonstrated safety countermeasures by States has been blamed to a large extent on the inconclusive and inapplicable results of such demonstrations.

CHAPTER 8

EVALUATION IN THE URBAN MASS

TRANSPORTATION ADMINISTRATION

The Urban Mass Transportation Administration (UMTA) cooperates with public and private mass transportation agencies in the development of improved urban transit facilities, equipment, techniques, and methods. UMTA encourages the planning and establishing of urban mass transportation systems and provides financial assistance to State and local governments and their instrumentalities. UMTA's basic missions are to

- provide technical and financial assistance to develop improved mass transportation facilities, equipment, and other services and
- encourage and promote the planning and establishment of productive urban mass transportation systems needed for economical and desirable urban development, while providing mobility for transit dependents.

To accomplish these missions, UMTA manages several grant programs, including Capital Facilities Grants, Formula Grants, and Research Development and Demonstration Grants. These programs are highlighted in appendix VI.

The Office of Program Evaluation, under the direction of the Associate Administrator for Policy and Program Development, has been established as UMTA's official evaluation unit responsible for evaluating and assessing programs in relation to goals, missions, and policy objectives. As the focal point for UMTA evaluations, the office's functions include:

- Developing policy guidance, regulations, procedures, and directives for establishing program evaluation plans and processes.
- Conducting a continuous evaluation of UMTA program effectiveness.
- Developing appropriate techniques and methods for evaluating program effectiveness.
- Directing and coordinating the evaluation of UMTA programs.

The nine staff members assigned to the office have spent most of their time conducting special studies and gathering basic data. The staff has been used as an in-house analytical service to provide quick answers to the Administrator's questions and problems.

There are also two other offices in UMTA that are involved in evaluation activities--the Office of Planning, ^{1/} under the direction of the Associate Administrator for Transportation Planning, and the Office of Service and Methods Demonstration, under the Associate Administrator for Transportation Management and Demonstrations. Within the planning office an Evaluation and Training Group has recently been established to evaluate the planning processes and programs being used by local governments. UMTA's Office of Service and Methods Demonstration Program, through DOT's Transportation Systems Center, conducts a broad program of demonstration evaluation, evaluation methodology development, and research in support of these activities.

Most evaluation-related activities in UMTA involve formulating and administering transportation surveys which address the modes of public transportation, the conduct of special studies, or the gathering of basic data. UMTA programs have not been studied on a periodic, systematic basis in terms of the attainment of overall objectives. This stems largely from the lack of clear objectives in the enabling legislation.

SPECIFYING PROGRAM OBJECTIVES AND MEASURES OF EFFECTIVENESS

As can be seen from appendix VI, UMTA's program objectives tend to be general and perhaps incapable of precise measurement. Programs are measured in terms such as ridership volume, managerial advancements, and the number of plans and organizations created. While such measures provide some indication of program achievement, there is some question as to whether these measures adequately assess whether programs are meeting their legislative objectives.

In recent years, the Bureau of the Census has been collecting data for UMTA on travel in several large cities. The information has provided a good means of measuring program operations, but is lacking in terms of the qualitative aspects

^{1/}This office was recently retitled the Office of Planning Assistance.

of program performance; that is, accuracy/dependability of arrival, level of service, and accessibility. These measures are very important in evaluating performance and understanding the "whys" of ridership. Some of this qualitative information is now being incorporated into a new reporting system called FARE (Uniform Financial Accounting and Reporting Elements). The system will ultimately provide Government agencies with a data base that can be used for transit industry analysis and for financial program administration.

PLANNING EVALUATION ACTIVITIES

Plans for evaluation activities are made as part of the normal annual budgetary process. Such evaluations generally stem from reactions to criticisms of programs and current problems or questions that need to be studied. In the annual budget document, each evaluation project that is planned or underway is briefly described. Funds, however, are allocated to program evaluation activities in total and not to individual projects.

CONDUCTING EVALUATION STUDIES

Our review showed that although three offices within UMTA are involved in evaluating specific projects (Office of Planning, Office of Program Evaluation, and Office of Service and Methods Demonstration), none of these offices conduct comprehensive evaluations to assess the overall effectiveness of programs.

The Office of Program Evaluation conducted two evaluative studies during our review time frame. One study, "Transit Operating Performance and the Impact of the Section 5 Program," focused on the nature and extent of program participation and grant financing. The study was essentially a financial analysis of urban areas receiving Formula Grants under Section 5 of the Urban Mass Transportation Act of 1964 and analyzed how funds were being spent by recipient localities. It has been used by UMTA to propose alternative program policies for further analysis and legislative adoption.

The second study, performed by the Office of Program Evaluation, was a historical analysis of factors that stimulated ridership increases in seven transit systems entitled "Increasing Transit Ridership: The Experience of Seven Cities." The office also contracted for five other studies pertaining to transportation management techniques and planning procedures which contained evaluative information. While studies of this type do not assess overall program

performance, they do collect and analyze basic program data and identify intended as well as unintended results of specific program activities. These special studies are an important part of UMTA's overall evaluation system. At times they are used to further refine policy and program issues and, thus, contribute to subsequent evaluation efforts.

The Office of Planning's responsibilities include evaluating transit planning and technical assistance grants. In addition, it manages the alternatives analysis process and the evaluations of the major projects financed under the Capital Facilities Grant Program.

Rather than evaluating the past performance of a program, the Office of Planning mostly analyzes prospective alternatives for new rail systems in hopes of determining the best transit mix to solve local problems and needs. This analysis compares the cost and effectiveness of transit alternatives to meet local and national needs. For example, an analysis conducted in Denver found that a regional bus system was more cost-effective than the rail alternatives.

For systems where construction is approved, UMTA awards grants for postproject impact evaluations. To date, none have been completed, although studies are in process in Washington, D.C., Miami, and Atlanta. Studies of this type are managed and conducted by local government units. For instance, the plans for the Washington, D.C., evaluation were developed under the direction of the Metropolitan Washington Council of Governments.

The evaluation activities of the Office of Service and Methods Demonstration are primarily research oriented and focus on reviewing transit services in operational environments, that is, demonstration projects. These evaluations are generally performed under contract and are directed by DOT's Transportation Systems Center in Cambridge, Mass. Evaluation guidelines have been developed, although they are general since demonstrations vary widely by technique and site.

It is difficult, if not impossible, to measure the progress of UMTA programs because the legislative objectives are so general. This influences the kinds of evaluation studies that are performed by the agency. In addition to this, while UMTA programs are nationwide, the work concentrates on specific local areas, making the measurement of incremental changes due to entire programs very difficult.

USING EVALUATION RESULTS

Evaluation information produced with regard to various UMTA projects has been used primarily by UMTA officials. For example, the primary user of information developed by the Office of Program Evaluation is the Administrator. Some studies, such as the findings of demonstration projects, are distributed outside of UMTA (that is, to demonstration participants and local units of government).

Users of evaluative information on congressional committee staffs and in OMB told us that they need information on the overall accomplishment of UMTA programs to help make decisions. This type of information is not being provided. They also commented that the information which is being produced by UMTA is difficult to obtain and not timely.

CHAPTER 9

SUMMARY, CONCLUSIONS, EVALUATION ISSUES RAISED, RECOMMENDATIONS, AND AGENCY COMMENTS

SUMMARY

Each of the operating administrations within DOT is responsible for establishing its own evaluation systems. There are no Department-wide guidelines or standards to follow in evaluating agency programs; hence, the formal evaluation systems of the administrations vary. In most administrations, evaluators work for and report to program managers.

Office of the Secretary

OST is responsible for supervising, monitoring, and reviewing the evaluative activities of the operating administrations. A central evaluation unit has been established for carrying out these responsibilities and for conducting Department-wide evaluations. This unit's approach is (1) to identify pertinent issues in need of attention, (2) to conduct evaluations (to the extent that its limited resources allow) or to delegate its evaluative responsibilities to others within DOT, and (3) to review the manner in which these delegated responsibilities are met. Other OST components also are involved in evaluative activities, focusing mostly on broad transportation policy issues and not on individual programs. However, one study of an individual program that should be of interest in the future is the BART Impact Program, which provides information on the impact a completed regional rapid transit system is having on the locale it was built to serve.

Coast Guard

Most evaluation activity in the Coast Guard may be viewed as a monitoring activity in that the achievement of program standards are closely watched by program managers and administrators. These standards generally focus on the performance of certain duties by agency personnel at specified times. Other than this type of activity, there is no systematic evaluation in the Coast Guard. We also found no real expressed demand for other types of program evaluation studies by decisionmakers, both inside and outside the organization.

Federal Aviation Administration

To assure that FAA is effectively carrying out its mission and achieving established goals, a decentralized system of evaluation has been established wherein associate administrators, regional and center directors, and heads of other offices reporting directly to the Administrator are responsible for evaluating their programs. The majority of evaluation resources in FAA have been directed toward serving the individual needs of program managers. Examples of the kind of feedback obtained include adherence to and acceptance of (1) applicable laws, regulations, and procedures, (2) trends as they develop and (3) personnel matters. There is also a great deal of emphasis on technical reviews that focus on whether equipment and facilities have been properly inspected.

Federal Highway Administration

FHWA's evaluation system consists of a central unit responsible for conducting comprehensive reviews and evaluations of the effectiveness of FHWA's programs and operations and an informal decentralized system that focuses on basic program monitoring and appraising the implementation of program activities and operations. The central unit has other duties which have been given higher priority than the evaluation function; consequently, it has not devoted much time to this area. We noted, however, that the program monitoring function and reviews of operational performance and compliance appear to be serving a useful purpose to program managers and administrators.

Federal Railroad Administration

FRA's mission has changed substantially in recent years, adding new programs and changing the focus of others. Although there is no formal evaluation system in FRA, there are a number of monitoring activities that report on programs as they develop and achieve certain milestones. We noted that FRA is planning to expand its evaluation efforts.

National Highway Traffic Safety Administration

NHTSA has been concerned for years about program evaluation. This is due in large part to the questions raised by the auto industry, the States, OMB, and the Congress regarding the effectiveness of and need for some of the motor vehicle and highway safety standards. Consequently, it has made evaluation an integral element of its

programs. The absence of adequate data for relating accident causes to preventive measures, however, has prevented NHTSA from reliably measuring the impact of its programs on the Nation's traffic accidents and deaths. Recently, though, NHTSA has taken a number of steps to improve its ability to measure the impact of its programs.

Urban Mass Transportation Administration

Evaluative efforts within UMTA have largely concentrated on special matters, such as conducting a historical analysis of how funds are used by grant recipients or studying what stimulates ridership on public transportation systems. While such studies do not assess the overall accomplishment of UMTA programs, they do identify intended and unintended results of specific program activities.

CONCLUSIONS

Each of the several operating administrations within DOT is responsible for establishing its own evaluation system. Since there are no Department-wide guidelines or standards to follow in evaluating agency programs, evaluation takes on varying roles and emphases within the administrations. In most cases the system is decentralized and evaluative activities, with the exception of a few legislatively mandated studies, are aimed primarily at providing program managers with information on operational and technical deficiencies. GAO found somewhat inherent in this arrangement that

- most formal evaluation studies provide information on whether program operations meet the expectations of program managers,
- evaluations are viewed as adequate and useful by program managers,
- program success is generally measured in terms of operational achievements, and
- there is no formal evaluation planning mechanism.

Most formal evaluation studies provide information on whether program operations meet the expectations of program managers

Relatively few studies have been done by DOT evaluation staffs in which a report was issued on whether programs

met legislative expectations. Most of the studies conducted throughout DOT produced reports to program managers describing the status of a program's operation in relation to what had been planned. These studies basically focused on whether specific tasks and transactions had been accomplished.

Evaluations are viewed as adequate and useful by program managers

Program managers in DOT believe that the information they receive from the evaluation process is generally useful and having an effect on their decisionmaking. Since most evaluation studies are conducted primarily by program personnel for program managers, we found that other levels of decision-makers and policymakers make little use of formal departmental evaluation results.

Program success is generally measured in terms of operational achievements

Most departmental programs have been established by law to provide a service to the public, with statements of objectives containing terminology such as "preserve and protect," "foster and promote," and "assist in the development of." In most cases, data is being routinely collected on program operations which provide program managers with information on such matters as the number of inspections completed in specified time intervals; the amount of money being dispensed; and adherence to and acceptance of applicable laws, regulations, and procedures. Generally, program managers believe such information is providing them with sufficient indications of how well operations are being carried out.

There is no formal evaluation planning mechanism

There is no Department-wide planning process for evaluation in DOT. Furthermore, with the exception of NHTSA, none of the operating administrations have a formal evaluation planning process which identifies major areas of concern and allocates resources to these areas for evaluation purposes. Each administration allocates resources to evaluative efforts generally as the need arises, with little advance planning.

EVALUATION ISSUES RAISED

Several key issues and questions relating to program evaluation and its role in decisionmaking processes were raised during our review of DOT's evaluation activities. These issues/questions relate not only to DOT but to the evaluation activities in other Federal departments and agencies as well.

Audiences to be served by evaluation

To what extent should agency evaluation activities be organized and designed to serve different users of evaluation?

We noted during our review that DOT's evaluation systems essentially serve the needs of one audience, the program manager. Evaluation activities related to a Federal program may serve many audiences including the Congress (congressional committees and individual members), executive branch policymakers, agency policy officials, program managers, and State and local government officials. While the information needs of users in these groups may be similar, the differing functions and roles of potential audiences for an evaluation tend to generate very different expectations about what information an evaluation should produce.

Information to be collected in evaluations

What types of information are needed to measure program performance?

An examination of the DOT program matrices shows that the objectives for major programs are for the most part stated in the general terms of the language contained in authorizing legislation. At the same time, the matrices show that most performance measures used by DOT evaluators in assessing program performance relate to specific program activities/operations and not to the impact of such activities/operations as related to the broadly stated program objectives. This does not necessarily mean that DOT evaluators are using the wrong performance measures (that is, collecting the wrong types of information). These apparent differences between DOT program objectives and performance measures demonstrate that various levels of decisionmakers may have differing expectations regarding program accomplishment.

Whether in DOT or any other agency, evaluators often encounter difficulties in attempting to identify measures

for evaluation. This results, in part, from a lack of agreement on the types of information needed to verify program performance. Evaluators must try to answer evaluation questions and/or try to reach a conclusion regarding program effectiveness when:

- Legislative intent and stated program goals are vague, appear to conflict with each other, appear to be symbolic rather than real, or have not been translated into operational terms by the agency.
- Available evaluation criteria and standards appear inconsistent with legislative intent or actual program activities.
- Members of Congress, congressional committees, executive agency officials, and/or State and local officials appear to disagree over what the program is intended to accomplish and what standards should be used to define program performance.

Can these issues be resolved?

It would be difficult to attempt to resolve the issues and answer the questions raised in the preceding discussion without first determining the role and objectives of the evaluation function in the Federal Government. There is, however, no agreed upon Federal evaluation management policy. This lack of agreement results largely from differing perspectives in the Federal evaluation community and from a lack of understanding and agreement on the issues and questions which have been raised in this report.

In a letter to the chairman of each legislative committee of the Congress and to the Director of OMB, the Comptroller General stated: "It is our view that program evaluation is a fundamental part of effective program administration." Evaluation enables decisionmakers to design and implement policies and programs that achieve their intended objectives, including desired results and impacts. Since a basic agency management responsibility is to effectively and efficiently carry out its operations and evaluation is a fundamental part of program management--it provides feedback on program performance--it appears that the criteria and indicators of the effectiveness of program evaluation efforts should be related to how well a program itself is performing.

In August 1978, OMB sent a draft circular, "Management Improvement and the Use of Evaluation in the Executive Branch," to agencies, including our office, for review and comment. The circular states, in part,

"The basis for identifying management improvement needs is a sound evaluation system * * *. Procedures should be developed and enforced to assure that evaluation efforts result in specific management improvements that can be validated * * *. The objective of such (management improvement) efforts should be discernible improvement in a federal program--in the efficiency of its administration or management and in the effectiveness of its results."

The proposed circular represents a constructive step toward the Comptroller General's policy and suggests that management/program improvement should be a primary criterion/key indicator for appraising an agency's evaluation system. In our September 29, 1978, comments on the proposed OMB circular, we said, "Discernible improvement in program performance is in our opinion the ultimate test of the effectiveness of an evaluation system."

We also believe that a valid purpose of an evaluation system is to enable program accountability. Evaluation information is not only necessary to enable executive branch officials and managers to effectively manage their programs and resources, evaluative information is also necessary to enable elected representatives to supervise and control administrative action and, ultimately, to enable citizens to determine the effectiveness with which they have been served by the Government. In our view, agency evaluation systems should support the congressional oversight process and should provide feedback to the public concerning the performance of Federal programs.

The effectiveness of program evaluation efforts in meeting the management decisionmaking needs of departmental program managers and in meeting a broader set of oversight needs of department, executive branch, and congressional policymakers might be measured by determining the extent to which the following four conditions apply to a program:

- There is agreement between the Congress and executive branch policymakers regarding statements of program expectations.

- Program activities are in place which make these expectations achievable.
- There is sufficiently valid and reliable data on expectations and actual program performance for measuring any gaps.
- Actual program performance is acceptable to the Congress and the executive branch.

To effectively deal with many of the issues, concerns, and problems in evaluation, we are undertaking a variety of efforts including work aimed at developing agreed upon Federal management evaluation policies.

RECOMMENDATIONS TO THE SECRETARY OF TRANSPORTATION

In our view, the responsible executive agency should insure that evaluations are conducted on the achievement of program objectives and expectations established by the various levels of Federal decisionmakers. The evaluation systems established should seek a balance in meeting the decisionmaking needs of agency management and the oversight needs of the Congress and executive branch policymakers. Evaluation should be a fundamental part of effective program administration and should help decisionmakers design and implement policies, programs, and activities that achieve desired results and impacts. For these reasons, we recommend that the Secretary of Transportation:

- Continue Department initiatives to develop a Departmental Program Monitoring and Evaluation System, including the formulation of Department-wide guidelines for evaluation. In addition to meeting the information needs of DOT program managers and policy officials, the Program Monitoring and Evaluation System should be developed to serve the oversight needs of the Congress and executive branch policymakers.
- Review the manner in which departmental program objectives are specified and measured for evaluation purposes, given the apparent inconsistencies between many DOT program objectives and the measures used to assess performance. The Secretary should also develop a means for

clarifying objectives and measures with the appropriate congressional committees, OMB, and agency officials.

- Establish an evaluation planning process in which adequate consideration is given to priority transportation objectives identified by DOT, the Congress, and others.

AGENCY COMMENTS

DOT generally agrees with our findings and recognizes the need to improve departmental program management through introducing a formal evaluation process. This is its primary objective in developing a Departmental Program Monitoring and Evaluation System.

In endorsing our recommendations, DOT noted that they may be difficult to implement. The objectives of certain programs, such as UMTA's mission to "encourage and promote * * * systems needed for economical and desirable urban development * * *," are very difficult to clarify since concepts like "economical" and "desirable" are controversial political and technical issues. Furthermore, evaluating whether some programs are meeting broadly stated objectives contained in legislation might be too complex, stretching the state-of-the-art of analysis.

Additionally, DOT pointed out that to evaluate departmental programs and policy requires an expensive process that usually entails data compilation and validation, definition of alternatives, cost effectiveness comparisons, the study of implementation strategies, and the study of financial and other impacts. DOT believes this requires more organizational stability, funding, and analytical sophistication than is implied by our report. Notwithstanding these difficulties, DOT believes that reasonable efforts should be made to implement the recommendations.

MATTERS FOR CONSIDERATION BY THE CONGRESS

The Comptroller General has recommended in several reports and statements that in those cases where evaluations are to be mandated by legislation or are needed by a committee, the Congress should work with agency officials to seek a common understanding on the process or approach to

be used for (1) clarifying program objectives for evaluation and (2) reaching agreement on acceptable evaluation measures and data for each program to be evaluated. One approach for developing objectives and using evaluation in congressional oversight is outlined in our report, "Finding Out How Programs Are Working: Suggestions for Congressional Oversight," (PAD-78-3, Nov. 22, 1977).

To assist in developing such an approach, we developed, in cooperation with various agency personnel, a matrix for each of the operating administrations outlining (1) major program areas and objectives, (2) major performance measures used by agency personnel for periodically measuring how well programs are doing, and (3) the major evaluative activities undertaken in each program area during the time frame of this review. The matrices are included as appendixes to provide an overview of the agency's programs, objectives, performance measures, and evaluative activities. They are not an official comprehensive list of DOT objectives and performance measurements. We believe, however, that the information provided could be used by the Congress to help oversee DOT's evaluation function and to decide the role program evaluation should play.

APPENDIX I

**PROGRAMS, OBJECTIVES, PERFORMANCE INDICATORS
AND EVALUATIVE ACTIVITIES FOR THE
UNITED STATES COAST GUARD**

MAJOR PROGRAM AREAS	OBJECTIVES	MAJOR SUBPROGRAMS OR ACTIVITIES	MAJOR PERFORMANCE INDICATORS	MAJOR EVALUATIVE PUBLICATIONS AND/OR ACTIVITIES
<p>PORT SAFETY AND SECURITY</p>	<ul style="list-style-type: none"> • To safeguard the nation's ports, waterways, port facilities and vessels, persons and property in the vicinity of the ports from accidental or intentional destruction, damage loss or injury • To protect the navigable waters and adjacent shore areas of the United States, and the adjacent resources from environmental harm • To improve the utilization of ports and waterways by Maritime transportation, and other connecting modes 	<ul style="list-style-type: none"> • Many port safety and security activities complement the Marine Environment Protection Program; therefore, there is a sharing of resources for these activities • Such shared activities include monitoring supervision of oil transfer, hazardous cargo, pollution clean-up operations, boarding of Special Interest Vessels (SIV), conducting harbor patrols and waterfront facilities inspections and surveys, establishing security zones as required, and the control of vessel movement and anchorage 	<ul style="list-style-type: none"> • Number of waterfront facilities surveyed and inspected • Number of accidents investigated which affect or may affect the safety of ports, harbors or navigable waters of the U.S. • Number of patrols of remote harbor areas by water • Number of spot checks of designated waterfront facilities handling explosives or other dangerous cargo covered by 46 CFR 146 • Number of patrols of established security and safety zones. • A. Number of patrols of essential harbor areas by water in daylight • B. Number of patrols of essential harbor areas by water at night • Number of boardings of vessels/barges handling dangerous cargo • Number of escorts of vessels on U.S. waters handling explosives "A" or cargoes listed in 33 CFR 124.14(b) 	
<p>RADIONAVIGATION AIDS</p>	<p>To facilitate the safe and expeditious passage of marine and air traffic by providing a continuous, accurate, all-weather position fixing capability</p>	<p>Long range aids to navigation equipment</p> <ul style="list-style-type: none"> • 22 U.S. transmitting stations • 202 Marine Radiobeacons • 2 Omega transmitting stations • LORAN—C for DOD 	<ul style="list-style-type: none"> • Coverage in square nautical miles of LORAN—C for the Coastal Confluence Zone (CCZ) • Coverage in square nautical miles and percentage of chain availability of LORAN—C for the Department of Defense (DOD) • Coverage in square nautical miles and percentage of chain availability for LORAN—A • Number of radiobeacons operational • Operation of OMEGA at the level requested and reimbursed by DOD 	

MAJOR PROGRAM AREAS	OBJECTIVES	MAJOR SUBPROGRAMS OR ACTIVITIES	MAJOR PERFORMANCE INDICATORS	MAJOR EVALUATIVE PUBLICATIONS AND/OR ACTIVITIES
RESERVE FORCES	To recruit and maintain a force of officers and enlisted personnel available for active duty in time of war or national emergency or at such needs of the Coast Guard to achieve planned mobilization and to augment the active duty Coast Guard in the performance of its routine missions in domestic emergencies as well as during routine and peak operations	<ul style="list-style-type: none"> • Initial training—initial active duty for training • Selective Reserve—active duty for training (12-48 drills per year) • Operating and maintenance of reserve facilities • Administration 	<ul style="list-style-type: none"> • Number of Reservists participating in biennial training • Number of non-prior service recruits in the Selected Reserve • Achievement of timely curricula revitalization and provide for effective ADT and IDT programs for 15,500 Selected Reservists. • Number of non-prior service recruits receiving initial training • Increase in the production of correspondence courses to support Selected Reserve • Number of reservists and training for whom meaningful afloat training has been provided 	
BOATING SAFETY	To minimize the risk of loss of life, personal injury and property damage associated with the use of recreational boats to provide the boaters with maximum safety in the nation's waterways	<ul style="list-style-type: none"> • conducts safety patrols • train Coast Guard regular and reserve personnel in boating safety • conduct informal visits of boat manufacturers and dealers • promote boating safety through attendance at boat shows and other public contacts 	<ul style="list-style-type: none"> • Rate of compliance with Federal and State boating regulations • Number of defect investigations performed • Number of field investigations of potential safety related defects • Number of accident investigations performed • Administer State financial assistance program 	<ul style="list-style-type: none"> • The long range role of the Coast Guard Auxiliary • Boating Safety Statistics 1976: A compilation of statistical data compiled from recreational boat numbering and casualty reporting systems.

MAJOR PROGRAM AREAS	OBJECTIVES	MAJOR SUBPROGRAMS OR ACTIVITIES	MAJOR PERFORMANCE INDICATORS	MAJOR EVALUATIVE PUBLICATIONS AND/OR ACTIVITIES
<p>MARINE ENVIRONMENTAL PROTECTION</p>	<ul style="list-style-type: none"> • To prevent unauthorized discharges, accidental or intentional, of oil, hazardous substances, sewage or other pollutants • To minimize the damage caused by pollutants discharged into the Marine environment 	<p>Response to Environmental Hazards—e.g. Removal of oil spills, hazardous substances and pollutants in the Arctic environment</p> <ul style="list-style-type: none"> • Enforcement of environmental protection laws and regulations • Prevention of damages to the environment • Monitoring and surveillance to enhance enforcement • Impact assessment to evaluate the degree of damage of pollutants on the Marine environment • In House abatement—to reduce pollution created from Coast Guard units ashore and afloat 	<ul style="list-style-type: none"> • Percentage of tank vessels boarded to ensure compliance with pollution laws • Number of patrols conducted of remote harbor areas • Number of liquid bulk waterfront facilities inspected • Number of liquid bulk waterfront facilities surveyed • Percentage of surveillance activities of ocean dumping operations conducted under permit • Number of discharges Coast Guard representatives are sent to investigate • Number of boardings of tank vessels to ensure compliance with pollution laws • Percentage of polluting discharges removed where discharge was inadequate by responsible party • Percentage of discharges Coast Guard representatives were sent to investigate • Number of aerial surveillance flights conducted in port areas handling 10 million tons of petroleum per year • Number of coastal surveillance flights conducted over territorial waters, contiguous zone, and the prohibited zone • Percentage of liquid-bulk transfer operations of oil or hazardous substances on vessels with a tank capacity of over 250 BBLS • Percentage of discharges where Coast Guard representatives are sent to insure adequate removal 	<p>A System For Measuring Program Effectiveness, July, 1976</p>
<p>MILITARY PREPAREDNESS</p>	<p>To maintain the Coast Guard as an effective and ready armed force which is prepared for and immediately responsive to assigned tasks in time of peace, war, or national emergency.</p>	<p>Provides the Coast Guard with the capability to maintain a high level of personnel and material readiness to function as an armed force, while simultaneously discharging its peacetime missions with the same resources</p>	<p>See MILITARY OPERATIONS</p>	

MAJOR PROGRAM AREAS	OBJECTIVES	MAJOR SUBPROGRAMS OR ACTIVITIES	MAJOR PERFORMANCE INDICATORS	MAJOR EVALUATIVE PUBLICATIONS AND/OR ACTIVITIES
<p>MILITARY OPERATIONS</p>	<p>To perform military duties effectively and expertly, as a specialized service in the Navy in time of war, and as otherwise required for the national interest during peacetime in the areas of natural disaster and domestic emergency</p>	<p>Deploy and support Coast Guard forces participating in military, natural disaster or domestic emergency operations</p>	<ul style="list-style-type: none"> • Number of MAJOR floating units (WAGB, WHEC, WMEC, WLB) trained at Navy Refresher Training facilities • Number of ASW exercises for ASW equipped ships • Number of evaluations of existing or proposed training programs • Number of Coast Guard sponsored general operational training activities • Provide Coast Guard administered general operational training using visiting teams of instructors to MSO's PSS's and Depots • Number of Undersea Warfare Systems managed • Number of Surveillance and EW systems managed • Number of Weapon Systems managed • Number of Coast Guard personnel trained in the Small Arms program 	
<p>ICE OPERATIONS</p>	<p>To facilitate and assist U.S. Maritime transportation and other activities in the national interests on ice-laden domestic and polar waters, and to minimize loss of life and personal injury</p>	<p>1. Domestic Icebreaking Operations</p> <ul style="list-style-type: none"> —Northeast Coast —Great Lakes —St. Lawrence Seaway System —Subarctic Alaska <p>2. Polar Operations</p> <ul style="list-style-type: none"> —Arctic —Antarctica 	<ul style="list-style-type: none"> • Number of ship days spent for Icebreaker support of Coast Guard Search and Rescue related R&D in Arctic East • Number of Ship days coverage for vessels in East and West Arctic and Anarctica • Number of ship days coverage for vessels in ice-covered domestic waters • Number of ship days used to facilitate marine transportation by Ice operations in sub-Arctic Alaska, the North Slope, the Upper Great Lakes and the St. Lawrence Seaway 	<p><i>Domestic Icebreaking Fiscal Year Report</i></p>

MAJOR PROGRAM AREAS	OBJECTIVES	MAJOR SUBPROGRAMS OR ACTIVITIES	MAJOR PERFORMANCE INDICATORS	MAJOR EVALUATIVE PUBLICATIONS AND/OR ACTIVITIES
COMMERCIAL VESSEL SAFETY (CVS)	To minimize deaths, personal injuries, and property loss or damage associated with vessels and other facilities engaged in commercial, scientific or exploratory activity in the marine environment	Major Activities are: <ul style="list-style-type: none"> • vessel inspection • factory inspection of approved equipment • admeasurement of vessels • shipment and discharge of seamen 	<ul style="list-style-type: none"> • Rate of investigations for reported marine accidents, casualties, violations of the laws and regulations, misconduct, negligence, and incompetence • Rate of scheduled inspections of all off-shore structures • Rate of inspection of merchant vessels for the administration and enforcement of personnel manning standards • Percentage rate of inspection of merchant vessels in dry dock to enforce and administer vessel material safety standards • Percentage rate of seaman discharges supervised • Number of applications from foreign hazardous cargo carrying vessels for Letter of compliance (annual total) 	Qualification Standards for Personnel Responsible for Hazardous or Noxious Chemicals in Bulk, May, 1976, <i>Annual Statistics of Casualties, 1977</i>
SEARCH AND RESCUE	To minimize loss of life, personal injury and property damage in U.S. territorial waters and to provide flood relief assistance and removal of hazards to navigation	Maintain a system of rescue vessels, aircraft and radio stations	<ul style="list-style-type: none"> • Saving the lives of 82.5% of all endangered persons who could have been alive at the time the Coast Guard was notified • Produce savings from destruction or extensive damage of 82.5% of all endangered property which could reasonably have been savable at the time the Coast Guard was notified 	SAR statistics—1976: A compilation of Statistical data of Search and Rescue Program Activities
MARINE SCIENCE	To conduct the International Ice Patrol, to improve marine environmental measurement and prediction in furtherance of the other Coast Guard programs and to assist other governmental agencies and non-Federal scientific organizations in support of National Marine Science Objectives	<ul style="list-style-type: none"> • International Ice Patrol • Airborne Radiation thermometer (Art Surveys) • Marine and Coastal Weather Observation and Reporting • Ocean Weather Station (OWS) • Hotel • DATA Buoy Program • Oceanography on Cutters • Ocean Sounding Program • Tarball Sampling • Coastal Studies • Participation in Cooperative Projects 	<ul style="list-style-type: none"> • Total number of oceanographic and marine observations performed • Total number of observations of icebergs passing south of 48 degrees each month plus the number of icebergs south of 50 degrees N on 15 January 	

MAJOR PROGRAM AREAS	OBJECTIVES	MAJOR SUBPROGRAMS OR ACTIVITIES	MAJOR PERFORMANCE INDICATORS	MAJOR EVALUATIVE PUBLICATIONS AND/OR ACTIVITIES
SHORT RANGE AIDS TO NAVIGATION	To facilitate the safe and expeditious passage of marine traffic in coastal areas, inland waterways and harbors in order to enhance the utility of national waterways for commercial, recreational, public, and private users.	Audio Visual Aids: <ul style="list-style-type: none"> • manned and unmanned lights • lighted and unlighted buoys • fog signals • daybeacons • racons 	<ul style="list-style-type: none"> • Correction of routine discrepancies, priority discrepancies, and immediate discrepancies within specified time periods • Publish updated light list within specified time periods • Public local notices to mariners within specified time periods • Broadcast notices to mariners when necessary • Inspect Class I, II, and III private aids within specified time periods • Patrol of pooled Western rivers within specified time periods • Patrol of open rivers within specified time periods • Relieve all types of buoys within specified time periods • Inspect lighted buoys, unlighted buoys, and lights within specified time periods • Inspect daybeacons, and buoy moorings within specified time periods 	
BRIDGE ADMINISTRATION	To insure safe and unencumbered passage of marine traffic on the nation's waterways by minimizing the inherently obstructive nature of bridges to navigation, and to insure that the needs of all vehicles using surface transportation are met without unduly impeding Marine transport.	<ul style="list-style-type: none"> • Administering the alteration of obstructive bridges • Approving the location, clearance, and lighting of bridges over U.S. navigable waters • Regulation of drawbridge operations 	<ul style="list-style-type: none"> • Number of Permit Applications to ensure needs of navigation are served • Investigation of all significant complaints on obstructive bridges • Number of responses to all complaints to ensure proper drawbridge regulations are enforced and complied with • Conduct as required transportation studies and research • Every two years inspect bridges over navigable waters when navigation is of concern 	<i>Analysis of Bridge Collision Incidents Vols. I and II</i>

MAJOR PROGRAM AREAS	OBJECTIVES	MAJOR SUBPROGRAMS OR ACTIVITIES	MAJOR PERFORMANCE INDICATORS	MAJOR EVALUATIVE PUBLICATIONS AND/OR ACTIVITIES
<p>ENFORCEMENT OF LAWS AND TREATIES</p>	<ul style="list-style-type: none"> To preserve and protect the living and non-living natural resources and national interests, on or under the territorial waters, fishery conservation zone, and special interest areas of the high seas by all appropriate means, including the enforcement of Federal laws and International agreements except as related to pollution, traffic control, or port and vessel safety 	<p>Enforcement of U.S. Maritime Law</p> <p>Has enforcement responsibilities for two categories of maritime law:</p> <ol style="list-style-type: none"> Marine Safety Laws for which the Coast Guard has total responsibility Maritime laws and regulations that fall within the jurisdiction of other Federal agencies which: <ul style="list-style-type: none"> the Coast Guard has direct and primary responsibility; the Coast Guard shares enforcement responsibility; and the Coast Guard's unique authority and facilities are required to enforce maritime law 	<ul style="list-style-type: none"> Detect and deter 75% of violations of general enforcement laws and treaties other than fisheries Detect and deter 95% of violations of fisheries laws and treaties 	<ul style="list-style-type: none"> A study of Coast Guard enforcement of 200 mile Fishery Conservation Zone Initial joint NMFS/GS program for enforcement of fishery regulations

APPENDIX II

**PROGRAMS, OBJECTIVES, PERFORMANCE INDICATORS,
AND EVALUATIVE ACTIVITIES FOR THE
FEDERAL AVIATION ADMINISTRATION**

MAJOR PROGRAM AREAS	OBJECTIVES	MAJOR SUBPROGRAMS OR ACTIVITIES	MAJOR PERFORMANCE INDICATORS	MAJOR EVALUATIVE PUBLICATIONS AND/OR ACTIVITIES
Air Traffic Service	To assure the safe separation of aircraft and the efficient utilization of airspace in the Air Traffic Control System	<ul style="list-style-type: none"> • Operation of Air Traffic Control System • Flight Information and Cartographic Program • Airspace Management—allocation and utilization • Air Space and Air Traffic rules/policy • Aviation Weather 	<ul style="list-style-type: none"> • Operational Errors and system reports • Near midair collision reports • Aviation Safety Reports • Unsatisfactory Condition Reports • Aircraft Accident Reports • Flight Assist Reports • Comments from users and industry • Revised operational procedures • Performance measuring system 	<p><i>Study Types:</i></p> <ul style="list-style-type: none"> • Evaluations to assess the effectiveness of system-wide programs and to determine if they are meeting agency objectives • Special evaluations—aimed at specific issues or problem areas which have either been reported or are suspected to exist • Check evaluations—assessments of one or more phases of a regional office or facility operation • In-flight evaluations—sample the services provided to users by air traffic facilities
Civil Aviation Security	To prevent criminal acts against civil aviation	<ul style="list-style-type: none"> • Airport environment—airport grounds, buildings • Air carriers—screening passengers and baggage • Explosives—detection and handling • Air cargo security • Liaison with law enforcement agencies 	<ul style="list-style-type: none"> • Number of incidents of non-compliance with ACS procedures • Number of hijackings attempted • Detection of weapons and dangerous articles 	<p><i>Headquarters Evaluation:</i></p> <ul style="list-style-type: none"> • Compliance/performance evaluations—reports on overall accomplishment within specific regions, focus primarily on administration of aviation safety oriented security requirements. • Semi-annual report to Congress on the "Effectiveness of the Civil Aviation Security Program " <p><i>Regional Evaluation:</i></p> <ul style="list-style-type: none"> • ATS Divisions conduct evaluations of field activities similar to those performed by HQ, but on a reduced scale • Annual inspections of airports and air carriers security operations.

MAJOR PROGRAM AREA	OBJECTIVES	MAJOR SUBPROGRAMS OR ACTIVITIES	MAJOR PERFORMANCE INDICATORS	MAJOR EVALUATIVE PUBLICATIONS AND/OR ACTIVITIES
Airway Facilities	To ensure that the installation, construction, maintenance, reliability, and availability of air navigation, air traffic control and aeronautical communications facilities and equipment in the National Airspace System is efficient, economical, and responsive to operational needs and requirements.	<ul style="list-style-type: none"> • Implement Facilities and Equipment Program • Develop policy standards and equipment specifications • Provide budgeting and engineering support • Monitor and evaluate program accomplishment and system performance • Manage configuration control and aviation band frequency assignments 	<ul style="list-style-type: none"> • Number of required inspections performed • Number of equipment failures • Measure attainment of goals and standards (established at regional level) • Reliability figures on equipment (National Averages on numbers of deficiencies) 	<p><i>Headquarters Evaluation:</i></p> <ul style="list-style-type: none"> • Cyclic comprehensive regional evaluations, management reviews • Special evaluations <p><i>Regional Evaluation:</i></p> <ul style="list-style-type: none"> • Technical inspections of facilities and equipment—3 major types— <ol style="list-style-type: none"> 1. Comprehensive facility inspections 2. System performance inspections 3. Special inspections
Airports Program	To foster and promote the development and maintenance of a safe and efficient national system of airports.	<ul style="list-style-type: none"> • Airport Development Aid Program • Cooperative Airport Planning • Planning Grant Program • Airport Environmental Processing • National Airport System Plan • Standards—Planning, Design, Construction, Safety Operations • Airport Certification • Airport Compliance • Records and Data Collection • Property Transfers 	Annual workload accomplishment statistics are collected on thirty-two operational activities which can be analyzed for work trends and demand vs. scheduled work, accomplishment vs. projected workload, manpower utilization.	<p><i>Study types:</i></p> <ul style="list-style-type: none"> • Comprehensive Evaluation—examine all aspects of the Airports program and organizational performances within major jurisdictions, such as a region. • Special Evaluation—examine specific Airports functions or program elements that require immediate attention. <p><i>Other Major Sources of Information:</i></p> <ul style="list-style-type: none"> • Staff visits to regions by Headquarters Division technical specialists • Management Information Reporting System • ADAP and Planning Grant Program Project Status Reporting System • Spot reviews of project folders • Routine telephone contact—telecons

MAJOR PROGRAM AREAS	OBJECTIVES	MAJOR SUBPROGRAMS OR ACTIVITIES	MAJOR PERFORMANCE INDICATORS	MAJOR EVALUATIVE PUBLICATIONS AND/OR ACTIVITIES
Flight Standards	To promote safety of flight of civil aircraft in air commerce by establishing and enforcing safety rules and standards	<ul style="list-style-type: none"> • Promulgating and enforcing safety regulations for certifying civil aircraft airworthiness • Certification of airmen, air agencies for competency • Surveillance of the operation and airworthiness of aircraft, and competency of airmen, air agencies, air taxis, commercial operators, air carriers, and airports serving CAB certified air carriers • Certification and flight inspection of navigation aids • Aircraft accident investigation • Operation of FAA aircraft 	<ul style="list-style-type: none"> • Aircraft accidents, causal factors, and operating rates • Enforcement actions with indications of types of remedial efforts required • Aircraft operating and mechanical deficiencies and reliability. • Airmen competency deficiencies • Aircraft operators performance and deficiencies • Adjustments of programs for assurance of safety—inspections and surveillance • Rulemaking required to be issued for safety—operations, maintenance, and engineering 	<p><i>Evaluative Activities:</i></p> <ul style="list-style-type: none"> • Continuous AFS program division "how goes it" status monitoring of assigned area of responsibility • National Program Evaluation encompassing AFS programs, nationwide scope • Other evaluations encompassing assigned subject/scope or regional requested subject/area • Field office regular assessment to assure performance and status of program goal achievement • Accomplishment of inspections, investigations, surveillance, and certification of certain aviation industry elements • Continuous monitoring of statistical safety data
Aviation Medicine	<ul style="list-style-type: none"> • To apply aviation medicine knowledge to the safety and promotion of civil aviation— • Develop aviation medical standards which apply the most current medical and technological information • Prevent medically unfit persons from engaging in aviation activities in the interest of air safety • Develop and conduct medical research programs which will enhance air safety 	<ul style="list-style-type: none"> • Administration and Management of— • Medical Certification • Aviation Medical Examiner System • Medical Standards • Aeromedical Research Direction • Airmen Medical Education • Aircraft Accident Investigation 	<p>Compliance with laws, rules, regulations, policies, and directives</p>	<p><i>Study Types:</i></p> <ul style="list-style-type: none"> • On-Site Surveys—scheduled at regular intervals to review medical program activity conducted by regions and centers (compliance reviews) • Special Studies—evaluations of Headquarters and field medical programs in greater depth and scope than on-site surveys <p><i>Other Sources of Information:</i></p> <ul style="list-style-type: none"> • Review of Medical Program activities conducted by regional flight surgeons (monthly report) • Statistical and narrative data provided to Headquarters through the planning cycle and management information system by monthly report

APPENDIX III

**PROGRAMS, OBJECTIVES, PERFORMANCE INDICATORS
AND EVALUATIVE ACTIVITIES FOR THE
FEDERAL HIGHWAY ADMINISTRATION**

MAJOR PROGRAM/ SUB-PROGRAM AREAS	OBJECTIVES	MAJOR PERFORMANCE INDICATORS	MAJOR EVALUATIVE PUBLICATIONS AND/OR ACTIVITIES
INTER-STATE FEDERAL-AID HIGHWAY SYSTEMS	To complete in a timely fashion the construction of the entire Interstate system in all States connecting principal metropolitan areas, cities, and industrial centers, serving the national defense, connecting at suitable border points with routes of continental importance in Canada and Mexico; and to assist in re-surfacing, restoring and rehabilitating those lanes on the system that have been in use for more than five years.	<ol style="list-style-type: none"> 1. Number of miles open to traffic, under construction or under design. 2. Costs of engineering, right-of-way and construction (Interstate Cost Estimate) 3. Number of gaps closed on interstate and status of expenditure of gap closing funds. 	<ol style="list-style-type: none"> 1. "Interstate Resurfacing, Restoration and Rehabilitation (R-R-R) Study." (9/77) 2. "Interstate Gap Study." (10/76) 3. "A Revised Estimate of the Cost of Completing the National System of Interstate and Defense Highways." (5/77) 4. "Improvement Status of System Mileage on the National System of Interstate and Defense Highways." (Quarterly press release) 5. "Price Trends in Federal-Aid Highway Construction." (Quarterly) 6. "Status of Expenditure of Interstate Substitution Funds." (Quarterly) 7. "Progress of Gap Closing Program on the Interstate Highway System." (Quarterly) 8. "Financing Alternatives for Accelerated Interstate Highway Systems Completion." (5/77)
PRIMARY, URBAN AND SECONDARY FEDERAL-AID HIGHWAY SYSTEM	To assist the States in the construction and improvement of a system of main roads important to interstate, statewide, regional and urban travel in order to bring the system up to current structural and operational standards, to improve safety characteristics, and to slow the rate of highway deterioration. Funding also available to assist in the construction or improvement of public urban mass transportation facilities.	<ol style="list-style-type: none"> 1. Funds obligated 	<ol style="list-style-type: none"> 1. Every four years, field offices prepare an Evaluation of Secondary Road Plans for each State. 2. Periodic reports are made on the status of project completion and funds obligated. 3. "Urban System Study." (12/76)
SPECIAL BRIDGE REPLACEMENT	To assist the States to replace bridges over waterways or other topographical barriers when such bridges are significantly important and are unsafe because of structural deficiencies, physical deterioration or functional obsolescence.	<ol style="list-style-type: none"> 1. Number of bridges replaced or in the process of being replaced 2. Number of replacement bridges now open to traffic 3. Number of candidates on file 4. Amount of funds obligated 	<ol style="list-style-type: none"> 1. Applications submitted by the States for the Special Bridge Replacement Program (SBRP) are screened when received. When a bridge is selected for replacement by a State, a Federal Highway Administration engineer reviews the bridge site for eligibility prior to program approval. 2. A printout of program activity provided by the Program Analysis Division from data submitted on FORM PR-37, is received and reviewed monthly in the Washington Office. 3. Closely related to the replacement program is the National Bridge Inspection Program (NBIP), with the data collected for the bridge inventory also used in the replacement program. This data is monitored both in the Washington Office and by management reviews in selected States. The Region and Division Offices schedule additional independent State and local government reviews. The SBRP is also evaluated in conjunction with the NBIP management review. 4. "Bridge Deck Rehabilitation Needs" (6/77)

MAJOR PROGRAM/ SUBPROGRAM AREAS	OBJECTIVES	MAJOR PERFORMANCE INDICATORS	MAJOR EVALUATIVE PUBLICATIONS AND/OR ACTIVITIES
SAFETY CONSTRUCTION	To increase the safety and quality of highway service by constructing, reconstructing or otherwise improving roads and streets on and off the Federal-Aid Highway System through a program of low-cost improvements which, whenever possible, provide significant safety benefits.	<ol style="list-style-type: none"> 1. Number of projects funded 2. Number of locations or miles improved 3. Reduction in number and cost of deaths, injuries and damages at improved locations. 	<ol style="list-style-type: none"> 1. "Bridge Barrier System Survey." (5/77) 2. "Review of Safety Features on New Federal-Aid Projects." (5/78) 3. "Annual Report on the Highway Safety Improvement Programs." 4. "Review of Accident Data Collection and Analysis Systems." (8/76) 5. "Improved Overall Management of Safety Programs." (11/76) 6. "Review of Safety Program Engineer Function." (2/78) 7. "Annual Report on Railroad-Highway Demonstration Projects."
HIGHWAY BEAUTIFICATION	To enhance natural beauty through the removal of illegal and non-conforming outdoor advertising signs, the removal, relocation or screening of junkyards, landscaping and roadside development including rest and recreation areas and the acquisition and improvement of strips of land necessary for the restoration, preservation and enhancement of scenic beauty adjacent to highways.	<ol style="list-style-type: none"> 1. Number of illegal and nonconforming billboards removed. 2. Number of junkyards removed, screened or relocated. 3. The extent to which the States are controlling the establishment of new outdoor advertising signs and junkyards along controlled routes. 4. Number of projects for landscaping and roadside development 5. Number of projects relative for the acquisition and preservation of scenic strips adjacent to the highway. 	<ol style="list-style-type: none"> 1. We receive a report quarterly from each State delineating its progress in the areas of acquiring outdoor advertising signs and abating junkyards. The FHWA Form 1424, outdoor advertising and junkyard report, is used for this purpose. 2. We also administer a review program in the highway beautification area wherein the adequacy of State control and acquisition/abatement programs for outdoor advertising signs and junkyards is evaluated. 3. We also perform reviews as needed or upon request of special problems, legislative or regulation changes, etc. 4. "Highway Beautification Program Review,"(one for each state, biennially) 5. "Junkyard Review." (11/77) 6. "Restudy of the National Standards for Directional and Official Signs," (in progress) 7. "Outdoor Advertising Sign Removal." (1/76) 8. "Highway Beautification Funds." (10/76)
FOREST HIGHWAYS	To assist in the construction and maintenance through funds apportioned for forest highways (a forest road which is of primary importance to the States, counties, or communities within, adjoining, or adjacent to the national forests, and which is on a Federal-aid system.)	<ol style="list-style-type: none"> 1. The amount of relief that has been provided to the States and localities. 2. The degree of compliance with the intent of 23 C.F.R. See GAO report B-164497(3) 	<ol style="list-style-type: none"> 1. "Status of Funds Report." (Received annually from each State) 2. "Annual Report of Accomplishments of Forest Highways Program (Report of Operation)." 3. "Report on 10-year Forest Road Improvement Study." (In Progress)

MAJOR PROGRAM/ SUBPROGRAM AREAS	OBJECTIVES	MAJOR PERFORMANCE INDICATORS	MAJOR EVALUATIVE PUBLICATIONS AND/OR ACTIVITIES
PLANNING	To enable States to conduct planning and studies that will help plan, design, construct, operate, and maintain highways or highway systems. Funding also available to assist States in planning urban transportation systems.	A quantitative performance indicator cannot be provided for planning as a program area.	<ol style="list-style-type: none"> 1. "State Quarterly Expenditure Report," (prepared by the States) 2. "Annual Evaluation of State Planning," (prepared by Division Office) 3. "Quarterly Narrative Report," (prepared by Regional Office for Headquarters) 4. Informal and recurring daily contact by Division Offices with the State Agency.
EMERGENCY RELIEF	To repair and/or reconstruct highways on the Federal-aid system or certain public lands in the event of natural disasters or catastrophic failures	1. Number of emergencies responded to.	Number of emergencies are reported in "DOT Annual Report"
ECONOMIC GROWTH CENTER DEVELOPMENT HIGHWAYS	To assist States in the construction of improved highway facilities which would help revitalize and diversify the economies of rural areas.	Various indicators in areas such as industrial growth, population change, income levels, land development/usage, and environmental affects.	This is a new program in FHWA, and has not yet reached the stage where evaluation is feasible.
HIGHWAY SAFETY	To accelerate and upgrade, through a program of technical and financial assistance, State and local program support capabilities in identifying highway related problems and in planning, implementing, and evaluating corrective measures to minimize the deaths, injuries, and property damages due to highway-related accidents.	The section 402 highway-related safety funds are used to correct management deficiencies which when resolved, provide a basis for the safety construction program. Performance is not measured directly. Benefits show up in more effective safety construction programs.	<ol style="list-style-type: none"> 1. "Annual Report on Highway Safety Program." (NHISA performs most of the work and has primary responsibility for the report) 2. "Evaluation of Highway Safety Program Standards within the Purview of the Federal Highway Administration." (March 1977) 3. "Evaluation of the Highway-Related Safety Program Standards." (July 1977)
DIRECT FEDERAL CONSTRUCTION	To survey, prepare plans, let contracts and supervise construction of roads for other Federal agencies, including the National Park Service, Bureau of Indian Affairs, Forest Service, and the Department of Defense.	<ol style="list-style-type: none"> 1. Funds obligated 2. Mileage open to traffic 3. Status of projects <p>Level of compliance with established requirements.</p>	<ol style="list-style-type: none"> 1. "Direct Federal Highway Program: An Evaluation," (September 1976) 2. "Annual Projects Management Review." 3. "Annual Program Management Review."
ENVIRONMENTAL REQUIREMENTS	To develop and implement requirements to minimize negative environmental impacts of FHWA programs.		<ol style="list-style-type: none"> 1. "Regional Reviews of NEPA-Related Activities." (12/77) 2. "Effects of Section 102(2)(c) of NEPA and Section 4(f) of the DOT Act of 1966 on the Federal-Aid Highway Program." (In prog.) 3. "Review of FHWA Noise Standards and Procedures." (1/77)

MAJOR PROGRAM/ SUBPROGRAM AREAS	OBJECTIVES	MAJOR PERFORMANCE INDICATORS	MAJOR EVALUATIVE PUBLICATIONS AND/OR ACTIVITIES
<p><i>Major Program Area</i></p> <p>RIGHT-OF-WAY ACQUISITION/ RELOCATION ASSISTANCE</p> <p><i>Sub-Program Area</i></p> <p>(A) ACQUISITION OF RIGHT-OF-WAY</p>	<p>To encourage and cooperate with the States in carrying out in a fair, equitable, and timely manner, the acquisition of property, and the relocation of persons, businesses, etc displaced as a result of Federal and federally assisted highway programs.</p> <p>To encourage and cooperate with the States to expedite the acquisition of real property by agreement, to avoid litigation and relieve congestion in the courts, to assure consistent, equitable treatment of owners of properties acquired for Federal-aid highway programs, and to promote public confidence in land acquisition practices related to those programs.</p>	<p>(See individual sub-programs below for detailed indicators.)</p> <ol style="list-style-type: none"> 1. Number of parcels acquired by agreement, administrative settlement, legal settlement, and court award (Form FHWA 1434). 2. Amount of funds authorized for acquisition programs. 3. Number of projects involved in ROW acquisition. 4. The extent to which the States comply with applicable Federal requirements. 5. Progress on functional replacement (Form P.R. 1378). 6. Turnover of the ROW Revolving Fund. 	<p>(See individual sub-programs below for detailed activities.)</p> <ol style="list-style-type: none"> 1. We review an annual report from each State indicating its performance in the total acquisition process. The FHWA Form 1434, Real Property Acquisition Statistics, is used for this purpose. 2. We maintain a constant overview of the use and need for ROW revolving funds, and make continuing adjustments between regions, as appropriate. 3. All requests for advance acquisition due to hardship or protective buying must be reviewed and approved by our office. 4. We evaluate the adequacy of the FHWA Regional Offices in their management of the program. 5. Reviews are performed as needed upon request to address special problems, legislative or regulation changes, etc. 6. "Review of Acquisition Procedures." (11/76) 7. "Local Public Agency Review— Region 5." (11/77) 8. "Uneconomic Remnants." (11/77)
(B) RELOCATION ASSISTANCE	<ol style="list-style-type: none"> 1. To ensure the fair and equitable treatment of persons displaced as a result of Federal and federally assisted highway programs in order that such persons shall not suffer disproportionate injuries as a result of these programs designed for the benefit of the public as a whole. 2. To carry out the relocation assistance program in a uniform manner nationwide. 3. To expedite the highway construction program in each State and territory by the orderly, human, and expeditious relocation of persons and businesses occupying lands required for such projects. 	<ol style="list-style-type: none"> 1. Presence or absence of complaints by displaced persons, businesses, and interested public officials and agencies relative to treatment received by displacees during the relocation process. 2. Rate of advancement of highway projects from acquisition to construction stages. 3. State compliance with applicable Federal laws and regulations. 	<ol style="list-style-type: none"> 1. Periodic Washington Office field reviews of Region, Division and State relocation activities. 2. FHWA field office routine monitoring of State relocation assistance programs. 3. FHWA participating in FRC coordinative activities relative to interagency uniformity evaluations. 4. "Review of Living Conditions of Persons Remaining on Halted Highway Projects." (In progress) 5. "Review and evaluation of Assistance Furnished and Payments Made to Businesses, Farms, and Non-profit Organizations." (7/77) 6. Evaluation of the Relocation Assistance Program in Region, Division, and State Highway Offices. (Periodically)
(C) RIGHT-OF-WAY REVOLVING FUND	<p>To advance funds, without interest to the States for the purpose of acquiring rights-of-way for future construction of highways on any Federal-aid system and for making payments for the moving or relocation of persons, businesses, farms, and other existing uses of real property caused by the acquisition of such rights-of-way.</p>	<ol style="list-style-type: none"> 1. Number of States participating in program. 2. Number of projects involved. 3. Number of conversions and withdrawals. 4. Frequency of conversions. 	<ol style="list-style-type: none"> 1. We are advised of the actions taking place as they occur. 2. We conduct periodic reviews of the status of projects to determine where performance is lagging and corrective action should be taken. 3. We conduct reviews as needed or upon request of special problems, legislative or regulations changes, etc. 4. "Payback of Right-of-Way Costs." (In process) 5. "Review of Right-of-Way Revolving Fund." (In process)

MAJOR PROGRAM/ SUBPROGRAM AREAS	OBJECTIVES	MAJOR PERFORMANCE INDICATORS	MAJOR EVALUATIVE PUBLICATIONS AND/OR ACTIVITIES
<p><i>Sub-Program Area: cont'd</i></p> <p>(D) REAL PROPERTY MANAGEMENT</p>	<p>To promote sound methods of managing real property acquired in connection with Federal-aid highway projects including the use of airspace on Federal-aid highway systems for non-highway purposes and the disposal of portions of highway rights-of-way no longer needed for highway purposes.</p>	<ol style="list-style-type: none"> 1. The public acceptance of the program. 2. The timely clearance of improvements from the right-of-way for physical construction. 3. After physical construction, the widespread use of airspace for nonhighway purposes in ways which are compatible with the needs of the community that do not infringe upon the safe, efficient use of the highway facility. 4. The timely disposal of rights-of-way no longer needed for highway purposes by methods which reflect the public interest and result in the greatest net return to the project. 	<ol style="list-style-type: none"> 1. Periodic and ongoing review of Regional Office Program Management. 2. We also perform reviews as needed or upon request to address special problems, legislative or regulation changes, etc. 3. "Review of Advance Acquisition and Property Management Procedures." (11/75) 4. "Study of the FHWA Role in Federal-Aid Property Management." (11/76) 5. "Joint Development/Multiple Use of Highway Right-of-way." (1/77)
<p>(E) RIGHT-OF-WAY APPRAISAL</p>	<p>To establish appraisal standards and assure the fair and equitable treatment of those affected by a highway acquisition.</p>	<ol style="list-style-type: none"> 1. Extent of compliance with Uniform Act. 2. Extent of compliance with Federal appraisal standards and procedures. 3. Extent of compliance with FHWA policies and procedures. 	<ol style="list-style-type: none"> 1. Periodic reviews are conducted by division offices to assess acquiring agency compliance with Federal and FHWA appraisal policies and procedures. 2. Appraisal Branch conducts reviews of FHWA regional and division Right-of-Way Offices to assess implementation of appraisal policy. 3. Special reviews are conducted to evaluate problems related to implementation of FHWA appraisal policies. 4. "Review of Division Office Management of Appraisals and Property Management Procedures—Georgia and Louisiana." (1/77, 5/77)

MAJOR PROGRAM/ SUBPROGRAM AREAS	OBJECTIVES	MAJOR PERFORMANCE INDICATORS	MAJOR EVALUATIVE PUBLICATIONS AND/OR ACTIVITIES
MOTOR CARRIER SAFETY	To eliminate or mitigate risks to highway safety by establishing safe operating practices in Federal Regulations covering interstate commercial motor carriers; to inspect for compliance; to enforce the law; to educate in safe practices; to investigate accidents; to update the safety regulations.	<ol style="list-style-type: none"> 1. Number of safety compliance inspections of carriers/shippers conducted. 2. Number of roadside vehicle/driver/noise inspections conducted and number of defective vehicles and unqualified drivers removed from the highway. 3. Number of enforcement cases conducted. 4. Carrier involvement in highway accidents/hazardous materials incidents 5. Shipper/manufacturer involvement in hazardous materials incidents 6. Number of complaints against carriers and petitions for rule change. 7. Extent of carrier compliance with safety regulations. 	<ol style="list-style-type: none"> 1. Safety compliance inspection reports are analyzed continuously to assess carrier/shipper compliance. 2. Enforcement case reports are reviewed, civil forfeiture proceedings or criminal cases prosecuted, consent orders filed and agreed to. 3. The management information system routinely reports evaluation information. 4. Periodic program review and evaluation conferences at region and Washington Headquarters level assess performance. 5. Annual Reports prepared on Program Emphasis Areas. 6. Carrier Safety Fitness Reports made to Interstate Commerce Commission. 7. Headquarters staff assistance and evaluation visits periodically made. 8. Special Evaluation Reports made on selected problems. 9. Annual Reports published on Accidents of Motor Carriers. 10. Research projects conducted to evaluate aspects of vehicle/driver/operations and regulatory standards.
RESEARCH AND DEVELOPMENT	To conduct research and development studies to increase the effectiveness of the Nation's highway system while achieving a concurrent improvement in safety and environmental compatibility and a reduction in highway costs and energy consumption.	<ol style="list-style-type: none"> 1. Benefits resulting from research output. 2. Specific indicators from each project. 	<ol style="list-style-type: none"> 1. "Federal Coordinated Program (FCP) Research and Development Annual Project Reviews." 2. "Federal Coordinated Program (FCP) Research and Development Annual Category Reviews." 3. "Rational Determination of Priority Targets for Research and Development." (September 1976) 4. The Transportation Research Board annually reviews and critiques the FHWA Research and Development program.
ENGINEERING AND TRAFFIC REQUIREMENTS	To develop and implement standards for highway engineering and traffic control in order to meet national priorities.	<ol style="list-style-type: none"> 1. Levels of compliance with established requirements. 	<ol style="list-style-type: none"> 1. "Certification of 55 mph National Maximum Speed Limit Enforcement." (annually for each State) 2. "Vehicle Size and Weight Enforcement Program." (annually for each State) 3. Survey of State Legislation Governing the Use of Studded Tires. 4. "Evaluation of Projects in the Traffic Operations Program to Increase Capacity and Safety (TOPICS)"

MAJOR PROGRAM/ SUBPROGRAM AREAS	OBJECTIVES	MAJOR PERFORMANCE INDICATORS	MAJOR EVALUATIVE PUBLICATIONS AND/OR ACTIVITIES
TECHNOLOGY TRANSFER	To administer, on a national level, a program to demonstrate by actual example the practical utilization of research and development results in highway planning, design, construction and maintenance.	The number of States that accept and/or implement the demonstration projects.	<ol style="list-style-type: none"> 1. "FHWA Technology Transfer Program;" (2/77) 2. "Process Review of the Technology Transfer Program" (Evaluating Demonstration Projects—study in process). 3. Maintain an MIS in the Region that is sometimes used for monitoring and evaluative purposes. 4. Numerous other management and internal type activities which are used for monitoring and evaluative purposes.
GENERAL PROGRAM ADMINISTRATION	This general category includes evaluative efforts which describe a number of different program areas, or relate to the overall mission of the FHWA.	Since this is a broad category, covering efforts which do not fit elsewhere, no specific performance indicators can be cited.	<ol style="list-style-type: none"> 1. "Action Plan Review Program Regions 4 and 7." (1/77) 2. "State Obligation of Federal-Aid Highway Funds." (Periodically) 3. "Status of the Nation's Highways: Conditions and Performance." (1/77) 4. "Impact of the Federal-Aid Highway Program on State and Local Road Construction." (In progress) 5. "Review of Regional Office Management of Process Guidelines Implementation." (3/77) 6. "Reduction of FHWA Programmatic Requirements." (10/76) 7. "Regulations Reduction Review." (6/77) 8. "Value Analysis/Engineering." (In progress) 9. "Railroad Consolidation and Relocation in Urban Areas." (3/76) 10. "Study of FHWA's Management and Fiscal Information Systems." (10/76) 11. "Bureau of Motor Carrier Safety Pilot Study." (In progress)

APPENDIX IV

**PROGRAMS, OBJECTIVES, PERFORMANCE INDICATORS,
AND EVALUATIVE ACTIVITIES FOR THE
FEDERAL RAILROAD ADMINISTRATION**

MAJOR PROGRAM AREA	OBJECTIVES	MAJOR SUBPROGRAMS OR ACTIVITIES	MAJOR PERFORMANCE INDICATORS	MAJOR EVALUATIVE PUBLICATIONS AND/OR ACTIVITIES
A. SAFETY	<p>"To promote safety in all areas of railroad operations and to reduce railroad-related accidents, and to reduce deaths and injuries to persons and to reduce damage to property caused by accidents involving any carrier of hazardous materials."</p> <p>To determine the most frequent causes of rail accidents/casualties and develop counter-measures against them.</p>	<p>A. FEDERAL ENFORCEMENT</p> <p>1. Safety Regulation</p> <p>2. Automated Track Inspection Program (ATIP)</p> <p>B. GRANTS-IN-AID FOR RAILROAD SAFETY</p>	<p>—Trends, numbers, and contributory causes of:</p> <ul style="list-style-type: none"> • freight train accidents/casualties • passenger train accidents/casualties • rail-highway grade crossing accidents <p>—Initiation of cost-beneficial combinations of counter-measures (including regulation, Automated Track Inspection Program (ATIP) and other inspection, enforcement, new operating procedures, and safety promotion) to reduce incidence of rail accidents and casualties</p> <p>—miles of track inspected</p> <p>—violations cited/enforced</p> <p>—number of States participating in grants-in-aid to State safety program</p>	<ul style="list-style-type: none"> • Office of Technology Assessment, <i>An Evaluation of Railroad Safety</i> • Development of the Rail Safety Inspection Program • Minimum Staffing Required for the Office of Safety • Program Improvement Project: Complaint Handling Procedures

MAJOR PROGRAM AREA	OBJECTIVES	MAJOR SUBPROGRAMS OR ACTIVITIES	MAJOR PERFORMANCE INDICATORS	MAJOR EVALUATIVE PUBLICATIONS AND/OR ACTIVITIES
<p>B. FEDERAL ASSISTANCE</p>	<p>A. To promote and assist the National Railroad Passenger Corporation (AMTRAK) in providing efficient, improved inter-city passenger service in those markets where demand warrants and net public benefits justify the public investment.</p> <p>B. To promote and assist the development of the railroad industry as an efficient, economically sound, and privately-owned national railroad network that can attract that share of the market for intercity freight movement commensurate with its inherent economic advantages.</p>	<p>A. Passenger Assistance (AMTRAK)</p> <p>B. Rail Freight Assistance (ConRail)</p> <p>C. State Assistance —Rail Line Subsidies • Regional Program (Northeast and Midwest) • National Program</p> <p>D. Railroad Rehabilitation and Improvement Financing Funds • Redeemable Reference Shares • Obligation Guarantee Authority</p>	<ul style="list-style-type: none"> • Economic viability of AMTRAK • Matching of Federal subsidies by passenger revenues • Cost per passenger mile • Economic viability of ConRail and its long-term profitability • Operating results compared to PSR projections • Number of states eligible that are participating with approved plans in the regional (3F) and national (4F) programs • Number of abandonments assisted through Federal assistance • Overall consolidation of rail system and facilities • Development of a process for determining efficient and economic solutions to potential loss of local rail freight service and identifying resources to support such solutions • Number of railroads participating under program • Enhanced ability of railroads to provide essential services • Number of track miles, equipment rehabilitated under program • Promotion of line consolidation/coordinations in corridors of consolidation potential • Promotion of rail competition in major market areas where economically justified • Reduction of hazardous conditions through accomplishment of special safety-related projects. 	<ul style="list-style-type: none"> • Proposed in FY78, to evaluate increases in operating expenses of AMTRAK relative to railroad industry increases (\$300,000 budget) • Congressionally mandated comprehensive study of AMTRAK, due March 1, 1978 • Periodic evaluations by FRA • Internal assessment for Secretary of Transportation on ConRail's ability to meet 1979 deadline for financial independence • Proposed in FY78, to assess effectiveness of Federal investment in State rail planning (\$200,000 budget) • Spring Preview for FY79 issue # 15 "Residual Rail Lines" • Annual Report to Congress on the Railroad Rehabilitation and Improvement Fund • Sec. 504.901 preliminary report

MAJOR PROGRAM AREA	OBJECTIVES	MAJOR SUBPROGRAMS OR ACTIVITIES	MAJOR PERFORMANCE INDICATORS	MAJOR EVALUATIVE PUBLICATIONS AND/OR ACTIVITIES
C. NORTHEAST CORRIDOR PROJECT	To upgrade the Northeast Corridor to establish regularly scheduled and dependable intercity rail passenger service between Boston and New York on a 3-hour and 40-minute schedule, and between New York and Washington on a 2-hour and 40-minute schedule, including intermediate stops by February, 1981.	<p>A. Construction</p> <p>B. System Engineering</p>	<p>— Trip times between</p> <ul style="list-style-type: none"> • Boston and New York (The goal for 1981 is 3-hours and 40-minutes) • New York and Washington (The goal for 1981 is 2-hours and 40-minutes) • Construction Schedule for improvements in facilities in Northeast Corridor 	<ul style="list-style-type: none"> • Northeast Corridor Passenger Transportation Data Study • Several Special studies/evaluations (pro forma) of alternatives related to design and construction • 2-yr/Annual Reports to Congress • Northeast Corridor Improvement Program, Task 3: Management Planning and Control System Summary Report
D. MINORITY BUSINESS RESOURCES	<p>To assist business firms, entrepreneurs, and venture groups in securing contracts and subcontracts arising out of the restructuring and revitalization of the Nation's railroads . . . also (to) provide support mechanisms including venture capital and surety and bonding organizations which will enable minority businesses to take advantage of such business opportunities.</p> <p>For the Northeast Corridor Project, the goal/objective is 15% in total dollar volume to minority businesses, and for ConRail and AMTRAK, 10% is the figure used for planning purposes.</p>	<p>A. Contractual Services</p> <p>B. Venture Capital</p>	<p>— Percent of contracts awarded to minority business firms by:</p> <ul style="list-style-type: none"> • Northeast Corridor Project • AMTRAK • ConRail • U.S. Railway Association • Venture Capital default rate (e.g. through the Small Business Administration's Minority Business Investment Companies (MESBIC's)) 	<ul style="list-style-type: none"> • An RFP for a major evaluation system has been developed (budget \$350,000) to design and implement an ongoing planning-programming-budgeting-evaluation-monitoring (PPBEM) system

MAJOR PROGRAM AREA	OBJECTIVES	MAJOR SUBPROGRAMS OR ACTIVITIES	MAJOR PERFORMANCE INDICATORS	MAJOR EVALUATIVE PUBLICATIONS AND/OR ACTIVITIES
E. RESEARCH AND DEVELOPMENT	<p>General railroad research and development—</p> <p>To provide for (a) rail freight service research and development, including track technology, classification yards, the technology program, and the energy/environment and electrification programs; (b) passenger systems research and development including advanced technology and propulsion technology; and (c) track improvement and test support.</p> <p>Safety Research—</p> <p>To provide the research to improve rolling stock safety, grade crossings, and for studies of human factors involved in accidents, and to develop effective countermeasures for accident prevention.</p> <p>Research and Development Facilities—</p> <p>To provide for the operation and support of the Transportation Test Center</p>	<p>A. Improved Rail Freight Service</p> <p>B. Improved Passenger Systems</p> <p>C. Improved Track Structure Research</p> <p>D. Inspection and Test Support Services</p>	<p>—Improved Freight yard management</p> <ul style="list-style-type: none"> • Reduce time spent by freight cars in classification process • Reduce labor cost increments • Provide improved safety conditions <p>—Identify most sensitive parameters in freight car design and performance for further testing with mathematical model and equipment performance analyses</p> <ul style="list-style-type: none"> • Dynamic Analysis Truck Design Optimization Project (TDOP) <p>—Develop a predictive Maintenance of Way (MOW) model for optimal allocation of MOW funds by railroads</p> <p>—Energy savings in locomotive operations in support of Project Independence</p> <ul style="list-style-type: none"> • Flywheel Energy Storage Switcher (FESS) • Electrification studies <p>• Identification of more reliable and longer lasting (minimum life cycle cost) equipment for procurement by AMTRAK and the Northeast Corridor</p> <ul style="list-style-type: none"> • Develop and test a single-sided linear induction motor (SLIM) • Develop information and standards on efficient and cost-effective techniques that extend useful life of track <ul style="list-style-type: none"> • The number of projects moved from laboratory/analytic phase into "real world" verification • Increase operational speed of rail flaw detection • Improve reliability and efficiency of inspection data processing 	<ul style="list-style-type: none"> • Railroad Classification Yard Technology: A Survey and Assessment <ul style="list-style-type: none"> • Freight Car Truck Design Optimization Project: Purpose, Organization, and Program <ul style="list-style-type: none"> • A Preliminary Evaluation of Electrical Propulsion by Means of Iron-Cored Linear Motors • Material Research Program: Materials Evaluation Study

MAJOR PROGRAM AREA	OBJECTIVES	MAJOR SUBPROGRAMS OR ACTIVITIES	MAJOR PERFORMANCE INDICATORS	MAJOR EVALUATIVE PUBLICATIONS AND/OR ACTIVITIES
R&D p. 2		<p>E. Safety Research</p> <p>F. Transportation Test Center (TTC)</p>	<ul style="list-style-type: none"> • Develop cost-beneficial countermeasures (e.g., equipment specifications, new operating procedures) to reduce accidents involving hazardous materials, component failures, etc. • Improve safety of operating crews through human factors research, hazardous tasks, operations, fatigue, and cab safety • Improve grade crossing by lowering costs and developing new alerting systems and train detection devices • Utilization rate of TTC for experiments on rolling stock, track structures, and safety-related equipment, and passengers • Level of reimbursements for tests conducted at TTC • Develop advances in suspension technology at Rail Dynamics Laboratory (RDL) to reduce dynamic related accidents • Develop reliability and wear data on rail equipment and track at the Facility for Accelerated Service Testing (FAST) • Joint activities with UMTA 	<ul style="list-style-type: none"> • Other evaluative publications involving: <ul style="list-style-type: none"> —tank car program —grade crossing studies —human factors —materials R&D • Maintaining Alertness in Railroad Locomotive Crews

MAJOR PROGRAM AREA	OBJECTIVES	MAJOR SUBPROGRAMS OR ACTIVITIES	MAJOR PERFORMANCE INDICATORS	MAJOR EVALUATIVE PUBLICATIONS AND/OR ACTIVITIES
<p>F. POLICY AND PROGRAM DEVELOPMENT</p>	<p>To provide for economic analyses of rail industry problems, freight car management, and national system restructuring studies, including statistical support and to utilize network flow analysis and similar tools to develop national policy recommendations for increasing service performance.</p> <p>MAJOR SUBPROGRAM OBJECTIVES</p> <p>The promotion of the cooperative labor-management approach to problem solving.</p> <p>To effect substantial improvements in car utilization and to promote the FRA goal of improving freight service.</p>	<p>A. Policy Studies</p> <p>B. Statistical Support</p> <p>C. Labor and Management Research</p> <p>D. Freight Car Management System Development</p>	<ul style="list-style-type: none"> • Define state of the art of railroad costing analysis and costing methodologies • Develop standardized cost procedures and methodologies for railroad accounting systems • Utilization made of waybill data in "Railroad Network Model" • Quantitative impact of labor-management "agreement experimentation" (e.g., reduction in number of crews used) • Dollar savings in freight car utilization through such changes as the "hourly car hire system" and interline scheduling • Increase in freight service reliability • Increase in car utilization • Accuracy of Freight Car Demand Forecasting • Rate of return on investment by railroads on intermodal rail/truck demonstration programs 	<ul style="list-style-type: none"> • (In Process) Evaluation of Government Transportation Subsidies • (1975) One-Year Study of Waybill Users' Needs • Experimental Program in Terminal Operations • (In Process) Freight Car Utilization Research Program: Impact of Plans • Freight Car Clearing-house Experiment: Evaluation of the First Year • Truck/Rail Intermodal Merchandise Freight Movement Study (FY78 Budget had funding for final evaluation report of demonstration)
<p>G. ALASKA RAILROAD</p>	<p>To provide rail line transportation service within Alaska</p>	<p>A. Operations and Maintenance</p> <p>B. Capital Investment</p>	<ul style="list-style-type: none"> • Profits (loss) • Service to customers • Miles of track laid, surfaced, etc. • Number of ties replaced 	<ul style="list-style-type: none"> • Alaska Railroad's Future Freight Market • (In-process) Study of Potential economic improvements on Alaska Railroad

APPENDIX V

**PROGRAMS, OBJECTIVES, PERFORMANCE INDICATORS,
AND EVALUATIVE ACTIVITIES FOR THE
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION**

MAJOR PROGRAM/ SUBPROGRAM AREAS	OBJECTIVES	MAJOR PERFORMANCE INDICATORS	MAJOR EVALUATIVE PUBLICATIONS AND/OR ACTIVITIES
TRAFFIC AND HIGHWAY SAFETY PROGRAMS	To assist States in improving traffic safety and reducing accidents.		Three reports Statewide: Highway Safety Program (HSP) assessment (7/75), status of HSP standards (1/77), and evaluation of HSP (7/77); and a Traffic Safety Program (TSP) management information system.
A. TRAFFIC SAFETY STANDARDS	To improve traffic safety and to reduce accidents through the mitigation of most causative factors.	Compliance with standards guidelines as reported on TSP/Management Information System (MIS) computer. For example, on Standard No. 3, motorcycle safety, the MIS would provide the number of States complying with each element of the standard, such as: —number requiring special exam and licenses for motorcycle operation —number with helmet use law, —number with eye protection requirement, and —number requiring motorcycles to have passenger seat, footrest, rearview mirror, etc.	
B. STATE AND COMMUNITY GRANT PROGRAM	To assist States in implementing the 18 standards.	Compliance with standards as reported on the TSP/MIS computer above.	One report: "Assessment of Selected State and Community Programs—The Highway Safety Act of 1966, Section 402" (10/73), generally called the 402 Report.
C. DEMONSTRATION	To demonstrate effectiveness of:		
1. Alcohol Safety Action Program Projects (ASAP)	Countermeasures designed to reduce drunk driving and related accidents.	Administrative and impact (crash reductions, cost benefits, etc.) measures.	Thirty-five individual projects, 3 interim reports, over 300 individual reports, and a final report in preparation.
2. Selective Traffic Enforcement Projects (STEP)	Special enforcement techniques in reducing accidents/fatalities at major problem areas.	Various impact measures, including accident reductions, lower blood alcohol content, higher compliance rates and activity measures (ticketing, etc.)	Five final reports on individual projects issued; administrative and impact reports on a special youth demonstration to be prepared. No overall final report has been made.
3. Special Adjudication for Enforcement (SAFE)	The SAFE curriculum's crash reduction potential.	Project MIS, subsequent violation and crash history of project participants.	Annual and final reports on this ongoing experiment are planned. Three administrative adjudication reports or supplements issued in 1975-76-77, as required by the Congress.
4. Motor Vehicle Diagnostic Inspections	To demonstrate the consumer benefits of diagnostic inspection facilities.	Nine indicators, including feasibility and cost benefit (congressionally mandated).	One overall report; series of 22 State, contractor, and in-house studies; plus reports on 5 subareas. State reports on substitute inspection programs are also submitted.
5. Standard-Oriented Demonstrations	Various proposed standards in reducing accidents, injuries, and fatalities.	(Various)	Eight demonstrations in the following areas: 2 driver education improvement, 1 pedestrian safety, 2 motorcycle licensing and testing, 1 driver licensing, 2 traffic record (TEST) systems.

MAJOR PROGRAM/ SUBPROGRAM AREAS	OBJECTIVES	MAJOR PERFORMANCE INDICATORS	MAJOR EVALUATIVE PUBLICATIONS AND/OR ACTIVITIES
<p>MOTOR VEHICLE PROGRAMS</p> <p>A. STANDARDS DEVELOPMENT</p> <p>B. STANDARDS ENFORCEMENT</p> <p>C. DEFECTS INVESTIGATION</p>	<p>To develop motor vehicle performance standards to reduce deaths and injuries when an accident occurs.</p> <p>To assure automobile manufacturers comply with motor vehicle safety standards.</p> <p>To identify vehicle safety defects and ensure correction by automotive manufacturers.</p>	<p>Accidents, death and/or injuries prevented by each standard.</p> <p>Trends in compliance failure rates.</p> <p>Number of defective vehicles and recalls influenced by NHTSA.</p>	<p>Evaluation reports on 4 standards due during the last half of 1979. Methodology is being developed to evaluate 9 more standards.</p> <p>No single formal evaluation report has been made. Evaluative information can be found in 4 monthly, 1 semi-monthly, and 1 quarterly report/summary.</p> <p>An annual statistical listing of number of recalls started and number of vehicles recalled is listed in several NHTSA publications. A separate quarterly publication lists investigations in progress.</p>
<p>AUTOMOTIVE FUEL ECONOMY AND CONSUMER INFORMATION</p> <p>A. BUMPER DAMAGEABILITY STANDARD</p> <p>B. CONSUMER INFORMATION</p> <p>C. ODOMETER TAMPERING REGULATION</p> <p>D. AUTO FUEL ECONOMY CONSUMER</p>	<p>To develop bumper standards designed to reduce accident damage.</p> <p>To provide consumers with comparative information on vehicle damageability, crash-worthiness, repairability and insurance costs.</p> <p>To develop regulations to prohibit odometer tampering and to protect the used car purchaser against odometer fraud.</p> <p>To evaluate auto fuel economy performance.</p>	<p>Reduction of auto damage attributable to the bumper standard.</p> <p>-----none-----</p> <p>Reduction in odometer tampering.</p> <p>Reduction in auto fuel consumption in model years affected by the standards vs. earlier years.</p>	<p>Beginning about the end of fiscal year 1978, a survey of automobile owners whose cars suffered little or no damage in low-speed collisions is supposed to be undertaken.</p> <p>Not susceptible to evaluation in terms of effects on accidents, injuries, or fatalities.</p> <p>Some initial statistics on compliance rates have been obtained. These baseline figures can be compared with rates when enforcement is fully functional.</p> <p>A program is planned which will enable computations of in-use fleet mileage under actual driving conditions compared to fuel economy standards.</p>

MAJOR PROGRAM/ SUBPROGRAM AREAS	OBJECTIVES	MAJOR PERFORMANCE INDICATORS	MAJOR EVALUATIVE PUBLICATIONS AND/OR ACTIVITIES
OTHER ACTIVITIES			
1. Emergency Medical Service (EMS)	To develop and demonstrate an emergency care system in order to reduce the quantity of deaths caused by deficient care systems.	Courses pilot tested, acceptance by States, lives saved by proper treatment.	Six contracts have been let for development of a broad spectrum of EMS service and a report on recommended training and equipment for EMS personnel.
2. Motor Vehicle Inspection	To reduce accidents caused by vehicle failures.	Included in TSP/MIS.	Standard-related. Two reports issued on status of vehicles in use and relationship of defects to crashes.
3. Manpower Development	To assist States in producing better-trained traffic safety personnel.	Included in TSP/MIS.	Section of manual entitled "The Evaluation of Highway TSP."
4. Safety Belt Use	To determine how to motivate drivers and passengers to use their safety belts.	Restraint usage rates.	Evaluation of the Tennessee Child Restraint Law and Public Information Campaign. Evaluation is expected to generate an annual and final report.
5. National Driver Register	To reduce accidents by decreasing the risk of licensing hazardous and ineligible drivers.	Number of file inquiries and number of ineligible drivers identified.	Two reports on driver registration design or alternatives, as well as several reports with policy recommendations on data collection and on-line retrieval.
6. Pupil Transportation	To assist States in reducing the accidents and injuries of transported pupils.	Included in TSP/MIS, plus special features (e.g., bus driver educated).	Standard-oriented. School bus safety report (1/77). An ongoing evaluation of 12 excellent school bus programs is expected to produce a report highlighting the success elements of these programs.

APPENDIX VI

**PROGRAMS, OBJECTIVES, PERFORMANCE INDICATORS,
AND EVALUATIVE ACTIVITIES FOR THE
URBAN MASS TRANSPORTATION ADMINISTRATION**

MAJOR PROGRAM AREA	OBJECTIVES	MAJOR SUBPROGRAMS OR ACTIVITIES	MAJOR PERFORMANCE INDICATORS	MAJOR EVALUATIVE PUBLICATIONS AND/OR ACTIVITIES
<i>Capital Facilities Grants</i>	Maintain and improve mass transit systems and support new transit systems.	Bus and paratransit Existing rail modernization New rail starts	Ridership volume	See Technical Studies Grants below
<i>Formula Grants</i>	Provide grants to improve facilities and equipment or for operating assistance.		Ridership volume	See Policy Development and Program Evaluation below
<i>Technical Studies Grants</i>	<i>Overall</i> —Provide grants for technical studies; planning, engineering, and designing urban mass transit projects. <i>Specific</i> —Improve local transit programs, plans, projects and staff. Improve analysis of rail projects and alternatives. Increase Federal capability to assess quality of local applications and objectives.	Long-range planning Alternatives analysis and preliminary engineering Short-range planning State support program Special studies	Major projects: Alternatives Analysis (Prior to funding) Impact Evaluation (after completion) Minor Projects: Number of plans and organizations created	Completed: None In process: Wash, D.C., Miami, Florida, and Atlanta, Ga., Impact Studies
<i>Research Development and Demonstrations</i>	Conventional transit: Reduce lifecycle cost Improve performance/safety Support high risk R&D Support National priorities ----- Reduce transit time, increase transit coverage and/or reliability, improve vehicle productivity, improve service for transit dependent. ----- Evaluate all UMTA Programs	Technology Development and Deployment ----- Service and Methods Demonstration ----- Policy Development and Program Evaluation	Omitted from report— R&D activity ----- No program indicators Varies by project ----- None	R&D activity ----- 41 demonstration projects 14 completed; 27 in process ----- Section 5 Impact Study Increasing Transit Ridership: Seven Cities ----- In Process: Rail Modernization Grants Section 5 Update
<i>Managerial Training Grants</i>	Grants to train and upgrade capabilities of managers, technical, and professional individuals employed in mass transit.		Survey of manager advancement APTA committee review	None
<i>University Research and Training Grants</i>	Support university transit research responsive to Federal, State and local urban transportation problems.		No program indicators Varies by project	None
<i>Interstate Transfer Grants</i>	Fund capital facilities projects with funds formerly earmarked for highways.	Metro construction in D.C.		None
<i>Commuter Rail Operating Subsidies</i>	Absorb some ConRail losses.			None



THE DEPUTY SECRETARY OF TRANSPORTATION
WASHINGTON, D.C. 20590

Mr. Henry Eschwege
Director, Community and Economic Development Division
U. S. General Accounting Office
Washington, D. C. 20548

Dear Mr. Eschwege:

This is in response to your letter of October 2, 1978, requesting the Department of Transportation comments on the General Accounting Office draft report entitled "Evaluation in the Department of Transportation-- An Assessment."

I have enclosed two copies each of:

- (1) Department of Transportation Reply
- (2) Department of Transportation Recommended Changes

Thank you for the opportunity to comment on the report.

Sincerely,

A handwritten signature in black ink that reads "Alan Butchman". The signature is written in a cursive, slightly slanted style.

Alan Butchman

Enclosures (See GAO note.)

GAO note: The detailed/technical comments prepared by DOT have not been included in this appendix. However, these comments were considered in preparing this report.

DEPARTMENT OF TRANSPORTATION REPLYTOGAO DRAFT REPORT OF OCTOBER 1978ON"EVALUATION IN THE DEPARTMENT OF TRANSPORTATION--AN ASSESSMENT"SUMMARY OF GAO FINDINGS AND RECOMMENDATIONS

GAO reviewed evaluation activities in DOT--including both OST and the operating administrations--using FY 1976 and FY 1977 as the reference base. They concluded that the evaluation system in DOT primarily provides DOT program managers with information on operational and technical deficiencies of Departmental programs.

The GAO report recommends that DOT's evaluation system should strive also for a flow of information to other levels of decision making. In order to do this, more attention will need to be given to developing (1) guidelines for establishing a formal evaluation process within the operating administrations, (2) a means for more adequately clarifying program goals and objectives, and (3) a systematic planning process which allocates evaluation resources to major policy issues.

SUMMARY OF DEPARTMENT OF TRANSPORTATION POSITION

DOT is in general agreement with the GAO report, and believes that GAO did an excellent job in providing an overview of current DOT evaluation activities. DOT has recognized the need to enhance Departmental program management through the introduction of a formal evaluation process, and this was a primary objective of the 1977 reorganization of the Office of the Secretary.

The GAO report notes that DOT is in the process of developing a Departmental Program Monitoring and Evaluation System (PMES), and states: "It appears to GAO that establishment of PMES has the potential of improving DOT evaluations to satisfy unmet needs noted by GAO in its review."

POSITION STATEMENT

DOT considers the GAO points valid. As indicated above, DOT is moving to improve this situation.

(97309)

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