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J. Hup

A Statement of National Transportation Policy



by the
**Secretary of
Transportation**

September 17, 1975
Washington, D.C.

FOREWORD

This National Transportation Policy Statement is my initial attempt to set forth the broad policy considerations that should underlie the Federal government's response to the Nation's transportation needs.

Policy is an evolving process that reflects and builds on existing laws, precedents, programs and public perceptions. It indicates the changes that are required to move toward a better transportation system, consistent with other important national priorities.

Comprehensive policy also reveals to the public the inevitable inconsistencies in laws and programs that arise from our pluralistic political processes and changing conditions. This exposure is important because it helps us work toward a more useful definition of Federal responsibility vis-a-vis the private sector and State and local governments.

We summarize our policy direction and principles in Chapter I: Policy Overview. The subsequent text discusses those principles in more depth, relating them to programs and legislative initiatives. We have attempted to state our views directly and candidly because it is important that the public understand the reasons and thinking that underlie government decisionmaking.

Since policy formulation is a continuing process, the positions presented here are preliminary and may be amended and refined as we learn from experience and as we listen to your views. Also, no transportation policy statement may be fully implemented unless it has the support of the Congress, Federal and State public officials, shippers, consumers, the industry and other concerned citizens. Thus, we invite and urge your criticisms and comments. In fact, your views are most necessary because a living, national transportation policy must reflect an evolving consensus of what the American people want and expect from their transportation system.

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Washington, D.C. 20590

September 17, 1975

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I. POLICY OVERVIEW

Transportation has substantially shaped the growth and development of the United States. Waterways led our ancestors to new frontiers. Today, our energy-efficient inland waterways and merchant marine seek out new markets. Railroads fed the hearths of an industrial revolution and now have renewed significance in the era of environmental and energy consciousness. Highways made us the most mobile population on earth, profoundly altered our land use patterns, and established the automobile, truck and bus as an important part of the Nation's mobility and economic activity. Mass transit provided the lifeline to city centers and now offers hope for their revival. Civil aviation extended its reach around the globe and helped design the interdependent world in which we now live. General aviation has greatly increased business and pleasure mobility and opened up formerly unreachable territories. Pipelines are vital to energy independence.

To sustain and enhance our economic vitality and growth, the productivity of our commerce and the quality of our leisure, we need a healthy and responsive transportation system. National transportation policy must serve these broad goals of our society by helping to guide the development, financing and maintenance of a safe, efficient, accessible and diverse transportation system. Such a system should meet the needs of all Americans—as passengers, consumers, employees, shippers and investors—in a way that is consistent with other national objectives. The values and priorities of our society are changing as the land on which we live is changing, and transportation must blend with other national goals in seeking heightened quality in the American way of life.

THE FEDERAL RESPONSIBILITY

The Federal government has actively participated in building transportation's infrastructure.¹ It has also assumed responsibility to ensure the

¹ See Ann F. Friedlander, *The Dilemma of Freight Transport Regulation* (Brookings Institution), pages 8 and 9, 1969.

safety of travelers, to protect the public from the abuse of monopoly power, to promote fair competition, to develop or continue vital transport services, and lately to balance environmental, energy and social requirements in transportation planning and decisionmaking.

In keeping with basic American economic philosophy that the private sector should bear primary responsibility for meeting the Nation's transportation needs, the Federal government has usually exercised restraint. Its role is limited by the preference accorded the private sector, by concentration on issues of national importance and by the finite financial resources available. Its role is advanced, however, by our political commitment to improve the economic and social well-being of all Americans.

FEDERAL-STATE-LOCAL RELATIONS

The Federal interest in interstate and international transportation is mandated by the Constitution and defined by practical requirements of uniformity and connectivity, and, in addition, for international transportation, such Federal interest is circumscribed by international law and foreign policy. In recent years, laws have been enacted on mass transit, environmental quality and energy conservation which are as concerned with local transportation as they are with interstate and foreign commerce. These laws have expanded the definition of Federal interest and require extensive cooperation among Federal, State and local governments.

Now, we must seek a more rational delineation of responsibility among the levels of governments. Most transportation activity involves primarily local movement. Consequently, the largest share of existing Federal assistance programs requires shared Federal, State and local priorities and decisionmaking. The extent of Federal financial participation and program control is a function of the national priorities served. As we decentralize authority and increase State and local program

flexibility, States and localities must improve program management and, where possible, increase their financial participation in projects that primarily benefit their residents. We have a further responsibility to define residual Federal interests—connections to interstate commerce, preserving urban centers, overall national economic and social well-being, civil rights, etc.—and to simplify the process by which responsiveness to these national priorities is assured.

FEDERAL-PRIVATE SECTOR RELATIONS

We also seek a more rational relationship between the Federal government and the private sector. The government must promote increased efficiency, energy conservation, capital development, job opportunity and productivity through economic and regulatory policies that create a climate conducive to healthy competition among financially viable suppliers, carriers, operators and modes.

In responding to specific short-term economic ills of an industry, direct Federal subsidy should be considered only as a last resort. We must recognize that sustaining or restoring the basic health of the economy will create more certainly conditions in which an efficient, well-managed industry will thrive, creating jobs and providing low-cost service. At the same time, Federal action should not impede the ability of well-managed firms to realize a reasonable rate of return on investment and attract the necessary capital to enable expansion and the purchase of safe, modern and environmentally sound equipment.

Unfortunately, the Nation's economic regulatory structure in transportation has not kept pace with changes in industry and the economy. Responsible action is needed to reform and modernize the regulatory system in which surface, air and water transportation operate. However valid the original purpose of promoting a fledgling industry and protecting the public from the tyranny of monopoly or the chaos of predatory competition, the public perception of the system now is that it serves primarily to foster security in the industry it is designed to regulate. In its operation, the existing regulatory structure is too often outdated, inequitable, inefficient, uneconomical and even irrational.

We should seek balanced reform of the Federal regulatory process—not deregulation, sudden

chaotic changes or abrupt policy reversals. We must also realize that financial commitments have been made under existing regulatory ground rules and we should be cautious in the application of theoretical solutions. Changes in public policy clearly are required. Increased emphasis must be given to competition and the market mechanism as a more effective judge of efficient resource allocation and a more reliable barometer of consumer preference. In air and surface transportation, we will seek more pricing flexibility, some liberalization of entry and exit policy, more efficient and timely regulatory processes and the prohibition of anti-competitive practices. We will also seek to determine the most efficient restructuring in various modes and to encourage new methods of intermodal cooperation.

As these changes are implemented, we also recognize that large financial sums have been invested in reliance, in part, on the present regulatory system. Therefore, some otherwise laudatory reforms will have to be altered or staged over a transitional period to enable appropriate adjustment to market conditions. We will evaluate the consequences of each modification to assure that the financial viability of the industry is preserved and other public interests are being served.

PUBLIC INTEREST RESPONSIBILITIES

Whereas less government intervention through economic regulation is desirable, this should not be at the expense of consumer protection or the financial well being of the industry. Government should devote sufficient resources to the development and enforcement of reasonable standards of safety, environmental protection and civil rights, consistent with cost-benefit analysis where appropriate. Government must also promote consumer participation in public decisionmaking.

Energy conservation has become a key determinant in transportation decisionmaking. We must be prepared to sacrifice some of the conveniences long enjoyed in a world of cheap and plentiful energy for the longer range preservation of mobility.

In striving to achieve progress in these areas, we are not dealing in absolutes. The statutes, the courts, administrative processes and analytical procedures provide the tools for weighing relative values and the parameters in which discretionary judgment is exercised. We need to use these tools

to make better decisions and ensure steady progress each year in reducing accidents, enhancing the environment and promoting equal employment opportunity. We need to understand better the indirect economic and social consequences of our actions, provide for programs that serve the long-range public interest, find the most efficient means to achieve our program objectives and protect the rights of the individual and the choice of the consumer.

MULTIMODAL POLICY

Underlying comprehensive transportation policy is the recognition that diversity and intermodal competition are essential to an effective transportation system. Government policy must move in the direction of increasing equal competitive opportunity among the transportation modes, promoting cooperation among modes, minimizing the inequitable distortions of government intervention and enabling each mode to realize its inherent advantages.

Our motor carriers, taking advantage of a ubiquitous highway network, which is paid for only as it is used, have the ability to provide door-to-door service for a broad range of commodities with great flexibility as to time and nature of services. Similarly, intercity buses, using this highway network, can provide service between densely populated cities, as well as between towns and villages. Our water carriers can handle bulk commodities at low cost between regions endowed with adequate waterways. Our railroads can transport a wide range of commodities economically over long distances from major sources of supply to major points of demand. When speed is important, our air carriers can deliver high-value goods over long distances. Passenger services provide a range of price, speed and quality options that respond to varying consumer demands based on the distance to be traveled, the ability to pay and convenience of access.

In designing a government response to the problem of a particular transportation mode, we must recognize and evaluate the consequences of government action on the competitiveness of other modes. Although consistency and complete equity are not always possible in the government's allocation of resources to transportation, we must make a concerted effort to remedy the imbalance of past actions and assure fairness in future actions, or at least fully recognize and weigh the

adverse effects of present imbalances. As we move toward support of new developments in transportation, we must constantly reexamine whether new programs require alterations in or elimination of existing programs.

POLICY PRINCIPLES UNDERLYING A NATIONAL TRANSPORTATION POLICY

A national transportation policy must be a living, evolving process responsive to changing conditions and public perceptions of the Nation's transportation needs. It reflects existing statutes and programs, habits and traditions, proposed reforms and the direction in which we intend to move in the future. Certain basic policy principles help define the contribution that Federal leadership must provide, consistent with the continuing reality that Federal and other governmental resources are finite.

We believe that the fundamental policy principles are as follows:

1. Government and the Private Transportation Sector

a. A dynamic, competitive and efficient private sector should meet the Nation's transportation needs to the maximum extent feasible.

b. The private sector and government should interact effectively, performing functions and pursuing priorities for which each is best suited, working in a mutually reinforcing way where appropriate and at "arm's length" where necessary.

c. Representing 10 percent of the Gross National Product,² the transportation sector must attract adequate capital for sound investment in the future and promote a stable and growth-oriented economy by exercising fiscal responsibility, helping to control inflation and creating employment opportunities.

2. U.S. International Transportation Concerns

a. In a world of increasing international interdependency, transportation must protect vital national interests by:

(1) Enabling the United States to compete effectively in the world market;

(2) Enabling people, freight and mail to travel abroad at the lowest possible price, consistent with

² A tabulation of transportation expenditures of all kinds (including outlays for intermediate goods and services which are eventually adjusted out in GNP accounting procedures to eliminate double counting) would yield a sum approximating one-fifth the size of the GNP.

good, safe and regular service and an appropriate rate of return on capital;

(3) Enabling U.S. carriers to compete effectively with foreign carriers;

(4) Supporting national security requirements;

(5) Reducing dependency on foreign energy resources;

(6) Supporting continued U.S. leadership in technology through sound research and development planning.

3. Public Interests—Enhanced Quality of Life

a. The transportation sector should contribute substantially to an improved quality of life by:

(1) Attaining high standards of safety;

(2) Protecting our air and water from pollution, reducing excessive noise and supporting sound land use patterns and community development;

(3) Bringing people together and closer to the variety of benefits that our culture and economy offer;

(4) Minimizing the waste of human resources that results from congestion, inadequate transportation service and inefficiency in transport operations;

(5) Providing the lowest cost services to the consumer consistent with safety, a reasonable rate of return on capital, a sound government fiscal policy and other public interests;

(6) Promoting the most efficient use of scarce, finite and costly energy supplies;

(7) Creating and maintaining employment and capital opportunities.

b. Our transportation system should be accessible to and provide equal job opportunities for all our citizens—with special recognition of the needs and potential contribution of the elderly, the handicapped, the poor, minorities and women. It must respond to varying demands of the tourist, the family and business. The consumer should be an active participant in the formulation of transportation policy.

4. Multimodalism—Maintaining Diversity and Competition

a. The strength of our transportation system lies in its diversity, with each mode contributing its unique and inherent advantages, and responding to different consumer demands at various levels of cost and quality of service. The government should preserve and encourage this diversity by:

(1) Promoting equal competitive opportunity for all forms of transportation;

(2) Encouraging cooperation, connectivity and integration among the modes;

(3) Recognizing that previous policies premised on the monopoly power of individual transportation modes need to be reexamined and regulatory policies adjusted accordingly.

5. The Federal Role—Predominant Concerns of the Federal Government

a. The Federal Government should define its role vis-a-vis State and local governments by exercising responsibility pursuant to Constitutional and statutory authority:

(1) In international commerce;

(2) Over interstate commerce, particularly in supporting the development, viability and modernization of major interstate networks in rail, highways, air and water;

(3) In defining and working to advance national priorities through persuasion, incentive, regulation and enforcement, where the magnitude of the problems and their national importance require a Federal response (e.g., safety, reviving the city centers, energy conservation);

(4) In shoring up weak elements of the transportation system on a temporary basis where the national interest is served by helping to preserve diversity and prevent nationalization;

(5) To assist States and municipalities on the basis of shared responsibility and priorities;

(6) In direct, selective investments in research and development, planning and activities that are in the interest of national security and other exclusively Federal concerns.

b. The Federal government must move in the direction of encouraging more rational public and private financing of capital and operating costs in the transportation sector, consistent with:

(1) Sound fiscal policy and cost controls, including vigorous assessment of the inflationary impact of Federal actions;

(2) Increased participation, where possible, of State and local governments in projects primarily benefiting their residents;

(3) More equitable use of Federal subsidies, insuring that they are necessary to achieve a clearly defined national interest and minimizing their detrimental impact on competing modes;

(4) Careful assessment of the costs and benefits of alternative uses of Federal funds;

(5) Recognition of the real costs of transportation services, including their environmental consequences;

(6) Allocating limited Federal resources on the basis of comparative merit without reference to fixed trust fund revenues;

(7) Encouraging the user to pay for the full cost of Federally financed services and facilities, except where the public interest correctly dictates a subsidy;

(8) Economic and regulatory policies that enable transportation industries to earn a reasonable rate of return on investment, attract capital, provide expanding job opportunities and protect the legitimate needs of the employee, consumer and investor;

(9) Reasonable labor policies and practices that will enable the efficient use of Federal transportation funds in reducing unemployment and poverty.

c. The Federal government should improve its performance measures—in assessing the effectiveness of alternative Federal program and policy options and evaluating the health and progress of the transportation system—even though the diversity in transportation needs and cost of providing services make infeasible the formulation of uniform performance standards for all States and localities.

POLICY PRIORITIES

The Department of Transportation must attach special importance to issues involving the more energy-efficient use of the automobile, the financial viability of railroads and airlines, and more effective urban transportation systems. We must also address on a priority basis the Federal role in water transportation, the highway program and rural transportation. These and other critical transportation issues should be resolved in the context of the policy principles set forth above.

AUTOMOBILE

The automobile is and will continue to be the most universally accepted form of transportation in America. It is the most flexible and responsive mode and provides the greatest freedom of mobility. It accounts for significant employment opportunity. But, it is also a major contributor to fatalities, injuries, air pollution, high energy consumption and congestion. Both its technical

performance^a and its more intelligent and socially responsible utilization are matters of urgent and continuing concern. We will seek to preserve and maximize its unique contributions. At the same time, however, we will strive to increase its energy efficiency, economic and socially responsible use and safety. We will continue to work with State and local governments to make better use of the automobile, particularly in urban areas, through carpools, outlying parking facilities and improved traffic management.

RAILROADS

In an era of increasing awareness of the need for energy conservation and environmental protection, railroads must play a major role. Appropriate government decisionmaking requires a separate discussion of rail freight and rail passenger service.

Rail Freight Service.—The development and modernization of a nationwide, privately owned, interstate rail freight system is essential to the national interest. Such a system is necessary to assure at the lowest possible cost a means to meet with sufficient capacity the increasing transportation needs of a growing economy and to support national priorities of defense, energy conservation, environmental protection and safety.

Special, short-term Federal intervention and support are necessary to restore the operating and financial viability and modernization of major portions of a vital industry in which nine firms have gone bankrupt in the last 10 years and in which the industry-wide rate of return on net investment after taxes has averaged only 3 percent over the last 11 years. Improving and modernizing the rail freight system and keeping it in the private sector requires prompt Federal action to:

- Provide assistance to the industry in restructuring its system along more rational and efficient lines, reducing excess, duplicative capacity and eliminating non-essential routes from the national interstate network, while rehabilitating and modernizing those facilities.

^a The Department is funding research and development of an automobile which will have the following characteristics: Not over 3,000 pounds in order to achieve at least 30 miles per gallon, safely constructed to prevent fatalities at up to 50 MPH, meeting a high level of environmental standards, and designed to be both economically and esthetically appealing to the consumer. See DOT Document Number 8580-207, *Traffic Safety*, 1973, pages 5-7.

ties remaining in the rationalized interstate system;

- Modernize Federal regulatory policies that have prevented the railroads from being efficient competitors among themselves and with other modes;
- Remedy the inequity of government subsidy to the railroads' major competitors—water carriers and, to some extent, perhaps elements of the motor carrier industry;
- Encourage the continued development of more efficient labor and management practices in the railroad industry.

We intend to work closely with the railroads and the rail labor unions—through persuasion, financial incentive and regulation—to further these policies. Our program to accomplish these tasks involves:

- Assistance, through expedited merger and acquisition proceedings, in the creation of a privately owned and managed appropriate nationwide interstate trunk line rail freight system which will provide at least two competing lines between major industrial points, cities and seaports;
- Federal guarantee of loans to provide needed capital to rehabilitate deteriorated plant and equipment and to modernize facilities;
- Reform of the economic regulatory structure to permit pricing flexibility, abandonment of unprofitable routes⁴ and a more efficient handling of regulatory procedures;
- Encouragement of State and local governments or shippers to assume responsibility for light density branch lines outside the appropriate nationwide interstate freight system, with some transitional Federal economic assistance;
- Steps to revitalize the railroad system in the Northeast and Midwest, where eight railroads have already gone bankrupt, as follows:
 - (a) Create and assist a private corporation (ConRail) to operate more efficiently, and rehabilitate, much of the properties of seven of the eight bankrupts;
 - (b) Encourage solvent railroads to purchase and operate profitably portions of the Northeast-Midwest bankrupt properties, con-

sistent with the evolution of a national interstate freight system;

- (c) Provide sufficient transitional operating support until the lines in the Northeast and Midwest become financially viable.

Rail Passenger Service.—Many of the reasons for supporting vital freight service also apply to passenger service. But national policy must distinguish between them. For example, rail passenger service does not play the same vital role as does rail freight in the Nation's economy and defense. Nevertheless, rail passenger service does support national priorities of energy conservation, environmental protection, alleviation of congestion and safety.

There is a strong Federal interest in determining whether rail passenger service provided by AMTRAK without Federal subsidy can compete with other passenger modes. To reach a position where rails have an equal opportunity to compete will require additional Federal investment in restructuring and rehabilitation. If rails cannot compete successfully for passenger traffic, a basic policy decision must be made consciously as to whether the national priorities justify long-term Federal subsidy, and, if so, at what level. In the interim, our immediate policy for AMTRAK includes:

- Establishment of a multi-year commitment of Federal support to intercity rail passenger service, enabling long-term planning and investment;
- Establishment of a firm limit on that multi-year commitment to ensure prudent investment and economical use of resources;
- Establishment of route criteria which will tend to depoliticize the selection of routes to be continued, added or deleted;
- Placing on AMTRAK the responsibility for the development and promotion of efficient intercity rail passenger service which will permit its management to respond to changing demand with minimum regulatory interference;
- Careful examination of the effect on competing modes of government assistance to AMTRAK;
- Encouragement of States to initiate intercity rail passenger service in conjunction with AMTRAK.

AMTRAK's long term objective should be to improve service and reduce costs through effective management. This may require elimination of services on routes where (a) transportation alternatives exist, (b) rail passenger service is demonstrably uneconomical, and (c) national priorities do not justify continuing Federal subsidy.

Finally, special Federal assistance may be appropriate to support development of high-speed trains in certain densely traveled regions, such as the Northeast Corridor, where improved service promises to become economically viable and Interstate highway and airport congestion can be alleviated by such rail service. A substantial Federal investment in high-speed rail passenger service, however, raises again many of the complex issues of equal competitive opportunity among the modes, Federal priorities of energy and environmental conservation, what corresponding changes, if any, should be made in other Federal transportation investments in the corridor (i.e., highways, airports) and the appropriate sharing of Federal and State responsibility. We will work with the Congress to develop a program for high-density corridors, consistent with basic policy principles set forth above.

AVIATION

Consistent with general transportation policy principles, the Administration is formulating an aviation policy that will serve as a basis for coordination among Executive Branch agencies, for advocacy before the Civil Aeronautics Board (CAB) and in the submission of Administration legislative proposals to the Congress. Our aviation policy initiatives include both domestic and international issues.

Domestic Air Policy Priorities:

- Maintain aviation's excellent safety record, enhance existing safety regulations, drop unnecessary regulations and continue to upgrade the air traffic control system to reflect the needs of different users;
- Reform the air regulatory structure through increased pricing flexibility, some liberalization of entry and exit policy over a transitional period, prevent anticompetitive practices and expedite administrative processes. (We will propose permitting air carriers to lower prices without regulatory interference to the direct cost level, permitting some up-

ward price flexibility subject to supervision by the CAB. Our entry proposals will free carriers from cumbersome certificate restrictions, permit some sensible expansion by existing firms into new markets and encourage some new entrants);

- Take measures to foster more efficient use of fuel, consistent with the national objectives of fuel conservation and market allocation of energy resources. (We have recommended to the CAB a temporary fuel-cost pass-through. Over the long term, the increase of load factors from 55 percent to 65 percent will promote more efficient use of fuel. The Federal Aviation Administration will continue to stress conservation measures.);
- Strengthen the financial viability of the well-managed carriers by ascertaining and encouraging the optimal domestic industry size, number of airlines and route structure to provide reliable long-haul trunk line service between major cities, to assure adequate service to smaller communities and to enable healthy competition between efficient carriers, permitting them to earn a reasonable rate of return on capital;
- Modernize Federal financing policies to determine when subsidies are appropriate for maintaining essential services that are unprofitable but in the national interest;
- Improve the equity of the airports and airways user charge system;
- Improve airport planning consistent with regional land use planning, projected capacity requirements nationwide, fairness among State and metropolitan areas and environmental protection (such as noise abatement);
- Define the government's responsibility for promoting financially viable and competitive air carrier, airframe and engine manufacturing industries;
- Recognize and support the development of general aviation, consistent with the need for it to pay its own way to the extent appropriate.

International Air Policy Priorities:

- Seek a more rational international route structure by identifying routes that are in the national interest, maximizing fuel efficiency and minimizing adverse environmental impact, developing improved domestic-international route system integration and establishing the

⁴We must make sure that any such abandonments do not foreclose proper access to future energy or other essential resources.

relative roles of scheduled and charter service. (For example, we will assess the relative merits of an air policy for international service in which a few U.S. carriers provide most of our international service in comparison to a system in which U.S. international carriers would be encouraged to have domestic routes and present domestic trunk line carriers to acquire international routes with feeder service behind major gateways, or variants of the foregoing.);

- Promote a stronger U.S. flag carrier system through an affirmative action program to represent U.S. foreign and commercial policy interests before international bodies and to protest vigorously anticompetitive and discriminatory practices by subsidized foreign carriers;
- Seek fare structures that permit efficient, unsubsidized U.S. air carriers to earn a reasonable return on investment in order to attract capital from the private sector and to provide job opportunity;
- Facilitate efforts by the U.S. airframe and engine manufacturing industry to maintain its leading role in international aviation.

URBAN TRANSPORTATION

Urban transportation policy must be part of a coordinated and comprehensive approach to city and suburban needs. Each urban area is unique—with different needs and different development objectives—and each should be free to choose for itself the transportation solutions that best serve its objectives. At the same time, urbanized areas across the country have many transportation problems in common.

Federal policy for urban transportation should at once respond to locally determined transportation goals and serve such national objectives as the enhancement of our cities as vital commercial and cultural centers, control of air pollution, conservation of energy, access to transportation for all citizens and particularly the disadvantaged, facilitation of full employment and more rational use of land.

Because mass transit serves all these objectives, simultaneously and well, it merits strong Federal as well as State and local support. This is now possible because of the National Mass Transportation Assistance Act of 1974 and the Federal-Aid Highway Act of 1973, which provide greater local

flexibility in the use of Federal financial assistance and offer new and expanded sources of funds for public transportation improvements. States and metropolitan areas must work together to update their proposals for Federal funding on the basis of changing conditions and a continuing comprehensive planning process.

Many Americans live in suburban places of lower population densities, which are well served by the private automobile, and tend to commute to work in central cities, which suffer from the adverse side effects of the automobile—congestion, pollution—and thus would benefit from public transit. An efficient metropolitan transportation system, therefore, requires a mix of modes, public and private, properly coordinated and utilizing the relative advantages of each.

The burgeoning demand for increased public services, however, has put a serious strain on available public funds, making it essential that Federal resources be allocated fairly and used with maximum effectiveness. Therefore, Federal policy should:

- Require analysis of the cost-effectiveness of transportation alternatives as a condition of eligibility for Federal assistance for any major mass transportation investment;
- Require as a condition of Federal funding the development and implementation of transportation system management plans to improve the efficiency of existing facilities and transit services and conserve energy (e.g., carools, exclusive bus lanes, higher parking fees);
- Give increased emphasis to improved service in the near term as distinguished from building new facilities to meet anticipated transportation demand over the long term;
- Regard the present types of fixed rail systems as appropriate only in a few highly populated metropolitan areas where State and local land use and development policies are explicitly committed to the generation of high densities sufficient to support these modal choices on a cost-effective basis;
- Support efforts to develop a type of rail system which is much less costly to build, operate and maintain;
- Give preference in Federal funding to localities that demonstrate consistency with broader community development goals, effective processes for resolving jurisdictional conflicts, ef-

fective cost controls and a substantial State, regional and local financial commitment;

- Encourage the planning and operation of public transit on a coordinated, metropolitan-wide basis.

WATER TRANSPORTATION

Water transportation is energy efficient and cost-effective. We anticipate increased competition for use of the waterways, coastal zones and port areas. Because of competing demands for coastal resources and the need to protect unique ecology, coordination among Federal, State and local governmental authorities and comprehensive coastal zone planning is essential for port development.

In water transportation, however, the split in responsibilities among various Federal agencies complicates the development of coordinated policy and planning and the achievement of balance among competing transportation modes that would result in the most efficient system for the Nation as a whole.

National inland waterway policy should be compatible with national transportation policy. It has become apparent from the increasing criticism of adversely affected carriers that use of the existing public investment criteria for the water mode is inequitable. Some common denominator is required against which public investments in alternative modes of transport can be assessed. Economic efficiency and considerations of equity also lead in the direction of some form of cost sharing. Insofar as it is practicable and administratively feasible, the identifiable beneficiaries of Federally improved and maintained waterways should bear some share of development and operating costs through a system of user charges. The Administration is now studying water resources policy, including cost sharing for navigation, under the provisions of Section 80 of the Water Resources Development Act of 1974.

The probable extension of a U.S. economic zone to 200 miles, along with increased off-shore drilling, the need for increased port capacity and the importance of protecting the marine environment, will have a significant impact on Coast Guard responsibilities. It is imperative that the Coast Guard, which is the primary law enforcement agency on the high seas as well as the agency responsible for maritime safety, have an enforce-

ment capability which is commensurate with its legislative responsibilities.

HIGHWAY TRANSPORTATION

Highway transportation is essential to the preservation of American mobility and to our economic well-being. We intend to maintain, modernize and improve our highway system, consistent with the following policy:

- Interstate commerce and national security require that a high level of performance be maintained on our Nation's major highway systems;
- Cooperation among Federal, State and local governments and increased program flexibility will enable each level of government, within its sphere of interest, to best determine priorities and improve its transportation systems in the most cost-effective manner;
- Federal assistance to highway programs should be altered to acknowledge that:

(1) Completion of the Interstate System is a top Federal priority, especially where connective intercity links are concerned. Where links are proposed that principally serve local needs, we will expect State and local officials to justify these expenditures carefully.

(2) Older segments of the Interstate System need to be modernized and rehabilitated.

(3) Flexibility in other Federal-aid highway programs should be increased by providing State and local officials more options in their selection of projects within broad-based program categories. Federal requirements should be simplified, for example, by accepting certification by the Governors that certain State management procedures are equivalent to Federal requirements.

(4) The initial planning of most of today's highways was undertaken when energy was cheap, considered in plentiful and unlimited supply and environmental considerations were not as prevalent. Now, we encourage State and local communities to rethink some of the highway planning already done so as to determine if a particular highway still offers the best transportation alternative. Where it does, we urge that it be built as soon as possible; where it does not, we urge policies that do not place an undue disincentive on the alternative.

(5) Funding authorizations for highway transportation programs should be adequate, but consistent with other transportation and national priorities; they should not be affected either way by the current revenue yields of gasoline or other automobile taxes.

- The special problems of urban areas require an intermodal approach, utilizing the option to transfer Federal highway funds to mass transit, where appropriate, and improving traffic management practices;
- The special problems of rural America must be separately addressed and programs developed to meet its particular needs;⁵
- Since large segments of the Nation's highway infrastructure are now in place, we must address the future requirements for and utilization of the Highway Trust Fund;
- Vehicle and highway safety remains a high priority which we share with State and local governments;
- We will seek a more competitive trucking industry, eliminating archaic and energy-inefficient constraints on service;
- Intercity bus service meets an important national need for economic travel between cities and smaller communities.

CONCLUSION

As we work toward improving passenger and freight transportation service by air, water, truck, bus and rail across the Nation, making more effective, intelligent and socially responsible use of the private automobile, and protecting society against adverse impacts of transportation, we will continue to emphasize comprehensive planning and multimodal solutions.

To this end, we will work to:

- Allocate Federal resources more fairly among the modes;
- Resort to subsidies, direct and indirect, only when a clearly defined national interest requires the development, modernization or maintenance of essential transportation service;

⁵ We must also review the special temporary and changing transportation needs of Alaska and recommend programs that will support the development and transport of new energy and other resources, the population influx and access to remote rural areas.

- Reform the regulatory structure to remove outmoded constraints on competition among carriers and modes;
- Develop incentives for more efficient intermodal services through research, development and demonstration programs;
- Identify and eliminate unreasonable barriers to intermodal cooperation—encouraging cross-modal terminals, through ticketing, multimodal ownership and container shipping where efficiency, lower prices and convenience to shippers and consumers are the consequence;
- Improve our information base, measures of performance, cost-benefit methodology and planning and program evaluation capability to respond more efficiently to transportation needs and understand the indirect effects of our actions;
- Recognize the need for a fair return on capital by the private sector providers of transportation services and the need for sound fiscal responsibility in the provision of transportation services supported by public funds.

As we implement our national policy, we will monitor the effect of Federal actions in terms of the following considerations:

- (a) Is the public getting lower cost, safe and efficient service?
- (b) Are services accessible to those who need them?
- (c) Is the private transportation sector operating in a competitive manner?
- (d) Is the transportation sector, including the manufacture of equipment, growing in productivity, developing new technology, improving safety and performance?
- (e) Is the transportation system sufficiently flexible and adaptable to serve properly changing national priorities and lifestyles and new economic and community needs?
- (f) Is the transportation sector attracting the capital it needs to modernize, provide employment and render the desired service?
- (g) Is the U.S. international transportation sector able to compete fairly and effectively with foreign carriers?

II. GOVERNMENT AND THE PRIVATE SECTOR

National transportation policy must reflect the Federal government's responsibilities and objectives relating to the private sector of our economy. In this chapter, we will examine:

- The broad policy set forth in the Department of Transportation's statutory charter and related laws;
- Private sector problems currently demanding government attention;
- The range of policy instruments available to the government;
- Policies concerning non-economic regulation, economic regulation, subsidy, government operation and intermodal relationships.

THE CHARGE TO THE FEDERAL GOVERNMENT

The Department of Transportation Act of 1967 calls for the development of national transportation policies and programs that will provide fast, safe, efficient and convenient low cost transportation. It establishes the Department of Transportation to assure the coordinated, effective administration of the transportation programs of the Federal government, and to facilitate the development and improvement of coordinated transportation services, to be provided by private enterprise to the maximum extent feasible.

Consistent with our traditional economic philosophy, most transportation services are furnished by private operators. Federal transportation expenditures represent only three percent of the total. Therefore, the logical solution to the Nation's transportation problems must be found, for the most part, in the private sector.

Government's responsibility toward the private sector has principally been exercised in:

- Maintaining availability to the public of vital transportation services;
- Ensuring that our transportation system operates in conformance with the Nation's broader goals, e.g., safety; air quality; energy conservation; national security; reduction of congestion; adequate service for the disadvan-

taged, poor, elderly, and handicapped, and preventing monopolies or undue preference or discrimination;

- Promoting efficiency and productivity of transportation services.

PRIVATE SECTOR PROBLEMS DEMANDING GOVERNMENT ATTENTION

Until some entirely new mode of transportation technology emerges, the Nation's required transportation infrastructure is for the most part in place.¹ What is needed is not more capacity, but modernization, repair and more effective utilization of existing capacity.

The immediate financial prospects of the private transportation industries tend to reflect the general health of the economy, both its structural soundness and its cyclical fluctuations. For some transportation companies, the outlook today is threatening; the risk of major failures is quite real. This is in part a product of inefficient economic regulation, the impact of increasing labor and fuel costs combined with reduced revenues caused by the economic downturn and, in some instances, deficient management or industry structure.

Our railroads face a critical need to modernize their existing physical plant, to be freed from the encumbrance of excessive regulation and to rationalize a network financially overburdened (a) by excess capacity, (b) by a failure to manage physical facilities properly and (c) by an overly fragmented management structure. Some firms in our national air system suffer from serious short-term financial problems caused largely by the sharp rise in fuel prices and depressed traffic levels associated with the economic recession from which we are now emerging. Mass transit, which is reversing a 25-year decline in ridership, still needs better quality of service, better control of its labor

¹ Some additional urban fixed and light rail facilities, essential segments of the Interstate Highway System and further transportation development in Alaska are examples of new infrastructure that is still required.

costs and modern equipment and, in a few places, rapid or light rail facilities, in order to attract greater patronage. The motor carrier industry, despite a temporary decline in traffic earnings and increased fuel costs adapts to economic downturns better than most other modes and faces no threat to its viability. While the industry generally is faring well, some trucking firms and independent owner-operator truckers are facing financial difficulties. The outlook for the inland waterway operators is good. The prospects for the intercity bus industry will be affected by the extent to which rising gasoline prices reduce auto travel and by rail competition. The maritime industry, except for idle tanker tonnage, should face no serious problems in the immediate future.

Beyond the need for short-term economic adjustments, some segments of the transportation industry are beset with more fundamental problems. A number of once well-intentioned public policies have produced operational rigidities and economic inequities and imbalances among the industries. These unanticipated and undesired by-products of past Federal actions constitute an agenda for current policy attention. Operations under monopoly and franchise have thwarted the business incentives which prevail in other markets, resulting in distortions clearly detrimental to the public interest such as high prices, the cross-subsidization of some uneconomic markets by others and the prevention of integration among modes (e.g., rail-water, rail-truck).

To be effective, government must function as an adaptive system, continually seeking a judicious balance between preserving the vitality of a free market and responding to the failure of the market to provide the public with essential transportation services. Both the symptom—inadequate or unresponsive market performance—and the systemic problem—outmoded policy and regulation—need to be under constant review.

In addition, the public interest requires a continuing Federal effort to mitigate the undesirable side effects of transportation where the normal incentives of the private market place are inadequate to the task. Substantial government intervention has become necessary to ensure safety, conserve energy, reduce crime and minimize adverse environmental effects. These issues are developed more fully in Chapter Four.

ALTERNATIVES FOR GOVERNMENT ACTION

Governmental responses to transportation problems range from voluntary cooperative programs with industry which enable the market to function more efficiently (such as the original Auto Fuel Economy Labeling Program) to direct Federal intervention (such as the Sky Marshal Program when aerial hijacking was at its peak). The public looks to government as the only agent that will properly represent community and societal interests and also is powerful enough to make industry revise its practices. However, from the principle that government should do only what the private sector cannot or will not, it follows that government should intervene only to the extent necessary to serve important public needs.

The Federal government should operate initially, to the maximum extent, through cooperative measures designed to improve the efficiency and productivity of transportation systems. Such measures include supporting the development of new technologies, research and special studies to improve our knowledge about how the system operates, the collection and compilation of planning data and selected experiments and demonstrations. Because of the importance of controlling the costs of transportation services, we are placing greater emphasis on seeking out and testing improved methods of operation and on developing more efficient equipment and better techniques for the management of labor and facilities. The government must ensure that the benefits of research and development are made available to private enterprise and other governmental agencies through effective dissemination programs and appropriate incentives for their use.

When the public interest requires that government intervene to change an industry practice, we prefer to begin the process by working jointly with the private sector through voluntary cooperative programs. Joint industry-government action—including, where appropriate, the consumer or other representatives of the public—provides greater opportunity to exploit the superior technical knowledge resident in the industry and also enables the suppliers and operators to introduce changes gradually into their complex and highly interdependent systems. A cooperative program will enable the industry to adapt to new requirements more efficiently, minimizing the added cost which the consumer must eventually

bear. The auto fuel economy improvement program, for example, seeks the voluntary cooperation of industry in producing more fuel-efficient autos.

More forceful government intervention includes regulation (non-economic and economic), subsidy and government operation. These require continuing evaluation because they may create inequities and inefficiencies.

NON-ECONOMIC REGULATION

When the public welfare is endangered, the government must act through regulatory standards as soon as it is evident that adequate remedies will not emerge through the forces of the market place. Safety and environmental protection are two such areas.

The development of sound regulatory standards requires public debate and extensive consultation with industry and consumer groups. Standards may force industry to incur substantial costs—costs which may have precluded voluntary remedial action in the first place. The costs may affect different firms or industries inequitably, depending upon the changes each finds necessary to achieve compliance. The adoption of uniform performance standards (which give all parties the same performance target) rather than uniform design standards (which would impose on everyone the same detailed product specifications) not only is more even-handed, but will usually result in lower long-run costs to the consumer.

The standards adopted must strike a judicious balance between results achievable, costs and secondary impacts. Complex transportation problems involve multiple agencies, multiple measures of good and often the redistribution of income. Seldom are we able to optimize only one given factor, or enjoy the analytical luxury of absolute measurement. We must be sensitive to second and third order effects and care must be taken to ensure that the standards will achieve an overall net benefit for the public. Finally, we must keep standards under periodic review, evaluating their validity under changing conditions and advancing technology.²

ECONOMIC REGULATION

The railroads were brought under Federal economic regulation in 1887 in response to complaints

² Non-economic regulation is discussed more fully in Chapter Four.

of monopoly, regional discrimination and arbitrary rate making, and out of a conscious political decision to develop the West. In the 1930's, the infant truck and air carrier industries were placed under regulation in order to stabilize their markets, promote their development and growth and prevent strong competing modes from thwarting their appropriate development. In the ensuing years, a small part of the inland water mode was brought under regulation. Extensive structures of detailed regulations were developed for these systems. Despite changes in the environment in which these industries operate, the regulatory patterns have been resistant to change. In many ways, they no longer serve the public interest as originally intended.

Carriers, shippers and passengers frequently face a web of restrictive government regulations which stifle competition, discourage innovation and foster inefficiency. The present regulatory structure is in many respects outdated, inequitable, inefficient, uneconomical and frequently irrational. It often misplaces incentive and disincentive, distorts competitive advantage, protects inefficient carriers from effective competition, overrestricts market entry, artificially inflates rates and misallocates our Nation's resources. Under the current system, for example, many products bear a higher price tag because price fixing and other forms of shelter from competition sanctioned by our regulatory agencies protect the least efficient carriers and permit rates far over cost. The inflexibility of these outmoded regulations impedes the development of lower cost, more efficient national transportation.³

The challenge today is to revitalize the privately owned but regulated segment of the transportation system, while assuring that essential service is maintained, that adequate safeguards are provided against the abuse of economic power and that well-managed firms have sufficient earnings to attract capital. The key to this policy, we believe, is increased reliance on competitive forces, free of unneeded regulatory constraints. Obviously, competition implies the possibility that some poorly managed enterprises will fail. Bankruptcies do not necessarily signal the ill health of an entire industry; in fact, they may serve the public by weeding out the inefficient. The presence of the government should not render inoperable the rules or the risks

³ More detailed descriptions of current problems may be found in Chapter Five of the *Economic Report of the President* which was transmitted to the Congress in February 1975.

that prevail in other areas of commercial enterprise. Unfortunately, in our regulated markets, too many operators want to be protected and to be guaranteed profits. For the government to continue to encourage this expectation, when essential transportation services are not being threatened, is a disservice to the public.

Priorities for Reform.—In our current reexamination of regulatory policy, we are taking a much harder look at the way present regulation protects markets and the effects of this protection on cost-based prices, optimum productivity and energy efficiency. We will work to achieve specific reforms in the regulatory system by advocacy before regulatory agencies and through proposed legislation. Among our priorities for reform, we propose statutory amendments to:

- Make healthy competition a primary objective of regulatory action;
- Allow greater price flexibility and more price-service quality options, letting competition establish rates in the market place;
- Prohibit anticompetitive practices and limit the right of carriers to set rates by collective agreement through rate bureaus which are immunized from antitrust law;
- Liberalize somewhat restrictions on carriers entering markets with new services and require prompt regulatory consideration of their requests;
- Permit carriers greater freedom to abandon unprofitable operations, discontinuing the inequitable policy of cross-subsidization;
- Abolish archaic constraints on service that waste fuel and encourage inefficiency;
- Encourage intermodal competition;
- Encourage intermodal joint use of facilities.

Promoting Healthy Competition.—Outmoded regulation has stultified the ability of the market place to act as the ultimate arbiter of efficiency and price. The current regulatory system prevents railroads from effectively competing for the kind of traffic they can best handle by restricting certain movements and prices. As carriers of bulk material and large shipments, railroads compete with predominantly unregulated water carriers and pipelines, as well as with trucking, a substantial proportion of which is unregulated. In part because of its inability to compete with these unregulated competitors, the railroad industry has declined.

To reverse this decline and restore competition as a primary concern, we have proposed amendments to the Interstate Commerce Act to provide more competition among railroads and between railroads and other modes. We have also proposed a limited experiment in which certain commodities not regulated for truck and barge would not be regulated for railroads. But, restrictions on undue preference and predatory pricing practice would remain. The experimental program, moreover, would apply only to certain selected areas where the railroads would be in effective competition with other modes.

Similarly in aviation, we propose amending the Federal Aviation Act of 1958 to make maximum reliance on competitive market forces a primary objective of CAB certification. We will soon recommend legislation that will increase competition while preserving the important national and consumer interests that our airlines serve. We must move carefully during the transition to a more competitive system to ensure that all airlines have an equal opportunity to adjust to the requirements of the market place, that they are not penalized because of financial turbulence that a transitional environment could foster and that the objectives of increased efficiency and safer service are in fact being achieved. At the same time, we will study, and then recommend, what the appropriate market structure of the domestic and international air carrier industry should be.

Price Flexibility.—For all regulated carriers, we must replace overly rigid and inefficient price structures. Artificially low ceilings have held some rates below competitive levels, driving businesses into financial crisis and preventing adequate maintenance of facilities or investment in modern and safer equipment. Artificially high rates above competitive levels have deprived consumers of lower cost service and industry of the revenues that would be generated by broader consumer participation. We should move in measured pace in the direction of greater price flexibility.

We should encourage cost-based rates and quality/cost alternatives that will meet the full spectrum of consumer needs with safe, reliable and accessible services, while optimizing the productivity and efficiency of the industry.

We have proposed price flexibility for the railroads, permitting carriers to set rates to reflect their efficiencies as long as they do not fall below variable costs. At present, some railroad rates are

far above the fully allocated costs of providing service while others do not even cover their variable costs. This results in some shippers subsidizing other shippers and in misallocation of traffic among competitor modes. Railroads should be able to attract additional traffic by reducing rates on overpriced rail service and removing the subsidy from that traffic which is not paying its way.

We have proposed a definite time limit for completing Interstate Commerce Commission (ICC) rate hearings and the establishment of a no-suspend zone in which carriers could introduce non-discriminatory rate changes without fear of Commission suspension. Permitting greater carrier initiative in rate setting and requiring an expedited ICC review will result in improved service, a more economical distribution of traffic among the modes and a lower and more equitable overall freight bill for shippers and consumers. Similarly, we will propose measures for increasing the price flexibility of regulated motor carriers and airlines.⁴

Entry.—Discouragement of entry by new firms and of innovation and new technology have been, in some instances, an unfortunate by-product of the regulatory process. In naturally competitive markets, eased entry will produce more efficient service, innovative technology and lower prices. We will encourage somewhat more liberal entry policies, recognizing the need to balance freedom of entry with the requirements of safety, financial fitness and reliable and accessible service to all consumers. We must also recognize as we make changes that financial commitments have been made under the present rules; thus, some of our proposals will contemplate a transitional period.

Anticompetitive Practices.—Anticompetitive practices are inconsistent with a policy of promoting greater reliance on market forces. Regulatory agencies should not adopt policies that permit anticompetitive practices where there are competitive alternatives available that will serve the national interest as effectively. Under Section 5(a) of the Interstate Commerce Act, regulated carriers are permitted to establish rates through rate bureaus approved by the ICC. Although rate bureaus provide valuable services to their members and the

⁴ We have proposed to the CAB that air carriers be permitted to pass through increasing fuel costs. We will also propose legislation to permit them to lower or raise prices within reasonable parameters (e.g., as long as direct costs are covered).

shipping public, they also discourage pricing flexibility and service innovation by collusive price setting and tend to hold rates above a competitive and compensatory level. We would prohibit railroad and motor carrier rate bureaus from voting on single line movements and limit consideration of joint line rates to those carriers which participate in the joint movement. We would also prohibit rate bureaus from taking any action to suspend or protest rates. These changes would specify those rate bureau activities that cannot be approved by the Commission and which will no longer be immunized from the operation of the antitrust laws. We also intend to propose legislation to prohibit certain unreasonable anti-competitive practices by the airlines.

Abandonment of Unprofitable Operations.—All carriers should be free to abandon unprofitable routes and services, except where there is a strong national interest in retaining them or where State or local governments assert a special interest and will assume financial responsibility. Where there are Federal, State or local interests in continuing transportation services that are not economically viable, then the nature of the interest, the route or service required and the responsible level of government must be identified and the level of support determined through the appropriate political process. Our abandonment policies, however, must recognize (1) the need for sufficient advance warning to the communities affected and (2) the fact that many communities were organized around present rail or other facilities and thus alternative methods of transportation must be developed.

Our experience with the railroads teaches us that we cannot continue to ignore the real cost of maintaining unprofitable services by prohibiting exit or abandonment and by acquiescing in, if not encouraging, cross-subsidization. One consequence of such a practice is that firms are forced to postpone capital investment necessary to keep their facilities modern, safe and efficient. Customers in profitable markets should not be forced to subsidize those in unprofitable markets. Stockholders and employees should not have to face corporate bankruptcy because their firms are forced to continue nonprofitable services.

A more flexible exit policy will enable each mode to concentrate on the kind of services it best provides. As railroads exit from unprofitable local

service branch lines, motor carriers will find increased consumer demand for their services. As railroads shed their nonprofitable routes, they will be able to lower prices and concentrate on long-haul, bulk commodity service, where their energy efficiency and carriage capacity are unique assets.

For the railroads, we have recommended that the process for initiating abandonments be modified. We would require prior notice of interested parties, and allow local communities adequate time to plan for alternatives. On lines that the ICC determines may be abandoned, we suggest a mechanism by which States and localities may assure continued rail service by making up the losses. Similarly, for air carriers, we would modify restrictions on exit, except where there is no alternative service available, in which case a showing of sustained losses over a period of time would be required.

Abolishing Archaic Constraints.—We must abolish artificially contrived restrictions on services and supplies that are wasteful of energy and other resources and that impose additional costs and higher prices on the consumer. We have recommended or will shortly propose eliminating outmoded constraints on services through legislation and by advocacy before the independent regulatory agencies, including:

(a) Phasing out over five years some restrictions now contained in airline operating certificates (i.e., mandatory stops, prohibitions on carrying local traffic, etc.);

(b) Removal of unreasonable restrictions in motor carrier certificates—circuitry, underloading, empty backhauls and some commodity restrictions;

(c) Alleviation of constraints on efforts by railroads to eliminate duplicative and excessive facilities, utilize rolling stock more efficiently and restructure more rationally and quickly.

Encourage Intermodal Competition.—Regulatory reform will not only increase the efficiency of each mode, but it will bring about a more rational allocation of market shares among the modes with each realizing its inherent advantages. More competitive pricing, liberalized entry and exit policy and the removal of archaic service restraints will help equalize the rules under which regulated and nonregulated carriers compete and offer consumers the widest range of price/service options. We

further propose the elimination of unreasonable constraints on intermodal cooperation and multi-modal ownership.

In conclusion, the Federal regulatory structure serves important public interests. It should be reformed and made more efficient by expediting its review procedures and enhancing its capability to protect the consumer's interest. As the Supreme Court said in *American Trucking Associations v. Atchison, T. & S. F. R. R.*, 387 U.S. 397 (1967):

"Flexibility and adaptability to changing needs and patterns of transportation is an essential part of the office of a regulatory agency. Regulatory agencies do not establish rules of conduct to last forever; they are supposed, within the limits of the law and of fair and prudent administration to adapt their rules and practices to the Nation's needs in a volatile, changing economy. They are neither required nor supposed to regulate the present and the future within the inflexible limits of yesterday."

Regulation should assure that transportation services are reliable, prevent discrimination and anticompetitive practices, provide the public information about services and rates, encourage the development of innovative, energy-efficient, and environmentally-sound transportation systems and assure that national defense requirements and an efficient postal service are maintained.

SUBSIDY

Federal subsidies, both direct and indirect, were in many instances developed without adequate consideration of the competing interests or at a time when conditions were unlike those of today. As a consequence, there are inequities in present subsidy practice. We must, therefore, periodically examine Federal subsidies of private elements of the transportation sector for their continued validity. New requests for Federal subsidy should be given careful scrutiny.

The power of subsidy to promote national objectives is exemplified by the mail rate subsidy which fostered the development of our national and international air transportation system, now the best in the world. Conversely, the inequities that may result from such well-intentioned policies may be illustrated by the present structure of Federal programs in support of the different surface freight-carrying modes:

Water Carriers.—The inland and Great Lakes water carriers do not maintain or pay taxes on the rights-of-way they use. The inland waterway system is under constant improvement by the Corps of Engineers and enjoys the benefits of services by the U.S. Coast Guard. International water carriers receive Federal construction and operating subsidies.

Motor Carriers.—The extent to which motor carriers bear their share of the cost of construction and maintenance of the highways they use has not been fully established. The most recent study, which indicated underpayment, is soon to be updated. In any case, motor carriers are not required to make massive capital outlays for their use of highway rights-of-way.

Railroads.—The Nation's rail freight carriers build and maintain their own rights-of-way and often pay taxes on them.

While the carriers in all of these modes are today privately owned, our national transportation policy often affects their respective cost structures and the relative competitive relationships of the modes themselves. For example, if the barge operators were to be charged for rights-of-way now constructed and maintained wholly out of public funds, parallel rail transportation would be better able to compete on price.

In the passenger area, we see similar disparities:

Urban Transportation.—Most intracity bus companies and all subway systems are owned and operated by the public and require Federal, State and local government funds to supplement cash from the fare box in order to keep operating and for major capital improvements.

Rail.—Some railroads continue to operate passenger trains privately without Federal assistance (e.g., the Southern Railway System). AMTRAK, on the other hand, provides Federally-subsidized rail passenger service which the private sector is unwilling or unable to provide.

Intercity Bus.—Privately owned intercity bus companies receive no direct payment of public funds and make a partial if not complete payment to government at all levels for their use of the streets, roads and highways through fuel and license taxes. They receive a benefit in that they do not have to make an initial capital outlay for their right of way. They must compete, however, with subsidized AMTRAK and local service airlines.

Air.—Privately owned trunk airlines receive no direct public subsidy while local service airlines receive some for the purpose of providing air service to small communities. The users of airlines pay essentially their full share of airport and airway costs through ticket and waybill taxes. In contrast, general aviation, also privately owned, pays only about one-fifth of its share of the costs, primarily through fuel taxes; the general Federal taxpayer pays the rest.

Auto.—Privately owned automobiles pay to maintain our streets and highways through registration fees, tire taxes, and gasoline taxes paid at the State and local levels. The Federal gasoline tax has provided more than adequate capital funds for highway construction.

Government subsidy practices thus reflect a conflict in national concerns. On the one hand, government should provide equitable treatment to all modes because the market place is the best barometer of efficiency and consumer preference and for reasons of essential fairness. On the other hand, subsidies may be used to achieve Federal, State or local objectives or to remedy problems which differ among the modes, or the government may consciously favor a particular mode because it provides vital services consistent with other economic and social benefits such as energy efficiency, clean air and water, elimination of congestion and improved community development and land use. Consequently, differences in treatment are to be expected among modes, as well as among segments within modes. But, public policy now requires that the differences be the result of consciously made decisions and for specific reasons that are valid today other than habit, politics or historic precedent.

We are now conducting an analysis of the present structure of Federal subsidies from general revenues to the transportation sector. Since subsidies appear in a number of guises, the results of such a study depend somewhat upon what is included as a subsidy and how the amount is computed. The preliminary findings on the direct 1974 expenditures by mode indicate great contrast: The marine mode received more than one-third of the direct Federal subsidy monies, while the pipelines received virtually none. Urban mass transit was the second largest beneficiary followed by aviation,

highways and rail. Highway subsidies were about twice as large as those of rail.⁵

When subsidies are compared on the basis of average Federal dollars per ton-mile or per passenger-mile, the disparities come into sharper focus. Intercity rail receives a subsidy per passenger-mile that is almost one-third as large as the amount received in revenues, whereas the comparable air carrier subsidy per passenger-mile is about one-twentieth, and that of intercity bus is virtually nonexistent. Similarly, in the intercity movement of cargo, the size of the subsidy per ton-mile of waterway movement is two-thirds or more (depending upon how certain expenditures are allocated) of the amount received in revenues; in contrast, intercity movements by other competing modes are virtually subsidy free. Additional details may be found in Appendix 2.

A complete analysis of subsidy practices should also include the subsidy effects of governmental policies that are designed to meet other objectives. One example is the provision allowing taxpayers to deduct State gasoline taxes from Federal income taxes. Although predicated on our long-standing aversion to double taxation, this measure amounts to a Federal subsidization of drivers paying State and local user charges in excess of \$2 billion per year. In addition, where the rate-setting policies of regulatory agencies cover the costs of less efficient carriers, the more efficient carriers receive a kind of subsidy. While not a subsidy out of general revenue funds, the practice also has redistributive effects, forcing excessive prices on some consumers and providing windfall profit to some carriers. These redistributive effects will be mitigated somewhat by the proposed regulatory reforms cited previously.

Another factor in the analysis of how Federal expenditures affect the various modes is whether a particular tax (e.g., Federal gasoline tax) is considered a user charge or an alternative source of tax revenue (comparable to the Federal excise tax on telephone service or the corporate income tax). The fact that the contribution of drivers to

the Highway Trust Fund is not proportionate to their use of the Federal-aid highways—that there are substantial cross subsidies between cars and trucks, between urban and rural users, between those who seldom use the Interstate System and those who use it extensively—tends to support the view that the gasoline tax is more a revenue source than a user charge. In FY 1974, the total amount obligated for the highway program was \$5.3 billion. The very magnitude of this expenditure tends to favor auto and truck transportation over other modes whether or not the gasoline tax is considered a recovery through user charges, as we have assumed in the above comparative analysis.

Present Federal subsidy practices clearly act to support some modes to the detriment of others. Our administrators, legislators and the general taxpayer may rightfully ask whether the original rationale that gave rise to them is still valid and consistent with today's national priorities. For example, subsidies from general tax revenues are provided to privately-owned local service air carriers to ensure scheduled airline service will be maintained to certain small communities. Is this subsidy, currently in the range of \$70 million a year, still in the national interest? Could the air taxi industry provide comparable service profitably (or with lower losses) with its smaller and more economic equipment? Is it in the Federal interest to subsidize short-haul air travel, which may compete with intercity buses and passenger trains? Is a subsidy of air travel consistent with the goal of energy conservation?

In the international market, two U.S. flag carriers, after incurring extensive losses, petitioned in 1974 for direct government subsidy. In this case, the Administration developed instead an action plan to help restore the financial health of U.S. flag carriers. Elements of the plan are discussed in Chapter V.

The experience of subsidies for rail passenger service has been of a different nature. AMTRAK was established by Congress under the Rail Passenger Service Act of 1970 to maintain vital passenger service no longer provided by private carriers. Despite increasing ridership, it remains unprofitable and has required substantial subsidy. In 1975, Congress authorized \$1.1 billion of grants and loan guarantees to AMTRAK to sustain intercity rail passenger service over the next two years. It should be more clear within three or four years hence whether, and under what service conditions,

AMTRAK can establish a financially stable, efficiently managed, service-oriented system, responsive to passenger demand. One of the benefits of the subsidy authorized by the Rail Passenger Services Act is that it provides for the first time public exposure of the real cost of passenger rail service. This will help focus the future appropriate public debate on the extent to which the general Federal taxpayer should continue to support rail service as an alternative to the automobiles, air carriers and intercity motor buses which, with the exception of some local service air carriers, provide competitive service on a self-supporting basis.

Policy Preferences.—In attempting to mitigate the adverse consequences of subsidies on competing modes, we strongly prefer eliminating existing subsidies wherever possible through establishing appropriate user charges, rather than creating new subsidies to the adversely affected modes to equalize Federal support.

In general, capital subsidies should be used for expanding or improving the infrastructure, although care must be taken that their use does not induce excessive or overly expensive capacity. An appropriate use of Federal capital subsidy would be the support, on the basis of a reasonable Federal-local funding ratio, of the heavy initial capital costs of needed cost-effective mass transit improvements that will generate more passenger revenues at less per passenger cost but which are beyond the financial capability of most metropolitan areas. Operating subsidies, where authorized, should result in innovations and improvements in service to the consumer. Care must be taken that they do not become disincentives to making improvements and better managing operations or substitute for State or local subsidies. We must also make certain that such operating subsidies do not result in unreasonable wage costs or other unreasonable operating expenses. Further, State or local governments should match Federal operating subsidies where their residents are the primary beneficiaries since the higher the proportion of local participation in the subsidy, the higher the level of local responsibility and commitment to the project.

In the case of our railroads, where the national interest is served by a viable, competitive transportation alternative that is energy-efficient and environmentally sound, Federal subsidies may be used to restore that mode to a condition where it may compete effectively by providing:

- Capital assistance to facilitate rationalization of excess or uneconomical service and facility capacity;
- Capital assistance on a one-time basis to assist in rehabilitating and modernizing rail facilities;
- Temporary transitional Federal assistance to local communities and other institutions adversely affected by rail rationalization.

Such subsidies may take the form of grants, loans at varying levels of interest and terms or loan guarantees. Loans or loan guarantees are preferred because they indicate the government's intention to recapture the investment, or part of it, through more efficient operations.

Inefficiencies and inequities in subsidy could be reduced somewhat if each mode were to pay its own way through user charges. However, there is not necessarily a correlation between the amount of social benefits derived from a public expenditure and the amount that users would be willing to pay for the benefits. Public expenditures frequently result in spillover benefits to nonusers. Since there is no effective way to charge nonusers for these benefits and since users are generally unwilling to pay for benefits received by others, society would tend to buy less of the particular goods or service than the social optimum might suggest. Conversely, users are sometimes willing to pay higher charges than the optimum. Since the amount users are willing to pay in charges can be too much or too little, the level of public expenditure for a given good or service should not be determined exclusively by the public revenues from user charges.

In summary, our suggestions for a Federal subsidy policy are as follows:

(1) Federal subsidies are necessary in certain instances to serve important national purposes. These include conservation of energy, protection of the environment, preserving the urban centers, relieving congestion in certain high-density corridors, promoting rational land use in metropolitan areas, preventing ultimate nationalization of a vital service and maintaining access to remote areas;

(2) Even when it has been determined that Federal subsidies are really necessary, they should be periodically reexamined;

(3) Wherever possible the costs of Federal support should be recovered by user charges;

⁵This tabulation includes direct Federal grants, the cost of Federally operated facilities, R&D and planning monies, and several lesser entries after receipts from user charges (e.g., the Highway Trust Fund, Airport and Airways Trust Fund receipts) have been deducted. The net dollar amounts from general revenues for 1974, less user charges, were (in billions): Marine—\$1.668 (of which \$.805 is attributable to domestic marine activity), Urban Mass Transit—\$1.140, Aviation—\$.973, Highways—\$.545, Railroad—\$.232, and Pipelines—\$0, for a total of \$4.568 billion (see Appendix 2, Table 1).

(4) The effect of subsidies on competing modes should be considered and where there is an adverse effect the preference should be to reduce or eliminate the subsidy or adjust the user charges so that all users pay their full share;

(5) There should be a preference for capital rather than operating subsidies; however,

(a) care must be taken that capital subsidies do not induce excessive investment,

(b) where State and local governments are involved in the decisionmaking and operation, they should bear a share of the total cost sufficient to ensure commitment to efficient management.

(6) Where the political process determines that a subsidy is essential to the national interest because a particular form of transportation serves these interests more effectively, we should be prepared to take the next step in order to get the full benefit of the subsidy. This involves compatible adjustments in the Federal support of competing modes (for example, by way of illustration only, perhaps the discouragement of radially-oriented commuter roads into metropolitan centers that compete with mass transit or of new highways, or short haul air traffic, competing with a subsidized high-speed rail system in the Northeast Corridor). We should not be inconsistent by continuing to subsidize competing modes, thereby diverting traffic away from the preferred mode and decreasing its chances of economic self-sufficiency.

GOVERNMENT OPERATION

The final recourse in maintaining essential services is direct government operation. The degree of government intervention is dictated in part by the importance of that transportation element to the national economy. In these instances, the policy is to minimize the level of detail at which the government becomes involved in the management of the transportation enterprise, with the goal of restoring it as soon as possible to the point where ownership and control resume in the private sector.

Currently, there is considerable national debate on how to maintain the vital services of the troubled rail freight industry. The major problems in this industry are an excess of facilities, long delayed maintenance and rehabilitation, an excess number of operators in certain markets and undue industry fragmentation. Since World War II,

the physical rail plant of many railroads has been permitted to deteriorate. These and other problems have created a financial situation in which the railroad industry as a whole is not making an adequate return on its investments and is unable to maintain its physical plant or to attract new capital. A major rehabilitation, modernization, rationalization and restructuring process must take place. Government ownership of the railroads or their rights-of-way is not in our view the right or necessary answer to this problem. Rather, the government must facilitate a private sector solution by helping shape an efficient nationwide, interstate freight system as a private sector activity. We have proposed a \$2 billion loan guarantee fund for rehabilitating the roadbed and other facilities. Loans would be conditional on the industry's willingness to restructure. Barriers to organization change, such as governmental restraints on the merger process, should be reduced.

In the 17-State Northeast-Midwest quadrant of the Nation, the railroad viability problem reached acute crisis proportions with the bankruptcy of eight railroads, accounting for roughly 45 percent of the region's ton-mile freight volume. To deal with this problem on an expedited basis, the U.S. Railway Association (USRA) was established under the Regional Rail Reorganization Act of 1973 to plan for the restructuring of the region's rail system into a more efficient system capable of fulfilling the region's rail service needs.

On July 26 of this year, USRA submitted to Congress for its approval a final system plan which provides a blueprint for reorganizing the participating railroads and commencing the industry restructuring which is necessary to establish a viable rail system. The long-run objective is to have full ownership and management control in the private sector. The plan calls for a railroad structure under which two or three railroads would operate in the region: ConRail, using largely the old Penn Central properties, and the two large solvent railroads in the region, the Chessie System and the Norfolk and Western. A substantial infusion of government funds by way of soft loans and equity investment will be required to rehabilitate and modernize ConRail's rundown physical plant if it is to have any hope of self-sufficiency. If properly managed, it should be able to achieve self-sufficiency with such appropriate Federal financial assistance. ConRail should not necessarily constitute the end of the railroad sys-

tem restructuring in the region, the plan proposed by USRA would facilitate additional changes in the future, if they prove desirable, so as to develop a truly nationwide, interstate freight system of private railroads.

With respect to the rail situation on a national scale, some have proposed that the Federal government purchase and maintain certain parts of the rail right-of-way, viewing this as an answer to the Federal government's admittedly uneven treatment of the different modes and as a way of avoiding total nationalization. As described above, however, the economic problems of the railroads do not reside solely in the right-of-way and cannot be solved there. Further, Federal action might obscure the other problems which afflict present railroad operations—excess facilities, an overly fragmented structure, a stultifying regulatory environment and those labor and management operating practices which study would show to be outdated. In addition, removal of decisions on right-of-way expenditures from the private sector could result in excessive investments in facilities, and operational decisions being politicized. With regard to the issue of uneven treatment of the modes, this problem could better be approached through adjusting the user charges on other intercity freight modes so that all pay their full share.

INTERMODAL RELATIONSHIPS

No treatment of government-private sector relations is complete without consideration of intermodal relationships. Our national policy has long been that the inherent advantages of each mode are to be recognized and preserved. Our motor carriers, taking advantage of an extensive highway network—a right-of-way they pay for only as they use it—have the ability to provide door-to-door service for a broad range of commodities of varying sizes and quantities, and with great flexibility as to time and nature of service. Our water carriers can handle bulk commodities at very low cost, but only at less speed and between regions endowed by waterways of the proper width and depth. Our railroads can transport a broad range of commodities from almost any source of supply to any point of demand but must now select which rates and rights-of-way can be maintained and still preserve the overall economic viability of their serv-

ice. Our air carriers offer high speed and special handling of quality goods. Comparable contrasts in the advantages and disadvantages for the various passenger carrying modes can be cited. Ideally, government policies should not distort these different capabilities and unduly place one mode at the competitive advantage of another.

Nevertheless, most of our Federal programs have been tailored to meet specific problems unique to one mode. Typically, each results in a different course of government action and each benefits some modes to the relative detriment of the others. Although consistency is clearly lacking in the Federal government's dealings with the private sector, consistency is not always possible or appropriate in the world of complex issues.

Equally of concern has been the inability of some firms and industries in our transportation system to keep pace with and adapt to changing patterns of transportation demand. System improvements will usually be fostered under policies which preserve the availability of choice. By maintaining the public's prerogative to select whatever modes of transportation offer the best comparative advantage, we encourage innovations in price and service options to compete for patronage. Regulatory reforms will better enable each mode to present its services to the public in the most economically efficient manner.

The potential of intermodal services remains for the most part unrealized. The exploitation of the inherent efficiencies of modes working in combination has been inhibited by an array of physical and institutional barriers, such as inadequate cross-modal terminals and regulatory inhibitions against through-ticketing or multimodal ownership. We must systematically identify and remove barriers to efficient connectivity between modes.

The most fundamental intermodal problem, which requires continuing policy review, is the allocation of Federal resources. In the process of achieving selected national goals, our administrators and legislators are called upon continuously to modify policies and implement Federal programs which distinguish between competing modes, between urban and intercity movement, between passengers and freight and between geographic regions. This requires not only an ordering of national priorities but also a knowledge of

what national benefits may be realized at what cost. This analysis should precede the determination of where Federal expenditures are most needed, at what levels they should be set, how they should be financed and how they should be allocated under our extant Federal structure. Management of these problems is the subject of the next chapter.

The dilemma for the decision-maker lies in the paucity of information by which to gauge what improved levels of performance may be realized with different expenditure levels, or by which to conduct comparative analyses of what improvements may be expected with the same expenditure in different programs. In the past, we have been unable to project with any degree of precision where the government can realize the most benefits for the next marginal dollar of expenditure or what aggregate national benefits can be

realized at any predetermined level of expenditure.

We are now beginning to develop the necessary capability to make such analyses. This will require new kinds of measurement including the development of measures of performance for making comparisons on an intermodal basis. The recent series of National Transportation Studies and other newly introduced statistical programs represent major steps toward assembling the requisite data base and the methodology to measure the performance of various elements of the transportation system. Such improved information will make it feasible for government at all levels to demonstrate what increased productivity and efficiencies are possible by furthering intermodal relationships. However, this must be done in a way which supports public decisionmaking but does not impinge on the private prerogatives we work so hard to preserve.

III. FEDERAL EXPENDITURE PROGRAMS

Transportation must compete with other important national priorities for finite tax resources. This competition puts a practical limit on what can be accomplished with Federal, State or local expenditures and opens public debate on the relative merits of transportation programs. We should improve the process by which the comparative effectiveness of Federal expenditures is judged and seek a more rational allocation of Federal resources on the basis of a clear definition of national, State and local interests. This requires an improved capability to plan comprehensively, to compare benefits and costs and to monitor the performance of the system, making adjustments in policy and programs as required to achieve the desired objectives.

In this chapter, we are concerned with:

- The direct transportation expenditures of the Federal government (including research, development and demonstration);
- Federal capital and operating assistance to State and local governments;
- The financing of Federal outlays.

These issues will be viewed in the context of a more efficient use of Federal dollars to attain national objectives, a more rational division of decisionmaking and financial responsibility among Federal, State and local governments and the private sector, and a more equitable policy of financing transportation services and development.

DIRECT FEDERAL EXPENDITURES

Direct Federal expenditure programs in transportation are diverse. They include:

(1) Direct financing of projects or services where there is clearly a Federal interest which is not properly the responsibility of any State or local government or the private sector (e.g., road construction on Federal lands, U.S. Coast Guard policing of navigable waters);

(2) Direct support from the general revenues to facilitate interstate and international commerce where the private sector probably would be unable

to manage the costs and services in an equitable and efficient manner, consistent with other Federal objectives, such as safety, environmental protection and energy conservation (e.g., FAA air traffic control and air navigation systems, the construction and dredging of river and harbor channels by the U.S. Army Corps of Engineers; port controls and aids to navigation functions of the U.S. Coast Guard);

(3) Federal planning, administrative and regulatory responsibilities required to serve national transportation interests (e.g., economic regulation, promotion of civil rights);

(4) Financing of international joint ventures (e.g., St. Lawrence Seaway Development Corporation);

(5) Federal research, development and demonstration to seek new technology not likely to be developed in the private sector because of inadequate market incentives or high technological risk;

(6) Subsidies to private sector firms or corporations established by Congress (e.g., AMTRAK).

DIRECT EXPENDITURE PROGRAMS

Among the considerations that are helpful in determining whether and to what extent the Federal government should continue to be directly involved in these programs are the following:

(1) Does the program serve the public interest and Federal priorities more effectively than would alternative uses of the Federal dollar?

(2) Is the program meeting current needs, or has it fulfilled or failed to achieve its original purpose?

(3) Could the need be met as effectively by the private sector or by another level of government?

(4) Are there alternative sources of financing?

(5) Is it administratively feasible and equitable for the beneficiaries of the services to contribute to the cost?

(6) In what ways may management be improved and costs reduced? Given alternative means of providing essentially the same service, is the least cost method chosen?

We should improve our capability to make cost-benefit comparisons of different Federal programs. For example, if we could measure the lifesaving impact of a given expenditure on Coast Guard search and rescue operations and on FAA air traffic control systems, we would be more confident about allocating limited resources between them.

RESEARCH, DEVELOPMENT AND DEMONSTRATION (RD&D)

Federal leadership in stimulating new technology is needed to save substantial costs in future capital investment and operating expenses, to anticipate long-term transportation needs and to support integrated transportation policy.

Federal funds should not compete with or substitute for RD&D programs financed by the private sector. Direct Federal expenditures for transportation RD&D are a reflection of a broader Federal desire to help create an economic climate conducive to capital formation and RD&D in the private sector. Limited Federal funds must serve very specific national interests, defined in authorizing legislation, through internal programs and by contracting with the private sector. Therefore, RD&D policy should concentrate funding on projects that:

(1) Support Federal regulatory responsibilities in maintaining the appropriate standards of safety and environmental protection, or serve high priority national objectives where adequate private sector investment may not be forthcoming (i.e., energy efficiency);

(2) Enable development of specialized equipment to carry out Department of Transportation's operating responsibilities where the size of the potential market, or the degree of developmental risk, does not stimulate private sector participation;

(3) Serve as a catalytic agent in developing new transportation systems that may ultimately be operated by non-Federal agencies or firms but where the private sector may not currently perceive a high enough probability of developing it into a viable market;

(4) Provide factual information useful in policymaking and the development of regulations.

The Department of Transportation RD&D budget is expected to pay dividends in the relatively near-term. About 77 percent of the budget for fiscal year 1975 is estimated to yield payoffs

within five years, 17 percent within five to 10 years, and the remainder beyond 1985.

Although the payoff for most of our RD&D efforts begins to accrue over the short term, the planning horizon for important elements of our RD&D program is long, taking us beyond the year 2000. If we are properly to focus our RD&D today, we must anticipate long-term needs, constraints and investments. For example, we can now foresee that petroleum will be in increasingly short supply, an implication of which is decreased mobility. A part of the RD&D program is to recognize, understand and explore the alternative options for coping with this situation, both in the short and the long term.

Most changes in the transportation system will be evolutionary in nature. To design an effective RD&D program, we must perceive how this evolution will take place. Such an understanding will help us predict where opportunities for new technologies may arise, and it will permit us to pace RD&D programs so that techniques mature at the time they are needed. This sense of direction and sense of timing provide the basis for a rational RD&D plan.

The value of RD&D expenditures is ultimately realized in their application in government operations or in the private sector. Consequently, effective dissemination of information about new technology, community demonstration projects and financial incentives to utilize cost-effective, energy-efficient technology are essential elements of a complete RD&D program.

Potential multimodal payoff of RD&D is illustrated by the continued application of LORAN C—a system developed by the Coast Guard to support its own operational responsibilities in aids to navigation—to other transportation needs. This electronic navigation system may have applications in highway traffic safety and emergency rescue efforts and as a domestic aviation navigation aid assisting nationwide air traffic control.

FEDERAL ASSISTANCE TO STATES AND LOCALITIES

The nature and extent of Federal financial assistance to States and localities is a function of the national interest involved. Our objective is to concentrate Federal resources on today's national priorities and increase the power and flexibility of State and local governments to respond to local needs. We will work with the Congress toward this objective by eliminating antiquated Federal requirements, simplifying the grant making process,

consolidating the myriad Federal objectives into broader more manageable statements of national interest, increasing transferability of funds within and among transportation modes and decentralizing decisionmaking.

To clarify the relative responsibilities of Federal, State and local government in Federal assistance programs, it is useful to distinguish between programs that serve national interests because of their predominantly interstate character, and programs that primarily serve the transportation needs of States and local communities but which also involve Federal priorities derived, in part, from the general welfare clause of the Constitution.

PREDOMINANTLY NATIONAL (INTERSTATE) INTERESTS

A strong Federal interest prevails in the completion of an integrated Interstate Highway System, in carrier airport development and operations, in promoting the viability of a nationwide interstate railroad network serving major freight and, on a selective basis, major passenger corridors and in an extensive navigable inland waterway system.

Highways.—The 42,500-mile Interstate Highway System is 86 percent complete. Completion of the remaining high-priority portions of the system—those systems which are integral, contiguous parts of the national network—is the top priority of the Federal highway program. We must also modernize and rehabilitate the portions that were built in the early days of the program. Segments which are not essential to the network, particularly commuter roads in metropolitan areas, should be given a lower priority for Federal assistance. State governments should consider whether the construction of these segments is still consistent with metropolitan planning and the new energy, environmental and urban congestion situation. We have proposed legislative changes in the apportionment of funds and the operation of the Interstate program to accord a higher funding priority to expedite the completion of links essential to the national network.

Aviation.—For over a quarter century, the Federal government has provided financial assistance to States and municipalities for use in construction and improvement of airports for use by civil aviation. The magnitude of this Federal assistance was increased significantly with the enactment of the Airport and Airway Development Act of 1970.

Under the Airport Development Aid Program, the national interest is primarily in the construction and improvement of carrier airports¹ serving the trunk lines and interstate traffic. We have recommended modifications to this program to earmark increased funds for each carrier airport on the basis of scheduled aircraft operations.

In selecting carrier airports for funding, the following considerations are relevant:

- Airport planning should be in conjunction with planning for the other transportation modes and consistent with metropolitan and regional development plans;
- Federal support should emphasize airports that serve national interests but are unable to finance the full costs (large airports are often the ones best able to finance development without Federal aid);
- The role of "transfer hubs," such as Chicago and Atlanta, should be evaluated and planned in terms of the entire air carrier route structure.

Railroads.—The predominant Federal interest in railroads is the maintenance of a vital nationwide interstate trunkline high performance rail freight system, preferably of at least two lines between major industrial points, cities and seaports. The Federal government is also committed to restoring the viability of efficient intercity rail passenger service where justified by the volume of predicted use, eliminating service on those routes where public transportation alternatives exist and rail passenger service is demonstrably uneconomical.

Waterways.—The Federal government, through the Corps of Engineers, has historically played an active role in developing and operating the 25,000 miles of commercially navigable waterways. This low cost mode is vital to the Nation's transportation of liquid and dry bulk commodities. Approximately 300 billion ton-miles of freight per year are moved on the Great Lakes and inland waterways. Federal involvement also includes the Coast Guard's regulation of vessel safety and environmental protection. It is necessary for the Federal government to continue to maintain and operate these facilities and services to realize the Nation's

¹ Air carrier airports are those having scheduled service provided by carriers with CAB certificates. General aviation airports are not served by such carriers, though they may have scheduled air taxi service. "Reliever" airports are those which can accommodate general aviation traffic which might otherwise use a congested air carrier airport.

potential growth of waterborne traffic. Federal attention, in the near term, should focus on integrating the Corps of Engineers planning for waterway expansion with the Department of Transportation's policy and planning process for all surface modes.

SHARED FEDERAL-STATE AND LOCAL INTERESTS

The Federal government's interest in vital nationwide, interstate transportation networks is enhanced by effective intra-state systems which provide "feeder" lines and access to such interstate networks.

Equally important Federal concerns, mandated by the Constitution's general welfare clause and expressed in Federal statutes, create shared Federal and State interests in developing and maintaining transportation systems that serve the total needs of communities.

Highways.—For some 60 years, the Federal government has required and fostered the development of strong highway departments at the State level to manage the highway program and insure that regional interests are adequately addressed.

The Federal-aid highway program has resulted in a highway network in excess of three and a half million miles. But as highways were being built, the Nation recognized that this network was having both positive and negative impacts on many aspects of life. Consequently, major changes in the program over the last decade have been designed to assure that highways would not be built without considering the impact of the facility on the environment and without fully and fairly compensating individuals displaced. Moreover, where desired, transportation funds formerly directed solely for highways could be used to develop non-highway transportation where that course of action made more sense.

Today, except for a few areas, the Nation's highway infrastructure is largely in place, although we must now move to complete remaining segments of the Interstate System where essential.

To help elected State and local officials meet their future transportation needs more effectively and consistently with other State and local goals and objectives, we have proposed eliminating numerous narrow categories of highway funding and replacing them with three broad programs (in addition to the Interstate): Urban transportation,

rural transportation and highway safety improvement. These three programs represent distinct, continuing, and simply expressed Federal concerns. To increase the flexibility of the States, up to 40 percent of the urban funds and the rural funds could be transferred from one program to the other, although safety funds could not be transferred. And, to facilitate State and local comparisons of the need for highway construction with other transportation and community development requirements, we have proposed that, with the exception of the Interstate System, the highway program should be financed from general revenues. To provide additional State funds we have proposed the State preemption of 1 cent of the current Federal gasoline tax.

The Federal government will maintain its interest in State and local highway management, monitoring performance in comprehensive planning, energy and environmental standards, safety and compliance with civil rights requirements.

Safety.—Highway, motor vehicle and boating safety are shared Federal-State and local responsibilities. While rail safety is predominantly a Federal concern, States should become increasingly concerned as Federal, State and local jurisdictions move in concert to help revitalize the railroads. Because of the nationwide mass production and mobility of automobiles, Federal motor vehicle standards are needed, although State and localities have significant, commensurate responsibility in operator performance, inspection and enforcement. In highways, the Federal government retains an interest in broad safety standards for Federally funded highways; however, States must provide the specific safety solutions designed to fit the unique requirements of each bend in the road. We have recommended an extension of the Federal Boat Safety Act of 1971, to enable the Coast Guard to continue its grant program to States for two years, during which an evaluation will be made of the effectiveness of this program in helping to reduce recreational boating accidents. Safety issues are developed more fully in Chapter IV.

Airports.—General aviation airports serve primarily the residents of the surrounding area and are, therefore, an appropriate subject for increased State program flexibility and authority with fewer Federal restrictions. We have recommended amendments to the Airport Development Aid Program to provide block grants of assistance

for general aviation airports to each State to be administered by the State.

Rail.—Consistent with increasing State authority over local transportation, it is appropriate to transfer financial responsibility as well. To allow States the time to determine the conditions under which they will accept financial responsibility, a transitional program may be provided. For example, we have proposed a transitional program of Federal assistance to States and localities for the continuation of railroad branch lines faced with possible loss of rail freight service in the Northeast and Midwest. These lines would not be a part of the Conrail system. The States and localities would assume financial responsibility after a two-year transition.

These measures are illustrative of the broad policy of clarifying and strengthening the role of State governments in transportation programs. Administrative steps to simplify the grant process (e.g., by accepting the Governor's certification that certain standards are being met) are also essential. The process of strengthening State authority and flexibility is an evolutionary one. We will continue to examine possible further steps and seek public participation in finding answers to the following questions:

(1) What additional program transfers or intermodal flexibility would improve State and local authority and capability to respond comprehensively to transportation needs (e.g., transfers or funding flexibility among highways, mass transit, rail branchline assistance, air and water, unified trust fund, special revenue sharing, etc.)?

(2) Should the States assume greater responsibility for waterway improvement and operations?

(3) How may Federal requirements and processes be further simplified or eliminated?

(4) Should the States be authorized to undertake additional user financing?

(5) What should be the nature of Federal support for highways after the national Interstate System is completed?

Urban Transportation.—The Federal interest in urban transportation arises, in part, from transportation laws of recent years, culminating in the National Mass Transportation Assistance Act of 1974, and from other laws responding to the problems of complex metropolitan areas and establishing new Federal priorities for the environment, community development and energy conservation. There is a strong and continuing Federal interest

in preserving our central cities, vital to the Nation's cultural and economic life. There is a similarly strong Federal interest in promoting rational patterns of development in our suburbs. Low density suburban residential land use patterns, if not balanced by industrial, commercial and higher density residential development, create a costly and inefficient sprawl of metropolitan growth in disregard of shrinking energy, land and environmental resources.

Effective metropolitan-wide transportation planning is therefore necessary to meet Federal air quality and noise pollution standards and to satisfy Federal laws protecting historic buildings, park and recreational lands. It is also needed to assure that transportation in metropolitan areas is accessible to all citizens, including the disadvantaged, for whom mass transit may be the only transportation alternative.

Urban transportation policy must be part of a coordinated and comprehensive approach to city and suburban needs. While mass transit can effectively serve the various Federal priorities, no single mode can meet all the transportation needs of a metropolitan area. An efficient urban transportation system requires a mix of modes, public and private, working in a cooperative partnership as elements of a unified and coordinated metropolitan-wide transportation system—a system that involves not only the automobile and public transit, but also easy access to rail passenger and air service.² This is now possible, in part, because of the National Mass Transportation Assistance Act of 1974 and the Federal-Aid Highway Act of 1973, which provide greater local flexibility in the use of Federal financial assistance and offer new and expanded sources of funds for public transportation improvements. The Urban Transportation Program envisioned in our proposed new highway legislation would extend this flexibility to transfer funds between highways and mass transit even further. Ultimately, we would anticipate a complete merger of highway and mass transit funding authority for metropolitan areas.

A Federal-local partnership of this magnitude should be premised on the principle that each urban area is unique—with different needs and different development objectives—and each should be

² The bicyclist and pedestrian should also have an increasingly prominent role in urban transportation planning. By improving their pathways and safety, there will be substantial benefits to the community and to the health of its citizens.

free to choose for itself the transportation solutions that best serve its objectives. Federal support for mass transportation must therefore be flexible, relying on local ability to assess requirements, identify and evaluate opportunities for improvement and initiate needed action.

The Federal government, however, has an essential obligation to ensure that Federal funds for mass transportation assistance are used prudently, and that there is a solid and defensible basis for local transit decisions that are premised on Federal assistance.

In assessing future Federal support for mass transit, we believe that preference should be given to communities that:

(1) Demonstrate innovative, comprehensive planning and propose cost-effective solutions, making effective utilization of existing facilities. Under Section 5(d)(a) of the National Mass Transportation Act of 1974, we will require each urbanized area, as a condition of Federal assistance, to submit a staged implementation plan listing the measures that will be adopted to improve the efficiency of transit services, conserve energy and improve air quality. This plan should include actions such as a coordinated network of reserved transit lanes, improved transit scheduling and dispatching techniques, traffic signal preemption, and other bus preference techniques, parking restrictions, differential highway tolls and transit fares to promote off-peak travel, staggered work hours, and incentives to shift people from private cars to transit and carpools.

(2) Demonstrate how transportation planning responds to long-term metropolitan planning objectives in meeting urban problems, assuring effective processes for resolving conflicts among jurisdictions and interest groups and harmonizing with land use and community development objectives.

(3) Propose alternatives that do not involve high capital investment costs and the prospect of substantial continued operating subsidies, and that will provide improved service in the near term. Government cannot afford indiscriminate massive open-ended construction programs. We will encourage urban areas to implement their transportation plans in a time-phased, incremental fashion so that tangible benefits can be realized from the investment in the short run. We will also emphasize the need to improve the quantity, quality and

efficiency of service as a condition of continued operating assistance.

(4) Demonstrate commitment to projects proposed for Federal support by the extent of their own financial participation.

Fixed rail systems are appropriate only in a few highly populated metropolitan areas where State and local land use and development policies are explicitly committed to the generation of high densities sufficient to support these modal choices on a cost-effective basis.

Additional highway construction in major urban areas, including nonessential segments of the Interstate System, should be the subject of careful review and planning in order to avoid expensive lawsuits and the needless expenditure of the taxpayer's money on the design of projects that fail to meet the many tests of Federal, State and local priorities. New urban highways are appropriate when they are part of a coordinated metropolitan transportation plan and will help to alleviate congestion, air pollution, noise and energy waste by diverting through-traffic around city centers, or from side streets. New highways are inappropriate where they induce more automobile commuters into the city center, encourage suburban sprawl, divert passengers from public transit and violate environmental standards. Since some highway planning preceded recent public concerns with the environment and energy, the State and local communities should be encouraged to review these proposals to make sure that new highways are still the best solution to their transportation problems. Where there is an acceptable and preferable transportation alternative, it should be selected; where the highway is still the appropriate solution, it should be built as soon as possible.

RURAL TRANSPORTATION

The transportation needs of our rural citizens have not recently had the visible political attention of urban areas, perhaps in part because some of the Federal concerns, such as air pollution and congestion, are not as prevalent in rural areas. Consequently, less has been done at the Federal level to formulate a coordinated rural transportation policy to meet today's needs. This must and will be remedied.

We have in place or under development several elements of a rural transportation policy, including:

- A special rural mass transportation program for which up to \$500 million is authorized through fiscal year 1980;
- The Rural Transportation Assistance Program, proposed in the Administration's highway bill, which would consolidate several Federal-Aid highway categories, and give State and local governments increased program flexibility to use funds for (a) highway construction on or off the Federal systems, (b) highway public transportation investments, (c) safety improvements and (d) operating and acquisition assistance for rural public transportation upon the completion and evaluation of a current demonstration project;
- A program of partial Federal financial assistance to maintain rural branch rail lines for two years;
- Research, development and demonstration on more efficient public transit, medical evacuation and accident prevention in rural areas;
- A national policy on rural airports and air service to small cities and remote regions.

Rural transportation programs substantially encourage rural development and growth, help meet the problems of rural poverty by facilitating access to employment, education and better medical services, and insure accessible interstate transportation for our citizens. A rural transportation policy should be coordinated with other Federal efforts in rural development as part of a broader national policy on rural and urban growth.

POLICY FOR DETERMINING THE APPROPRIATE PROGRAM LEVEL

Accurate, current and comprehensive information about the performance of our existing transportation systems is an important policy tool. Through the National Transportation Studies of 1972 and 1974, we have made major strides in assembling such an information base, describing the dimensions as well as cost and performance characteristics of the major intercity and urban freight and passenger systems.

Information from performance measures is helpful in assessing the effectiveness of alternative Federal program and policy options. By comparing information from State and local agencies on their future investment plans and programs to generalized descriptions of the performance of

specific modal systems, we can estimate the performance improvements anticipated from a range of alternative investment levels. From this base, we can develop guidelines for the appropriate amount of Federal spending, suggest an optimal geographic allocation and establish conditions to be applied to Federal assistance.

Conceivably, performance measures could be used to prescribe minimal Federal standards for levels of service, comfort and amenities. We do not recommend this as of now (except in the case of safety and environmental regulation). There are good economic reasons why performance characteristics such as average speeds, congestion levels, availability of service, and frequency of service will vary across the country. For example, cities of the same population may differ in density, topography, climate, existing transportation infrastructure, revenues allocated to transportation, cost of transit services, average per capita income, consumer preferences, location of shopping areas, medical facilities, schools, etc. An infinite number of variables would make a national uniform service criterion arbitrary, inefficient and inequitable. In some locations, service options simply cost more than they are worth. Uniform Federal standards would tend to neglect these cost differences and result in uneconomic use of resources. Given the variations in quality of service among cities, areas and regions a more useful concept for evaluating Federal expenditures and determining the optimum level of investment may be service improvement over time.

One factor in determining appropriate levels of Federal assistance (and in designing matching ratios, specific program categories or similar conditions) is better information about how State and local governments respond to different Federal-aid levels. Federal-aid is only one of several resources available for improved transportation, but it will often affect the availability and use of others. For example, will the availability of highway funds distort State comprehensive transportation systems planning by inducing the State to build highways rather than improve mass transit? Will increases in Federal funds or higher Federal matching ratios cause States to make additional improvements in transportation, shift State funds to other priorities or reduce taxes? The Department of Transportation (hereafter The Department) receives information about the financial conditions of States and localities, their sources of

funds for transportation improvement and their use of Federal assistance for different types of projects in order to better gauge State and local responses.

Examples of Analysis of Performance Versus Cost.—Examples of this kind of analysis can be found in the 1974 National Transportation Report. In analyzing the effects of different investment levels on the performance of urban transportation systems, the Report points out that local policies increasing the relative price of auto travel or otherwise restraining private auto use may be as effective in reducing automobile use and increasing transit ridership as heavy investments in transit to improve system performance to encourage greater use. Elsewhere, the study relates the aggregate level of rural highway investment to future changes in speed and accident experience, concluding that investments significantly smaller than those now contemplated in State plans would maintain the current level of service on rural arterial highways. In addition, an analysis in the Report of large airport hubs shows that the broad application of certain airport operating strategies is likely to reduce the need for capacity-related investments. While several major airports have applied these strategies on their own, their full potential has by no means been exploited.

PLANNING ASSISTANCE PROGRAMS

Planning assistance programs exist for highway, mass transportation and airport planning. In addition, a need might be identified for State-level planning in connection with rail freight system reorganization and branch line abandonment. We strongly encourage a multimodal approach to planning. We are also moving away from long-range development plans, sometimes involving large capital expenditures which ultimately cannot be financed, and moving toward operational planning and shorter-range programming designed to make better use of existing facilities.

To promote more effective metropolitan-wide comprehensive planning, we are encouraging the development of short-range capital improvement programs that have the general support of local officials in urbanized areas. No project for highways or mass transportation receives Federal aid unless it is part of such a program. This mechanism is designed to focus planning attention on more realistic projects and operational strategies with greater promise of being implemented.

Our long-range policy toward planning assistance is to provide State and local authorities with more flexibility in the use of planning funds and to encourage multimodal planning.

FINANCING OF FEDERAL EXPENDITURES IN TRANSPORTATION

With respect to the financing of Federal expenditure programs in transportation, it has been pointed out that distinct public benefits will be derived from a policy that provides for:

(1) *User charges.*—Users should ordinarily pay for the public costs of providing their transportation, except where it can be shown that society as a whole benefits from the protection of a specific subsidized service, or where special considerations are involved, such as with handicapped or otherwise disadvantaged users.

(2) *Flexibility.*—States and localities should have the flexibility to transfer funds among modal categories, as their local needs require and as national interests and the law permit. Funding flexibility can be obtained without the necessity of earmarking user revenues, either for a particular modal use or for transportation in general. Trust funds tend to create special problems. First, experience with trust funds shows that a rather inflexible relationship is created between earmarked revenues and the pressure for expenditures. Conversely, total expenditures could be constrained at an uneconomically low level because of limited inflows of revenues. In addition, criteria other than user financing are also involved in setting tax levels associated with specific forms of transportation.

Transportation trust funds, hence, tend to dictate the level of program expenditures. It would make better policy sense if Federal transportation program expenditures were decided on the merits of such expenditures, in advance of decisions on the level of taxation and independent of any fixed "trust fund". Nevertheless we will continue to explore whether there is intrinsic merit in any type of overall Transportation Trust Fund. Our preliminary thoughts are that, if such a concept is adopted, there should not be a required correlation between what the modes contribute to the fund and what they receive from it.

This year, the Administration has proposed legislation to substitute general fund financing for all Federal-aid highway programs except the Interstate Highway System. In future years, the exten-

sion of this concept to other Federal assistance programs should be given serious consideration. We further recommend the development of regular accounting of sources and uses of public funds for different transportation activities and the periodic publication and presentation of this to the Congress, to provide information useful in the formulation of tax policy.

The argument that the gasoline tax should be eliminated merely because the tax will go in the

general fund rather than the trust fund is clearly fallacious. The gasoline excise tax is an effective way to raise needed Federal revenues. There are many other Federal excise taxes (telephone tax, stock transfer tax, etc.) where the revenues go into the general funds and services related thereto are in no way controlled by the level of collections under the tax. So long as there is a deficit in the Federal budget, there is no rationale for eliminating a well-accepted method of raising revenues.

IV. CROSS-CUTTING NATIONAL CONCERNS: SAFETY, ENVIRONMENT, ENERGY, CIVIL RIGHTS AND THE CONSUMER

The Federal government has a continuing responsibility to assure safe, environmentally sound, energy-efficient, economic transportation services, accessible, where feasible and practical, to all citizens and responsive to the consumer.

The basic policies addressing these concerns are set forth in the Department of Transportation Act of 1966, the National Environmental Policy Act, the National Traffic and Motor Vehicle Safety Act of 1966, the Federal Railroad Safety Act of 1970, other relevant statutes, Presidential statements and Departmental Orders. Specifically, it is the policy of the Department of Transportation in:

Safety.—To provide the highest practicable and feasible level of safety for people, property and the environment associated with or exposed to the Nation's transportation system;

Environmental Affairs.—To utilize transportation to improve the environment wherever economically possible and to avoid or minimize transportation's adverse impacts on the environment;

Energy.—To increase efficiency in the utilization of energy in the transportation sector and to improve the effectiveness of the Nation's energy distribution system;

Civil Rights.—To take aggressive and conscious action to achieve equal employment and capital opportunities for minorities, women, the poor, the elderly and the handicapped, to fight discrimination and to insure to the extent practical and economically feasible that the transportation system is accessible to all citizens including the poor, the elderly and the handicapped;

Consumer Affairs.—To insure the participation of consumers or their representatives in public decisionmaking and to encourage their involvement in private sector decisionmaking.

In striving to achieve these objectives, the statutes, the courts, administrative processes and analytical methodology provide tools with which competing interests are weighed and establish the parameters in which discretionary judgment is

exercised. But we must recognize that we are not dealing in absolutes. There is considerable interaction between these areas of concern, notably safety, environment, energy and the costs of services. Attempts to optimize in one area may have adverse consequences for another, or may be too costly in terms of the actual benefits. We need to make progress along all fronts, finding what is on balance in the long range public interest and protecting the rights of the individual and the choice of the consumer. To this end we believe:

- Statutes should establish broad public policy and deadlines for achievement, but we must continually evaluate their effectiveness and recommend modifications as experience teaches us the total consequences of our actions;
- The courts should provide important independent guidance on the application of statutory intent to complex facts, and we welcome their direction on certain key policy questions. At the same time, we must recognize the courts often are not the best way to resolve policy conflicts in a democratic society; thus, we must seek ways to improve administrative due process and conflict resolution so that the judicial branch is not overburdened and public decisionmaking delayed unnecessarily;
- We need to improve the process by which we reach decisions to insure that the safety, environmental and economic consequences of alternative courses of action are anticipated and understood and that we move expeditiously to resolve or minimize any conflicts before we decide what action to take. Consumer and industry participation is an important safeguard in achieving these objectives;
- We must continue to improve the information base for decision making. Sound experimental and operational data should be obtained to the extent possible prior to implementing regulations. Cost-benefit analysis is one useful mechanism for making comparative evaluations among alternatives. A pre-

sumptive guideline for rational investment is that future benefits, fully identified and properly "discounted," should exceed the total costs of the investment, also properly discounted. We must make sure that all benefits and costs, including those that cannot be easily translated into monetary terms or even quantified at all, are included in the analysis and weighed in the decisionmaking process.

In addition to improving the framework in which Federal decisions are made, we must define and express the policy guidelines that help reconcile diverse Federal priorities. This is important not only as a discipline for more rational decision-making but also to increase public understanding of the actual reasons that underlie government decisions.

While conflict among competing interests is often inescapable, some policies simultaneously promote several basic objectives and have only minimal adverse consequences for other national priorities.

Enforcement of the 55 mph speed limit, for example, contributes to the attainment of Federal objectives in motor vehicle highway safety, energy conservation and environmental protection. Fostering the utility and acceptability of mass transit in urban areas also supports energy, safety and environmental objectives. The Federal Aviation Administration's seven-point program for fuel conservation promotes the Federal priorities of lower cost to the consumer and environmental protection. Programs to achieve improved utilization of existing urban transportation facilities—such as carpooling, express bus lanes and signal preemption for transit vehicles—are designed to serve energy and environmental objectives and to alleviate congestion. Since such low cost measures may obviate the need for new highway construction or fixed rail systems, they also are consistent with Federal economic policies of fiscal responsibility and cost control.

In other areas, a program to implement one national priority has mixed consequences for other Federal interests. In these programs, we must determine how important and substantial the benefits of the program will be, whether it can be designed to maximize consistency with other Federal objectives and whether there is an alternative that will achieve substantially the same objectives with less adverse consequences.

For example, the automobile fuel economy technology improvement program began as a joint government-private sector voluntary effort. This approach reflects the Federal preference for using persuasion and voluntary action to implement national policy whenever possible. The program has considerable potential benefits for conserving energy but could have adverse consequences for safety, since smaller cars tend to be less safe while some safety equipment adds weight and reduces fuel efficiency. The program could slow down the effort to improve air quality and could increase the cost of automobiles. It is, thus, important that the program be designed to minimize these potentially adverse consequences. A Congressionally-mandated study is addressing these complex issues.

There are also instances where we must disapprove or postpone programs that could advance certain national objectives because the adverse consequences for other priorities are too great. If, for example, the imposition of technologically superior but very expensive noise control devices on railroads would bankrupt an environmentally efficient means of transportation, then meeting the narrower objective would not justify sacrificing the broader goal. If, having reduced the emission of hydrocarbons and carbon monoxide from automobiles to about one-fifth of their pre-control levels, we find that the cost of further incremental improvements would be substantial and would jeopardize energy conservation objectives, then we should seek consensus on slowing the rate at which we work to achieve the ultimate emissions objective.

The need plainly is to achieve a balanced approach in a complex interdependent world in which all of our national concerns cannot be satisfied at once.

SAFETY

No value is greater than human life and no Federal transportation responsibility more important than the safety of the passenger, driver, transportation worker, pedestrian and others exposed to the transportation system.

The responsibility for safety is shared among the various levels of government, the industry and the general public. The international and interstate character of air carrier traffic, for example, clearly calls for direct Federal involvement in aircraft safety through research and development, standard promulgation, inspection and certification.

While Interstate highway travel calls for similar uniformity of standards, the States should have a greater role in inspection and enforcement.

Industry management normally has a range of safety options involving technical, economic and consumer choice. As long as there is adequate public understanding and candor, the consumer should have some choice about how much he is willing to pay for additional safety, especially in private transportation systems. When hazards affect the safety of others, government as a protector of the public interest has a greater responsibility to step in and make the choice.

For decades, Federal transportation programs have given major attention to safety—in highway and vehicle design; in air traffic control; in aircraft and pilot certification; in ship construction standards and seamen licensing; and in railroad, motor carrier, pipeline and hazardous material transportation regulation. The result is a U.S. transportation system with an outstanding safety record relative to other industrialized nations.

Nevertheless, because the U.S. is the most mobile nation in the world, while the rate of accidents and fatalities is low, the absolute number is high. Transportation accidents were responsible for over 60,000 fatalities in 1973 and for over 50,000 fatalities in 1974. Highway and traffic-related accidents accounted for the largest number of fatalities—over 90 percent in both years.

The transportation safety record is readily seen in perspective in the following table, which shows fatalities per 100 million passenger miles:

Fatality rates per 100 million passenger miles¹

Year	Domestic scheduled air carriers	Railroad passenger trains	Buses	Passenger automobiles and taxis	U.S. general aviation
1949-51.....	1.26	0.36	0.21	2.87	47
1959-61.....	.67	.10	.18	2.20	24
1971-73.....	.18	.28	.21	1.80	20

¹ Except for general aviation which is fatal accidents per 100 million plane miles. (This translates into approximately 19 fatalities per 100 million passenger miles in 1971 to 1973.) Source: FAA statistical handbooks.

Automobiles, taxis and general aviation include fatalities to all occupants, including the operators. Other modes do not include the operators.

The record in improved air carrier transportation safety is second to none. The domestic air carrier fatality rate declined by 90 percent from the 1949 to 1951 average to the 1971 to 1973 average.

The recent dramatic and sustained decrease in highway fatalities can be attributed in large part

to the national 55 mph speed limit program (although reduced driving because of the gasoline shortage also contributed). The profoundly beneficial effect that safety measures are having on highway travel is seen in the following table which shows a continually declining trend in fatalities as a function of vehicle miles traveled:

Highway fatalities per 100 million vehicle miles traveled	
1971	4.68
1972	4.58
1973	4.27
1974	3.60
1975 (projected).....	3.30

In our continuing efforts to reduce transportation-related fatalities, injuries and property damage, we have a four-pronged policy to promoting transportation safety:

(1) *Accident Prevention.*—We are working to prevent accidents by upgrading the pathway and terminal, the vehicle and the vehicle operator. We are improving pathways and terminals through highway design standards and spot improvements, rail track inspection and maintenance requirements, grants for separation or signaling at rail grade crossings, effective operation of the air traffic control system, airport safety regulations, vessel traffic control systems, pipeline safety regulations and hazardous material packaging regulations. We will continue to improve vehicle safety through aircraft, ship and boat construction standards, railroad and motor carrier regulations, and motor vehicle safety regulations. We have established standards for air carrier, motor carrier, ship and rail operators and have developed programs to improve automobile and truck driver, bicycle and motorcycle rider safety.

(2) *Accident Survival.*—We are striving to increase accident survival by upgrading the pathway (e.g., improved roadside barriers), the vehicle (e.g., protection of motor vehicle occupants through passenger restraint systems, redesign of rail vehicles for better seat anchorages, flotation requirements for pleasure boats, and nonflammable and nontoxic materials in aircraft passenger compartments), and by improving operator training and procedures (e.g., for aircraft emergency evacuations).

(3) *Emergency Response.*—We are encouraging improved emergency response through efforts directed at early communication of accident occurrence and location, quick transport of emergency vehicles to the site, emergency medical aid,

removal of survivors to qualified trauma centers, as well as search and rescue for downed aircraft and waterborne vessels.

(4) *Research Data Collection and Evaluation.*—We have extensive efforts underway in safety research, data collection and accident investigation which are essential to achieving the foregoing priorities. Consonant with the President's emphasis on examining the cost-benefit aspects of all non-economic regulatory activities, we are undertaking a critical review of the safety standards and regulations we have issued. The goal is to determine which of these provide net social benefits. To do this requires good data, analytical capability and sound judgment. We cannot place an infinite value on human life. To do so would require us to close our highways and ground our aircraft. Given the lack of an absolute standard, we must define criteria and establish a process that will help us arrive at reasonable actions in the public interest and assure incremental improvements in safety each year commensurate with advancing technology, improved facilities and consideration of other Federal priorities such as energy and the control of inflation.

We expect to continue to make significant progress in safety in the future. In highway travel, the adoption of new motor vehicle safety standards such as safety belts, better traffic law enforcement and adjudication, and improved driver performance programs are expected to result in a continued reduction in deaths and injuries. We also are attempting to develop a model automobile the occupants of which would survive a 50 mile per hour head on crash.

In aviation, the FAA's upgraded third generation air traffic control system will further enhance safety through aircraft separation assurance and wake turbulence detection among other things.

With respect to marine safety, legislation is now before Congress to implement new international rules of the road for preventing collisions at sea. If adopted, it would require all vessels under U.S. jurisdiction on the high seas to comply with the convention adopted by the Inter-Governmental Maritime Consultative Organization. With respect to domestic waters, the three different sets of rules of the road now in effect for the Western Rivers, Great Lakes and Inland Waters should be made to conform as closely as possible to the international rules. The Coast Guard is proceeding with the establishment of navigation networks cover-

ing the coastal and navigable waters of the continental United States. In addition, in order to deal with the problem of increasing congestion of vessel traffic coupled with increasing amounts of hazardous cargoes, the number of vessel traffic systems operating in our major ports will be increased.

Finally, we are conducting safety training for the Nation's transportation personnel at our Transportation Safety Institute. Courses are conducted in the fields of aviation, marine, highway, pipeline and hazardous materials. Over 4,000 people from Federal, State and local governments and from the industry attend each year.

In surface transportation we must give consideration to the promotion of liability for injury policies not based upon fault. Clearly states should adopt appropriate no-fault auto insurance laws. We are closely watching to see if sufficient state progress is made along this line. If not we will consider further Federal actions. Since aircraft accidents could result in catastrophic claims for liability we must consider developing a better system of liability and catastrophic claims handling since it is becoming increasingly difficult to cover liability by private source of insurance.

(5) *Crime in Transportation.*—A safe and secure transportation system requires national attention to the prevention of crimes, ranging from violent crime against persons on transit systems, vandalism and cargo thefts, to aerial hijacking. Crime prevention is not only a Federal, state and local government responsibility, it is also a shared responsibility of the private sector to remove the opportunity for such crimes. The Federal government will continue to provide guidelines on prevention, experiment with new methods for tracing stolen cargo, improve design and architectural features to deter crime, coordinate a national cargo security program to reduce the enormous cost estimated at over \$1 billion in cargo-related thefts, and regulate an appropriate airline hijacking security program.

ENVIRONMENT

A central thrust of the Department's policy since its inception has been to reduce transportation's adverse impacts on the quality of the human environment and to protect and enhance that environment where possible.

For example, policies which have been incorporated into the Federal-aid highway program for

many years have served as a model for general government legislation dealing with the equitable and enlightened treatment of persons displaced by public programs. Similarly, many of the Department's programs have longstanding policies on public involvement in government decisionmaking such as the extensive public hearing process which has long been a feature of the Federal-aid highway program.

The statute which created the Department of Transportation required a special effort in the Department's programs to "preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites." More recently, aided by the enactment of the National Environmental Policy Act (NEPA), our policy has been to give augmented attention to the many potential interactions of transportation with the environment in order to eliminate or minimize any possible adverse consequences of transportation on the human environment.

In implementing NEPA, it is our policy not only to comply scrupulously with the statute's procedural requirements but also to utilize the process to address in a substantive way the relationship between transportation and such environmental concerns as air quality, noise and water pollution; impacts on land use and urban growth; impacts on parklands, recreation areas, wildlife and waterfowl refuges, wetlands and historic sites; community disruption and relocation, and considerations relating to pedestrians, bicyclists and the handicapped and elderly. The Department of Transportation has written more environmental impact statements than any other Federal agency, analyzing the environmental impact of specific proposed actions and considering alternative actions which better protect and enhance the environment. Through the process of environmental analysis, public involvement and scrutiny, and extensive coordination with governmental agencies at all levels, numerous transportation projects during the past several years have been substantially revised, terminated, or transferred in location or even transportation mode in order to serve better social, environmental and community objectives.

It is our continuing policy to seek additional methods and tools to enhance our ability to protect the human environment and to "internalize" environmental "costs." Thus, we are currently seeking authority in the highway and airport

grant programs which would permit transportation projects to include such land acquisition as is necessary to assure compatibility with adjacent land uses. The inclusion of necessary noise barriers in Federal-aid highway construction costs is another example of internalizing the environmental costs of transportation projects.

In many specific areas of environmental impact, we have formulated relevant objectives and policies. Four of these are discussed in more detail below.

NOISE

We will move toward the goal of confining severe aircraft noise exposure levels around U.S. airports to the areas included in the airport boundary. This policy will be advanced through regulations on aircraft engine noise, aircraft operational procedures and airport grant program requirements, including those relating to compatible land use around airports. We do have to weigh, however, the financial and inflationary effects of applying retroactively subsequently developed higher noise standards to aircraft certified by the FAA before such higher standards were adopted. With respect to highway noise, our policy is to assure that new highways constructed with Federal funds include noise reduction features and to reduce noise from existing highways through spot improvements and through enforcement of truck noise standards.

AIR QUALITY

We will encourage the utilization of less polluting forms of transportation wherever possible and support the efforts of other agencies (primarily the Environmental Protection Agency) which have regulatory responsibilities over air quality. Thus, in our environmental analysis of transportation projects, we consider the impact of proposed projects on air quality to be a significant element of concern, and we require that projects be consistent with State and local plans to improve air quality. Moreover, the urban traffic management measures discussed earlier are part of the effort to improve air quality through reduction of unnecessary automobile usage. We support the national effort to reduce automotive emissions, recognizing however that as abatement approaches 80 percent and higher the incremental economic and energy costs rise rapidly and the incremental benefits become smaller. Without regressing in the

continued improvement of air quality, we must allow abatement technology to catch up with demands for energy efficiency.

LAND USE

Because transportation has such a significant impact on land use, which in turn is a crucial element in determining the quality of the human environment, we will continue to integrate transportation planning and decisionmaking into overall land use planning and decisionmaking. For many years, the Department's programs affecting urban areas have been developed with the participation of local officials having responsibility for planning and implementing land use requirements. Institutional barriers may arise at the local level because of dispersed responsibility for implementing programs affecting land use. Nevertheless, we must assure that the impacts of transportation programs on land use are brought to the attention of local officials and that every effort is made to assure that transportation serves local land use objectives. Our continuing policy will be to provide increased flexibility to local officials in the use of Federal-aid urban transportation funds, enabling these funds to be used for either highway or transit needs as best serves local transportation and land use objectives.

WATER

In the marine environment, the Coast Guard is the primary law enforcement agency responsible for enforcing Federal anti-pollution laws and treaties. Past actions have concentrated on developing adequate cleanup capability for removing oil and hazardous materials from the water. Increasing emphasis is being directed toward prevention, including regulations related to the transportation of hazardous substances and the disposal of vessel wastes and sewage.

Our concern for marine environment has resulted in exhaustive studies of segregated ballast for oil tankers. While such construction techniques may offer protection to the coastal waters, immediate establishment of the Vessel Traffic System (VTS), coupled with increased LORAN-C coverage and separated sea lanes, should offer improved cost beneficial protection against oil spills caused by collisions and groundings.

In summary, improvement of our environment is a continuing national commitment. We must

proceed with determination, on the basis of scientific fact and with a proper appreciation for the economic costs involved. Just as we will not take any Federal action with a significant impact on the environment without an impact analysis and statement, neither should we seek narrow solutions to environmental problems without an appreciation of their consequences for other governmental goals. In addition, we are establishing procedures which will result in a speed-up of the time to complete the environmental review process. With reason and foresight, we will continue to build a better transportation system that will contribute to the quality of our environment.

ENERGY

The Arab oil embargo highlighted the near-term problems of rapid increases in energy prices and uncertainties in the supply of imported petroleum. The longer-term problem revolves around the finite nature of U.S. and world petroleum resources. Major uncertainties are associated with quantifying recoverable petroleum reserves and with predicting the time frame within which substitute energy sources will be available in major quantities. Transportation is particularly vulnerable to increased costs and supply interruptions since it currently is almost completely dependent on petroleum-based energy.

Near-and-mid-term options for addressing these problems include:

- Conservation and efficiency improvement;
- Expansion of domestic supply;
- Establishment of a strategic petroleum reserve in order to reduce the impact of any future interruptions in imported supply;
- International consumer country arrangements such as those proposed by the International Energy Agency.

Transportation policy has a dual role to play in these measures. As a major consumer of energy, transportation must participate substantially in energy conservation programs and must increase the efficiency with which energy is used. Secondly, as part of the Nation's energy supply infrastructure, transportation must provide an efficient energy distribution network.

Energy conservation is a national imperative and has become a major factor in transportation decisionmaking. In order to help the transporta-

tion sector do its share in decreasing U.S. reliance on foreign imports (now more than 37 percent of U.S. consumption) and in conserving the use of limited domestic resources, our policy should be:

- Continued promotion of improved fuel efficiency through technological improvements, more efficient, intelligent and socially-responsible use of the automobile and public transport, more rational route structures and the removal of unreasonable regulatory constraints on service, voluntary joint programs with industry to conserve fuel and promote efficiency, and amendments to safety and environmental requirements that do not compromise their primary purpose but which provide a more energy-efficient alternative;
 - Encouragement of railroads and inland waterways as energy-efficient alternatives for the movement of bulk freight over long distances;
 - Support of energy conservation programs for trucks and intercity passenger travel;
 - Priority funding for proposals for subsidy, new facilities or RD & D that demonstrate comparative energy efficiency;
 - In most instances, full assimilation by the private sector of the increased cost of energy, with the market place as the ultimate allocator of energy resources;
 - Development of short range policies to help some of the transportation modes adjust to sudden, sharp increases in fuel cost as they occur.
- We will continue to emphasize key energy conservation programs such as:
- The 55 mph speed limit, now a condition of Federal-aid highway project approval;
 - The automobile fuel economy improvement program;
 - Carpooling promotional and information programs;
 - Improved urban traffic management and transit services as a condition of urban highway and mass transit funding;
 - The FAA seven-point program for jet fuel conservation, including revision of gatehold and air traffic flow procedures, increased use of optimum cruising speeds and altitudes, use of flight simulators for training and check flights, accelerated installations of instrument landing capability on approach runways and improving runway and taxiway technology.

CIVIL RIGHTS

In transportation, as in other areas of our society, there has been in the past a neglect of our recently-recognized obligations toward women, minority racial and ethnic groups, the poor and the disadvantaged. It is our policy to improve this situation with particular emphasis on three areas:

- Employment and capital opportunities both in the public and private transportation sectors;
- The service rendered by transportation;
- Planning and decisionmaking.

EMPLOYMENT AND CAPITAL

Massive amounts of Federal money are being used to build and revitalize the Nation's transportation system. Our policies must assure that minorities and women participate fully in the employment and capital opportunities thus provided. Women and minority group persons are under represented in the employment structures of the transportation industries and in the public sector transportation agencies at all levels of government. This is particularly the case with higher level positions, in policy-making and management. It is our policy to enforce effectively the civil rights laws and responsibilities. We are moving to hire significant numbers of women and minorities and to place those qualified in management and policy-making positions. We are also encouraging present employees to upgrade their management and policy development skills through a variety of training opportunities. These efforts will be undertaken in such a way as not to affect adversely other groups. We are strongly encouraging the transportation agencies at other levels of government and the private sector transportation industries to make every effort in this direction. A major policy initiative during the coming year will be to seek out innovative ways of using the substantial employment and capital opportunities generated by Federal transportation expenditures to help achieve full employment, with particular emphasis on the disadvantaged. We also wish to assist women and minorities in becoming involved in the actual construction, management and ownership of such transportation facilities or of the companies which build or operate them.

SERVICE

The transportation service provided by the public modes often neglects the needs of the spectrum of groups whose mobility is limited:

- Those persons in urban and rural areas who are too poor to afford either personal or public modes of travel and who are consequently shut off from many of the benefits of society to which they are entitled;
- Those who are too young or too old to drive;
- Those persons who are suffering from temporary or permanent physical disabilities.

It is our policy to assure that, where feasible and economically practicable, service alternatives are created that will be available to meet the needs of these persons and will be inexpensive, safe and easy to use.

PLANNING AND DECISION MAKING

For transportation to serve adequately the needs of women, minority groups and disadvantaged persons, they must be involved in the planning for the future of transportation and in the decision making that will implement the systems of the future. Full and accurate understanding of the problems faced by these groups cannot be gained adequately in any other way. This involvement may come through employment of women and minority group persons in key planning and executive positions, and more pervasively, through their participation in the community discussion and review that should be a part of making transportation plans and decisions. We will encourage such community involvement in our work with State and local governments to improve the process of transportation planning.

TRANSPORTATION CONSUMERS

A major concern of the Federal government is to be responsive to the needs and concerns of the individual transportation consumer—the user, purchaser and shipper of transportation goods and services, those for whom adequate transportation is not physically, economically or geographically accessible, and those affected by transportation systems.

Our consumer participation policy will continue to emphasize:

- Meaningful public hearings on major policy issues conducted by the top executive officers of the Department in different locations around the country;
- Periodic public opinion surveys to gauge the adequacy of transportation services from the consumer's perspective;
- Workshops and conferences to identify problem areas and formulate government policies that are responsive to consumer needs;
- Funding research on transportation issues of special interest to consumers;
- The integration of consumer views into the Department's planning and decisionmaking process rather than isolating consumer views in a separate consumer advocacy function.

It is our policy to assure that consumer interests receive full consideration in the decisionmaking process. Citizen involvement in the development of rules and regulations is essential, and all Department of Transportation components have been directed to use the Federal Register advance notice of proposed rulemaking; to allow a minimum of 45 days for public comment, and to evaluate consumer comments carefully before the promulgation of final regulations and standards. In addition, we will seek increased consumer participation on the advisory committees that serve the Department, and we will continue to require citizen participation in transportation planning at the State and local levels as a condition of many Federal transportation grant and assistance programs.

To enable consumers to participate knowledgeably, our policy encourages dissemination of information to consumers about transportation issues, including:

- Education programs and curriculum guides for teachers from kindergarten through the adult level to enable students to become effective transportation consumers and, ultimately, more knowledgeable participants in community transportation planning;
- Informational pamphlets on drinking and driving, the use of seat belts, boating safety, and similar subjects.

Effective consumer participation is vital in order to make government truly responsible and responsive to the public interest. Since the consumer point of view, however, may rightfully be as diverse as

the different types of consumers, we fail to see how these diverse views can be represented by a government consumer advocate. So, we seek solutions through opening up the process to all consumers. For making consumerism work requires the commitment of those who use, benefit from, or are deprived of transportation services. A few groups have helped significantly in the formulation of air,

surface and water transportation policies. But more general public concern, expressed through more effective organization, is required to bring transportation consumers up to the level of influence that they should have, commensurate with the strong lobbies of other segments of the transportation sectors and with the effective record of many consumer groups involved in social policies.

V. INTERNATIONAL TRANSPORTATION

In an increasingly interdependent international economy, U.S. transportation provides vital links among the world's Nations. Since the end of World War II, international trade and travel have grown at exponential rates and the U.S. has become increasingly dependent upon the foreign markets and foreign resources which international transportation makes accessible.

While the basic policy goal remains the same—i.e., the assurance of safe, efficient and economical service for our Nation's commerce rendered by privately owned transportation companies—the area of international transportation presents special challenges. Foremost is the need to deal with the interests of other Nations. Governments may share the objective of efficient transportation service but differ sharply about how such transportation should be organized, regulated, developed and promoted. We must recognize that international transportation is based upon international law and treaties and, since many parts of the world have economic and governmental philosophies different from those of the U.S., policies by which we conduct our international transportation might not be the same as those by which we are able to conduct our domestic transportation. International transportation, thus, calls for both political and economic accommodation. Nowhere is such accommodation more required than in aviation, the most widely regulated and most highly visible international transport mode.

Currently, a very broad range of issues and policy decisions confront the United States in the field of international transportation:

- The organization and regulation of international air transportation;
- The structure of international shipping services;
- The safety and environmental consequences of international transportation operations, including the pollution controls and the noise and other standards required on international transport equipment entering the U.S.;

- The compatibility of equipment employed for international multimodal services, including the containerization of cargo;
- The development of appropriate international legal regimes on such questions as liability and claims procedures, balancing equitably the interests of carriers and shippers;
- Simplification and standardization of the documentation and processing required to serve both private sector and governmental needs;
- The flow of travelers and baggage across international borders subject to customs and other types of inspection processing;
- The viability and profitability of U.S. private flag carriers when much of their foreign competition is governmentally owned or subsidized;
- The prospect for continued world preeminence of the U.S. aeronautical manufacturing industry in light of the challenge from subsidized European competitors.

An important element of international transportation policy is "facilitation," i.e., simplifying and expediting the international movement of passengers and goods through terminals. Facilitation saves both time and money. We will work vigorously to simplify entry and departure clearance procedures for passengers and cargo, improve terminal layout and baggage and cargo handling facilities and standardize documentation requirements for carriers and shippers. We will exploit fully electronic data processing techniques in order to eliminate most documents and improve passenger processing, ticketing, baggage control and fare and rate determination.

AVIATION

International aviation moves about 100 million passengers and six billion ton-miles of cargo yearly. In the past several years, the Nation's participation in this vital sector of world transportation has been threatened by the serious financial

problems of U.S. air carriers. While these problems were in large part caused by the rapid three-fold increase in world fuel prices and the worldwide economic recession, they were aggravated by uneconomic route structures, excess passenger capacity, increasing foreign subsidized carrier competition, the need to clarify U.S. international air policy (i.e. how many U.S. carriers in the international business and with what domestic route support), noncompensatory fares, disproportionate foreign carrier usage by U.S. passengers and unfair foreign competitive practices.

Currently, international air transportation operates in a complex and changing regime of law and politics involving a few multilateral treaties, many bilateral arrangements and a wide collection of national laws, regulations and policies. In this context, continuation of a U.S. flag air transportation system will require continuing negotiations between the United States and other Nations to arrange equitable operating rights and privileges, including most favored Nation treatment for U.S. international transportation and tourism services.

Most Nations today pursue, in varying degrees, a policy of promoting their own air transport enterprises and protecting them against competition from foreign, and perhaps more powerful or efficient, operators. Where a Nation subsidizes its airline, it may try to shield it from competition by restricting the traffic or service offerings of its foreign competitors. U.S. policy, by contrast, has always sought and will continue to seek greater liberalization of the economic operating environment for international air transportation.

However, this policy is predicated on the assumption that the U.S. air carriers' opportunity to participate fully in the international air transportation system is assured. U.S. bilateral air transportation agreements include provisions for governmental intervention if change in market demand levels require major capacity adjustments or if foreign carrier scheduling practices place U.S. carriers at a competitive disadvantage. Consequently, during 1974, discussions were initiated with certain foreign flag carriers and their respective governments about the problem of excess capacity. Capacity control agreements have been approved between U.S. carriers and the flag carriers of Venezuela, Switzerland, the United Kingdom, Greece and Italy. Meetings are continuing with other individual airlines on capacity control.

While many countries are hesitant to reduce the operations of their flag carriers, equitable solutions to the excess capacity problem must be pursued until they are achieved. The pursuit of capacity agreements in the international transportation field, while the Department has generally opposed them in the domestic field, is merely recognition that the international transportation policy must consider the economic and political views of the foreign countries.

The general fare increases of the past few years have not substantially helped the finances of U.S. carriers, in part at least because of the wider use of lower promotional fare arrangements simultaneously introduced to help compete with charters and attract new customers. For example, in 1973, approximately 70 percent of all North Atlantic passengers on scheduled flights used these reduced fares. While this pricing strategy may have stimulated some additional traffic, it also seriously eroded the scheduled carriers' revenue base.

Moreover, the extensive illegal discounting and rebating within the international air travel industry erode the revenue of all carriers. Such practices undercut the fares established by agreement through the International Air Transportation Association (IATA) and approved by the CAB. Certain types of illegal charter groups have also diverted some traffic from the scheduled carriers. IATA has estimated that such practices cost the international air carriers \$500 million annually on the North Atlantic routes alone.

To obtain better tariff enforcement, the U.S. government is moving on several fronts. The CAB has instituted formal proceedings against a number of foreign airlines for tariff violations. The Department of Transportation has completed a two-phase study of the impact of the travel agent/tour operator industry upon U.S. air carrier operations. Because the International Air Transportation Fair Competitive Practices Act of 1974 only prohibits ticket agents from giving rebates to the public, new legislation is under consideration that would outlaw carrier discounting and rebating to ticket agents and subject persons found guilty of such practices to civil and criminal penalties.

Competition has intensified over the North Atlantic, with 30 scheduled and 17 charter carriers now operating. The U.S. flag share of scheduled North Atlantic traffic has dropped from more than 60 percent in the early 1950's to about 39 percent.

No U.S. flag service is now available to a number of European cities. As the competitive environment has changed, the Administration has encouraged route restructuring and suspension of certain operations for U.S. flag carriers. As mandated by the International Air Transportation Fair Competitive Practices Act of 1974, the Administration is also encouraging the maximum use of U.S. carriers. Where direct service is available, all government-funded passenger and cargo traffic must be carried by U.S. carriers.

In the United States, international airports charge fees to carriers reflecting, in general, only their direct costs. Currently, only a portion of the Federal costs of operating the air traffic control system are covered by user charges. By contrast, an increasing number of foreign countries are recovering all, or at least a major part of, their full system costs directly from the carriers. This raises costs for U.S. international air carriers because many foreign carriers which pay the same landing fee may recoup such costs from general government subsidies.

Under the International Air Transportation Fair Competitive Practices Act of 1974, the Executive Branch must review all forms of discrimination or unfair competitive practices to which U.S. air carriers may be subjected and take action to eliminate them. As discriminatory charges by foreign governments or airport operators or charges that unreasonably exceed comparable user charges in the United States are documented, we will initiate talks with the other governments, seeking adjustment of the charges before a countervailing charge is assessed by the U.S. government on their air carriers.

Recognizing that international aviation is a rapidly changing industry, an interagency committee is currently reviewing international aviation policy to update the government's 1970 policy statement. For this review, four objectives have been adopted:

- To best meet the needs of the consumer by providing for the international transportation of people, mail and goods safely, efficiently and at reasonable costs wherever a substantial need for air transportation service exists;
- To provide for a viable, economical and efficient international air transportation indus-

try and for the continued development of civil aeronautics and air commerce;

- To assure a fair and competitive role and the opportunity for major participation by private enterprise U.S. air carriers in international air transportation and a favorable impact of the international air transportation system on the economic growth, economic stability and security of the United States;
- To contribute toward and be consistent with United States national defense and foreign and commercial policy objectives, and other national objectives.

Among the specific issues under consideration are:

- Multilateral approaches to aviation problems;
- An appropriate regulatory environment;
- The relationship between demand, capacity, costs and rates;
- The role of facilitation in the improvement of air transport services;
- The relationship between scheduled and charter services;
- The relative roles of the private and public sectors in international aviation;
- The IATA system of rate determination;
- New approaches to international route definition;
- The role of the U.S. aerospace industry in international aviation.

As we resolve these issues, we must keep in mind the U.S. public interest in having economically viable, privately owned U.S. air carriers and the fact that other countries might not accept our ways of solving our domestic airline problems.

The broader question in U.S. international aviation policy concerns the optimal structure for U.S. flag carriers and international routes. Should we emphasize one or two U.S. worldwide carriers, or should we seek to give the U.S. international carriers some domestic routes and to liberalize entry for other U.S. carriers into international markets moving toward a regionally-oriented structure with strong domestic feeder support in each region?

A healthy, financially viable U.S. air carrier industry causes the development and continuation of a healthy aircraft manufacturing industry. The demand for new generation aircraft first by U.S. carriers ultimately creates foreign demand for such U.S. aircraft. We must adopt policies that

will enable the U.S. aircraft manufacturers to retain their world preeminence since the industry yields the second largest balance of payments benefit to the U.S.

Within the foregoing framework, we will continue to seek the appropriate liberalization of the economic operating environment for international air transportation and greater simplification of procedures for the entry and departure of passengers and clearance of cargo.

SHIPPING

The vast preponderance of our foreign trade moves by ocean vessel, and we expect this will always be true. For this reason, the cost and quality of maritime transportation is now and will continue to be of vital concern to our economy. Our policy is designed to achieve the most efficient, safe and economical flow of traffic. However, our maritime situation differs from most other areas of transportation in that although we maintain and promote a U.S. flag merchant marine, it carries only a small part of our foreign trade. As a Nation, we are consumers rather than producers of ocean transportation services. Thus, we need to balance two goals—the preservation of a viable U.S. merchant marine adequate to serve our national interests and the availability of reliable, low cost shipping services to sustain our foreign commerce.

As a fundamental principle, the United States has always favored free competition among the world's ocean carriers. To provide stability, the Congress has permitted carriers in our trades to combine in liner conferences and to establish common tariffs and arrangements for service. However, such conferences must be open to all qualified carriers, and the right of non-conference lines to serve our needs must be protected. The Federal Maritime Commission should prevent any conference practices which threaten to disadvantage shippers.

At the same time, we have sought to maintain a U.S. merchant marine and a supporting shipbuilding capability. Because the national interests involved are substantial, they have not been left to the chance that these industries would prosper in the open international competition otherwise desired. Subsidy, flag preference on certain government cargoes and other promotional measures have been adopted to sustain a national maritime industry of reasonable size with expansion poten-

tial in event of national emergency. However, we have not interfered with the routing of purely commercial cargo through various types of flag preference or cargo sharing to the extent practiced by some other Nations.

Recent technical developments in ocean shipping have had a major, if not revolutionary, impact on the industry and will affect its economy and organization in profound ways. Foremost of these has been the growth of unitized cargo systems. These new systems have opened vast opportunities for a more efficient through-transportation between inland points, with cargoes transferred rapidly and securely between the maritime and other modes. They have also promoted the development of new families of ocean-going vessels which, being capital rather than labor-intensive, tend to reduce the competitive disadvantages of U.S. vessels. Thus, fewer ships carry more cargo and, with shorter port turnaround times, are able to make more voyages. Pressures for changes in the organization and practices of shipping conferences are developing, and as these innovations permit container ports to serve larger hinterlands, the established competitive relationships among ports and conferences are being altered. Because containers and similar equipment provide through-service across national borders, new international clearance arrangements are becoming necessary.

Along all of our coasts, including the Great Lakes, ports have been driven by their historically competitive relationships to meet the requirements of the new technology. Container handling facilities involve enormous investments, and adequate returns on these investments will require a high level of utilization. It appears most unlikely that all U.S. ports now preparing for container services will prove economically viable. On the contrary, it is more probable that the economies of scale permitted by the new technology can be realized only by concentrating container terminals at fewer locations. We must develop policies which will permit these choices to be made in the national interest.

A second major innovation has been the supertanker. This vessel type has raised special problems of structural integrity, navigation and traffic separation, pollution potential and adequacy of port facilities. The ability of the United States to take full advantage of the economies of scale which have stimulated the growth of the supertanker fleet has been denied by the shallow approaches to our

coastal ports and refineries. New deepwater off-loading facilities, sometimes called superports, will be required. Such facilities, exposed to the open sea, present a variety of structural and operational challenges and will require stringent standards and regulation if the ocean and coastal environment is to be preserved. Under the Deep Water Port Act of 1974, the Department of Transportation is determining the requirements for constructing such facilities in American waters.

The above developments may require a more active Federal role in port development planning. We should not spend Federal and local funds on more port development than the Nation needs. We can determine with reasonable precision the overall economic efficiency requirements for the Nation. But we also need to develop specific criteria to guide decisions on national port development efforts where there are competing State and local interests involved as well as other national priorities, such as the environment and the discouragement of reliance on petroleum imports.

The St. Lawrence Seaway Development Corporation is unique as it is the only waterway in the Nation maintained entirely through user charges. The Federal government should lend its full support to programs, such as lengthening the shipping season, which generate additional traffic and cargo for this valuable resource.

The balance between competitive and noncompetitive forces in international shipping appears to be shifting substantially in favor of the latter. Developing countries, at both carrier and intergovernmental levels, are creating systems of cargo pooling and allocation that would subject shipping conditions and rates increasingly to cartel arrangements and administrative direction, rather than to the play of market forces. Examples include an increasing number of bilateral arrangements between Nations which reserve the bulk of their common trade to their national fleets, governmental encouragement of conference pooling systems that exclude independents or third-flag carriers and the recent international endorsement of restrictive bilateral agreements contained in the United Nations Conference on Trade and Development (UNCTAD) Code of Conduct for Liner Conferences. We are examining the implications of commercial cargo preference in terms of both the cost and quality of services to shippers over the long run.

Another barrier to efficient international maritime transport arises from the outdated international legal regimes covering cargo data and cargo liability. The applicable provisions of the governing Brussels Convention have not been modified since their adoption in 1924. In this modern age of container shipping, these rules make efficient cargo movement very difficult.

United States international shipping policy should be re-examined to provide clear guidelines for future action in the following areas:

- On the organization of the ocean shipping market, we must determine our position on bilateral and multilateral devices for restricting competition. This will require reconciling our requirements as consumers of shipping and our requirements for a viable U.S. merchant marine in the context of various international constraints;
- We must determine to what extent flag preference on certain government cargoes, construction and operating subsidies and other promotional measures are needed to achieve national goals;
- We must re-examine the Federal role in port planning and establish criteria which promote the economic self-sufficiency of all our ports by avoiding investments that exceed future requirements and result in massive and unwarranted financial obligations;
- Working with other Nations, we must revise obsolete international laws and conventions concerning cargo movement.

ALTERNATIVE POLICY APPROACHES

Much of the controversy inherent in international transportation stems from a lack of agreement on the basic premises for operating international services. Some argue that international transportation should be regarded as any other industry in the free enterprise system; others argue that it should be viewed as a public utility.

Proponents of the public utility approach argue that:

- (1) Terminals—whether water or airports—are generally considered to be public utilities;
- (2) In many countries, internal or domestic common carriage is either heavily regulated or nationalized;
- (3) The substantial promotion of merchant marines and airlines by many foreign governments

reflect a judgment that international transportation is vital to national interests and must be supported even if not competitive in the world market.

The principal argument for using the free enterprise or "workable competition" approach is that the market provides the best means for allocating resources. Moreover, implicit in the public utility approach is the eventual need for some form of supranational regulatory agency which would have to exercise control over rates as well as entry and abandonment of services. In the light of past domestic experience with transportation regulation and the importance of national sovereignty, the public utility approach does not appear to be a promising one for improving international transportation services.

International transportation should provide adequate, efficient and reliable service in an environment capable of adopting new technology and responding to changing user needs at prices established within a competitive framework. Efficient management should be able to earn a reasonable profit in order to attract capital from the private market. Implicit in this approach is preference for competition over both its substitute, regulation, and its opposite, monopoly, as the means of allocating resources for transportation. In this view, any governmental action which reduces the efficiency

of international transportation is as economically undesirable as any anticompetitive practice by users or carriers which similarly increases cost.

Our objectives in international transportation should include adequate services at fair rates for users, the end of discriminatory promotional policies by governments and the evolution of cartelized ratemaking into more competitive arrangements. Despite efforts by a number of governments to find a better substitute, the market mechanism still appears to be the best device for resource allocation. However, achieving workable competition in international transportation will require a tremendous effort in modifying the present environment.

It will not be easy to obtain these objectives. Carriers will have to receive sufficient revenues to support their services, replace their equipment and provide an adequate return on their investment. Users will have to be provided with the services in a manner and at rates that will reduce impediments to the international movements of people and goods. Governments will have to be assured that essential national requirements will be met and that public monies invested in improved infrastructure will return adequate benefits to the respective national economies.

VI. CONCLUDING NOTE

In our democratic constitutional society, a transportation policy statement issued by the head of one Federal Department does not become the Nation's transportation policy. Even more important, a transportation policy is not a plan. Policy helps direct decisionmaking along more rational lines toward national goals and provides the reasons for proposed changes, but it does not define the optimal infrastructure or transportation system for the future, or identify the cities in which we will build rapid transit systems or designate which railroads will become the appropriate nationwide interstate freight railroad system.

It may be useful, in conclusion, however, to anticipate what the transportation system might look like if the policy set forth in this statement were first adopted and then successfully translated into programmatic action. We would see a more safe, efficient, accessible, diverse, competitive transportation system, mainly in the private sector, which would enhance the Nation's environment, economy and quality of life, by providing:

- Privately owned, financially healthy and competitive high performance national networks of marine, rail, truck, bus, pipeline and air freight and passenger service;
- A system of feeder lines and links that provide access to the nationwide interstate systems and effectively meet the transportation needs of urban, suburban and rural areas, privately maintained where possible, and supported, on a fiscally responsible basis, primarily by States and local governments with Federal financial participation where necessary;
- A safer, more energy-efficient, environmentally sound automobile that will be utilized more intelligently and with greater social responsibility but which will continue to be the most pervasive form of transportation, essential to our life style and economic activity;
- A modern highway system which serves the

needs of the future, consistent with our environmental and new energy concerns;

- Progress each year in safety performance, environmental protection, energy conservation and transportation crime prevention;
- Comprehensive urban transportation systems, involving efficient mass transit and a mix of modes that are consistent with broader metropolitan goals;
- Safe and modern rural transportation facilities, providing access to the Interstate network and creating an infrastructure that enhances rural living and development;
- A strong international transportation system with the participation of privately owned financially healthy, unsubsidized U.S. flag carriers;
- More equal competition between firms and among modes, freed from the encumbrance of outmoded regulatory restraints;
- New, more cost-effective, energy-efficient and intermodal technology;
- Accessible transportation for the poor, the minority, the handicapped and the elderly;
- Opportunities for employment and advancement for all citizens, particularly women, minorities and the disadvantaged;
- An economy conducive to adequate capital formation, enabling private firms to earn a reasonable return on investment and keep facilities and equipment modern, safe and environmentally sound.

A more perfect transportation system will evolve primarily through the efforts of an innovative, competitive, and forward looking private sector. The Federal Government must support this evolution, reinforcing the strengths of our system and shoring up its weakness.

At a time when there is claimed to be an erosion of public confidence in the capacity of government to respond to public needs efficiently, it becomes imperative to define clearly and realistically the responsibility and potentiality of the Federal Government.

Only when the reality of limited Federal resources is fully recognized and expectations accordingly brought into balance with that reality, will the gap between the promise of legislation and the performance of the government be narrowed.

Only when we cease to seek narrowly focused solutions to the problems of each transportation mode and begin to plan comprehensively, will the distortions of Federal intervention yield to the efficiency of intermodal competition and cooperation.

Only when we realize that practices of the past do not necessarily provide the best transportation systems needed today, will we have the courage to terminate programs that have fulfilled or failed to attain their original purposes, and seek new solutions to the needs of tomorrow.

Only when the level of government closest to the problems has the necessary financial resources, program flexibility and management authority, will we succeed in blending transportation systems with broader national and community development goals.

Although there are old habits and ways of thinking, and strong forces of politics, precedent and program inertia at work, we must now seek new, more efficient ways of responding to the Nation's transportation needs. This document is an initial attempt to do so. It may well contain inconsistencies, omissions and policies that the public will not accept. It is hoped, however, that it will stimulate discussion of the issues so that there will be progress and ultimately consensus on a policy which we will all work to implement.

APPENDIX 1
TRANSPORTATION SYSTEM PERFORMANCE MEASURES

The various elements of the Department are working together to develop programs for more useful measures of the present and projected performance of the Nation's transportation system.

Currently, data are reported on the performance of today's systems and estimates of the performance of planned systems yet to be developed. They provide a basis for understanding how our Nation's transportation facilities are currently performing, how they are expected to perform in the future, and how that performance might vary among the States and urban areas. When collected and examined over a period of time, they permit the evaluation of particular investment programs and policies in terms of changes in system performance.

The attachment summarizes some of the more important performance measures which have been identified for measurement and reporting by State and local governments.

The great variation existing in the level and sophistication of planning in the different modal areas tempers the extent and sophistication of the performance measure data which can be requested. Some of these measures are actual "on the ground" measurements of performance, whereas others are the results of planning estimates or the output from simulation models. Some of the data items shown in the listing are in the nature of "impact measures," (e.g., pollution output, household dislocations, etc.) but can also be interpreted as measures of performance of the transportation facilities. Finally, the reporting units for these measures vary between the different modal categories. For example, the transportation planning assistance programs of the FHWA, UMTA, and FAA allow for the reporting of transportation performance measures on an individual urban area basis. In the smaller urban areas and for rural areas, performance information is far less obtainable at this time. Many States and urban areas are just recently initiating programs which will result in transportation performance measurement. The Department is actually supporting the expansion of such activity through the operating administrations' planning assistance programs and through the National Transportation Studies. Our current plans are to expand and standardize the actual measurement of "on the ground" performance, as opposed to simulation output or engineering estimates. This would be done in order to improve the comparability while at the same time focusing only on certain key measures, some of which might be measured every two years, and others less frequently. At the same time, planners from the various operating elements of the Department will continue efforts targeted at the identification of those performance measures which are most useful in carrying out the Department's functions.

SUMMARY OF PERFORMANCE MEASURES REPORTED BY STATES UNDER THE 1974 NATIONAL TRANSPORTATION STUDY

HIGHWAYS

1. Freeway capacity measures.
2. Average travel speeds.
3. Congestion levels on freeways.
4. Amounts of total highway travel occurring on freeways.
5. Average trip lengths (time and distance).
6. Accident injuries and fatalities.
7. Population and job dislocation from highway construction.
8. Pollutant output levels.

URBAN PUBLIC TRANSPORTATION

1. Accessibility of residential population and employment areas to public transportation.
2. Average operating speed.
3. Average headways.
4. Average trip lengths.
5. Density of public transportation service.
6. Average vehicle occupancy.
7. Fleet utilization.
8. Fares.
9. Accident related injuries and fatalities.
10. Pollutant output levels.
11. Population and job dislocation from transit facility construction.

AIRPORTS

Air Carrier (A/C) or Reliever Airports Serving Hubs

1. Annual and peak hour passenger enplanements and A/C operations.
2. Annual cargo tons handled.
3. Peak hour delay per operation.
4. Access time from central business district to airport.
5. Out of pocket cost to travel from central business district to airport.
6. Distance to nearest alternative A/C airport.
7. Population and jobs relocated as a result of future airport construction or modification.
8. Annual pounds of pollutants emitted by aircraft.
9. Population and jobs within 30 minutes driving time of each primary system airport.
10. Noise exposure within the 30 and 40 NEF contours (number of residents and employees).

MARINE TERMINALS

1. Cargo (tons and number of containers) handled per day.
2. Cargo handled during peak day of the year (by type).
3. Average number of weeks per year port is closed by ice.
4. Number of ferry passengers served during peak day of year.
5. Classification of types of berths available as well as cargo handling capability (slurry, lash, etc.).

RAILROAD, BUS AND TRUCK TERMINALS

1. Number of vehicles and passengers which can be handled during the peak hours and annually.
2. Amount of cargo (tons and containers or trailers) which can be handled per hour and annually.

APPENDIX II

Total Federal transportation subsidies—general

There is no standard government usage of the term subsidy. As used here it is net Federal subsidy, defined as total Federal expenditures minus user charges received. Therefore:

1. The figures in the following table do not reflect the relative magnitude of the various Federal programs, but

only the difference between overall expenditures and receipts. (For instance, total fiscal year 1974 authorizations under the Federal-Aid Highway Act were \$6.049 billion; of this \$5.566 billion was financed from the Highway Trust Fund, leaving a net of \$483 million. To this must be added expenditures from general tax revenues for roads in the Appalachia Region, \$168 million, plus expenditures under the Highway Beautification program, \$55 million, minus funds expended on urban transportation, the results of which appear as the entry on line 1 under Highways.)

2. The national aggregate receipts classified as user charges may overlap with those which would be interpreted elsewhere as taxes for purposes of raising general revenues. (For instance, within the highway example, the taxes paid are not directly proportional to use and there are extensive cross subsidies among users; i.e., between cars and trucks, between urban users and rural users and between those who seldom use the Interstate system and those who use it extensively.)

3. Although the figures demonstrate the relative balances between expenditures and receipts for each mode (e.g., the preponderance of Federal highway costs are met by compensating receipts), they do not convey the relative impacts on the modes of these Federal programs (e.g., the very magnitude of the Federal-Aid Highway program tends to favor auto and truck transportation over other modes).

TABLE 1.—Total Federal Transportation Subsidies

[In thousands of dollars]

	Aviation	Urban mass transportation	Highways	Railroads	Marine	Pipelines	Totals
1. Federal grants less user charges.....	73,462	925,500	621,270	205,204	428,176	0
2. Federally caused cross subsidies.....	0	96,000	(96,000)	0	0	0
3. Federal services and facility operations less user charges.....	593,000	0	0	0	1,121,377	0
4. Assumption of legal risks.....	8,000	0	Unknown	0	Nil	0
5. Deferred tax payments.....	0	0	0	0	13,466	0
6. Federal R. & D. and planning.....	280,810	120,500	0	24,350	40,000	Nil
7. Administrative and regulatory costs.....	18,000	7,000	20,000	2,700	35,000	0
Subtotals.....	973,272	1,149,000	545,270	232,254	1,638,019	Nil	4,537,815
Urbanized area travel subtotals.....		1,149,000	101,135				1,250,135
Rest of domestic travel subtotals.....	949,552		426,135	232,254	805,227	Nil	2,413,168
International travel subtotals.....	23,720		18,000		832,792		874,512

Notes: (1) Based on 1974 actual expenditures where readily available. (2) Capital investments were not annualized. (3) Totals do not include general revenue sharing funds spent on transportation (\$1,005,000 largely on highways and urban mass transportation), risk assumed on loans, Federal reimbursement of local user charges (\$2,577,000 for highways), differences in regulation or economic regulatory costs.

TABLE 2.—Percentage of net Federal subsidies per unit of transportation

Net Federal subsidy¹ as a percent of the net Federal plus user expenditure, per unit of transportation service (units: freight—ton-miles, passengers—passenger-miles)

Urbanized area passenger travel:	Percent
Private auto.....	1.9
Taxi.....	0.2
Bus.....	29.2
Rapid rail.....	58.5
Rail commuter.....	23.5
Other domestic passenger travel:	
Private auto.....	nil
Bus.....	nil
Rail.....	23.0
Air carrier.....	5.0
General aviation.....	13.0
Domestic freight:	
Air.....	2.1
Highway.....	0.9
Rail.....	0.7
Marine ²	40.0-52.2

¹ Net Federal subsidy is defined as in table 1. Receipts from user charges have been deducted from the totals.

² Depends on allocation of: (a) Marine safety expenditures between passengers and freight; (b) marine water pollution expenditures between shore and waterborne sources, and (c) search and rescue expenditures between rescue associated with aviation and marine, and within the marine category between domestic marine freight haulage and other marine activity (for example, foreign ships, fishing vessels, recreational boating, etc.).