

ISTEA - Proposed National Highway System - 12-93

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REPORT TO CONGRESS ON THE
PROPOSED NATIONAL HIGHWAY SYSTEM
REQUIRED BY SECTION 1006(a) OF
INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT OF 1991
PUBLIC LAW 102-240

UNITED STATES DEPARTMENT OF TRANSPORTATION
DECEMBER 1993

**Report to Congress
UNITED STATES DEPARTMENT OF TRANSPORTATION PROPOSAL
FOR A NATIONAL HIGHWAY SYSTEM**

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REPORT TO CONGRESS ON THE PROPOSAL FOR A NATIONAL HIGHWAY SYSTEM

EXECUTIVE SUMMARY

Pursuant to Section 1006(a) of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), the U.S. Department of Transportation (DOT) proposes a National Highway System (NHS) of nearly 159,000 miles (about 256,000 kilometers). Specific legislative language, to enact the NHS and continue the intermodal integration of the NHS, is included in this report. This NHS is the first major component of a larger fully coordinated and integrated National Transportation System (NTS) that will meet the evolving transportation needs of the Nation as we enter the 21st century.

The NTS will have as its goal the creation of a unified, interconnected system of modal facilities and services that accommodates national and regional transportation demands, both freight and passenger. This NTS will embrace the principles of the ISTEA which encourage those investments which innovatively address transportation needs, support national defense, enhance the quality of life, promote economic development, and support commerce crucial to our national economic growth and our competitive posture in a global economy.

The NTS will be developed by the DOT beginning early next year through an extensive outreach process that will involve collaboration with the Congress and States, local government organizations, and other public and private organizations. As a first step the process will focus on the resources of our partners and on innovative solutions to existing and emerging infrastructure issues.

Within this NTS context, the rationale for designation of an NHS is to focus Federal attention on a subset of the Nation's 3.9 million miles (6.3 million kilometers) of public roads, namely, that portion which serves and will continue to serve both a large percentage of the Nation's highway travel and associated strategic priorities; and to place emphasis on connections from the NHS to major military installations, border crossings, airports, water ports, and rail-highway transfer facilities. The proposed NHS is mostly existing highways; less than 2 percent is new mileage with such new mileage based on existing State plans and/or on existing implementation activity. The NHS including connections to intermodal facilities provides a significant step in defining the NTS.

Development of the NHS proposal has been coordinated among all modal administrations within the DOT and with all State transportation agencies. The State Departments of Transportation coordinated their NHS development work with Metropolitan Planning Organizations (MPOs), Regional Planning Agencies, Indian tribal

governments, other State agencies, and local officials. These efforts ensured the definition of an integrated NHS and the Nation's major intermodal facilities through a broad-based participatory process.

The proposal will advance the development of initiatives that incorporate modern safety and operational features appropriate to the function of each portion of the system and consistent with expected volumes, traffic mix, and speed. The NHS will support the incorporation of Intelligent Vehicle Highway System (IVHS) advanced technologies, including those from defense research. The proposal will also allow flexibility to add sections (e.g., to accommodate new connections with major intermodal facilities) and to delete sections that are no longer considered a priority. It will allow the flexibility to respond to future changes that will inevitably occur. Such needs could include facilitating economic growth and responding to national emergencies.

Subsequent to designation, the DOT will work with the Congress and States, local government organizations, and other public and private organizations to develop or refine, as appropriate, existing goals, policies, standards, and guidelines relating to the performance, operation, maintenance, and special identification of the NHS.

As envisioned, the NHS will become the Nation's premier highway system which will connect with other modes of transportation. As a logical post-North American Free Trade Agreement step, designation will begin to make an immediate contribution to advancing North American trade and to promoting travel and tourism. The other principal contributions will be to facilitate sustainable economic growth by enhancing intermodal and highway system connections, improving productivity and efficiency of commercial vehicle operations, advancing safety, alleviating congestion, supporting the national defense, and improving system performance. While serving national productivity goals, the NHS will, at the same time, enhance local community values and quality of life.

REPORT TO CONGRESS ON THE PROPOSAL FOR A NATIONAL HIGHWAY SYSTEM

I. INTRODUCTION

The Secretary of Transportation was required by the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, (Public Law (P.L.) 102-240) to submit, to the Committee on Environment and Public Works of the Senate and to the Committee on Public Works and Transportation of the House of Representatives, maps and listings of a proposed National Highway System (NHS). This report was prepared to accompany the maps. The purpose of the report is to provide an explanation of how the U.S. Department of Transportation (DOT) arrived at the recommended system, to describe the features of the system, to emphasize the general benefits of an NHS, to recommend legislative language to establish the system and, finally, to provide information about the NHS related to a request in the Senate Appropriations Committee Report 103-150 on the 1994 DOT Appropriations bill.

The report focuses on the establishment of the NHS and does not propose changes in the programs established by ISTEA. The DOT believes that program aspects of the NHS should be considered in the context of the total Federal-Aid Highway Program. Thus, this report does not address changes, such as revision in the distribution of funds and changes in NHS project eligibilities.

A significant aspect of the NHS proposal is its relation to a National Transportation System (NTS). The ISTEA declared that it was the policy of the United States to develop an NTS. The identification of the NHS and intermodal connections is an important first step in achieving the goal of an efficient, cost-effective and integrated NTS.

An NTS will advance the smooth flow of people and goods. In developing this NTS, the DOT will build upon the ISTEA themes and, in particular, the public-private partnership. This public-private partnership approach is essential since many modal and intermodal facilities (e.g., railroads, ports, interstate bus service, pipelines, and rail-highway transfer facilities) are owned and/or operated by the private sector. The DOT, beginning early next year, envisions developing a collaborative and consultative process with customers and users of the transportation system to identify and address intermodal and multimodal issues. From this customer/user perspective, important specific institutional, legislative, regulatory, and other considerations will be identified and an appropriate course of action will be determined.

Since the NHS including the intermodal connections are an important step in the eventual development of the NTS, this report focuses not only on the importance of the NHS to highway transportation but also places the NHS in the context of the overall transportation system in the United States.

II. LEGISLATIVE MANDATE

Section 1006(a) of the ISTEA directs the Secretary of Transportation to submit for approval, a proposed NHS to the Committee on Environment and Public Works of the Senate and to the Committee on Public Works and Transportation of the House of Representatives by December 18, 1993. According to the ISTEA, the intended purpose of the NHS is:

"to provide an interconnected system of principal arterial routes which will serve major population centers, international border crossings, ports, airports, public transportation facilities, and other intermodal transportation facilities and other major travel destinations; meet national defense requirements; and serve interstate and interregional travel."

The ISTEA states that the NHS is part of the National Intermodal Transportation System (referred to as the NTS in this report), which is to include other modes of transportation in a unified, interconnected manner as well as the transportation systems of the future.

As stated in Section 1006(a) of the ISTEA, the NHS is to be limited to 155,000 miles (249,448 kilometers), with allowance to increase or decrease this amount by 15 percent. The NHS is to include:

- a. the Interstate System (including mileage added pursuant to Title 23, U.S.C. 139),
- b. other principal arterials, both urban and rural, and highways providing access to major intermodal facilities (e.g., ports, airports, public transportation, railroad terminals),
- c. the Strategic Highway Network (STRAHNET) and major STRAHNET connectors important for the essential movement of defense-related personnel, materials, and equipment, and
- d. high priority corridors specifically identified in Section 1105(c) of the ISTEA.

The ISTEA also states that an illustrative map submitted by the Secretary of Transportation to Congress in 1991 is to serve as a basis for the States in proposing arterials and highways for designation.

Section 1006(c) of the ISTEA also required the States to complete a functional reclassification of all public roads and streets, and the Secretary to approve the reclassification made by the States and submit a report to Congress containing the reclassification. The Secretary transmitted this report to the Congress in December 1993. Functional classification is a means of identifying the relative importance of streets and highways. The national reclassification mandated by the ISTEA identified rural and urban principal arterials eligible for the NHS. A summary of the results of the reclassification is provided in Section IV. B., "Development of State NHS Recommendations."

III. BACKGROUND

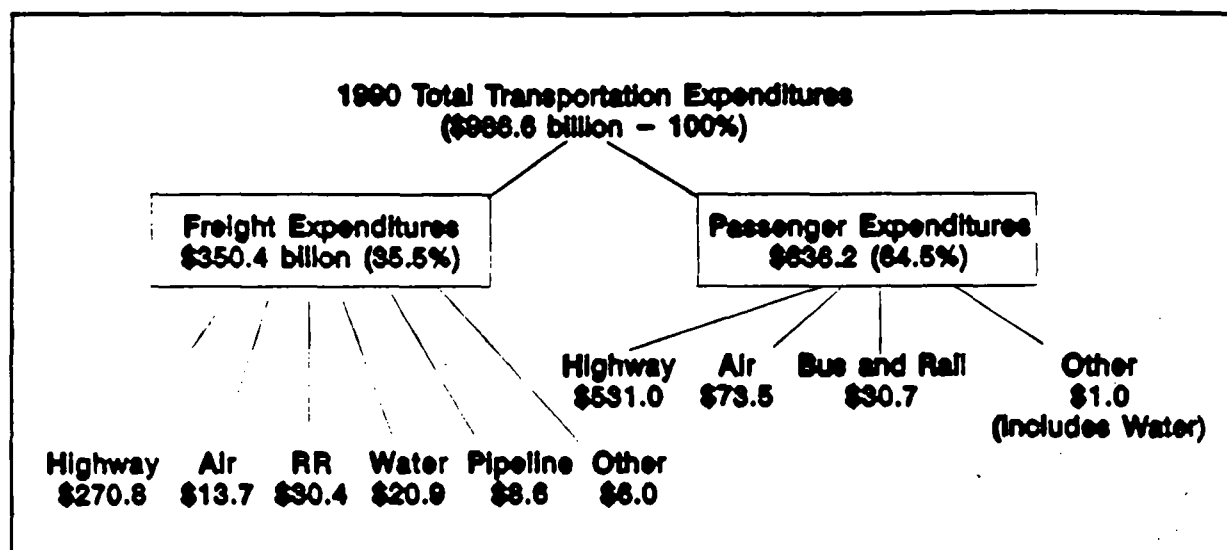
A. TRANSPORTATION AND THE ECONOMY

The movement of people and freight is of critical importance to the economic well-being of the United States. Our national productivity depends on fast and reliable transportation. As a Nation, we spend over \$986 billion annually on transportation services, the equivalent of over 17 percent of the gross domestic product (GDP). The cost of these services includes user expenses such as vehicle operating, transit fare, and accident costs.

In virtually every sector of our Nation's economy, productivity depends on adequate transportation services. This is nowhere more important than in the area of freight transportation, where expenditures exceed \$350 billion annually, more than 6 percent of GDP. Over 40 percent of freight ton-mileage is carried over our highways. New manufacturing processes emphasizing just-in-time delivery of inventory place a premium on fast, frequent, and dependable transportation, a goal met by the speed and flexibility of highway freight transport.

Highways are also important for transporting people, with total expenditures for passenger travel exceeding \$636 billion annually. In 1990, over 80 percent of intercity passenger miles of travel occurred on United States roads and streets, more than four times the amount by air, the second most frequently used mode of intercity travel.

This information regarding transportation service relationships, which was derived from an ENO Transportation Foundation, Inc. report entitled, "Transportation in America: 1992, 10th Edition," is shown in the following figure:



B. HISTORICAL PERSPECTIVE OF THE FEDERAL-AID HIGHWAY PROGRAM

Concentrating Federal assistance on roads that are important in carrying out national objectives has been a characteristic of the Federal-Aid Highway Program since 1921. The Federal Highway Act of 1921 signaled the beginning of substantial Federal involvement in the provision of financial assistance to States for road building. This early legislation was designed to ensure an interconnected system of interstate and intercounty roads. The system was to be designated by the States, under consultation with the Bureau of Public Roads (BPR, the predecessor agency to the Federal Highway Administration (FHWA), was then a part of the U.S. Department of Agriculture). The system was limited to 7 percent of total existing rural road mileage. The focus of Federal assistance on these routes resulted in the development of an integrated, interstate network of improved highways.

As the Nation changed, this first system was no longer able to serve total travel needs, including commerce, personal travel, and defense. By the 1930s, travel had grown such that the existing Federal-aid system was deemed inadequate, especially for longer distance travel. As the need for interregional facilities became evident, the concept of an interstate highway system gradually took shape. The 1939 report "Toll Roads and Free Roads," recognized the impracticality of nationwide toll

financing but advocated a national system of access-controlled roadways to serve mostly commercial purposes. By 1941, President Roosevelt had appointed a National Interregional Highway Committee to recommend a limited system of national highways. The system was intended to improve interregional transportation and to use some of the manpower and industrial capacity available at the termination of World War II. The Committee's 1944 report recommended a system of 33,920 miles (54,589 kilometers).

The Federal-Aid Act of 1944, using the report of the National Interregional Highway Committee as a basis, provided for a national system of interstate highways. This national system was not to exceed 40,000 miles (64,374 kilometers) in length, and was to be designated by the joint action of the State highway departments and the BPR. The resulting system was to "connect by routes, as direct as practicable, the principal metropolitan areas, cities and industrial centers, to serve the national defense, and to connect at suitable border points with routes of continental importance in the Dominion of Canada and the Republic of Mexico."

Little progress was made on the system until President Eisenhower signed P.L. 84-627, the Federal-Aid Highway Act of 1956. This Act authorized creation of the Highway Trust Fund, dedicated an increased Federal motor-fuel tax to the Fund, established a Federal matching ratio of 90 percent for work on the Interstate System, and authorized increased funds for Interstate construction. In fact, while the 1955 Interstate authorization was only \$25 million, the 1957 authorization was \$1.2 billion. The provisions of the 1956 Act reflected the desire to boost the national economy and bolster national defense. Thus began the era of Federal-Aid Interstate System construction.

For the next 30 years, the Interstate System was the centerpiece of the Federal-Aid Highway Program. From 1957 through 1995, about \$115 billion, representing 33 percent of total Federal-aid funding, has been authorized for Interstate construction. The Federal-Aid Highway Act of 1976 provided funding for the resurfacing, restoration, and rehabilitation (3-R) of the Interstate System. The Federal-Aid Highway Act of 1981 expanded the Interstate 3-R program to a 4-R program, with the addition of reconstruction as an eligible activity. The ISTEA retained much of the language of the previous Interstate 4-R legislation, but changed the name to the "Interstate Maintenance Program." About \$43 billion has been authorized for 3-R, 4-R, and Interstate Maintenance for fiscal years (FYs) 1977-1997 representing about 15 percent of total Federal aid authorized during this period.

In 1966, when more than half of the Interstate mileage had been completed, the Interstate carried over 99.3 million vehicle miles of travel (VMT) which was 11 percent of the national VMT. Today,

the Interstate carries more than 22 percent of the Nation's traffic, and 40 percent of the Nation's heavy truck traffic on only 1 percent of the Nation's total road and street mileage. The Interstate System currently serves the 48 contiguous States, Alaska, Hawaii, the District of Columbia, and Puerto Rico. Indeed, the Interstate System had become recognized as the Nation's "Main Street," connecting 286 of the 366 cities with populations over 50,000 (1980 Census) and 45 of the 50 State capitals, as well as Washington, D.C.

C. THE NHS CONCEPT AND RATIONALE

In the late 1980s, the FHWA and transportation associations such as the American Association of State Highway and Transportation Officials (AASHTO) began assessing U.S. highway transportation to chart the direction of the future Federal-Aid Highway Program.

These assessments revealed a number of concerns:

- Some areas, primarily due to demographic and land use changes, were underserved by existing facilities,
- New trends in production and distribution technology created unmet transportation needs for some portions of national commerce,
- Congestion, generated by growth in number of vehicles and VMT, was adversely affecting national productivity and competitiveness,
- Connections between highways and facilities such as major ports and airports were inadequate in many instances,
- Highways did not adequately serve some emerging international trade corridors,
- The highway system needed to serve defense movements more effectively in a national emergency,
- Highway-related injuries and fatalities, although declining, were continuing to exact an unacceptable toll on the well-being of the Nation, and
- Community values and quality of life concerns were becoming ever more important in the evaluation of alternatives to improve transportation.

Out of these concerns arose the concept of an NHS, grounded in the desire to focus limited Federal assistance on strategic investments, with a goal of overall system efficiency and performance.

D. CONGRESSIONAL REQUEST FOR ILLUSTRATIVE NHS

In the spring of 1990, in response to a request from the House Committee on Public Works and Transportation, the FHWA began working with AASHTO, the National Association of Regional Councils (NARC), individual State transportation agencies, and metropolitan planning organizations (MPOs) on the structure of an NHS. A process was developed for identifying a preliminary NHS consisting of those roads having the highest level of national significance, serving the Nation's principal cities and major manufacturing centers, supporting national defense needs, and fostering connectivity with other modes.

The FHWA, in consultation with the States and MPOs, developed an illustrative NHS. In February 1991, the illustrative system was sent to the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works. The illustrative NHS served as a resource for deliberations by Congress and, thus, eventually led to the provision found in Section 1006(a) of the ISTEA requiring the Secretary of Transportation to submit a proposed NHS to Congress.

IV. PROCESS

Development of the proposed NHS was carried out by the DOT through the FHWA in cooperation with the States. The stages of the process overlapped to some extent but can be divided into three parts: 1) the illustrative system, 2) development of State recommendations for the NHS, and 3) FHWA development of the final NHS proposal.

A. THE ILLUSTRATIVE SYSTEM

The illustrative system served as the foundation for the NHS. The FHWA and the States cooperatively developed this preliminary system based on criteria of efficiency, connectivity, and equity among States. State and local officials were actively involved in the process, especially in the identification of routes.

Efficiency, Connectivity, and Equity

The FHWA determined that traffic volume, service to destination points, and interstate, intrastate, and interregional connectivity were useful initial indicators of efficiency. These indicators were to become analytical criteria for including

individual routes in the illustrative system. Another important element was attainment of mileage equity among States and between urban and rural areas.

Road density (miles of road per square mile of land area), travel density (VMT per mile of roadway), and percentage of statewide travel served, were the major factors used to achieve rural mileage equity among the States.

To achieve mileage equity in urbanized areas, the FHWA analyzed several proposed systems submitted by States and MPOs representing urbanized areas of varying sizes. The FHWA analyzed the ability of these systems to connect with important interstate and intrastate routes and to serve major traffic generators within the urbanized areas. Based upon this analysis, the FHWA identified an NHS urban mileage target of 6 percent of total urban road and street mileage. This provided an equitable system for all States and provided travel service consistent with the rural component.

Route Identification

Cooperation among the States over many years had resulted in generally recognized interstate and interregional routes that connected across State borders. However, in a few cases, inconsistencies between States existed. The FHWA consulted with the States and made determinations of routes to be included based on considerations such as traffic volumes, connectivity and service to destinations as well as inclusion of routes in existing State long-range plans.

These consultations involved numerous meetings that included State and other officials, e.g., municipal, county and Indian tribal governments. Specific rural routes were included on the national map of the illustrative system. Urban routes, other than urban Interstates, were not identified on the national map, but in many areas, local maps or listings were created and eventually used in the development of the NHS. This process yielded the illustrative NHS which was submitted to Congress.

B. DEVELOPMENT OF STATE NHS RECOMMENDATIONS

Section 1006(a) of the ISTEA directed the Department to use the illustrative system as the starting point for developing the proposed NHS. The instructions provided to the States clearly established the illustrative system as the benchmark for mileage, but allowed additional routes to be submitted for consideration with supporting justification.

Functional Reclassification

Section 1006(c) of the ISTEA also required the States to complete a functional reclassification of all public roads and streets and required the Secretary of Transportation to use the functional reclassification in preparing the proposed NHS. The previous comprehensive national reclassification had been completed in the mid-1970s.

Reclassification was important for the NHS designation process because it identified roads eligible for designation as NHS routes. Generally, as specified in the ISTEA, only principal arterials are eligible as NHS routes.

Functional classification groups roads and streets into three basic categories--arterial, collector and local. The basic principle in classifying highways is that roads serve two functions or purposes: moving traffic and providing access to adjacent land use. Although most roads serve both functions, classification is determined by the degree to which one function predominates.

While local roads provide the most local land access, arterials carry the most traffic. The function of arterials is to move large numbers of persons, goods, and vehicles quickly from one place to another. They are characterized by long-distance travel, high traffic volumes, higher speeds, and generally are constructed to higher design standards than are other routes. Principal arterials are the most important of the roads classified as arterials.

The reclassification was carried out by the States in cooperation with local officials. The results of the reclassification were reported to Congress in December 1993. The following table summarizes the results.

1993
**National Summary of Mileage/Kilometers
 and Travel by Functional Highway System
 (Includes Puerto Rico)**

Functional System	Miles/ Kilometers	Cumulat. Percent of Total	Vehicle Miles/Km of Travel (millions)	Cumulat. Percent of Total
<u>RURAL AREAS</u>				
Interstate	32,592	1.0	198,644	22.8
	52,452		319,687	
O. Principal A.	97,348	4.2	196,377	45.4
	156,666		316,038	
Minor Arterial	139,146	8.6	149,899	62.6
	223,934		241,239	
Major Collector	434,684	22.5	179,176	83.2
	699,556		288,356	
Minor Collector	284,187	31.6	48,447	88.8
	457,355		77,968	
Local	2,132,326	100.0	97,325	100.0
	3,431,646		156,629	
Rural Total	3,120,283	100.0	869,870	100.0
	5,021,609		1,399,920	
<u>URBAN AREAS</u>				
Interstate	13,034	1.6	305,149	21.8
	20,976		491,090	
O. Principal A.	64,111	9.6	512,271	58.3
	103,177		824,420	
Minor Arterial	86,779	20.4	275,528	77.9
	139,657		443,419	
Collector	85,547	31.0	118,287	86.3
	137,675		190,364	
Local	554,076	100.0	191,313	100.0
	891,699		307,888	
Urban Total	803,547	100.0	1,402,548	100.0
	1,293,184		2,257,182	
National Total	3,923,830	---	2,272,418	---
	6,314,792		3,657,102	

Note: Vehicle miles/kilometers traveled in 1991; columns and rows may not sum exactly because of rounding; O. Principal A. means other (non-Interstate) principal arterials; Urban Areas are areas defined by the U.S. Department of Commerce, Bureau of the Census as having more than 5,000 population.

State Process

The States, in cooperation with officials from other units of government, developed their proposed systems using the illustrative system as a starting point. The functional reclassification also served to set limits on the routes that the States could incorporate into their recommended systems. Since the functional classification was due from the States at the end of 1992, and the NHS recommendations were due from the States on April 30, 1993, the two efforts were conducted simultaneously in many States. During NHS development States and other officials were carrying out planning activities while actively considering implications of Federal rulemaking activity on the statewide and metropolitan transportation planning processes established by the ISTEA. Thus, officials involved with the designation proposals were able to rely on interactive networks used in coordinating the overall planning processes.

Involvement of State and Other Officials

Opportunities for active involvement by State and other officials throughout the development of the proposed NHS was an important objective of FHWA. While emphasizing the importance of such involvement, the FHWA did not prescribe specific procedures for the States to follow. Instead, the States were able to use approaches that best suited their individual needs and situations.

This approach proved successful. The FHWA conducted a special survey of the role of this involvement. Based on this survey, the FHWA found that MPOs played an important role in developing the proposed systems in all States. Involvement varied from commenting on routes proposed by the State to actual identification of a proposed system or of candidate routes. Although required neither by the ISTEA nor by the FHWA, in over 30 States every MPO endorsed/approved the State submitted NHS.

Approaches to involve officials in non-metropolitan areas (e.g., municipalities, counties, Indian tribal governments) also varied from State to State. In some cases, State officials met with individual officials or groups of officials to discuss the proposed system and obtain input. In other cases, the State sent information about the NHS to officials and requested comments. In some States, legislative action established advisory boards or adopted State transportation plans relating to the NHS. Furthermore, public hearings or meetings were held in a number of States. Based on the responses to the survey and information provided with the State submissions, the FHWA determined that in each State there were substantial opportunities for the MPOs and other officials to provide input during the development of the proposed NHS. Moreover, a high overall level of involvement was achieved.

State Submissions

In June 1992, the FHWA requested that States submit recommended systems by April 30, 1993, based on rural and urban mileage targets. All States submitted recommended systems, including appropriate maps, mileage summaries, and listings of routes, as requested.

The basic systems submitted by the States totaled almost 146,500 miles (almost 235,800 kilometers)--about 3,400 miles (about 5,500 kilometers) less than the total rural and urban mileage targets. This smaller basic system resulted from several States, particularly California and Florida, proposing urban components significantly less than their target mileage.

At the same time, the States were given an opportunity to submit, for consideration, additional principal arterial routes that exceeded their assigned mileage targets. Ultimately 43 States took advantage of this opportunity and proposed additional routes totaling about 15,000 miles (about 24,000 kilometers), over and above the 146,500 mile (about 235,800 kilometers) basic system.

C. DEVELOPMENT OF THE FINAL NHS PROPOSAL

Subsequent to receipt of the States' submissions, the FHWA evaluated these recommendations in relation to the criteria and objectives contained in Section 1006(a) of the ISTEA. Careful consideration was given to each State's rationale for including routes that exceeded the mileage targets, system equity among the States, STRAHNET routes, connectivity of routes, existing and emerging trade corridors with Canada and Mexico, the high priority corridors identified in Section 1105(c) of the ISTEA, as amended, and intermodal connections.

Working with the State submissions, the FHWA identified a draft recommended system which was discussed with State officials at the AASHTO Annual Meeting in October 1993. These discussions, which were held with officials from virtually every State, resulted in some additional adjustments to achieve greater conformity with State highway plans. Thus, the final proposed system reflects the results of a continuing process of consultation with the States.

State Rationale

States, as requested, provided justification for routes that exceeded their assigned mileage targets. This included information on routes serving recreational travel and tourism, new routes or routes planned for major improvements in existing State plans, corridors in which substantial economic growth was

expected, routes traveled by larger trucks, and routes serving major employers. This information was, in some cases, critical in evaluating proposals.

Mileage Equity

Considerable attention had been given to the objective of system equity in defining the process for allocating mileage to the States; this remained a major focus in developing the final proposed system. In arriving at the final proposed system, the FHWA attempted to ensure that the NHS mileage within each State was consistent with other States with similar characteristics.

Although the total basic mileage of about 146,500 miles (about 235,800 kilometers) proposed by all States was well below the ISTEA's upper limit of 155,000 miles (249,448 kilometers) plus 15 percent, the FHWA determined that system equity would be compromised by including all additional routes submitted by the States on the final proposed system. The FHWA concluded, however, that about 12,200 miles (about 19,600 kilometers) of the nearly 15,000 miles (about 24,000 kilometers) proposed by the States should be included to fully meet NHS objectives and to achieve system continuity. The final proposed system reflects these adjustments.

STRAHNET

As required by Section 1006(a) of the ISTEA, the final proposed NHS includes the STRAHNET and major STRAHNET connectors. These routes were identified over a 3-year period by the Department of Defense, Military Traffic Management Command (MTMC), and the FHWA, in consultation with the State highway/transportation agencies. The STRAHNET routes and major STRAHNET connectors included on the proposed NHS are consistent with the base relocations and closures approved by the President and the Congress through November 1993.

The routes identified in the 61,000-mile (98,170-kilometer) STRAHNET includes the Interstate System and about 15,500 miles (about 25,000 kilometers) of other arterial routes. These routes are listed in the report entitled, "Strategic Highway Corridor Network," (MTMC Report SE 89-4b-27, as amended). In addition, there are nearly 2,000 miles (about 3,200 kilometers) of major STRAHNET connectors which serve all priority one and two military installations. These are listed in the report entitled, "STRAHNET Connector Atlas" (MTMC Transportation Engineering Agency Report SE 89-4b-59, as amended).

System Connectivity

The importance of an interconnected system was stressed in FHWA's instructions to the States. Each proposed route was carefully evaluated by FHWA to ensure system connectivity, particularly at State lines.

Trade Corridors with Canada and Mexico

In developing the proposed NHS, the FHWA gave substantial attention to including significant trade routes linking the United States with Canada and Mexico. Specifically, the proposed NHS connects with the Canadian National Highway System at U.S./Canadian border crossings and with major north-south corridors leading into the heartland of Mexico at U.S./Mexican border crossings. In addition, the proposed NHS connects with nonborder ports of entry such as major ports and airports.

High Priority Corridors

The final proposed NHS includes the 21 high priority corridors specified in Section 1105(c) of the ISTEA, as amended by Section 351 of P.L. 102-388 (the 1993 DOT and Related Agencies Appropriations Act enacted October 6, 1992). Specific alignments are shown for most of the corridors; however, a few are not specifically identified pending the completion of feasibility studies required by Section 1105(h) of the ISTEA. These include the East-West Transamerica Corridor; a portion of the Corridor from Indianapolis, Indiana to Houston, Texas; a portion of the Heartland Expressway from Rapid City, South Dakota to Denver, Colorado; and a portion of the I-73/74 North-South Corridor from Charleston, South Carolina to Detroit, Michigan.

Intermodal Facilities and Connections

Based on the statutory language of the ISTEA, two important factors emerged in the consideration of intermodal NHS connectors.

- a. NHS routes that are intermodal connectors need not be classified as principal arterials.
- b. Intermodal facilities connected to the NHS must be major facilities.

The FHWA instructions to the States issued in June 1992 did not define "major." The FHWA determined that the States and the MPOs, who were engaged in carrying out the planning activities required by the ISTEA, were in the best position to decide which intermodal facilities were major. However, when the maps were submitted, the results of this effort were not sufficiently consistent to warrant final designation of specific connectors to

major intermodal facilities as a part of the proposed NHS. Some States and MPOs gave considerable attention to identifying water ports, airports, etc., and providing access where appropriate. Others gave less attention to this subject.

There were several reasons for this. One was that, as noted above, the FHWA had not established a definition of the word "major." Another was that the illustrative NHS had not emphasized intermodal terminals. Still another was that the statewide and metropolitan planning processes were, in some cases, just beginning to come to grips with intermodal issues.

Consequently, the FHWA, in cooperation with other DOT modal administrations and with the private sector, established a preliminary list of facilities sufficiently important to be illustrated in the NHS presentation required by the ISTEA. These facilities are described in Section VII. B., "System Summary."

Notwithstanding the illustrations on the maps, the DOT does not intend for the maps to imply that access routes will be limited to those which connect these specific facilities, nor that access must be identified for each and every illustrated facility. Instead, as discussed in Section VII. B., "System Summary," the DOT proposes that the States, in cooperation with MPOs and other officials, be required to identify major intermodal facilities and appropriate access based on criteria established by the DOT. Because the NHS connections with other modes of transportation are important to the concept of an NTS the FHWA considers this additional requirement necessary.

Finally, the DOT recognizes that periodic review of intermodal facilities is a function of the continuing statewide and metropolitan planning process (including development of intermodal management systems and attention to environmental and other considerations) required by the ISTEA. Proposed legislative language in Section VIII., "Legislative Language to Enact the NHS," allows for this periodic review as well as the initial identification of major intermodal facilities and appropriate access.

V. ECONOMIC BENEFITS OF AN NHS

Although the NHS will have numerous benefits (including improving landside access to ports, advancing trade and tourism, improving safety, etc.), the benefits most universally delivered to the customers and users of the NHS will be the economic benefits. The economic benefits of highway improvements include transportation time savings, enhanced safety, and vehicle operating cost reductions (through reduced vehicle wear and tear and through fuel savings). In addition to these benefits, highway

improvement programs leading to improved system performance increase the efficiency with which goods are moved. This leads directly to reductions in the cost to provide transport services. Particularly in highly competitive markets such as the trucking industry, these cost savings are passed along to shippers, who in turn pass these savings on to consumers in the form of lower costs for goods and services.

More indirectly determined are the benefits attributable to quality transportation services which are a necessary condition for businesses and consumers to improve the efficiency of their activities. Low-cost, reliable, and flexible transport enables firms to minimize overall logistics costs, adopt just-in-time control systems, and design distribution systems which maximize their production and marketing capabilities.

The NHS reflects changes in our economic geography, population centers, manufacturing centers, and distribution systems since the Interstate System was laid out in 1944. Throughout the era of Interstate design and construction, highways facilitated strong interstate and interregional linkages among the economic centers of the Nation in ways unforeseen by their originators. This "connectivity" facilitated the rapid economic growth experienced in this country throughout the last 30 years. However, rigorous international competition and new industrial processes and priorities in this country have occurred since the 1950s.

In recognizing future travel and trade patterns and the needs which have evolved beyond those that drove the design of the Interstate, the NHS will strengthen sustainable economic growth and integration of the Nation in the century ahead. Designation of the NHS is an important step in responding to both today's and tomorrow's needs.

Major U.S. employers attest to the importance of highway transportation to their business operations. For example, representatives of retail, industrial, and other employers stress their need for a predictable, consistent, and reliable delivery system, and their specific use of highways to meet this need. They rely on highways to allow the use of modern management techniques; to use intermodal options (such as shipping containers via rail for long, line haul portions of trips); to maintain reliability; to control costs and improve productivity; to attract quality employees; to serve new customers and markets; and to maintain and increase employment, production, and service.

Physical infrastructure is but one essential element of the transportation system. The increasing trend on a global economy, exemplified by the North American Free Trade Agreement (NAFTA), illustrates the need for integration of the U.S. transportation network with that of neighboring countries and other inter-

national markets. In order to adapt to these trends, the NHS integrates the Nation's highway system with the highways of Canada and Mexico, and strengthens links with major ports, airports, public transportation facilities, and other major intermodal facilities. This ultimately will maximize national productivity and international competitiveness by providing industry with the opportunity to use intermodal suppliers, and to eliminate existing barriers to intermodal exchange.

To both employers and highway users, a critical problem is that of congestion and associated loss of time. The concentration of Federal aid on the most important highways provides the opportunity to reduce traffic congestion at key points by targeting current and projected bottlenecks. Using a systems management approach, decisions will take into account various alternatives, such as IVHS, incident management programs, ridesharing strategies, or congestion pricing, to maximize capacity on the NHS.

Since transportation plays a central role in the Nation's economy, designating a premier highway system to be consistent with the needs of employers and employees and those of suppliers and customers, will improve the delivery of goods and, in turn, provide opportunities to improve American productivity and competitiveness into the 21st century.

VI. STRATEGIC AND EMERGENCY PREPAREDNESS IMPLICATIONS

The dramatic geopolitical changes that have occurred during the past few years have caused significant revisions in our national military strategy. As the United States withdraws many of its forces from overseas bases, the Department of Defense (DOD) will rely more on forces stationed in the continental United States. Mobilizing and rapidly deploying these forces to ports of embarkment, in response to overseas crises, are critical to our defense posture. The importance of this rapid response was clearly evident during Desert Shield/Desert Storm. Evolving defense strategies around the world will continue to place unique demands on our transportation system, particularly on some of our highways. The Interstate System has provided the backbone for supporting our defense requirements in the past, and it will continue to do so in the future. However, there are some critical gaps in the system from a strategic, military standpoint. Consequently, the DOD has identified a system of interconnected routes, including the Interstate System, known as the STRAHNET. The STRAHNET is a key element of the NHS.

The DOD estimates that half the equipment tonnage required to support a full-scale mobilization of active and reserve forces would be moved over the STRAHNET and its connectors, which are

components of the NHS. In addition to defense mobilization, the NHS also serves as a network of emergency evacuation routes to respond to natural disasters such as hurricanes, tornados, floods, fires, volcanic eruptions, and earthquakes.

VII. RECOMMENDATIONS

A. RECOMMENDED SYSTEM

The DOT recommends that Congress approve an NHS as represented by the national and State maps transmitted with this report and as supplemented by urbanized area maps and route listings to be submitted by February 1, 1994. Although the proposed NHS is the product of a careful deliberative process involving the FHWA, the States, MPOs and others, some refinements may be necessary after the submission to Congress to reflect minor changes and adjustments for various reasons. Accordingly, the FHWA intends to periodically update the maps, as warranted, for the Senate Committee on Environment and Public Works and the House Committee on Public Works and Transportation after the submission to the Congress.

The DOT further proposes that subsequent to initial designation, flexibility be given to the Secretary to adjust the system to accommodate future needs, such as for new facilities, arising in response to changes or shifts in population, defense logistics, intermodal transportation demands, patterns of international and domestic commerce, and changed community priorities. In view of these changing needs for NHS routes, the DOT recommends that the Secretary be given authority to approve additions and deletions to the NHS as long as total NHS mileage does not exceed 165,000 miles (265,542 kilometers).

B. SYSTEM SUMMARY

The NHS as proposed consists of nearly 159,000 miles (about 256,000 kilometers) and is summarized below in terms of mileage, intermodal facility connections, and other characteristics.

Mileage

The NHS is made up of the Interstate System, the STRAHNET (about one-fourth of which is not on the Interstate System), and other highways. About 98 percent of the NHS is on facilities already serving traffic. New mileage is either on existing State plans and/or is in some stage of implementation, such as design, right-of-way acquisition, or construction. The distribution of the NHS by type and ownership is described in the following table:

Characteristics	Mileage	Kilometers
By Type		
Interstate Highways	45,493	73,213
STRAHNET (Non-Interstate)*	15,500	25,000
STRAHNET Connectors*	2,000	3,200
Other NHS Routes*	96,000	154,500
By Location		
Urban*	40,000	64,400
Rural*	119,000	191,500
By Ownership		
Owned by States*	150,000	241,400
Owned by Others*	9,000	14,500

* Miles and kilometers are an approximation.

With respect to ownership, most NHS mileage not owned by the States is owned by a variety of local government entities, Federal land management agencies, and toll authorities.

Intermodal Facility Connections

As discussed in previous sections, various intermodal facilities are included on the national, State, and metropolitan maps, to present the NHS in an intermodal context. The DOT has determined that these intermodal facilities warrant further consideration for connections to the NHS by the States in cooperation with the MPOs and other officials. Including these facilities on the maps illustrates how the NHS will support an intermodal, integrated NTS. The facilities, identified by the FHWA, in cooperation with other modal administrations, States, MPOs, other officials, and the private sector are briefly described below.

- o Water Ports - 104 water ports are illustrated, including all major container ports. Each port either handles greater than 750,000 short tons of cargo per year, handles over 350,000 short tons of foreign trade, or meets national defense requirements. Ports which are primarily dependent on rail and/or pipeline for the movement of cargo to and from the port area are not identified. The 104 ports shown on the maps handle about 72 percent of total U.S. waterborne cargo tonnage.

- o Airports - 143 airports are illustrated. Each airport handles more than 250,000 annual enplanements. In total, these airports handle about 96 percent of total annual domestic enplanements as well as a similarly large amount of civilian airborne cargo.
- o Amtrak Stations - 321 Amtrak stations are illustrated. Each station handled a combined total of over 20,000 entrainments and detrainments over the most recent 3-year reporting period.
- o Rail/Truck Facilities - 191 rail/truck facilities are illustrated. Each facility handles more than 5,000 annual origins and/or destinations of railroad cars and relies heavily on the rail/truck intermodal connection.
- o Public Transit Systems - 319 public transit systems shown on the maps were those reporting to the Federal Transit Administration under its Section 15 data collection system in FY 1992. Since the NHS connects to all urban areas with populations above 25,000, access is provided to public transit systems serving over 99 percent of all transit riders.

Because of the importance of the intermodal, statewide planning, and metropolitan planning elements of the NHS, the FHWA recommends that States, in cooperation with MPOs and other officials, be required to finalize identification of major intermodal facilities and appropriate connections within 2 years of the date of enactment of the NHS. The routes will be based on criteria to be established by the DOT. Identification of these connections within 2 years will allow consistent, careful, and comprehensive consideration of the intermodal element of the NHS as a part of the statewide and metropolitan planning processes. After this 2-year period, a State may propose to the Secretary modifications to these connections in response to new needs, e.g., a new airport. Proposed legislative language to accomplish this is provided in Section VIII., "Legislative Language to Enact the NHS," of the report.

Other Characteristics

The FHWA estimates that the NHS contains the following number of bridges, railroad crossings, major border crossings with Canada and Mexico, and full access control mileage:

Characteristics	Number	Mileage/Kilometers
Bridges*	55,000	
Railroad Crossings*	4,500	
Border Crossings		
Canada	32	
Mexico	21	
Full Access Control Interstate**		44,376 71,416
Other		7,876 12,675

* The number of bridges is an estimate based on State-by-State computations assuming the ratio of bridges per mile of NHS is similar to the ratio of bridges per mile of principal arterial. Likewise, the number of railroad crossings is an estimate based on the analogous assumption.

** The Interstate mileage does not include some mileage not subject to full access control, notably designated Interstate mileage in Alaska.

C. SYSTEM ATTRIBUTES

Design Standards

Section 1016(c) of the ISTEA prescribes that the standards for the NHS be those approved by the Secretary in cooperation with the State highway departments. Such cooperation will be obtained working through AASHTO. Federal-aid capital improvement work on NHS routes will be expected to meet standards appropriate for their functional classification, taking into account the type of traffic using the route.

There will be flexibility in application of these design standards, based on the circumstances of particular projects. Design exceptions may be considered for specific reasons, including historic preservation, scenic and other environmental considerations, impacts on Federal lands, and inadequate physical space for full standards, based on an evaluation of the safety, operational performance, and cost implications of such exceptions.

Existing and Advanced Technology

The DOT believes that since the NHS will be the premier system of roads in the Nation, it should promote the use of IVHS and other existing and advanced technologies. For example, new technologies, such as remote sensing and control and electronic vehicle identification being developed in IVHS work and from defense research conversion applications, should be incorporated where feasible. Available technology should be incorporated and planning should provide for utilizing future advances as they become available. The DOT will actively promote and support the increased utilization of IVHS and other existing and advanced technologies on the NHS.

Operation and Performance

At the time of the conception of the NHS, a goal of overall system efficiency was established. To meet this goal the NHS will have to achieve operational levels consistent with changing travel needs and technology. Therefore, upon designation, the DOT will continue consultations with owners, operators, and users of facilities on the NHS and with other interested groups to develop or refine existing policies, standards, goals, and guidelines as appropriate relating to the performance, operation, maintenance, and special identification of NHS routes.

Such policies will ensure that the NHS achieves maximum efficiency and safety in moving people and goods with intermodal connectivity. These policies will be based on historic experience and on information contained in the management systems (safety, pavement, bridges, congestion, public transportation facilities, and intermodal facilities) required by Section 1034 of the ISTEA, as well as information on quality of life issues and on responsiveness to environmental needs. Such policies are also consistent with actions required to support the development of an NTS.

Long-term operation and maintenance must be given high priority by the owners of facilities on the NHS. So that maintenance problems are not built into the system, maintenance considerations (based on both existing technology and future technology that can reasonably be anticipated), should be a part of the design process. Owners of NHS facilities are expected to provide resources for maintenance and operation of the physical facilities. This maintenance and operation responsibility is consistent with the current roles and responsibilities of the Federal-Aid Highway Program.

VIII. LEGISLATIVE LANGUAGE TO ENACT THE NHS

The following legislative amendments to Title 23 U.S.C. are proposed to implement the NHS designation:

A BILL

To amend Title 23, United States Code to provide for designation of the National Highway System, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This act may be cited as the "National Highway System Designation Act of 1994."

SECTION 2. NATIONAL HIGHWAY SYSTEM DESIGNATION

Section 103 of Title 23, United States Code is amended by adding a new subsection (c) to read as follows:

"(c) Designation

"(1) Submission.--The National Highway System (NHS) as submitted by the Secretary of Transportation on _____, 1993, is hereby designated within the United States, including the District of Columbia.

"(2) Intermodal Connections.-- Within 2 years after the enactment of this act, the States shall, in cooperation with local officials, complete initial identification of appropriate connections from the National Highway System to major ports, airports, international border crossings, public transportation and transit facilities, interstate bus terminals, rail and other intermodal facilities in accordance with criteria established by the Secretary. Such connections shall be identified through the metropolitan and statewide transportation planning processes carried out in accordance with sections 134 and 135 of this title. Upon approval by the Secretary, such connections shall be designated as being on the National Highway System.

"(3) Modifications.--At the request of a State, the Secretary shall add new National Highway System segments including intermodal connections and delete existing route segments and connections provided that total National Highway System miles do not exceed 165,000 miles (265,542 kilometers). The States shall establish that the requested route changes have been identified cooperatively with local officials through the metropolitan and statewide transportation planning processes carried out in accordance with sections 134 and 135 of this title. The Secretary shall determine that the requested changes meet criteria established for the National Highway System and shall determine that the requested changes enhance the national transportation characteristics of the National Highway System."

SECTION BY SECTION ANALYSIS

This Act designates the National Highway System of the United States, provides that within 2 years of enactment, the States shall complete identification of appropriate intermodal connections to the NHS to enhance the intermodal connectivity of the NHS, and authorizes the Secretary to modify the NHS provided that total NHS miles do not exceed 165,000 miles (265,542 kilometers) in total extent.

IX. RESPONSE TO REPORT OF SENATE APPROPRIATIONS COMMITTEE ACCOMPANYING 1994 DOT AND RELATED AGENCIES APPROPRIATIONS ACT

The Senate Appropriations Committee included in its report (Report 103-150) accompanying the 1994 Department of Transportation and Related Agencies Appropriations Bill (H.R. 2750 enacted as P.L. 103-122), a request that FHWA identify:

"(1) the roads and the corresponding number of miles which are within nonattainment areas and which are not; (2) the roads and the corresponding number of miles intended for new capacity or expansion (the addition of one or more lanes), and the roads which will receive maintenance funds only; and (3) the nonroad projects which are eligible projects under the NHS criteria (sec. 1006(d) of ISTEA) and the corresponding number of miles."

The NHS recommendations provided to the FHWA in the spring of 1993 did not provide detailed data of the type needed to directly respond to the questions contained in this Committee report. However, the following information related to the Committee's concerns are approximations using the best reasonably available information.

With respect to nonattainment, the FHWA estimates that over 20,000 miles (over 32,000 kilometers) of the NHS are presently in nonattainment areas. This estimate includes:

1. those ozone nonattainment areas which are classified transitional or incomplete, and
2. carbon monoxide, small particulate, oxides of nitrogen, or sulfur dioxide nonattainment areas.

This is a gross estimate based on mileage in urbanized areas which are in nonattainment, not on exact nonattainment boundaries.

With respect to mileage intended for lane additions, the DOT estimates that about 2,500 to 3,000 miles (about 4,000 to 4,800 kilometers) of the NHS represent new facilities exclusive of the Transamerica Corridor (also known as Route 66) and the Indianapolis to Houston Corridor. These corridors are noted in the ISTEA Section 1105(c). Major feasibility studies under way on these corridors will help to determine the extent of new facilities in these cases. In addition, decisions on whether facilities should be widened are not made by the DOT, but by State, MPO, and other officials. The DOT does believe, based on discussions with such officials, that much of the NHS is now and will be, for the indefinite future, two-lane roads. Mileage representing new facilities is either on existing plans and/or is in some stage of implementation (e.g., design, right-of-way acquisition, and construction).

With respect to nonroad (e.g., public transit) projects, the DOT estimates that about 19,000 miles (about 30,600 kilometers) of the NHS, including Interstate routes, are fully access controlled facilities located in urbanized areas. Nonroad projects or non-NHS road projects in proximity to and improving the level of service on these facilities would be the most likely candidates for this use of NHS funds. In addition, NHS funds may be transferred to the Surface Transportation Program and used for nonroad projects. All such projects, however, qualify for Federal-aid participation on an individual basis. Decisions regarding project selection are not made by the DOT, but by State, MPO, and other officials.

X. NOTES ON SOURCES FOR THIS REPORT

Information on the highway legislation from 1921 until World War II came from portions of:

- A book entitled "Toll Roads and Free Roads," which is noted in the text. This book contains a report requested by Congress and transmitted to Congress by President Roosevelt in 1939.
- A 1941 report from the National Interregional Highway Committee which was appointed by President Roosevelt to recommend a "limited system of national highways."
- 1944 reports entitled, "The Role of the Federal Government in Highway Development" and "A Sound Plan for Post-War Roads and Jobs."

- A 1954 report on the minutes of "Public Hearings Pertaining to a National Highway Program." General Lucius D. Clay was chairman of the committee conducting the hearings.
- A circular memorandum written in 1955 from the Deputy Commissioner of the Bureau of Public Roads (then in the Department of Commerce). This memorandum contained material submitted to the U.S. Senate earlier that year.

Information on the legislation of the Eisenhower era came from portions of the 1955 circular memorandum noted immediately above and:

- A Congressional Digest of May 1955 which contained highlights of the debate over the President's highway program.
- A June 9, 1955, internal memorandum (subject: Criteria for Selection of Additional Interstate System Routes in Urban Areas) of the Bureau of Public Roads (then under the Department of Commerce).
- A 1958 report from the Secretary of Commerce (subject: A Report of Factors for Use in Apportioning Funds for the National System of Interstate and Defense Highways) to the Speaker of the House of Representatives.

Information on the evolution of the NHS concept came from portions of:

- A 1988 AASHTO report entitled, "Keeping America Moving: The Bottom Line."
- A November 1988 FHWA report entitled, "America's Challenge for Highway Transportation in the 21st Century; Interim Report of the Future National Highway Program Task Force."
- A 1989 AASHTO report entitled, "New Transportation Concepts for a New Century." This publication enumerated criteria for a "Highway System of National Significance."
- A 1989 AASHTO report entitled, "Moving America Into the Future." This report was based on 65 forums attended by some 9000 persons as well as a publication by the Transportation Alternatives Group (TAG). TAG was made up of AASHTO, the American Automobile Association, the American Public Transit Association, the American Public Works Association, the American Trucking Association, the Highway Users Federation, the National Association of Counties, the

National Association of Regional Councils, the National Conference of State Legislatures, the National Governors Association, the National League of Cities, and the U.S. Conference of Mayors.

- A May 23, 1990, letter from the House of Representatives Committee on Public Works and Transportation to the FHWA Administrator. This letter requested an NHS map and advised consultation with MPOs and rural agencies in development of what became the Illustrative NHS.
- The ISTEA (P.L. 102-240) as well as Report 102-171 of the Committee on Public Works and Transportation, U.S. House of Representatives to accompany H.R. 2950 and Report 102-71 of the Committee on Environment and Public Works, U.S. Senate to accompany S. 1204.

Information concerning transportation and the economy and the economic benefits of highways and transportation came from portions of:

- A 1992 ENO Transportation Foundation, Inc. report entitled, "Transportation in America: 1992, 10th Edition."
- A 1970 U.S. House of Representatives Public Works Committee Report, "Benefits of Interstate Highways (September-1970)."
- A 1983 FHWA paper entitled "Benefits of Interstate Highways" which focused on user benefits.
- A FHWA Policy Discussion Paper (Series No. 4, August-1992) entitled, "Assessing the Relationship Between Transportation Infrastructure and Productivity."
- 1991 and 1993 U.S. Department of Transportation reports entitled, "The Status of the Nation's Highways and Bridges: Conditions and Performance."
- A 1992 FHWA report entitled, "Highway Statistics 1991" and preceding reports of "Highway Statistics."
- A 1992 Research and Special Programs Administration report entitled, "National Transportation Statistics."
- A 1992 US General Accounting Office report entitled, "US-Mexico Trade: Survey of US Border Infrastructure Needs." This report is numbered GAO/NSIAD-92-56.
- A 1992 Highway Users Federation report entitled, "Forging Transportation Strategy: A Framework for the 1990s."

- A 1993 Transportation Research Board report entitled, "Landside Access to U.S. Ports. Special Report 238." This report contains the information about congestion to access routes serving the ports.
- A 1993 DOT Interagency report entitled, "Landside Access Port Visits: North and South Atlantic Regions."
- A 1993 DOT Interagency report entitled, "Landside Access Port Visits: Great Lakes, Inland Waterways, and Gulf Regions."
- A 1993 DOT Interagency report entitled, "Landside Access Port Visits: North and South Pacific Regions."
- A 1993 (September Draft) FHWA report entitled, "The National Highway System As a Means of Increasing Competitiveness: Thoughts of Business Leaders." This report contains information from a focus group on the anticipated benefits to U.S. business of the NHS.

An overall summary of the benefits of the NHS is found in the 1993 DOT/FHWA brochure entitled, "Intermodal Surface Transportation Efficiency Act - The National Highway System - The Backbone of America's Intermodal Transportation Network."

Information on the routes needed for national defense came from the sources noted in the text of Section IV. C., "Development of the Final NHS Proposal."

Information on intermodal facilities included for illustration on the NHS maps came from:

- A series of FTA reports entitled, "Transit Profiles: For the 1992 Section 15 Report Year." These reports contain information on transit systems receiving Federal funds to support operations during that year.
- A 1993 Maritime Administration file on electronic medium. This file contained a listing of the ports shown on maps.
- A 1993 Federal Aviation Administration file on electronic medium. This file contained a listing of the airports shown on maps.
- Two 1993 Federal Railroad Administration files on electronic medium. These files contained, respectively, a listing of the AMTRAK stations and rail/truck facilities shown on maps.

Information to respond to the Senate Committee on Environment and Public Works came out of discussions between FHWA employees familiar with various information sources and data bases

This consolidated schedule shows the obligation and outlay of amounts made available for programs in prior years. No further appropriation is requested.

Credit accounts:**ORANGE COUNTY (CA) TOLL ROAD DEMONSTRATION PROJECT
PROGRAM ACCOUNT****Program and Financing (in thousands of dollars)**

Identification code 69-0543-0-1-401	1992 actual	1993 est.	1994 est.
Program by activities:			
10.00 Total obligations (object class 41.0)		9,600	
Financing:			
40.00 Budget authority (appropriation)		9,600	
Relation of obligations to outlays:			
71.00 Total obligations		9,600	
72.40 Obligated balance, start of year			9,600
74.40 Obligated balance, end of year		-9,600	-9,600
90.00 Outlays			

Loan levels (in thousands of dollars)

Identification code 69-0543-0-1-401	1992 actual	1993 est.	1993 est.
Direct loan levels supportable by subsidy budget authority:			
1159 Total direct loan levels		120,000	
Direct loan subsidy (in percent):			
1320 Subsidy rate		8.00	
1329 Weighted average subsidy rate		8.00	
Direct loan subsidy:			
1330 Subsidy budget authority		9,600	
1339 Total subsidy budget authority		9,600	
Direct loan subsidy outlays:			
1349 Total subsidy outlays			

**ORANGE COUNTY (CA) TOLL ROAD DEMONSTRATION PROJECT DIRECT
LOAN FINANCING ACCOUNT****Program and Financing (in thousands of dollars)**

Identification code 69-4200-0-3-401	1992 actual	1993 est.	1994 est.
Program by activities:			
10.00 Total obligations (object class 33.0)		120,000	
Financing:			
39.00 Financing authority (gross)		120,000	
Financing authority:			
67.15 Authority to borrow (indefinite)		110,400	
68.00 Spending authority from offsetting collections		9,600	
Relation of obligations to financing disbursements:			
71.00 Total obligations		120,000	
72.10 Receivables from program account			-9,600
72.40 Unpaid obligation			120,000
74.10 Receivables from program account		9,600	9,600
74.40 Unpaid obligations		-120,000	-120,000
81.00 Financing disbursements (gross)		9,600	
Adjustments to financing authority and financing disbursements:			
88.00 Deductions for offsetting collections: Payments from program account		-9,600	
89.00 Financing authority (net)		110,400	
90.00 Financing disbursements (net)			

Status of Direct Loans (in thousands of dollars)

Identification code 69-4200-0-3-401	1992 actual	1993 est.	1994 est.
Position with respect to appropriations act limitation on obligations:			
1111 Limitation on direct loans		120,000	
1150 Total direct loan obligations		120,000	

Financial Condition (in thousands of dollars)

Identification code 69-4200-0-3-401	1991 actual	1992 actual	1993 est.	1994 est.
Assets:				
1100 Accounts receivable: Federal agencies			9,000	9,000
1999 Total assets			9,000	9,000
Equity:				
3200 Revolving fund balances: Appropriated capital			9,000	9,000
3999 Total equity			9,000	9,000

Trust Funds**HIGHWAY TRUST FUND (TOTAL)****Unavailable Collections (in thousands of dollars)**

Identification code 20-8102-0-7-401	1992 actual	1993 est.	1994 est.
01.01 Balance, start of year: U.S. securities: Par value	17,864,597	18,931,012	15,999,527
02.00 Receipts	18,387,915	19,335,700	19,518,600
04.00 Total: Balances and collections	36,252,512	38,266,712	35,518,127
Appropriations:			
Federal Highway Administration:			
05.01 Federal Aid Highways (liquidation of contract authorization)	-15,400,000	-19,000,000	-17,500,000
05.01 Emergency relief	-30,000		
05.01 Infrastructure investment proposal			-500,000
05.02 Highway-related safety grants (liquidation of contract authorization)	-20,000	-10,000	-10,000
05.03 Right-of-way revolving fund (liquidation of contract authorization)	-40,000		
05.04 Miscellaneous Highway Trust Funds	-69,103	-325,015	
05.10 Motor carrier safety grants (liquidation of contract authorization)	-62,000	-65,000	-68,000
National Highway Traffic Safety Administration:			
05.18 Trust fund share of operations and research	-44,172	-46,170	-50,331
05.19 Highway traffic safety grants (liquidation of contract authorization)	-130,000	-150,000	-137,000
05.19 Highway traffic safety grants (investment proposal)			-7,000
Federal Transit Administration:			
05.20 Discretionary grants (liquidation of contract authorization)	-1,500,000	-1,500,000	-1,000,000
05.20 Disaster relief	-10,000		
05.20 Discretionary grants: Economic stimulus proposal		-15,850	
05.21 Trust fund share of transit programs		-1,134,150	-1,190,000
Other agencies:			
05.26 Office of the Secretary-Rental payments to GSA	-16,225	-19,000	-3,262
Federal Railroad Administration:			
05.27 Trust fund share of high speed ground transportation development (liquidation of CA)		-2,000	-4,000
05.27 Trust fund share of high speed ground (investment proposal)			-100,000
05.99 Subtotal appropriations	-17,321,500	-22,267,185	-20,569,593
07.01 Balance, end of year: U.S. securities: Par value	18,931,012	15,999,527	14,948,534

The Highway Revenue Act of 1956, as amended, provides for the transfer from the general fund to the highway trust

Credit Accounts—Continued

HIGHWAY TRUST FUND (TOTAL)—Continued

fund of revenue from the motor fuel tax and certain other taxes paid by highway users. The Secretary of the Treasury estimates the amounts to be transferred. In turn, appropriations are authorized from this fund to meet expenditures for Federal-aid highways and other programs specified by law. The status of the fund is as follows:

STATUS OF HIGHWAY TRUST FUND

(In thousands of dollars)

	1992 actual	1993 est.	1994 est.
Unexpended balance, start of the year:			
U.S. securities: Par value.....	19,389,145	20,956,978	19,978,522
Cash.....	106,919	141,405	
Balance of fund at start of year.....	19,496,064	21,098,383	19,978,522
Cash income during the year: Governmental receipts:			
From excise taxes:			
Gasoline tax.....	12,402,733	12,562,000	12,695,000
Truck, bus, and trailer taxes.....	874,162	1,239,000	1,382,000
Tire, innertube, and tread rubber taxes.....	256,683	301,000	323,000
Diesel fuel taxes.....	3,313,675	3,720,000	3,855,000
Use tax on certain vehicles.....	620,008	624,000	642,000
Fines and penalties.....	12,466		
Transfers to land and water fund.....	—1,000	—1,000	—1,000
Transfer to aquatic resources fund.....	—192,888	—207,000	—214,000
Repealed taxes.....	—28		
Refunds.....	—552,399	—432,000	—437,000
Subtotal, Excise Taxes.....	16,733,412	17,806,000	18,245,000
Intrabudgetary transactions: Interest on investments.....	1,654,504	1,529,700	1,273,600
Total annual income.....	18,387,915	19,335,700	19,518,600
(Mass transit account).....	(1,815,883)	(2,669,400)	(2,626,200)
Cash outlays during the year:			
Federal Highway Administration appropriations:			
Federal-aid highways (liquidation of contract authorization).....	15,181,600	17,246,196	17,373,065
Federal-aid highways—Economic Stimulus Supplemental.....		316,440	1,895,482
Federal-aid highways—Infrastructure Investment Proposal.....			415,445
Highway-related safety grants (liquidation of contract authorization).....	9,899	7,331	9,187
Right-of-way revolving fund (liquidation of contract authorization).....	19,944		
Miscellaneous Highway Trust Funds.....	53,194	133,743	177,457
Motor carrier safety grants (liquidation of contract authorization).....	63,987	65,135	65,784
National Highway Traffic Safety Administration:			
Trust fund share of operations and research.....	2,119	51,992	55,656
Highway traffic safety grants (liquidation of contract authorization).....	130,241	133,753	135,587
Highway traffic safety grants (Investment Proposal).....			5,924
Federal Transit Administration:			
Discretionary grants (liquidation of contract authorization).....	1,267,845	1,290,539	1,470,363
Trust Fund Share of Transit Programs.....		1,134,150	1,190,000
Economic Stimulus Supplemental.....		15,850	
Federal Railroad Administration:			
Trust fund share of High Speed Gr. Tr. Dev. (liq. of CA).....		2,000	4,000
Trust fund share of High Speed Gr. (Investment Proposal).....			100,000
OST—Rental Payments to GSA.....	16,225	19,000	3,262
Other agencies:			
Construction, NPS, Interior (liquidation of contract authorization).....	37,237	38,718	19,334
Mt. St. Helens, USFS, Agriculture (liquidation of contract authorization).....	3,305	714	
Total annual outlays.....	16,785,596	20,455,561	22,920,546
Unexpended balance carried forward:			
U.S. securities (par).....	20,956,978	19,978,522	16,576,576
Cash.....	141,405		
Balance of fund at end of year.....	21,098,383	19,978,522	16,576,576

Commitment against unexpended balances:

Appropriated but not expended:			
Appropriations.....	401,893	587,343	404,560
Liquidation of contract authorization.....	2,696,097	4,292,271	2,126,007
Committed to future liquidating cash:			
Outstanding obligated balance of contract authority.....	27,641,645	29,521,466	32,915,569
Unobligated balance of contract authority.....	8,902,400	9,037,489	9,373,911
Total commitment against unexpended balances.....	39,642,035	43,438,569	44,820,047
Uncommitted balance, end of year.....	(18,543,652)	(23,460,047)	(28,243,471)

Note.—Detail may not add to totals due to rounding.

HIGHWAY TRUST FUND
(HIGHWAY ACCOUNT ONLY)

(In thousands of dollars)

	1992 actual	1993 est.	1994 est.
Unexpended balance, start of year.....	10,245,942	11,300,224	9,951,502
Cash income during the year, governmental receipts:			
Excise taxes.....	15,663,587	15,847,000	16,258,000
Interest on investments.....	908,446	819,300	634,400
Total annual income.....	16,572,032	16,666,300	16,892,400
Cash outgo during the year (outlays):			
Federal Highway Administration.....	15,328,624	17,768,845	19,936,420
National Highway Traffic Safety Administration.....	132,360	185,745	197,167
Federal Railroad Administration.....		2,000	104,000
Office of the Secretary of Transportation.....	16,225	19,000	3,262
National Park Service.....	37,237	38,718	19,334
U.S. Forest Service.....	3,305	714	
Total, outlays.....	15,517,751	18,015,022	20,260,183
Unexpended balance, end of year.....	11,300,224	9,951,502	6,583,719

Note.—Detail may not add to totals due to rounding.

The preceding table covers that part of the trust fund that pertains to the highway account. It shows the annual income and outlays of highway programs funded by the trust fund.

FEDERAL-AID HIGHWAYS
(LIMITATION ON OBLIGATIONS)
(HIGHWAY TRUST FUND)

None of the funds in this Act shall be available for the implementation or execution of programs the obligations for which are in excess of **[\$15,326,750,000]** **\$15,740,572,250** for Federal-aid highways and highway safety construction programs for fiscal year **[1993]** **1994**.

(LIQUIDATION OF CONTRACT AUTHORIZATION)
(HIGHWAY TRUST FUND)

For carrying out the provisions of title 23, United States Code, that are attributable to Federal-aid highways, including the National Scenic and Recreational Highway as authorized by 23 U.S.C. 148, not otherwise provided, including reimbursements for sums expended pursuant to the provisions of 23 U.S.C. 308, **[\$19,000,000,000]** **\$17,500,000,000** or so much thereof as may be available in and derived from the Highway Trust Fund, to remain available until expended. (Department of Transportation and Related Agencies Appropriations Act, 1993.)

Program and Financing (in thousands of dollars)

Identification code	69-8083-0-7-401	1992 actual	1993 est.	1994 est.
Program by activities:				
Direct program:				
00.01 National highway program.....		2,894,315	2,914,842	3,001,118
00.02 Surface transportation program.....		3,036,239	3,317,364	3,415,554
00.03 Bridge program.....		1,802,305	2,236,953	2,303,164
00.04 Interstate completion.....		1,966,993	1,457,826	1,500,976

00.05	Interstate maintenance.....	2,480,923	2,359,249	2,429,913
00.06	Interstate substitutions.....	369,807	194,377	200,130
00.07	Congestion mitigation and air quality improvement.....	339,847	832,581	857,224
00.08	Minimum allocation.....	1,050,331	1,073,729	1,125,593
00.09	Intelligent vehicle highway systems.....	19,223	181,050	120,250
00.10	Emergency relief.....	459,069	551,843	100,000
00.11	Federal lands.....	375,704	440,000	440,000
00.12	Administration and research.....	364,358	549,287	477,261
00.13	Miscellaneous programs.....	2,445,193	1,143,034	1,457,785
00.14	Donor State bonus.....	276,911	416,290	428,612
00.91	Total direct program.....	17,881,218	17,668,425	17,857,581
01.01	Reimbursable program.....	24,727	41,000	41,000
10.00	Total obligations.....	17,905,945	17,709,425	17,898,581
Financing:				
Unobligated balance available, start of year:				
21.40	Appropriation.....		-30,000	
21.49	Contract authority.....	-8,050,372	-7,653,574	-10,685,063
Unobligated balance available, end of year:				
24.40	Appropriation.....	30,000		
24.49	Contract authority.....	7,653,574	10,685,063	13,663,913
25.00	Unobligated balance expiring.....	1,994		
39.00	Budget authority (gross).....	17,541,141	20,710,913	20,877,431
Budget authority:				
Current:				
40.00	Appropriation.....	15,430,000	19,000,000	17,500,000
40.49	Portion applied to liquidate contract authority.....	-15,400,000	-19,000,000	-17,500,000
43.00	Appropriation (total).....	30,000		
Permanent:				
68.00	Spending authority from offsetting collections.....	24,727	41,000	41,000
69.10	Contract authority (Public Laws 100-17 and 102-240).....	17,491,414	20,669,913	20,836,431
69.36	Contract authority rescinded (unobligated balances).....	-5,000		
69.90	Contract authority (total).....	17,486,414	20,669,913	20,836,431
Relation of obligations to outlays:				
71.00	Total obligations.....	17,905,945	17,709,425	17,898,581
Obligated balance, start of year:				
72.40	Appropriation.....	1,530,805	1,749,206	3,503,010
72.49	Contract authority.....	21,675,488	24,156,706	22,825,131
Obligated balance, end of year:				
74.40	Appropriation.....	-1,749,206	-3,503,010	-3,629,944
74.49	Contract authority.....	-24,156,706	-22,825,131	-23,182,712
87.00	Outlays (gross).....	15,206,327	17,287,196	17,414,065
Adjustments to budget authority and outlays:				
Deductions for offsetting collections:				
88.00	Federal funds.....	-23,191	-36,395	-35,295
88.30	Trust funds.....	-93	-100	-200
88.40	Non-Federal sources.....	-1,443	-4,505	-5,505
88.90	Total, offsetting collections.....	-24,727	-41,000	-41,000
89.00	Budget authority (net).....	17,516,414	20,669,913	20,836,431
90.00	Outlays (net).....	15,181,600	17,246,196	17,373,065

SUMMARY OF BUDGET AUTHORITY AND OUTLAYS

(In thousands of dollars)

Enacted/requested:				
Budget authority.....	17,516,414	20,669,913	20,836,431	
Outlays.....	15,181,600	17,246,196	17,373,065	
Stimulus and other supplemental proposals:				
Budget authority.....				
Outlays.....		316,440	1,895,482	
Investment proposal:				
Budget authority.....			36,000	
Outlays.....			415,445	
Total:				
Budget authority.....	17,516,414	20,669,913	20,872,431	
Outlays.....	15,181,600	17,562,636	19,683,992	

Status of Contract Authority (in thousands of dollars)

Balance, start of year.....	29,725,860	31,810,280	33,480,194
Contract authority.....	17,491,414	20,669,913	20,872,431
Contract authority (rescinded).....	-5,000		

Unfunded balance lapsing.....	-1,994		
Appropriation from highway trust fund to liquidate contract authority.....	-15,400,000	-19,000,000	-18,000,000
Unfunded balance, end of year.....	31,810,280	33,480,194	36,352,625

Note: Includes amounts associated with the FY 1993 supplemental request and the FY 1994 investment proposal.

The Federal-Aid Highways (FAH) budget authority consists of several programs designed to aid in the construction, rehabilitation, traffic management and safety of our nation's highways. This program is funded by contract authority found in substantive legislation currently provided by the six-year (1992-1997) Intermodal Surface Transportation Efficiency Act of 1991 (P.L. 102-240), (ISTEA).

All programs included within FAH are financed from the Highway Trust Fund and distributed via apportionments and allocations to States. Liquidating cash appropriations are subsequently requested to fund outlays resulting from obligations incurred under contract authority.

National highway program.—The ISTEA establishes a National Highway Program to provide funding for a designated National Highway System of about 150,000 miles (plus or minus 15 percent), which is of primary Federal interest. The system, to be selected by the States and approved by the Secretary, would essentially replace the current Interstate 4R program, and a major portion of the primary program. The National Highway System would consist of the current Interstate, other rural principal arterials, urban freeways and connecting urban principal arterials, and facilities on the Defense Department's designated Strategic Highway Network.

Surface Transportation Program (STP).—The ISTEA establishes a new block grant-type program that may be used by States and localities for any roads that are not classified as local or rural minor collector roads. The ISTEA authorized a total of \$23.9 billion for the STP over six years. The authority may be augmented by transfers of authority from other programs and by the apportionment adjustments authorized by section 1015 of ISTEA and minimum allocation funds which may be used as if they were STP funds.

Bridge replacement and rehabilitation.—The ISTEA continues the bridge program to enable States to respond to the problem of unsafe and inadequate bridges. The funds will be available for use on all bridges, both on and off the National Highway System, including those on roads functionally classified as rural minor collectors and as local.

Interstate completion.—The ISTEA authorized a total of \$7.2 billion through FY 1995 for completion of the Interstate Highway System. Currently, 22 States have completed their Interstate construction programs. Nationwide, as of December 31, 1990, some 42,692 miles (99.8 percent) of the 42,796 mile system is open to traffic. All States except Massachusetts will receive yearly apportionments based on each State's proportionate share of the remaining needs in the 1991 Interstate Cost Estimate (based on costs inflated through 1994), excluding Massachusetts' cost to complete. Massachusetts will receive a specified yearly allocation of Interstate Construction funds (also based on the 1991 Interstate Cost Estimate) that approximates its construction schedule.

Interstate substitution.—The ISTEA authorized a total of \$960 million for substitute highway projects through FY 1995. The funds are distributed to 32 areas (in 21 States) that have withdrawn Interstate routes in accordance with the provisions of Section 103(e)(4) of Title 23 of the United States Code. As of December 31, 1992 a total of \$13.9 billion had been obligated on substitute projects from the \$14.9 billion made available to the 32 areas as the result of Interstate route withdrawals.

Emergency relief.—The Emergency Relief (ER) program provides funds for the repair or reconstruction of Federal-aid highways and Federally-owned roads which have suffered serious damage as the result of natural disasters or catastrophic

FEDERAL-AID HIGHWAYS—Continued
(LIQUIDATION OF CONTRACT AUTHORIZATION)—Continued
(HIGHWAY TRUST FUND)—Continued

failures. The ER program supplements the commitment of resources by States, their political subdivisions, or Federal agencies to help pay for unusually heavy expenses resulting from extraordinary conditions.

Federal lands.—This category includes the Public Lands Highways, Park Roads and Parkways, and Indian Reservation Roads programs. Roads funded under this program are open to public travel. State and local roads (25,000 miles) that provide important access to and within the National Forest System are designated Forest Highways. These roads should not be confused with the Forest Development Roads which are under the jurisdiction of the Forest Service. Park roads and Parkways (8,000 miles) are owned by the National Park Service and provide access to and within the National Park System. Indian Reservation Roads program consists of the Bureau of Indian Affairs (20,000 miles) and State and local roads (25,000 miles) that provide access to, and within, Indian lands.

Miscellaneous.—This category consists of previously authorized programs and includes: Interstate 4R, Primary, Secondary/Urban, Safety Construction, Strategic Highway Research Program, Section 149 Demonstrations and other miscellaneous activities.

Object Classification (in thousands of dollars)

Identification code 69-8083-0-7-401	1992 actual	1993 est.	1994 est.
FEDERAL HIGHWAY ADMINISTRATION			
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent.....	7,966	8,669	9,116
11.3 Other than full-time permanent.....	725	1,404	1,491
11.5 Other personnel compensation.....	829	918	963
11.9 Total personnel compensation.....	9,520	10,991	11,570
12.1 Civilian personnel benefits.....	1,652	1,845	1,940
21.0 Travel and transportation of persons.....	1,955	2,050	2,131
22.0 Transportation of things.....	786	834	878
23.3 Communications, utilities, and miscellaneous charges.....	315	340	364
24.0 Printing and reproduction.....	151	165	171
25.2 Other services.....	16,656	22,526	18,172
26.0 Supplies and materials.....	307	331	342
31.0 Equipment.....	9	11	11
32.0 Land and structures.....	177,853	210,055	186,045
41.0 Grants, subsidies, and contributions.....	17,121,114	16,673,438	16,979,772
42.0 Insurance claims and indemnities.....	3	3	3
93.0 Limitation on general operating expenses (see separate schedule).....	341,437	484,137	418,961
99.0 Subtotal direct obligations, Federal Highway Administration.....	17,671,760	17,406,726	17,620,360
99.0 Reimbursable obligations, Federal Highway Administration.....	24,727	41,000	41,000
ALLOCATION ACCOUNTS			
Personnel compensation:			
11.1 Full-time permanent.....	18,584	23,398	23,054
11.3 Other than full-time permanent.....	5,215	6,493	6,393
11.5 Other personnel compensation.....	1,033	1,307	1,282
11.8 Special personal services payments.....	43	53	53
11.9 Total personnel compensation.....	24,875	31,251	30,782
12.1 Civilian personnel benefits.....	4,311	5,463	5,392
21.0 Travel and transportation of persons.....	2,364	2,923	2,861
22.0 Transportation of things.....	1,676	2,069	2,035
23.3 Communications, utilities, and miscellaneous charges.....	3,770	4,825	4,711
24.0 Printing and reproduction.....	91	108	108
25.2 Other services.....	101,577	125,914	120,826
26.0 Supplies and materials.....	3,587	4,414	4,310
31.0 Equipment.....	1,601	2,014	1,975
32.0 Land and structures.....	40,097	52,095	50,348
41.0 Grants, subsidies, and contributions.....	25,507	30,620	13,870
42.0 Insurance claims and indemnities.....	2	3	3

99.0 Subtotal, allocation accounts.....	209,458	261,699	237,221
99.9 Total obligations.....	17,905,945	17,709,425	17,898,581

Obligations are distributed as follows:

Transportation:			
Federal Highway Administration.....	17,696,486	17,447,726	17,661,360
Federal Railroad Administration.....	4,400	10,120	10,120
National Highway Traffic Safety Administration.....	25,081	16,919	
Federal Transit Administration.....	1,552	3,356	3,312
Bureau of Transportation Statistics.....		6,800	15,000
Office of Intermodalism.....		750	1,107
Agriculture: Forest Service.....	5,527	9,861	7,700
Interior:			
Bureau of Indian Affairs.....	160,758	205,528	200,989
National Park Service.....	12,047	15,415	14,600
Bureau of Land Management.....	94	500	500

Personnel Summary

Identification code 69-8083-0-7-401	1992 actual	1993 est.	1994 est.
FEDERAL HIGHWAY ADMINISTRATION			
Direct: Total compensable workyears:			
1001 Full-time equivalent employment.....	286	280	270
1005 Full-time equivalent of overtime and holiday hours.....	12	12	12
Reimbursable: Total compensable workyears:			
2001 Full-time equivalent employment.....	144	151	153
2005 Full-time equivalent of overtime and holiday hours.....	6	6	6
ALLOCATION ACCOUNTS			
Total compensable workyears:			
3001 Total compensable workyears: Full-time equivalent employment.....	617	743	731
3005 Full-time equivalent of overtime and holiday hours.....	33	40	40

FEDERAL HIGHWAY ADMINISTRATION

LIMITATION ON GENERAL OPERATING EXPENSES

Necessary expenses for administration, operation, including motor carrier safety program operations, and research of the Federal Highway Administration not to exceed **[\$398,000,000]** \$418,961,000 shall be paid in accordance with law from appropriations made available by this Act to the Federal Highway Administration together with advances and reimbursements received by the Federal Highway Administration: *Provided*, That not to exceed **[\$115,000,000]** \$116,260,000 of the amount provided herein shall remain available until expended: *Provided further*, That, notwithstanding any other provision of law, there may be credited to this account funds received from States, counties, municipalities, other public authorities, and private sources, for training expenses incurred for non-Federal employees. (Department of Transportation and Related Agencies Appropriations Act, 1993.)

Program and Financing (in thousands of dollars)

	1992 actual	1993 est.	1994 est.
Program by activities:			
Program direction and coordination:			
Executive direction.....	1,400	1,073	1,069
Program review.....	482	401	401
Legal services.....	2,535	2,524	2,511
Public affairs.....	285	246	244
Civil rights.....	1,531	1,497	1,499
General program support:			
Policy.....	10,484	10,023	9,900
Research and development.....	45,386	83,388	74,598
Administrative support.....	62,276	64,986	84,131
Career development programs.....	6,973	11,160	11,142
Highway programs:			
Program development.....	23,674	27,660	23,143
Safety and system applications operations.....	90,064	121,865	52,628
Motor carrier safety.....	1,126	55,347	55,373
Federal lands highway office.....	1,317	1,321	1,318
Field operations.....	98,696	110,901	110,359
Total obligations.....	346,229	492,392	428,316

Financing:			
Reimbursable Programs.....	-3,840	-8,255	-9,355
Unobligated balance available, start of year.....	-9,526	-86,137	
Unobligated balance available, end of year.....	86,137		
Limitation.....	419,000	398,000	418,961
Relation of obligations to outlays:			
Total obligation.....	346,229	492,392	428,316
Obligated balance, start of year.....	372,937	454,854	579,734
Obligated balance, end of year.....	-454,854	-579,734	-594,183
Outlays from limitation.....	264,312	367,512	413,867

This limitation provides for the salaries and expenses of the Federal Highway Administration. Resources are allocated from the following programs: Federal-aid highways, and highway-related safety grants.

Program direction and coordination.—Provides overall management of the highway transportation program.

General program support.—Recognizing the importance of research as an investment in the efficiency of future transportation, the 1994 budget includes \$104.5 million for highway research and technology of which \$30.8 million is requested for development of intelligent vehicle/highway systems. For 1994, GSA Rent is requested under this heading.

Highway programs.—Provides engineering guidance to Federal and State agencies and to foreign governments, and conducts a program to encourage use of modern traffic engineering procedures to increase the vehicle-carrying capacity of existing highways and urban streets; and finances construction skill training programs for disadvantaged workers hired by contractors on federally aided highway projects.

Field operations.—Provides staff advisory and support services in field offices of the Federal Highway Administration; and provides program and engineering supervision through 9 regional and 52 division offices.

Object Classification (in thousands of dollars)

Identification code 69-8083-0-7-401			
Personnel compensation:			
11.1 Full-time permanent.....	124,438	155,613	154,032
11.3 Other than full-time permanent.....	4,199	4,347	4,303
11.5 Other personnel compensation.....	3,533	2,784	2,756
11.9 Total personnel compensation.....	132,170	162,744	161,091
12.1 Civilian personnel benefits.....	25,687	33,964	33,619
13.0 Benefits for former personnel.....	86		
21.0 Travel and transportation of persons.....	9,494	14,497	14,888
22.0 Transportation of things.....	1,224	1,572	1,614
23.1 Rental payments to GSA.....			17,524
23.3 Communications, utilities, and miscellaneous charges.....	5,883	7,162	7,355
24.0 Printing and reproduction.....	1,888	661	679
25.2 Other services.....	159,398	258,642	178,041
26.0 Supplies and materials.....	2,185	2,471	2,538
31.0 Equipment.....	8,117	10,679	10,967
42.0 Insurance claims and indemnities.....	96		
93.0 Administrative expenses included in schedule for fund as a whole.....	-346,228	-492,392	-428,316
99.0 Total obligations.....			

Personnel Summary

Identification code 69-8083-0-7-401			
Total compensable workyears:			
6001 Full-time equivalent employment.....	2,757	3,453	3,399
6005 Full-time equivalent of overtime and holiday hours and noncalling employment.....	17	19	19

HIGHWAY-RELATED SAFETY GRANTS
(LIQUIDATION OF CONTRACT AUTHORIZATION)
(HIGHWAY TRUST FUND)
(INCLUDING TRANSFER OF FUNDS)

For payment of obligations incurred in carrying out the provisions of title 23, United States Code, section 402 administered by the Federal Highway Administration, to remain available until expended, \$10,000,000 to be derived from the Highway Trust Fund: *Provided*, That not to exceed [\$200,000] \$100,000 of the amount appropriated herein shall be available for "Limitation on general operating expenses": *Provided further*, That none of the funds in this Act shall be available for the planning or execution of programs the obligations for which are in excess of \$10,000,000 in fiscal year [1993] 1994 for "Highway-Related Safety Grants". (Department of Transportation and Related Agencies Appropriations Act, 1993.)

Program and Financing (in thousands of dollars)

Identification code 69-8019-0-7-401			
Program by activities:			
00.01 State and community grants.....	9,244	9,900	9,900
00.02 Administration of grant programs.....	93	100	100
10.00 Total obligations.....	9,337	10,000	10,000
Financing:			
21.49 Unobligated balance available, start of year: Contract authority.....	-1,673	-9,336	-19,336
24.49 Unobligated balance available, end of year: Contract authority.....	9,336	19,336	29,336
39.00 Budget authority.....	17,000	20,000	20,000
Budget authority:			
Current:			
40.00 Appropriation.....	20,000	10,000	10,000
40.49 Portion applied to liquidate contract authority.....	-20,000	-10,000	-10,000
43.00 Appropriation (total).....			
Permanent:			
69.10 Contract authority (30 Stat. 451, 92 Stat. 2727, 105 Stat. 1914).....	17,000	20,000	20,000
Relation of obligations to outlays:			
71.00 Total obligations.....	9,337	10,000	10,000
Obligated balance, start of year:			
72.40 Appropriation.....	979	11,080	13,749
72.49 Contract authority.....	12,712	2,049	2,049
Obligated balance, end of year:			
74.40 Appropriation.....	-11,080	-13,749	-14,562
74.49 Contract authority.....	-2,049	-2,049	-2,049
90.00 Outlays.....	9,899	7,331	9,187

Status of Contract Authority (in thousands of dollars)

Identification code 69-8019-0-7-401			
Unfunded balance, start of year.....			
Contract authority.....	14,385	11,385	21,385
Appropriation to liquidate contract authority.....	17,000	20,000	20,000
	-20,000	-10,000	-10,000
Unfunded balance, end of year.....	11,385	21,385	31,385

The Highway Safety Act of 1970 authorized grants to States and communities for implementing and maintaining highway-related safety standards. A portion of the funds authorized for this program will be used to provide incentives to accelerate the advancement of highway safety efforts in proven crash and injury countermeasures.

Object Classification (in thousands of dollars)

Identification code 69-8019-0-7-401			
25.2 Other services.....	93	100	100
41.0 Grants, subsidies, and contributions.....	9,244	9,900	9,900
99.9 Total obligations.....	9,337	10,000	10,000