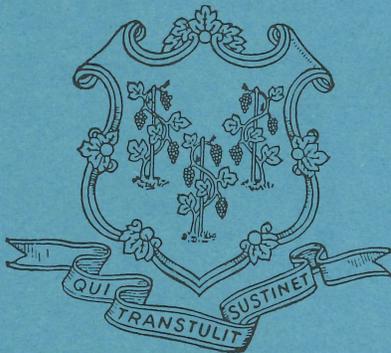


ECONOMIC DEVELOPMENT CONSIDERATIONS IN TRANSPORTATION PLANNING

Connecticut

General Assembly



LEGISLATIVE
PROGRAM REVIEW
AND
INVESTIGATIONS
COMMITTEE

December 2000

**CONNECTICUT GENERAL ASSEMBLY
LEGISLATIVE PROGRAM REVIEW AND INVESTIGATIONS COMMITTEE**

The Legislative Program Review and Investigations Committee is a joint, bipartisan, statutory committee of the Connecticut General Assembly. It was established in 1972 to evaluate the efficiency, effectiveness, and statutory compliance of selected state agencies and programs, recommending remedies where needed. In 1975, the General Assembly expanded the committee's function to include investigations, and during the 1977 session added responsibility for "sunset" (automatic program termination) performance reviews. The committee was given authority to raise and report bills in 1985.

The program review committee is composed of 12 members. The president pro tempore of the Senate, the Senate minority leader, the speaker of the house, and the House minority leader each appoint three members.

1999-2000 Committee Members

Senate

John W. Fonfara
Co-chairperson
Eileen M. Daily
Anthony Guglielmo
Gary D. LeBeau
William H. Nickerson
Win Smith, Jr.

House

Julia B. Wasserman
Co-chairperson
Kevin M. DelGobbo
Paul R. Doyle
Robert Heagney
Michael J. Jarjura
Robert A. Landino

Committee Staff

Michael L. Nauer, Director
George W. McKee, Chief Analyst
Catherine M. Conlin, Chief Analyst
Carrie E. Vibert, Chief Attorney
Brian R. Beisel, Principal Analyst
Michelle Castillo, Principal Analyst
Maryellen Duffy, Principal Analyst
Jill E. Jensen, Principal Analyst
Anne E. McAloon, Principal Analyst
Renee La Mark Muir, Principal Analyst
Scott M. Simoneau, Associate Analyst
Bonnine T. Labbadia, Executive Secretary

Staff on this project

Scott M. Simoneau

LEGISLATIVE PROGRAM REVIEW
& INVESTIGATIONS COMMITTEE

**ECONOMIC DEVELOPMENT
CONSIDERATIONS IN TRANSPORTATION
PLANNING**

DECEMBER 2000

Key Points

ECONOMIC DEVELOPMENT CONSIDERATIONS IN TRANSPORTATION PLANNING

- Economic growth can be linked to targeted investments in transportation infrastructure
 - It is essential to the state's economic vitality to have a high performing transportation system by ensuring adequate maintenance of the existing infrastructure and by providing adequate capacity
 - The state's connection to the global marketplace plays an increasingly vital role in the state's economic success
 - Regional input is required but the planning process is largely dominated by federal and ConnDOT funding priorities
 - An emphasis on regional fairness and regional preference can sometimes diminish ConnDOT's ability to address critical statewide needs
 - The main focus of ConnDOT's investments is on maintaining the system
 - A lack of funding for on-going operating costs of alternative transportation options, such as transit, can affect the project selection process
 - The potential economic impacts of alternative development scenarios are either not calculated or considered in ConnDOT's planning process and the planning outcomes tend to focus on fiscal impacts
 - Neither DECD nor ConnDOT have systematically considered the relationship between transportation investments and the strategic economic needs of the state
 - Coordination between ConnDOT and DECD is mostly on a project-by-project basis
 - The main revenue engine for the state's transportation fund is the motor fuel tax, which accounts for about 56 percent of the fund's revenues; this tax has been cut three times over the last four years
 - Overall capital expenditures and state bonding for transportation declined in the last eight years
-

Digest

Economic Development Considerations in Transportation Planning

ROLE OF TRANSPORTATION IN ECONOMIC DEVELOPMENT

FINDINGS

Economic growth can be linked to targeted investments in transportation infrastructure.

Productivity is the key to economic growth and targeted capital investments are the key to improved productivity.

Economic growth in Connecticut is threatened by congestion in key transportation corridors and the diminishing or inadequate connections to national and global markets by air, sea, rail, and road.

A number of techniques are available to assist decision makers in determining if investments will make a net contribution to economic growth.

A number of states have targeted specific transportation investments to support economic development efforts.

CONNDOT'S PLANNING AND PRIORITY SETTING PROCESSES

FINDINGS

The organization, processes, and orientation of the state's transportation planning efforts do not adequately respond to the state's overall economic needs.

There is no overarching guiding vision for the transportation system nor is there a strategic plan with goals and strategies to prioritize the state's investments.

Transportation system planning is constrained by limited financial investment goals.

It is the legacy of the Mianus bridge disaster in 1983 and a financial crisis in the early 1990s that directs ConnDOT's investments mainly toward system maintenance, while retaining a narrow view of economic development and assigning the lowest priority to capacity improvements.

Any plans developed by ConnDOT represent a revenue-constrained view of future needs.

An emphasis on fairness in the planning and funding processes coupled with the guaranteed involvement of numerous planning bodies focused on small geographical areas diminishes ConnDOT's ability to address critical statewide needs.

There is no conscious consideration in ConnDOT's planning and priority setting process of the economic effect of transportation improvements on a statewide basis when making investment decisions.

While the state's planning and funding efforts have improved its approach to the basic maintenance needs of the transportation network, it has not properly recognized the importance of identifying and addressing mobility deficiencies and opportunities in the system

A number of trends indicate the state has reduced its commitment, especially in the capital program, to transportation investments.

LINK BETWEEN ECONOMIC PLANNING AND CONNDOT'S PLANNING PROCESSES

FINDINGS

Neither the Department of Economic and Community Development (DECD) nor ConnDOT has systematically considered the strategic economic needs of the state and their relationship to the transportation system.

The relationship and interaction between DECD and ConnDOT suffers from a lack of strategic vision and planning.

There has been no assessment of economic cluster's infrastructure needs.

Interaction between DECD and ConnDOT is limited to either advisory roles or project specific coordination.

RECOMMENDATIONS

(Note: Because the *last* recommendation identifies the organization to be responsible for implementing the *initial* recommendations, the text of the initial recommendations does not indicate who should implement the recommendations.)

- 1. Create a vision statement for the state's transportation system and a mission statement for the Department of Transportation in conjunction with ConnDOT where the vision emphasizes a picture of success for the transportation system and**
-

the mission clarifies the department's purpose including elements that address economic development, customer service, and sensitivity to other societal goals.

2. A 10-year strategic plan be developed in conjunction with the Department of Transportation and with consideration of regional long-range plans. The purpose of the strategic plan will be to assist in defining and prioritizing the objectives of the state's transportation system and directing funding toward those objectives. The plan shall address specific areas including, but not limited to, the following:
 - a. Transportation's role in economic development, specifically
 - i. promotion of mobility and productivity;
 - ii. linking of transportation modes (connectivity);
 - iii. the state's connection to the national and global transportation network; and
 - iv. support for economic clusters and regional economic priorities.
 - b. Support for other societal goals, including but not limited to:
 - i. ensuring safety within the system and maintenance of current transportation assets;
 - ii. balancing transportation improvements, development, and environmental impacts;
 - iii. providing mobility to underserved populations; and
 - iv. encouraging a customer centered orientation.

The strategic plan shall identify objective criteria and procedures for prioritizing Connecticut's transportation needs and expenditures in relationship to the objectives of the strategic plan.

The strategic plan shall also consider and address elements normally outside the department's control, including but not limited to:

- coordination of land use issues with transportation investments;
 - coordination with other state departments, including the Departments of Economic and Community Development, Environmental Protection; and Public Safety;
 - transportation facilities within the state, such as regionally significant airports and seaports, not under state control; and
-

-
- the actions of neighboring states with regard to their transportation networks.
3. An assessment of the organization of the Department of Transportation be conducted to determine if the department is organized appropriately to carry out its new mission and responsibilities under the new strategic plan, and to analyze the adequacy of the department's organization, workforce, structure, managerial style, and competencies and make changes as necessary.

Further, it is recommended an assessment be performed for the legislature and governor aimed at reducing the number of regional planning organizations and Metropolitan Planning Organizations by changing planning boundaries to better reflect the needs and interdependencies of these areas by considering the predominate commuting patterns within regions and concentrations of economic activity or develop alternatives to compel existing regions to respond to the strategic objectives identified in the strategic plan within a larger geographical framework.

4. A 10-year financial plan be created in combination with the strategic plan to identify the level of investment necessary to achieve the strategic plan's goals over that time period. The financial analysis of said plan shall include a consideration of the estimated costs of implementing the goals outlined. At minimum the analysis shall include:
 - the effect of reallocating current resources;
 - an exploration of new funding sources;
 - the potential to increase current fees and charges; and
 - the feasibility of using the state's General Fund.

Recommendations of preferred funding mechanisms shall be developed and submitted to the governor and legislature.

5. The Connecticut Transportation Board is established, and it shall have the following characteristics:

- a) Purpose:

To develop a vision for the transportation system and mission for the Department of Transportation, create and update a 10-year strategic plan and financial plan for the operation, maintenance, and improvement of the transportation system that emphasizes a comprehensive and balanced statewide system, oversee any organizational changes, and monitor the plan's implementation as previously described. The board shall also consider the

actions of and coordinate its planning efforts as necessary with regional planning organizations, other state departments, neighboring states, and any other organization or agency that may have an affect on the operation and success of the transportation system.

b) Governing Body:

The Connecticut Transportation Board shall be attached to the Department of Transportation for administrative purposes only.

The board shall consist of nine voting members appointed by the governor and the legislature. In addition, the commissioners of transportation, economic and community development, public safety, environmental protection, and the secretary of the office of policy and management shall serve as nonvoting, ex officio members of the board.

The governor shall appoint five members, one of whom shall be a member of the Bradley Board of Directors. The speaker of the House of Representatives, the president pro tem of the Senate, and the minority leaders of the House of Representatives and the Senate shall each appoint one member. The members of the board shall be knowledgeable of transportation and economic development issues. Appointing authorities shall consider geographical balance of the board in making appointments. No appointed member shall be an employee of the Department of Transportation.

The governor shall appoint the chairperson of the board. The board may create other officers it deems necessary from among its membership. The powers of the board shall be vested in and exercised by not less than five members serving on the board. This number shall constitute a quorum.

The term of office of the members shall be for four years.

c) Powers and Duties:

The board shall develop a vision, mission, strategic, and financial plan, as described above, within one year of the board's formation or report its progress to the General Assembly and identify why it cannot complete those tasks within that time frame. The strategic and financial plan shall be updated every two years;

As part of the planning process, the board will determine priority programming based on objective criteria with respect to transportation investments as outlined in the strategic plan;

The board shall develop performance measures to track progress toward the accomplishment of goals and objectives outlined in the strategic plan;

The board shall review and approve the proposed operating and capital budget of the commissioner of DOT before submittal to the governor;

The board shall review and approve the Transportation Improvement Program and the Statewide Transportation Improvement Program before submittal to the governor;

The board shall submit to the governor a list of not less than three qualified candidates from which he shall appoint the commissioner of transportation when a vacancy occurs. The commissioner shall continue to serve at the pleasure of the governor. The board may submit to the governor a recommendation for removal of the commissioner upon a finding of failure to carry out the board's policies, incapacity, neglect of duty, or unlawful conduct;

The board shall report annually to the governor and legislative committees having cognizance over transportation and economic development matters on the progress in implementing the strategic plan; and

The board shall establish an advisory committee to advise the board in carrying out its responsibilities. The number of members shall be at the discretion of the board, but at a minimum include representatives from each regional planning organization, rail and bus commuters, truck and rail freight operators, representatives of the port and airline industries, and a representative from a statewide environmental organization having an interest in transportation policy.

d) Compensation:

The voting members of the board shall be compensated for their attendance at public hearings, executive sessions, or other board business that may require their attendance at the rate of \$250, provided in no case shall the daily compensation exceed \$250. The annual compensation for any member for attending such meetings shall not exceed \$12,500.

e) Staffing:

The Department of Transportation shall serve as staff to the board. The board may, however, hire any staff it determines necessary to carry out its functions and purposes within the available appropriations of the Department of Transportation.

f) Sunset Review:

The board shall be scheduled to terminate five years from its effective date, unless reauthorized by the General Assembly. During the year prior to the automatic termination, the Legislative Program Review and Investigations Committee shall conduct a sunset review and report its findings and

recommendations regarding the continuation, modification, or termination of the board for consideration by the General Assembly during the next regular legislative session.

Table of Contents

[Digest](#)

[Keypoints](#)

[Introduction](#)

Chapter One	Transportation and Economic Development
Chapter Two	Highways and Transit
Chapter Three	Airports and Seaports
Chapter Four	Department of Economic and Community Development
Chapter Five	Transportation Finances
Chapter Six	Findings
Chapter Seven	Recommendations

[Appendix A](#) Agency Response

[Appendix B](#) ConnDOT Organization Chart

[Appendix C](#) Map of Planning Regions

[Appendix D](#) Allocation of Funding For Long-Term Planning

[Appendix E](#) Map of Transit Districts

[Appendix F](#) Southwest Corridor Example

[Appendix G](#) Mission, Strategic Goals, and Funding Initiatives in Other States

ECONOMIC DEVELOPMENT CONSIDERATIONS IN TRANSPORTATION PLANNING

The Legislative Program Review and Investigations Committee authorized a study in March 2000 of the economic development considerations in transportation planning. The scope of the study approved by the committee calls for an assessment of how the Connecticut Department of Transportation (ConnDOT) responds to the strategic economic development needs of the state and for an examination of the:

- relationship between economic development and transportation;
- planning and priority setting processes followed by the department; and
- effectiveness of the link between the state's economic planning process and ConnDOT's strategic planning efforts.

Excluded from the study is an evaluation of the state's economic development programs or the goals of those programs. In addition, because the committee authorized a separate detailed study of Bradley International Airport and because the airport is funded separately from the rest of the transportation system, only the long-term planning efforts related to that facility are discussed in this report.

Findings and Recommendations Overview

The committee found transportation investments can have an influence on the state's economic prosperity but this effect is not factored in the Department of Transportation's current planning processes or investment decisions. In addition, the interaction between ConnDOT and the Department of Economic and Community Development (DECD) does not facilitate a strategic planning orientation to sustain economic growth.

A series of recommendations are offered aimed at improving transportation planning by promoting strategic thinking and action as well as enhancing the responsiveness of ConnDOT. A new entity is proposed, the Connecticut Transportation Board, that would be responsible for:

- developing a vision for the transportation system and revising the mission of the Department of Transportation;
- creating and updating a 10-year strategic and financial plan for the operation, maintenance, and improvement of the transportation network that emphasizes a comprehensive, balanced, and multimodal statewide system;

-
- overseeing any organizational changes to the department and to the planning regions; and
 - monitoring the implementation of performance measures and tracking the accomplishment of goals and objectives outlined in the strategic plan.

Transportation System

The Connecticut Department of Transportation is responsible for all aspects of planning, development, maintenance, and improvement of the state transportation system. An organization chart and description of the department's bureaus is provided in Appendix B. The state transportation system includes:

- approximately 19,800 miles of improved roads (of which 3,740 are maintained by the state);
- 5,400 state and local bridges;
- Bradley International Airport, which is New England's second largest airport, and five other state-owned airports together with numerous municipally and privately owned airports;
- rail commuter service between New Haven and New York City and related points provided by Metro-North Commuter Railroad Company which operates 250 trains daily; Shoreline East Commuter Rail Service between Old Saybrook and New Haven, which operates 18 trains daily; Amtrak, which provides regular intercity rail service between New York and Boston and a route between New Haven and West Springfield, Massachusetts; and
- publicly and privately owned bus systems, which operate 1,096 vehicles.

Background

A number of initiatives related to the transportation system including recent studies by ConnDOT, DECD, and non-governmental organizations, the appointment of a governor's council to examine Bradley airport operations, and ConnDOT's own analysis have pointed to a number of problems and limitations with the transportation system that affect the state's ability to meet current and future demands. A general frustration in dealing with these recurring problems has led to an increase in the attention being paid to these issues by the executive and legislative branch.

These problems impact the performance and productivity of Connecticut's transportation network and have the potential to influence the state's economic success. The scope of this study does not permit an in-depth analysis of these problems but focuses on how the planning and priority setting processes incorporate some of these concerns. These issues, briefly identified below by mode of transportation, suggest solutions are complicated and require a long-term commitment by the state to address. The issues include:

-
- **Highways** – Congestion is increasing on Connecticut highways and affecting the productivity of certain areas, especially on I-95, the Merritt Parkway, and I-84 west of Hartford. Combating congestion is not only a funding problem but also has behavioral and demographic implications for commuters. Additionally, highway projects are costly, require extensive and time-consuming environmental reviews, and generate significant public opposition. A lack of alternatives for truck traffic is also cited as a problem. It is estimated that 79 percent of freight in Connecticut is moved by trucks, while 2 percent is moved by rail and about 19 percent by water.
 - **Mass Transit** – Mass transit has traditionally played a small role in transportation development in Connecticut. Only about 4 percent of the workforce uses mass transit. Over the past several years funding for this mode has essentially been at the current services level. Part of the issue has to do with the lack of sufficient density in many residential areas to support mass transit. The development of more transit options, therefore, would require an increase in on-going subsidies from ConnDOT. Attracting additional transit riders in some areas requires a change in behavior, and ConnDOT has launched a marketing campaign aimed at retaining and attracting new riders. In other areas of the state such as the Southwest additional mass transit may be the only option. Rail transit along the New Haven Line, though, is hampered by a number of factors, not just behavioral issues, including the lack of parking facilities, management arrangements for parking facilities owned by the department but leased to cities and towns, insufficient bus service to rail stations, and reduced operating assistance available from the federal government.
 - **Rail Freight** – To move a significant amount of cargo by rail from Connecticut to New York City, it must go through Albany and then to New York City. Part of the reason for this is the lack of adequate rail crossings along the Hudson River and vertical clearance problems on the line between New York City and New Haven. Other factors impeding the development of freight rail include: the small size of the state makes trucking more competitive due to the short distances; the number of businesses that generate large volumes of freight has declined; the location of major intermodal facilities outside of the state (New Jersey's container port and the West Springfield rail yard) means goods originating or destined for Connecticut are being handled there and transported to and from Connecticut by truck; and Amtrak owns the rail line between New Haven and Springfield and charges high fees that discourage freight rail use.
 - **Seaports** – There are three deepwater seaports in Connecticut located in New London, New Haven, and Bridgeport. The state owns and, therefore, controls only one (New London) of the ports. Because Connecticut ports have not or cannot respond to trends in the shipping industry, including containerization

(i.e., products shipped in large enclosed containers) and the use of larger vessels requiring sizeable facilities, and the proximity to a major port in New Jersey, they essentially serve specialized niche markets. Even in this limited market, though, a number of problems constraining growth have been noted. For example, New Haven lacks an adequate rail connection and New London has limited warehousing, landside capacity, and only one side of the state pier has been operational.

- **Airports** – The state owns six airports. Five are small general aviation airports and one, Bradley International Airport, is the state’s primary facility with regular major carrier service. Recently a number of reports have been issued critical of the governing structure, management style, planning considerations, and operation of Bradley. A principal criticism was that the airport was viewed mostly as a transportation facility by ConnDOT and not as an economic asset and a potential development engine. In addition, ConnDOT has been criticized for a lack of commuter and rail freight connection at the airport. Industry trends, such as the use of larger aircraft and the necessary change in the configuration of facilities to accommodate such planes also may affect the ability of Bradley to meet future demands. Finally, other airports not owned by the state, such as Tweed-New Haven and Sikorsky, which have been mentioned as possibly playing a larger role in the transportation network and in facilitating economic development, are not considered in the state’s overall planning efforts.

It is also important to consider the improvements and developments occurring in other states. Because of Connecticut’s size and the limitations of its facilities, effective links to the nation and world markets outside its borders are beyond the state’s control. As discussed above, state residents are largely dependent on airports in New York for international flights, businesses depend on ports in other states for global access, and the major freight rail connection in the area is in Massachusetts.

Methodology and Report Organization

Information for this report was obtained from a number of sources. Those interviewed included staff of the Federal Highway Administration; Connecticut Departments of Transportation and Economic and Community Development; the Connecticut Economic Resource Center; officials from regional planning agencies; former ConnDOT officials; economists from the Connecticut Center for Economic Analysis; and representatives of several business organizations. General background literature in economic development and transportation planning was examined, as well as state statutes and federal law and regulations. Staff also reviewed reports from local, other state, and national studies dealing with economic development and transportation.

This report is divided into seven chapters. Chapter One examines the relationship between transportation and economic development. Chapters Two and Three outline the planning and priority setting processes of ConnDOT for highways, transit, airports, and seaports.

Chapter Four discusses the Department of Economic and Community Development's interaction with ConnDOT on a planning level, while Chapter Five provides an overview of transportation financing. Chapter Six and Seven presents the committee's findings and recommendations.

Agency Response

It is the policy of the Legislative Program Review and Investigations Committee to provide agencies subject to a study with an opportunity to review and comment on the recommendations prior to publication of the final report. The response from the Department of Transportation is contained in Appendix A

TRANSPORTATION AND ECONOMIC DEVELOPMENT

Transportation is a basic enabler of economic activity and ultimately helps to shape society's material success. A proper understanding of the economic implications of transportation choices can facilitate identifying the most effective way to direct public and private investment in infrastructure and prioritize the investments.

In this chapter the relationship between economic development and transportation policy is explored. To provide context for the issues involved, this chapter discusses the role of congestion in limiting growth, the importance of transportation in the "New Economy," and transportation's connection to global trade. The interaction between transportation, economic development, and land use is also examined.

Four significant points can be drawn from the discussion that follows. They are:

- economic growth can be linked to targeted investments in transportation infrastructure;
- airports and seaports are valuable and unique economic assets within the transportation network;
- it is essential to the state's economic vitality to have a high performing transportation system by ensuring adequate maintenance of the existing infrastructure and by providing adequate capacity; and
- the state's connection to the global marketplace plays an increasingly vital role in the state's economic success.

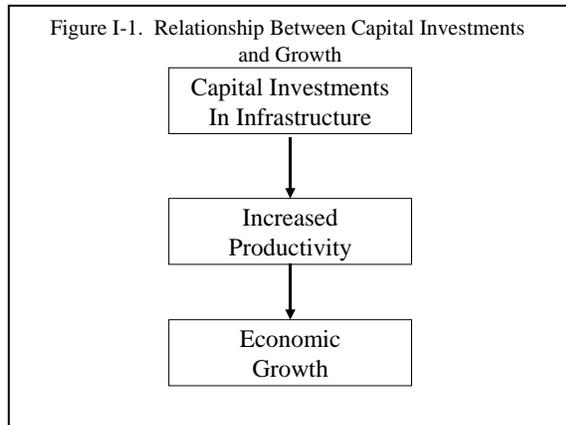
Definitions

Economic development is a fairly broad concept that refers to the material aspects of a community's welfare. There are a number of facets of development: growth in income, equitable distribution of income, decreased infant mortality rates, increased literacy rates, and other "quality of life" indicators. One consistent factor used by economists to define economic development is growth in community income or wealth.

Productivity represents the efficiency with which goods and services are

produced. Generally, it is believed economic development activity should focus on investments and strategies to increase productivity, that is, the economic output within an area relative to the cost of producing that output.

Productivity can be increased in a number of ways, such as the introduction of new technologies and investments in education and training. Transportation infrastructure investments contribute to productivity increases by reducing the costs of producing and distributing goods and services. Thus, as depicted in Figure I-1, productivity is the key to economic growth, and capital investment is the key to improved productivity



A recent study by the Federal Highway Administration (FHWA), for example, estimates a \$1.00 increase in the U.S. capital stock has historically generated about 30 cents of cost savings producer benefits each year over the lifetime of the underlying road improvements. The nonpartisan Congressional Budget Office (CBO) cautions, however, that unlike many federal investment projects orientated toward non-economic goals, infrastructure investments should be targeted toward cost-beneficial projects to ensure the best return on that investment.

Economic Development’s Relationship to Transportation

Economic development and transportation are closely related. An increase in economic activity, for example, typically stimulates transportation demand by increasing the number of workers commuting to and from work, customers traveling to and from business areas, and products being shipped between producers and consumers. Additional demand can trigger the need for transportation improvements. Improvements that decrease transportation costs may, in turn, decrease production costs and stimulate economic development.

A number of factors reinforce the linkage between transportation and economic development and highlight the importance of a high performing transportation system. Specifically:

- The incorporation of just-in-time (JIT) inventory practices has intensified dependence on the transportation system. JIT production means that raw materials, parts, or other inputs do not arrive at a production plant until immediately before they are needed for assembling the final product. JIT is also a factor in the retail arena. This practice requires sophisticated logistical planning between suppliers, manufactures, and their shippers. A substantial portion of U.S. production is based on these practices, which place an emphasis on:
 - speed;
 - reliability; and

-
- the availability of and coordination between various modes of transportation (also referred to as intermodal planning - e.g., rail to truck, barge to rail, etc.).
 - The global economy has increased the need for an efficient and effective transportation system linking the state and the world economy. (This is discussed in more detail below). This has increased distances traveled and increased the share of product costs attributable to transportation. Some have argued it also is significant in the U. S. because transportation could serve as a competitive advantage overcoming advantages other nations might have in lower labor and other input costs.
 - Mobility impacts quality of life issues and the relative attractiveness of an area for people and businesses. This has wide ranging ramifications from the success of tourist attractions to the desirability of moving to or living in an area. For example, a congested transportation system hinders personal productivity. People must leave home earlier to get to work and return later. This often limits the appeal of living in a congested area, which in turn can affect the ability to attract and retain a skilled workforce.

Importance of targeting. Increased economic growth is not guaranteed because of improvements made to the transportation infrastructure. In a fully developed economy, transportation can act as a constraint rather than an incentive for economic development. Poor access or poor average speeds can deter economic development in affected locales. On the other hand, investment in areas that already have adequate access and good speeds cannot expect to achieve large gains in economic development through transportation improvements.

In the private sector, market forces help decision makers ensure investments will be targeted to the most beneficial return. In the public sector, market forces are weak, and objectives are multifaceted. Public officials need to ensure transportation investments yield productive gains to the economy and that these exceed the costs of achieving them. Policy makers need to consider two points when making investment decisions:

1. **Objectives assigned to transportation policies and investments need to be properly targeted.** Policies should not aim to influence aspects of the economy over which transportation has little effect. *According to the Transportation Research Board (TRB), transportation policies and investments are more effective in promoting productivity, economic growth, and improved living standards than they are as instruments of redistribution.* This means that just building or locating a facility in a particular area does not mean there will be an automatic increase in overall employment and income or that it will be the most effective use of resources. On the other hand, investments aimed at reducing congestion and increasing the extent of automation in transportation systems offer high gains in productivity and growth.
-

-
2. **Transportation policy and investment opportunities need to be evaluated.** Whether growth is defined in terms of productivity, gross output, or the standard of living, it can only occur if more value is put into the economy than taken out. *Only by gauging an investment's rate of return can decision makers assess their implications for productivity and economic growth.* This means computations must account for impacts beyond the immediate effects.

Measuring economic benefits. There are a number of techniques and procedures that can be used to assist in measuring the benefits of transportation investments. These techniques vary considerably in terms of complexity, data requirements, cost, and reliability. These procedures are generally aimed toward measuring the impacts of growth-related outcomes or distribution-related objectives. Typically more than one approach is necessary to capture the extent of the impacts.

Generally speaking, economic benefits are the sum of the economic activities generated within an area due to a specific industry, project, or activity. The economic benefits of transportation facilities, if measured at all, generally focus on regional or local impacts. To demonstrate some of the economic implications of transportation choices, an examination of how regional impacts can be measured is provided using seaports or airports as an example.

Airports and seaports. Both seaports and airports are valuable economic assets. These facilities can be thought of as “economic engines” in an area because they have an economic effect well beyond their immediate physical boundaries and attract other economic activity. For example, these facilities bring tourists and other travelers to an area, provide businesses with additional shipping options, and increase opportunities for trade, especially on a national and worldwide scale. These facilities are also unique because they require a management posture and a skill set for planning, operations, and marketing that is different than that of overseeing the maintenance and operation of highway and mass transit facilities.

Economic benefits. The economic benefits of a transportation facility can be thought of as the total of its *transportation benefits* and *economic impacts*. The *transportation benefit* is the value of the service a facility brings to its surrounding area. In the case of an airport, this means time saved and costs avoided by the movement of people and goods that would be moved by different modes of transportation or not at all.

The *economic impact* of these facilities measures the employment provided and goods and services consumed by the activity fostered at a facility. These effects can be further divided into direct, indirect, and induced impacts. (Indirect and induced impacts are also collectively referred to as secondary impacts). Direct impacts are the result of economic activity at a facility; indirect impacts are activities that do not occur at a facility but can be attributed to a facility. Induced impacts refer to the “multiplier effect” of direct and indirect impacts. For example:

- **Direct impacts** are attributed to the initial round of spending and employment generated by the facility. Examples of direct impacts include employment at
-

the facility, purchase of locally produced goods and services, and construction related to capital expenditures.

- **Indirect impacts** are the inter-industry purchases and related employment that support or are by-products of the port’s activities. Examples of indirect impacts include services provided by hotels, restaurants, travel agencies, fuel operators, and retail establishments.
- **Induced impacts** (or the multiplier effect) refer to household purchases based on employment earnings from direct and indirect economic activities. For example, facility employees generally spend a considerable portion of their salaries on local businesses, providing local businesses with income. This income, in turn, provides employment to others in the community who in turn spend portions of their salaries on local goods and services. As successive rounds of spending occur, additional income is generated in the region.

These impacts can be measured against a number of variables but typically include: employment; gross state product and regional product; state taxes; local taxes, population, area construction; etc. The above example is meant to demonstrate the application of one type of approach and to provide an illustration of the impacts certain facilities can have. Often this particular analysis will only speak to a specific point in time and no allowance is made for the time-phasing of costs and benefits, which is an important factor in a rate of return analysis.

The New Economy

Within the last two decades, the so-called “New Economy” has emerged in the United States. This new economic order represents a fundamental change in industrial and occupational order, an increased level of entrepreneurship and competition, and an escalating trend toward globalization -- all of which have been stimulated to one degree or another by ground-breaking advances in information technologies. The New Economy challenges state governments to focus on innovation, education, technology, and constant adaptation to change, in order to take advantage of the enormous potential for growth.

A number of the characteristics of the New Economy as compared to the old demonstrate that a high performing transportation system remains an important aspect of both. A few of those elements are outlined in Table I-1. The New Economy requires a highly mobile workforce, flexibility in production that is global in scope, and a continuing emphasis on time and costs.

Table I-1. Elements of the Old and New Economy		
<i>Issue</i>	<i>Old Economy</i>	<i>New Economy</i>
Markets	Stable	Dynamic
Scope of Competition	National	Global
Potential Geographic Mobility	Low	High

Table I-1. Elements of the Old and New Economy		
<i>Issue</i>	<i>Old Economy</i>	<i>New Economy</i>
of Business		
Competition between Regions	Low	High
Organization of Production	Mass Production	Flexible Production
Source of Competitive Advantage	Lowering Cost Through Economies of Scale	Innovation, Quality, Time-To-Market, and Cost
Relations with Other Firms	Go it Alone	Alliances and Collaboration
Source: Progressive Policy Institute		

Global trade and commerce in Connecticut. International trade has become an integral part of the U.S. and world economies and is a significant factor in the New Economy. The combined total of U.S. exports and imports has increased from less than 5.5 percent of Gross Domestic Product (GDP) in 1950, to 11 percent in 1970, to 25 percent in 1997. Global trade is important to Connecticut in a number of ways. Research by the Connecticut Economic Research Center (CERC), the Connecticut Business and Industry Association (CBIA), the Department of Economic and Community Development, and others suggest companies that are not global traders can be at a significant disadvantage and the extent of global trading is expected to increase. Some key points are:

- Connecticut trades with more than 185 countries worldwide including Canada, Japan, United Kingdom, Germany, Mexico, France, Singapore, and Switzerland;
- Connecticut exports from 1988 through 1998 increased from \$3.8 billion to \$8.1 billion -- a 113 percent increase-- and currently represents about 6 percent of the Gross State Product;
- direct foreign investment in Connecticut not only creates jobs; it can also lead to an infusion to innovative technologies, management strategies, and workforce practices. In 1996, 925 foreign companies employed 83,000 workers. The number of workers has increased by 10,000 since 1990. Connecticut has about 218,200 export-related jobs. In 1990, 9 percent of private sector jobs were export-related, compared to 16 percent in 1997; and
- job growth in export-related industries increases about 18 percent faster than in other businesses. On average export-related industries pay 15 percent more, provide 40 percent more benefits, and are less likely to go out of business.

A recently released survey by CBIA of about 800 small and mid-sized businesses in Connecticut underscores the continuing importance of a high performing transportation system to the business community. The survey found 64 percent of respondents believed a first rate transportation system was important to Connecticut's overall economic growth. Moreover,

about half of the respondents rated the current transportation infrastructure as poor. Only 9 percent rated it as good or excellent, while the remainder said it was neither good nor poor.

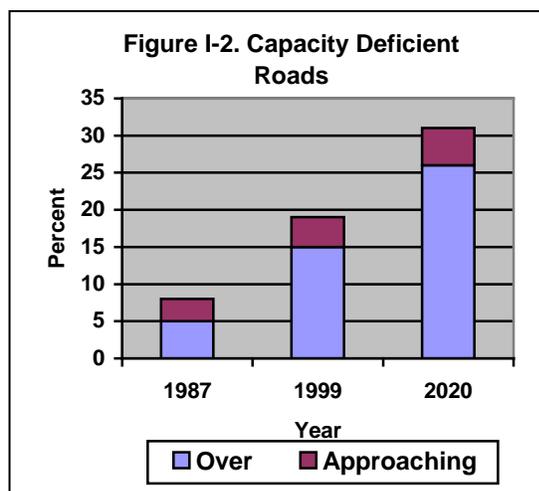
Congestion as a Limitation to Growth

Transportation policy shapes the landscape by determining the accessibility of competing locations and the mobility of people and goods. Economic growth is threatened by conditions that limit accessibility and mobility. As mobility is reduced, productivity declines, the costs of doing business increase, and the desirability of an area is diminished.

Mobility can be reduced through the physical deterioration of transportation facilities as well as inadequate capacity. A lack of attention to the periodic upkeep of the existing transportation network can lead to the closure of roads and bridges, reduced speeds, and other negative impacts. By most accounts, the condition of Connecticut's roads and bridges has improved considerably over the last 15 years.

The loss of capacity, however, as measured by the amount of congestion has increased. Congestion translates into increased travel time and fuel consumption. As these increase, productivity declines, and costs associated with labor and fuel as well as environmental degradation increase.

Congestion in Connecticut. Measurements of highway congestion in Connecticut show it has increased, and it is projected to worsen. In 1988, DOT systematically measured arterial capacity flows, and in May 1994, updated the 1988 report to include expressways and all state numbered routes maintained by the state. In 1996, the department began issuing an annual report on congestion throughout the state, using a congestion management system.



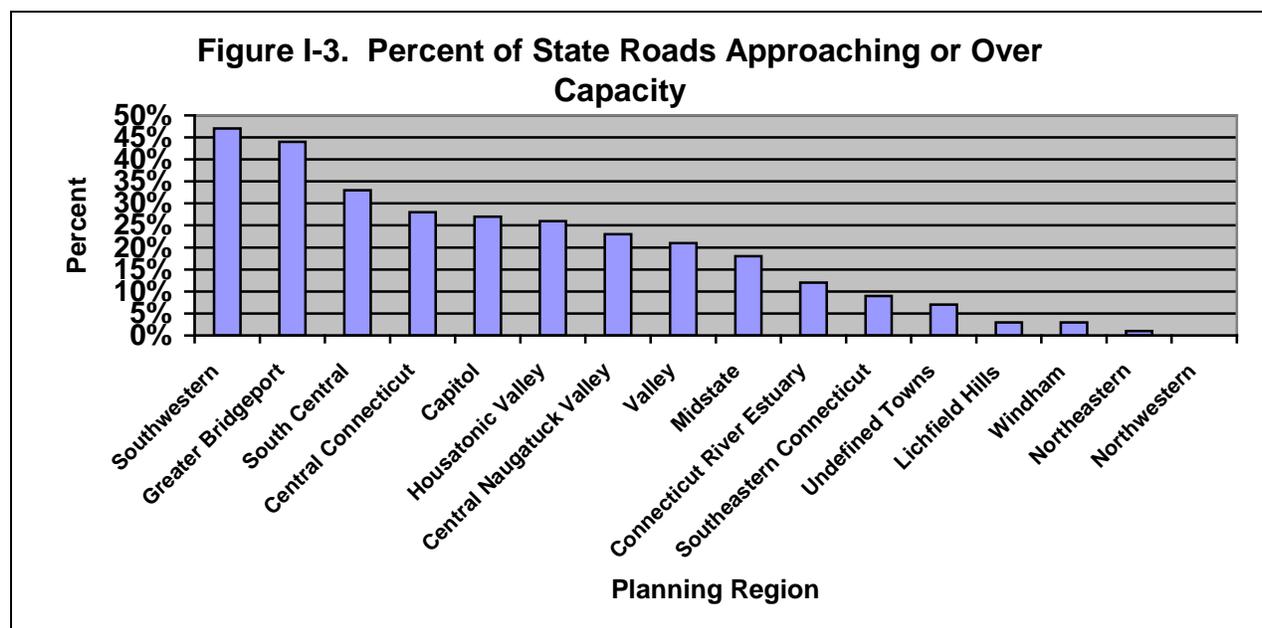
Capacity, according to ConnDOT, is the maximum hourly rate at which vehicles can reasonably expect to pass a uniform segment of roadway during a specified time period under prevailing roadway, traffic, and control conditions. State roads are divided into segments based on average daily traffic, lane widths, and number of lanes. Road segments are assigned peak hour traffic capacities based on roadway characteristics. The actual hourly traffic volume of a road segment is compared to its capacity in order to develop a ratio. Any segment with a volume to capacity ratio of 1.0 or more is considered *over capacity*. Any segment within 10 percent of capacity (or a ratio of .90 to .99) is considered *approaching capacity*.

Figure I-2 shows the actual capacity status of Connecticut arterial roadways for 1987, for state roads and expressways in 1999, and a projection of capacity for 2020. In 1987, 5 percent of

state numbered routes were over capacity, while 3 percent were approaching capacity.¹ In 1999, 15 percent of roadways exceeded capacity, and 4 percent were approaching capacity.

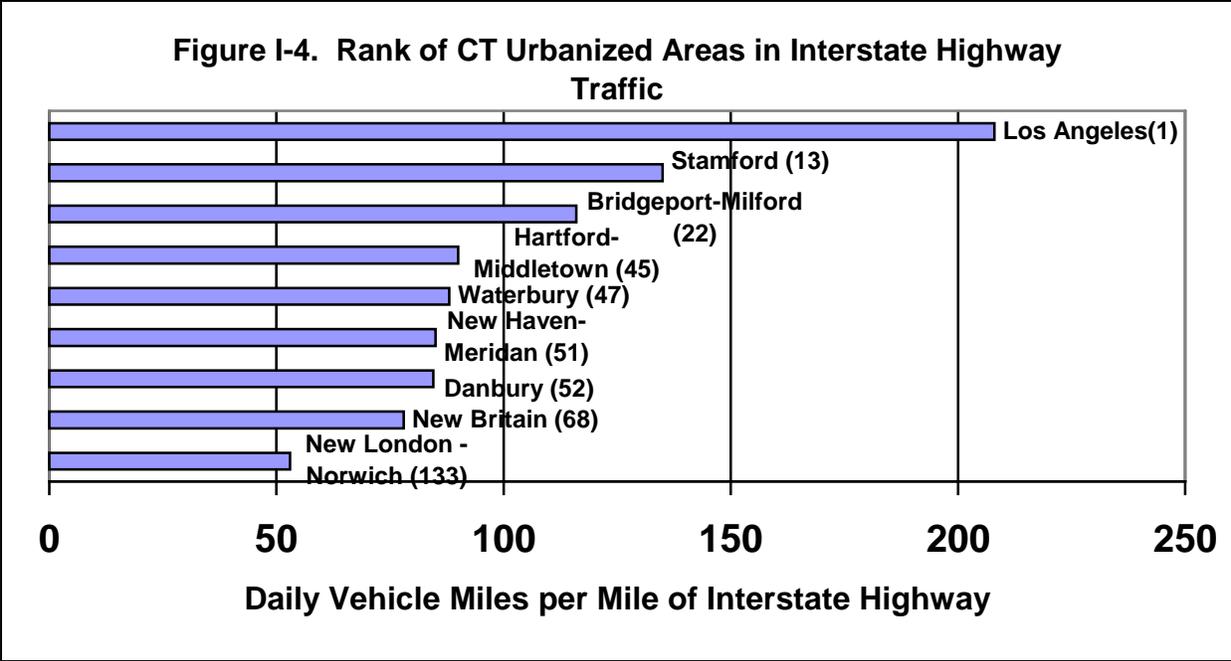
Forecasts by DOT of population, employment, land use, traffic volumes, and transportation projects have been used to develop a projection for the year 2020. By that time, 26 percent of the roadways are projected to be over capacity and 5 percent will be approaching capacity.

Figure I-3 shows the percent of state roads approaching or over capacity by the state's 15 planning regions and two unaffiliated towns in 1999. The southwestern portion of the state, essentially from New Haven to Greenwich, has the greatest amount of congestion. Both Greater Bridgeport and the Southwest planning regions show that over 40 percent of state roads are over or approaching capacity, with the Northeastern and Northwestern planning areas have close to none. While the Federal Highway Administration has a methodology for calculating the cost of congestion, ConnDOT does not estimate this cost for Connecticut.



Another way of examining the congestion problem is to compare how the traffic in Connecticut's urban areas compares to other states. The U.S. DOT conducts an annual survey of vehicle traffic on specific types of roads in 402 urbanized areas. While not a direct congestion measure, it does provide an idea as to how high traffic areas (and therefore, potentially congested areas) in Connecticut compare to high traffic areas elsewhere. The U.S. DOT report provides the daily vehicle miles traveled and the miles of roadway for each of the urbanized areas.

¹ Expressway data were not included in DOT's 1987 congestion report, but are part of subsequent reports. Concern over the comparability of the years based on this factor was reduced after committee staff found the proportion of expressways approaching and over capacity in subsequent years was basically the same as that found for other state roads



A ratio was developed to make valid comparisons by dividing the daily vehicle miles of travel on interstate highways by the miles of interstate highway in the 308 urbanized areas with interstate roadways. The results are shown in Figure I-4. Stamford, Norwalk, and Bridgeport-Milford rank 13th, 16th, and 22nd respectively among the 308 areas. While not anywhere near Los Angeles at 208,206 daily vehicle miles per interstate mile, those Fairfield County areas are prominent among the country’s high traffic areas and significantly higher than Connecticut’s six other urbanized areas.

A number of variables contribute to congestion on our highways. A few of the major ones are:

- the amount of travel undertaken in Connecticut has been growing disproportionately faster than population growth. While the U.S. Census Bureau estimates the population in Connecticut has actually declined in the last 10 years by about one-half percent (from 3.287 million to 3.282 million), the number of vehicle miles traveled (VMT) has increased 14 percent since 1990 (up from 72 million to 82 million VMT);
- the number of households has been increasing (by 5.43 percent between 1985 and 1995), while the average household size has been declining (from 2.67 people per household in 1985 to 2.62 in 1995); and
- employment has been moving to the suburbs, while the number of people working outside their town of residence has been increasing. Between 1980 and 1995, the percentage of total state employment located in municipalities larger than 50,000 people has declined from 55.1 percent share in 1980 to 43.5

percent share in 1995. Further, the number of people commuting to work outside of their own town has increased from 59.5 percent of the work force in 1980 to 64 percent in 1995.

Land Use Connection

Congestion is also related to the type of activity permitted in a given area. Transportation and land use are inexorably connected. Local boards and officials typically make land use decisions in Connecticut. ConnDOT, similar to most state transportation departments, has no role in local zoning and defers to local governments on land use issues.

The limited input ConnDOT has involves issues before the State Traffic Commission (STC). The State Traffic Commission, composed of the commissioners of the Connecticut Departments of Transportation, Public Safety, and Motor Vehicles, has review authority when a development abuts or adjoins a state highway or substantially affects state highway traffic. State statutes require developers of facilities that are significant generators of traffic to pay for necessary roadway improvements to accommodate that increased traffic.

By providing transportation facilities and services, whether through building highways, providing grants for local transportation improvements, or providing assistance to transit services, ConnDOT affects land use patterns in many different ways. Similarly, all development and land use decisions will ultimately affect travel patterns, and thus influence decisions made by state transportation officials regarding project planning and programming. For example, geographic shifts in population and businesses from cities to suburbs, as encouraged and supported by zoning and land use activities on the local level, have resulted in an increase in suburb-to-suburb commuting. This change has increased traffic and runs against the traditional hub and spoke system of roads and transit that converge in cities. This makes the mass transit option less financially viable and has led to increases in congestion.

State departments of transportation help shape land use by providing infrastructure to improve accessibility and mobility. Transportation's most significant impact on land development occurs when access is provided to land. Increased access to land raises its potential for development, and more development generates additional travel. Once access has been provided, land patterns begin to change over a period of time. The results of these changes are for the most part irreversible.

Emerging land use concerns. Concerns over urban sprawl have surfaced in many areas of the nation. Debates have occurred about transportation's role in creating urban sprawl, suburban congestion, and a jobs/housing mismatch. Many have argued efforts to expand the highway system contribute to urban sprawl by decreasing travel times from urban to suburban/rural areas and making undeveloped areas attractive for residential and commercial uses. However, some studies have suggested highway facilities, some time after construction, produced driving times that often exceeded the predicted drive times. These findings may have implications for the use of highways to solve long-term congestion problems.

Factors contributing to sprawl often do not fall within the control of transportation departments, including the movement of jobs to the suburbs, lower transportation costs versus lower housing costs, the preference of many people to live in remote areas away from the problems of cities, and the desire for larger housing lots. The debate over sprawl and transportation, however, has led many communities to develop measures to limit sprawl, including the institution of restrictive land use controls. Some policies favor the provision of state infrastructure to designated growth areas following state mandated land use plans.

A Call for a Strategic Framework

Problems with congestion and access to the global transportation network were highlighted in a recent report sponsored by the Connecticut Regional Institute for the 21st Century, a coalition of public, private, and nonprofit entities that provides a forum to discuss and consider regional issues and opportunities. The report, *Connecticut Strategic Economic Framework* (also referred to as the Gallis report, after its author Michael Gallis), identifies Connecticut's principal economic regions (based on economic geography not political geography) and recommends actions be taken based on the needs of the regions to better respond to the global marketplace. In addition, a companion report was issued that focused on Bradley International Airport and examined the airport's relationship to the metropolitan regions and the global transportation network.

The report emphasizes the restructuring of the world's economic geography, due to the collapse of the Soviet Union in 1991 and the development of new trading blocks. In this atmosphere, metropolitan regions function as the foundation of economic activity and hubs in the global transportation and communications network. The principle observations of the report include:

- **Metro regions go beyond traditional and political boundaries.** Metro regions are structured in a pattern of centers and corridors created by freeways, transit systems, airports, and large suburban populations of small towns surrounding core cities. *The importance of political boundaries and traditionally defined regions is diminishing.*
- **A massive restructuring of North America is underway.** A vertical industrial axis, called the NAFTA corridor, is forming and connecting points between Montreal and Mexico City. This corridor links Canada, the U.S. and Mexico, and is reshaping the distribution of economic activity. *The traditional boundaries separating New England, the Mid-Atlantic, eastern Canada, and the upper Midwest are blurring within this restructuring.*
- **Five metro regions now define the framework for New England -- the center of the "New Atlantic Triangle."** The metropolitan regions of Boston, Albany and New York City form the points of this triangle. The triangle is bisected by the Hartford/Springfield metro region and bounded by the

southeast coastal metro region. The defining characteristics of this triangle are the concentrations of economic, institutional, and cultural resources.

- **Three metro regions are located in Connecticut -- all of which cross state boundaries.** Three of the five metro regions in the New Atlantic Triangle are principally or partially located within Connecticut. One of the radial arms that extends off of the New York metro region is the Coastal Corridor anchored by Stamford, Bridgeport, and New Haven. This corridor forms Connecticut's gateway to the global economy and the continental grid. The Hartford Springfield metro region with New Haven to the south and extends along I-91 into Massachusetts to Amherst. Finally, the New London/Norwich/Mystic area forms a significant portion of the Southeast Coastal metro region extending into Rhode Island.
- **Global linkage and continental access is split through the center of the New York region.** The group of metro areas to the southwest (New York, Philadelphia, and Washington/Baltimore) is emerging as the principal point of access to the global network. The metro areas that make up the New Atlantic Triangle are becoming isolated with limited air service, without a significant port and with poor connections to the nation's interior and the rest of the continent.

Specifically, with regard to transportation, Gallis points out:

- hubs within transportation networks have historically grown to become principal urban and economic centers of the world, while those areas that lost their connection to hubs have stagnated or disappeared.
- Connecticut is dependent on neighboring airports and seaports to provide access to the world marketplace. While the three economic regions within the state are located close to the major global transportation hubs, they are difficult to access, especially through the I-95 corridor.
- the area east of the Hudson is threatened because of a lack of adequate cross-Hudson connections by bridge or tunnel to support the efficient flow of people and goods. This has contributed to global connections moving west of the Hudson and has blocked economic activity from extending east beyond Stamford.

The report recommends the adoption of "a multi-modal transportation strategy for the state (in conjunction with the five other New England states, New York, and the Maritime Provinces) to ensure the movement of people and goods in a cost competitive and

environmentally responsible manner including more effective connection to the New York area markets.”²

² *Connecticut Strategic Economic Framework*, Connecticut Regional Institute for the 21st Century, November 1999.

HIGHWAYS AND TRANSIT

In general, transportation projects are identified and prioritized through a dynamic planning process involving proposals generated externally and internally to ConnDOT. Overseeing and coordinating the entire planning and priority setting process is ConnDOT's Bureau of Policy and Planning.

The overall picture that emerges is of an elaborate, complex, and constrained planning process. While many entities are involved, including municipal officials, transit districts, regional planning organizations, the public, and other transportation providers, the federal government and ConnDOT heavily influence the process.

There is a guaranteed regional and public role. This role appears to be inclusive, especially on the planning level, but influence over final project selection and funding is limited. ConnDOT has become somewhat more open in its planning efforts, but the authority exercised by outside entities is advisory. Nonetheless, because so many regional or local entities can be involved in the process, it can create complications in improving regional and statewide transportation assets. As there is an emphasis on regional fairness in the planning and funding process, ConnDOT's ability to address critical statewide needs is diminished.

The department may identify various social, environmental, and fiscal impacts of proposed transportation alternatives on a project level and indicate concern about the wider ramifications of its activities, but its long-term planning efforts are restricted by the department's focus on its current finances and conditioned by limited investment goals. The department's primary goal is to maintain the current system, while retaining a narrow view of economic development and assigning the lowest priority to capacity improvements.

An overview of the state's transportation planning and priority setting processes is provided in this chapter. Most of ConnDOT's efforts and resources are devoted to the development of highway and transit plans, and this process will be examined first. The planning for airports and seaports is essentially separate from this process, and a description of those processes can be found in the next chapter.

This chapter is subdivided into segments describing the historical backdrop to transportation planning, the planning products required under law, the players involved in developing those products, and the process followed. In addition, the process for developing options for major transportation corridors is examined.

Background

In many federal programs of intergovernmental assistance, national funds are allocated to states or local governments -- counties, municipalities, and special districts. Transportation is something of an exception to this pattern, because of the mandatory participation of regional planning entities.

After World War II, “urban problems,” especially in the areas of housing and transportation, were perceived as issues of regionwide scope and the federal government began to target modest levels of federal aid to the regional level. Gradually, various entities evolved -- notably, regional councils of government -- due in large part to the requirements attached to local use of federal funds. Federal transportation legislation incrementally developed a role for metropolitan transportation planning.

The federal government created a role for metropolitan transportation planning with the passage of the Federal-Aid Highway Act of 1962. This law stipulated that, in areas with populations exceeding 50,000, a highway project could receive funding only if it was planned as part of a comprehensive, continuing, cooperative regional process. This principle, known as the “3-C” rule, is the root of today’s regional planning requirements.

The term “metropolitan planning organization” (MPO) did not appear in federal statutes until the Federal-Aid Highway Act of 1973. States were to allocate a portion of federal-aid transportation funding to “the metropolitan planning organizations designated by the State” as being responsible with the state for carrying out the metropolitan planning responsibilities established by earlier transportation legislation.

In general, metropolitan planning organizations are the transportation planning agencies designated by the governor and local governments in urbanized areas with over 50,000 people. They typically operate through several committees, including a policy committee that is the decision-making body in developing transportation plans and programs. The policy committee is often supported by technical committees, staff that oversee technical work, and citizen advisory committees that provide public input.

The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 served to enhance the role of regional entities in transportation planning. This act gave larger MPOs some additional authority over certain categories of federal transportation aid, notably the Surface Transportation Program (STP), and served to formalize the relationships between the regional entities and state DOTs.

TEA 21. Federal transportation funding relies on periodic authorizations. The Transportation Equity Act for the 21st Century (TEA 21) is the current transportation financing reauthorization. Signed into law in July 1998, it essentially continues the planning requirements developed under ISTEA. These requirements include provisions concerning fiscal constraint, planning horizon, and public involvement, which now must include freight shippers and public transit users. TEA 21 authorizes \$41 billion for transit and at least \$175 billion in highway funding through federal fiscal year 2003.

Goals of TEA 21. The previous transportation authorization (ISTEA) contained 15 specific factors MPOs had to consider when creating long-range plans. Under TEA 21, those 15 are replaced with seven general areas. The metropolitan planning process must consider projects and strategies that:

1. support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;
2. increase safety and security for the transportation system for motorized and nonmotorized users;
3. increase accessibility and mobility options for people and for freight;
4. protect the environment, conserve energy, and improve quality of life;
5. enhance integration and connectivity of the transportation system, across and between modes, for freight and people;
6. promote efficient system management and operation; and
7. emphasize preservation of the existing transportation system.

ConnDOT's Mission and Investment Goals

One of the most important considerations in examining ConnDOT's approach to planning and priority setting is the fact its mission and its investment goals condition the process. ConnDOT's stated mission is "to provide a safe, efficient, and cost effective transportation system that meets the mobility needs of its users." In translating its mission into the mandated plans for transportation facilities and services, the department is guided by six investment goals established by ConnDOT. Figure II-1 identifies the goals and the sub-objectives associated with the goals. Only three objectives are quantified (resurfacing, bridges, and bus replacement).

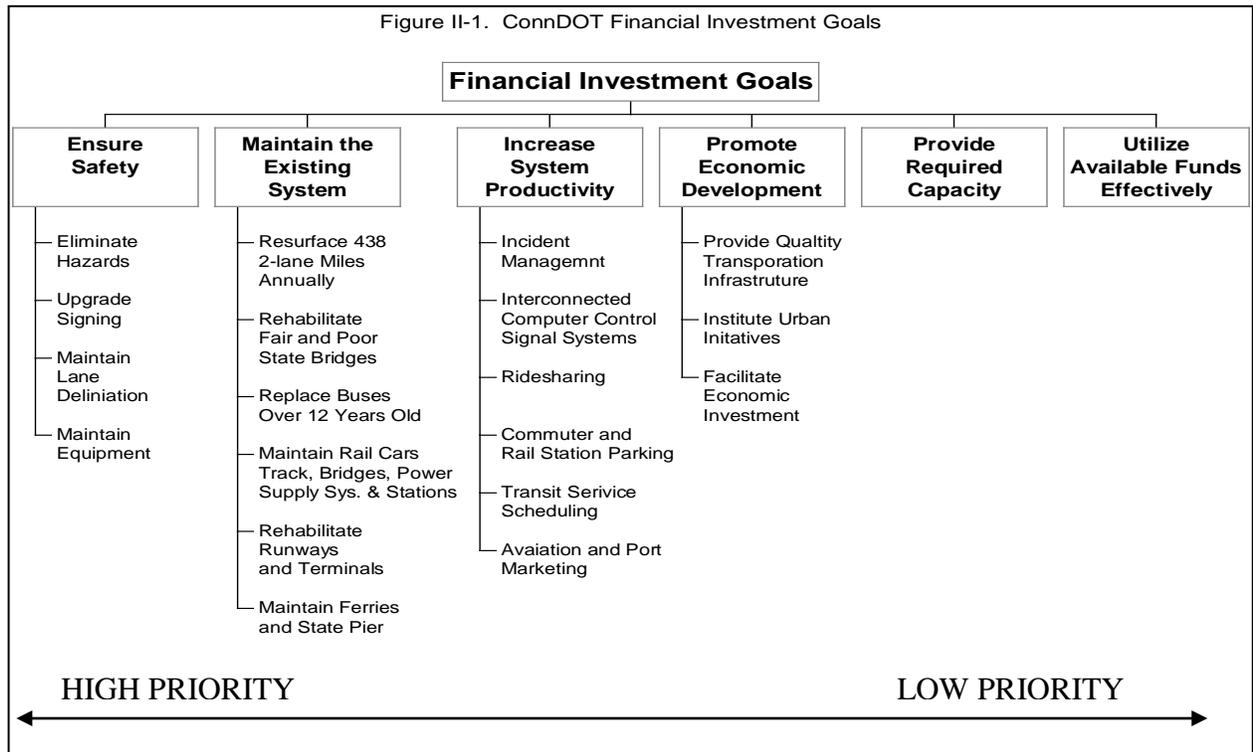
The figure also shows the relative importance the department gives each goal. The focus and emphasis of the state's investments is on safety, maintenance and system productivity. The department stresses the state must not return to a period of deferred maintenance.

Economic development. The promotion of economic development is the fourth goal delineated by the department. The department has identified a number of sub-objectives related to this goal, but has provided few specific objectives and has narrowly defined its role in this area. Sub-objectives include the provision of a quality transportation infrastructure, the institution of urban incentives, and the facilitation of economic investment.

The department has only defined the second sub-objective. Urban initiatives refer to the state's efforts to assist economically distressed urban areas by participating in the federal empowerment zone (EZ) process and the state-sponsored neighborhood revitalization zones (NRZs).

Empowerment zones. The EZ initiative is a federal program designed to "empower people and communities" in developing and implementing strategic plans to create job opportunities and sustainable community development. Its purpose is to create jobs and business

opportunities in the most economically distressed areas of inner cities and rural jurisdictions through performance oriented block grants.



Certain portions of the cities of West Haven and New Haven have been designated as empowerment zones. ConnDOT’s participation in this process was in supporting the application to the federal government by identifying the financial commitments ConnDOT has already made in the area to leverage additional federal funds (though not transportation funds) for the zone.

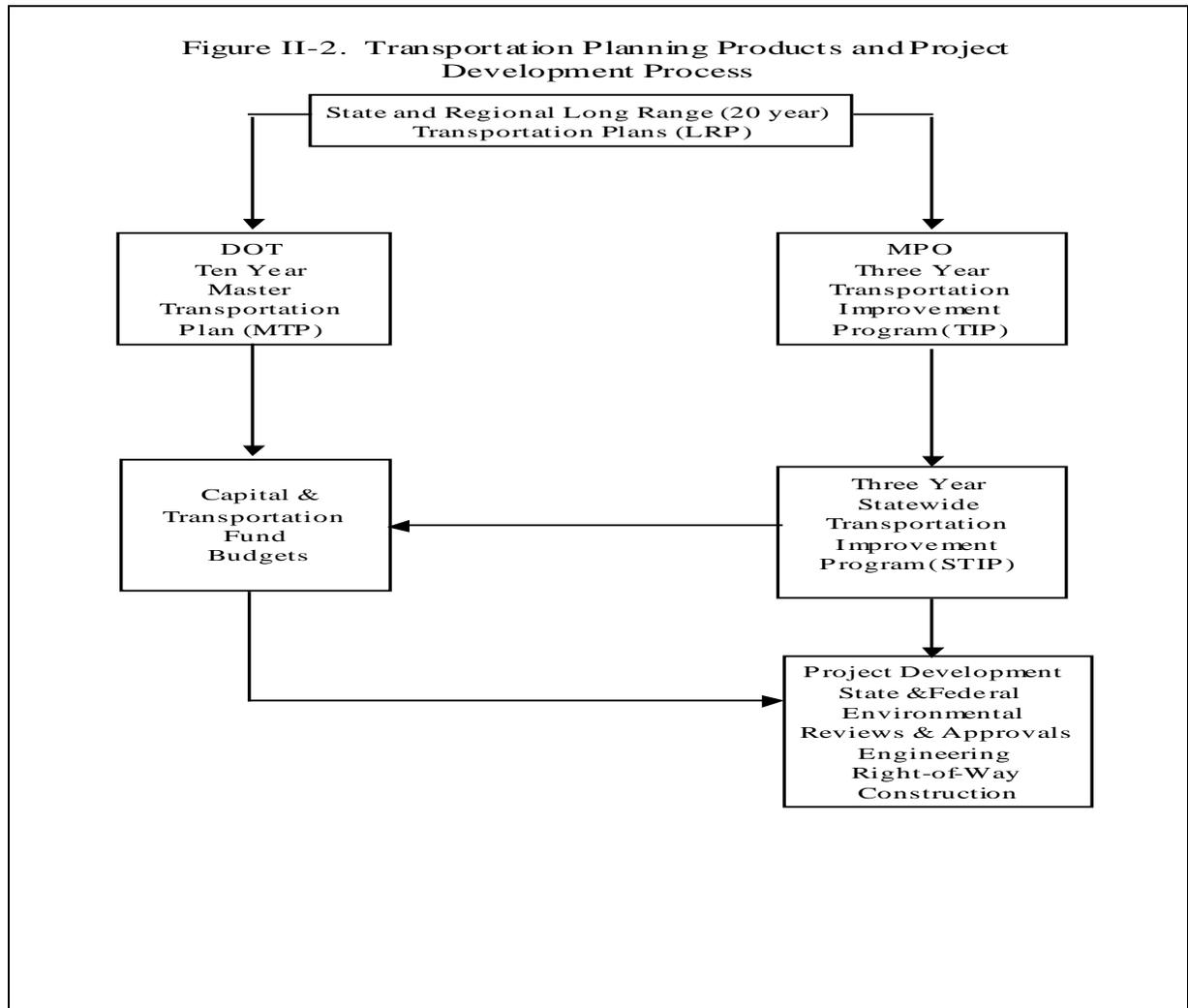
Neighborhood revitalization zones. In addition, the department also provides support in reviewing strategic plans developed by neighborhood revitalization zones. The Neighborhood Revitalization Zone Advisory Board was created by statute in 1998. Its purpose is to promote economic self-sufficiency and economic development and assist neighborhood revitalization zone planning committees in developing and implementing strategic plans. The board also makes recommendations regarding the disbursement of money for NRZ grant-in-aid programs. ConnDOT is a member of the advisory board and reviews local NRZ plans and circulates the plans among the ConnDOT offices for review and comment. An examination of ConnDOT’s comments indicates most clarify the role or policy of ConnDOT in a particular area, explain why the department cannot fund a proposed improvement, or direct the neighborhood group to contact their regional planning agency to inquire about a particular funding program.

Limitations on direct involvement. ConnDOT has a limited, direct role in economic development due to state statutory and federal regulatory restrictions. As discussed in Chapter I, state law requires developers of facilities that are significant generators of traffic pay for the necessary road improvements to accommodate increased traffic. ConnDOT cannot pay for any changes benefiting a single party but it will try to coordinate planned improvements for a

corridor with any ongoing development project. Coordination with the Department of Economic and Community Development is discussed in Chapter IV.

Development of the goals. The department's strategic goals were developed just prior to the creation of the 1993 Master Transportation Plan and were triggered by a series of events. In the early 1990s, changes in federal legislation, including the 1990 Clean Air Act Amendments and the 1991 Intermodal Surface Transportation Efficiency Act, and a distressed state economic situation caused the department to conduct a comprehensive review of the status of the transportation system and state and regional plans.

It became apparent during ConnDOT's review that there would not be enough financial resources available to complete all of the projects in the regional plans. Plans for major projects were reviewed, rescheduled, reduced, or removed to be consistent with the resources available using the goals identified above. A list of major projects was created and has since been refined through the process described below.



Required Plans

Ultimately, the planning process results in the development of four major overlapping documents as depicted in Figure II-2. Three are required by the federal government, and one is required under state statute. A brief description of the plans is provided below.

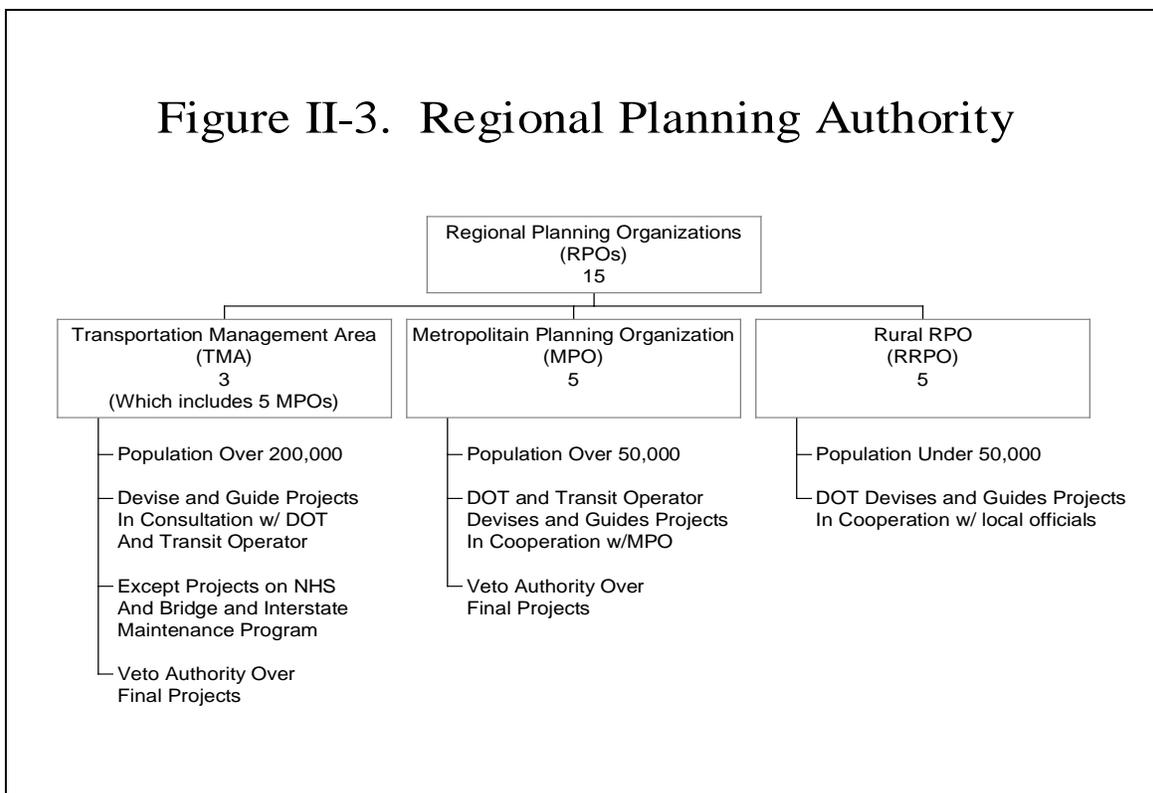
- **Long Range Plans (LRP).** The LRP is required under federal law. In Connecticut, the regions and the state develop their own LRPs. The statewide plan is intended to present a policy-oriented, long-term, intermodal vision of the state's transportation system over a 20-year period. This plan is developed by the department in cooperation with MPOs, transit agencies, ports and airports, and others who have an impact on the transportation system. Each of Connecticut's 10 MPOs must also submit a regional plan to the FHWA and FTA. These transportation plans are more project specific to the particular regions. LRPs must be reviewed and updated at least every three years to confirm their validity and consistency with current and forecasted transportation land use conditions and trends, and to extend the forecast period.
- **Master Transportation Plan (MTP).** The MTP is required by state statute (C.G.S. Sec. 13b-15). This plan is intended to, "provide the Administration, General Assembly, local elected officials, and members of the general public with an understanding of the projects and programs that the department will be pursuing over the next 10 years." It contains information on programmed and planned projects, significant accomplishments, and capital and operating financial data. The MTP must be submitted to the General Assembly every two years.
- **Transportation Improvement Program (TIP).** The TIP is required under federal law. This plan is a description of all transportation projects in a metropolitan area that are to receive federal funding over a three-year period. A TIP is developed by an MPO in cooperation with the state and public transit operators. The metropolitan plans must be included in the STIP, without modification, following approval by the governor.
- **Statewide Transportation Improvement Program (STIP).** The STIP is required under federal law. The STIP, developed by the department, is the statewide counterpart to the TIP. It is a complete list and description of all FHWA/FTA- funded projects that will be undertaken within the next three years for the entire state. STIPs must be submitted at least every two years to those two federal agencies for joint approval, although amendments can be submitted anytime.

In addition to the above plans, the department prepares a capital program as part of the normal state budget process involving the governor and the General Assembly. ConnDOT's capital budget requests describe the department's immediate plans for the next two years. The

Transportation Committee is the primary oversight committee for transportation issues, while the subcommittees of the Appropriations and the Finance, Revenue, and Bonding committees oversee the fiscal aspects of transportation for the General Assembly. The Bond Commission has final approval and authorizes the release of capital funds approved by the General Assembly.

Planning Structure, Players, and Authority

In Connecticut, 15 regional entities called regional planning organizations (RPOs) are responsible for conducting transportation planning activities for specific geographic areas within the state in cooperation with the department. (There are two towns that are unaffiliated with any RPO, and the department conducts planning for those towns). A map of the planning regions is provided in Appendix C. Within each planning region, the constituent municipalities have voluntarily created either a regional council of governments (COG), a regional council of elected officials (CEO), or a regional planning agency (RPA).



As depicted in Figure II-3, RPOs can be further divided into large MPOs within Transportation Management Areas (TMAs), Metropolitan Planning Organizations, and Rural RPOs. The difference between these entities has to do with the population each represents and the authority they have in the project selection process granted in federal law and regulation. The key differences are defined and summarized in the figure.

Authority of TMAs. In theory, the distinction between the planning entities has to do with which has more authority to develop and guide a project. Generally, TMAs appear to have the ability to initiate and control a project funded under a certain stream of money (Surface

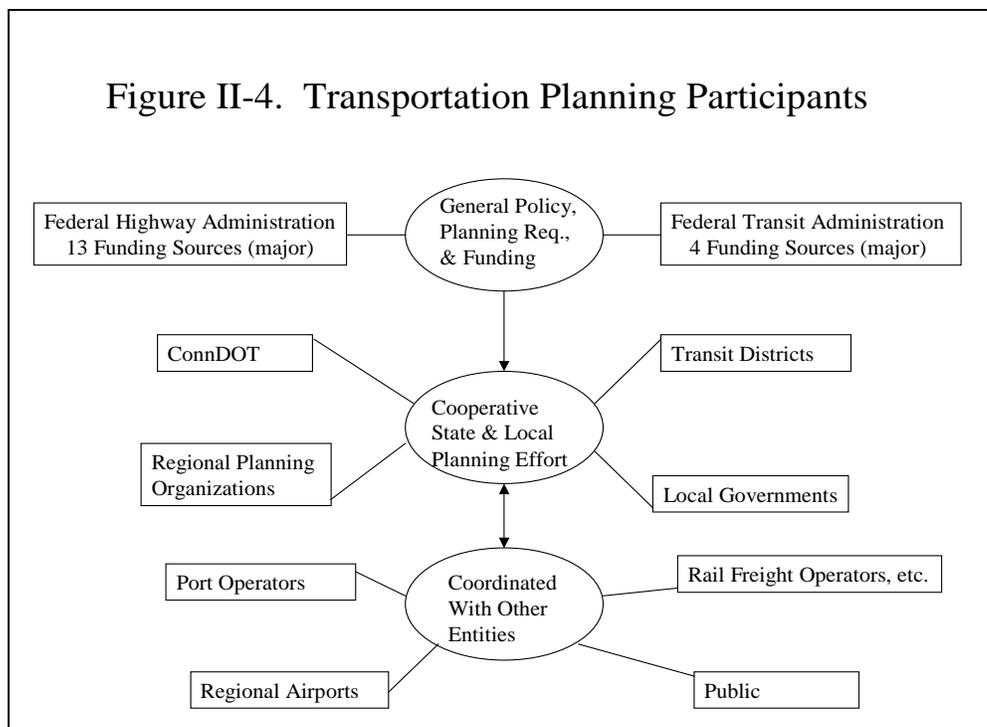
Transportation Program – Urban) because they only need to consult with ConnDOT. The funds under this program are earmarked and must be spent in these regions.

Veto authority of TMAs, MPOs, and ConnDOT. Federal law also gives all MPOs and ConnDOT a mutual veto over projects. However, having veto authority is not the same as determining where funds will be spent. Projects identified in the regional Transportation Improvement Program developed by MPOs must be included in the Statewide Transportation Improvement Program without modification once approved by the MPO and the governor. The federal government will not fund a project unless it is in the Statewide Transportation Improvement Program. However, most federal funding sources, including the STP program, require a state or local match. This match is usually provided by ConnDOT and gives the department additional leverage in determining project selection. In addition, there is no formal mediation mechanism to work out any differences between the department and the regions. An MPO would be hard pressed to turn down any money or push an alternative proposal because ConnDOT could decide not to provide the match or decide to spend the money elsewhere in the state.

Planning Process

Figure II-4 illustrates the intent of federal law and regulation with regard to transportation planning. Federal regulations provide that metropolitan transportation planning should be carried out by the MPO in cooperation with the state and the local transit operator, who shall cooperatively determine their responsibilities in the planning process, the long range transportation plan, and the transportation improvement program. The development of the LRP and the TIP must also be coordinated with other providers of transportation (e.g., airports, rail freight operators).

Figure II-4. Transportation Planning Participants



Long-Range Plan. Generally speaking, the planning process begins with the Long Range Plan. Both ConnDOT and the regions develop their own LRPs. The department's plan is intended to provide overall policy direction for the entire state. Regional LRPs are coordinated with the state's plan by the department's Bureau of Policy and Planning. Projects from the regional LRPs are selected by ConnDOT's policy unit for inclusion in the state-mandated 10-year Master Transportation Plan.

Projects can be proposed by any number of entities, including the state, a region, a municipality, or a designated Federal Transit Administration recipient. While there is variation in how each region operates, there are two general approaches to how the process begins:

1. A need or deficiency is identified, studied, and a project is developed.
2. New projects are solicited for specific funding programs. This approach is evident in certain STP programs (Urban and Enhancement), the local road accident reduction program, and the Local Bridge Program.

Needs are identified in a number of ways and with varying degrees of technical sophistication and involvement by the planning regions. For example, in a recent review of ConnDOT by the FHWA, 19 different project selection or related processes were found. Depending on the funding source and the type of funding, any number of entities within and outside the department can be involved. Nonetheless, at some point in each of the processes the RPOs must be involved because their approval is necessary before federal money is spent in their region.

Fiscal constraint. Because the federal government requires all plans be fiscally constrained -- that is planning must be based on an estimate of the funding that can reasonably be expected --the planning regions will receive an estimate from the department of anticipated funds in order to develop their 20-year LRP. An example of the last projected allocation is provided in Appendix D.

The department prepares this estimate for the planning regions based on a six-step process. Using the last planning cycle as an example, these steps are outlined in Table II-1.

STEP	CALCULATION
1. Total amount available is calculated by estimating federal and state funds over the 20-year period, including an estimate for growth in revenues	1. $\$427 \text{ million} \times 4\% \times 20 \text{ years} = \$12.7 \text{ billion available}$
2. Eliminate projects of statewide significance. (ConnDOT asserts that if these projects were included, some regions would not have any money left over for other projects in their area. ¹)	2. Subtract \$3.2 billion, representing 40 major projects, leaving \$9.5 billion
3. Divide remaining funds between “system preservation” (60%) and “system improvements” (40%). ²	3. $\$9.5\text{B} \times 60\% = \5.7B for preservation $\$9.5\text{B} \times 40\% = \3.8B for improvements
4. Allocate 5% of each category of funds to each region and unaffiliated towns	4. $5.7\text{B} \times 5\% = \$285\text{M}/16 = \$19\text{M}$ each for preservation - leaving \$5.4B $3.8\text{B} \times 5\% = \$237\text{M}/16 = 15\text{M}$ each for system improvements – leaving \$3.6B
5. Use weighted averages to apportion remaining funds using vehicle miles traveled (VMT), congested vehicle miles traveled (CVMT), and lane miles (LM) as variables	5. Preservation: $5.4\text{B} \times .25 = \1.35B for VMT $5.4\text{B} \times .75 = \4.05B for LM Improvements: $3.6\text{B} \times .25 = \900M for VMT $3.6\text{B} \times .75 = \2.7B for CVMT
6. Distribute among RPOs in proportion to their respective percentage of the total variables. Thus, the amount estimated for system improvements and system preservation for each RPO is the initial minimum allocation (5%)	6. Ranges from \$124 million to \$2.4 billion (See detailed result in Appendix D).

Table II-1. ConnDOT Process for Allocating Anticipated Funds for Long-Range Planning 1999-2019

<i>STEP</i>	<i>CALCULATION</i>
plus the amount allocated from the weighted calculation	
¹ For example, the Q-Bridge project and related improvements in the South Central planning region represents about a \$1 billion investment over the next 20 years, while the region’s estimated allocation is about \$1.3 billion ² System Improvement – projects that enhance safety, improve mobility, increase system productivity, or promote economic growth. System Preservation – projects such as repaving roadways, bridge repair or replacement, and any other form of reconstruction in place Source: ConnDOT	

Improvement projects. As indicated above, the department allocates 40 percent of its funding to improvement projects. While economic development and capacity projects are included in this category, so are a number of other types of projects such as safety and productivity. ConnDOT has not analyzed the projects further to determine how much has been spent in the area of economic development. While there are some examples of projects that could clearly fall into one or the other category, such as a bridge replacement with no capacity improvement, many do not. The department asserts it would be difficult to provide that type of analysis because it is not always possible to identify all projects that have an economic impact.

ConnDOT plans for maintenance. It is important to note for long-range planning purposes, the department is essentially doing most of the planning for the system preservation projects. The regions have less involvement with system preservation planning and tend to focus on system improvements.

Any significant system improvement projects come after a major study. The comprehensive regional assessment process through which needs are identified is described further below.

Mass transit capital improvements. ConnDOT works directly with the 14 active transit districts throughout the state to develop a 20-year Public Transportation Capital Management Plan. The districts are expected to coordinate their efforts with the MPOs. (Complicating that coordination is the fact the districts do not align with the MPO boundaries, as the map of the transit districts in Appendix E shows). The bulk of this funding is directed toward the replacement of rolling stock. Vehicle replacements are programmed according to Federal Transit Administration (FTA) guidelines. Each asset’s condition, expected useful life, and replacement cost are determined. Funding needs are established and prioritized relative to the condition of the transit asset. Using the funding anticipated to be available, transit capital projects are programmed over a 20-year period. The overall results of this process are included in the public transportation portion of regional and statewide LRPs and TIPs.

Additional subsidy. The department has indicated that since expanded service requires an additional subsidy and current state and federal funding sources are fully utilized or programmed, it will not finance new or expanded services. Any region that proposes a new or

expanded transit service must identify a new source of funding to cover additional operating expenses.

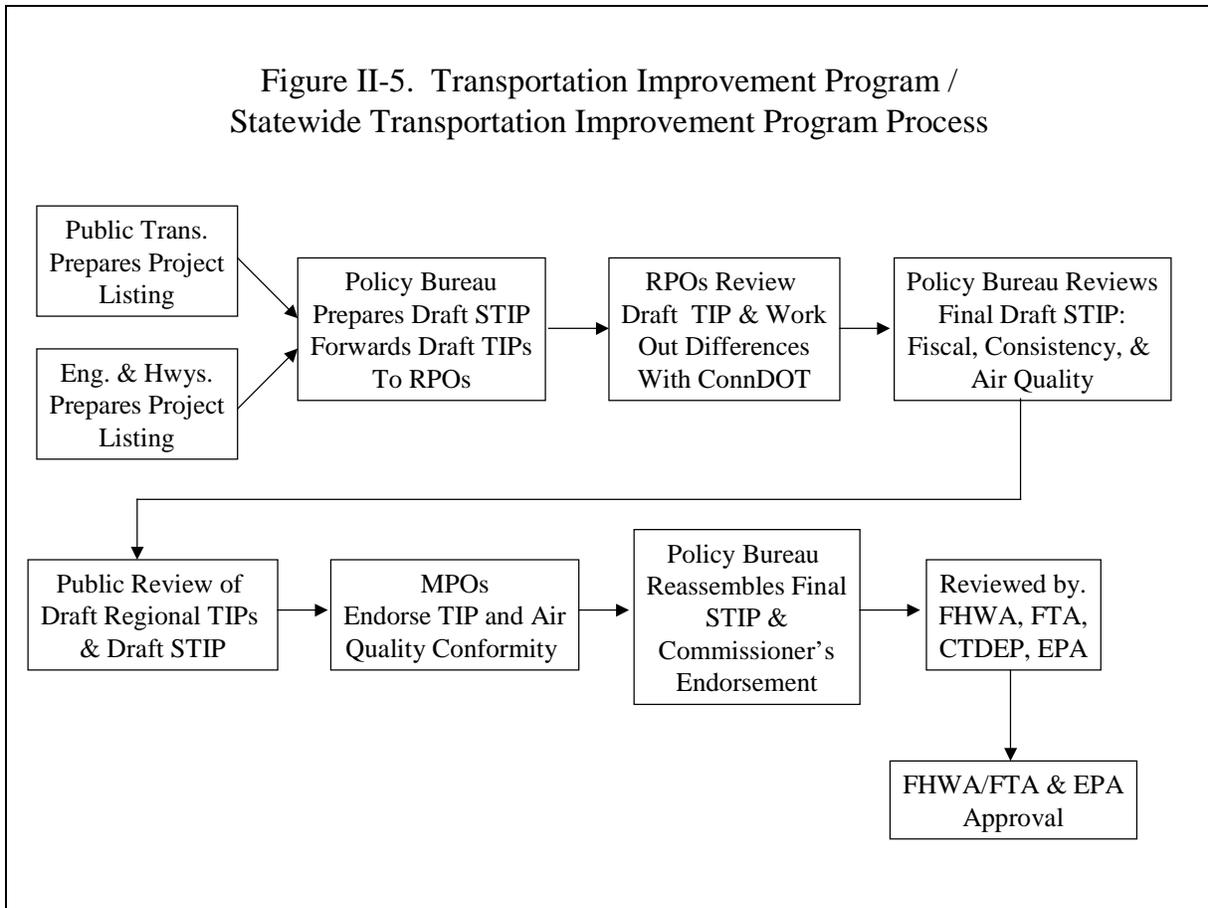
Rail freight. Improvements to the limited rail freight network in Connecticut are included in the state's LRP but are generally not eligible for federal funding. The department has a fairly limited role in rail freight. The department does not own or run any freight railroads. ConnDOT has three programs related to rail freight. They are:

- *Gross Earnings Exemption Program* – provides rail operators with a tax exemption for certain types of railroad improvements;
- *Rail Preservation and Improvement Program* – allows ConnDOT to purchase abandoned rights of way, hold on to unused lines, and provide financial assistance to railroads in rehabilitating freight rail lines and facilities; and
- *Rail Regulatory Program* – the department's Bureau of Public Transportation provides regulatory oversight over the 13 railroad companies operating in the state, which includes most aspects of construction and operation of freight railroads.

Network problems. Rail freight is often cited as a potential option in relieving congestion by reducing truck traffic along the I-95 corridor. However, a number of issues make freight rail along the coast difficult, notably clearance problems on the line between New York City and New Haven and the lack of adequate rail connections over the Hudson. Those infrastructure problems in combination with the proximity of two major intermodal terminals -- a major rail yard in West Springfield and a major container port in New Jersey -- results in a significant percentage of goods shipped to or from Connecticut being handled at those facilities by truck. Consequently, annual rail shipments originating or terminating in Connecticut equal about 2 percent of all freight moved in Connecticut.

TIP and STIP. The regional TIPs evolve from the long-range plans -- it specifies the projects that will be funded over a three-year time frame. All of the regional TIPs will be integrated into a Statewide Transportation Improvement Program (STIP), along with projects located in the rural areas of the state, by ConnDOT's policy unit. Figure II-5 provides an overview of the TIP/STIP process.

Figure II-5. Transportation Improvement Program /
Statewide Transportation Improvement Program Process



Air quality. An important consideration in the planning process is the air quality conformity requirement. A conformity report is required by the federal Clean Air Act Amendments. It essentially certifies to the federal government that the projects in the STIP (and LRP) will “conform” to the State Implementation Plan for Air Quality (SIP). The SIP, required for “non-attainment areas” where certain types of pollutants do not meet federal standards, is a plan to reduce the emissions of volatile organic compounds, nitrogen oxides, and carbon monoxide. Most of Fairfield County is classified as a “severe non-attainment area,” and the rest of the state is a “serious non-attainment area.”

Actions of neighboring states. ConnDOT stays informed about other state developments through the exchange of various planning documents. The department does not perform any assessment of the impacts of transportation developments in other states. Except for the contract with the New York based Metropolitan Transit Authority to run Metro North, ConnDOT does not maintain any formal relationship with other state transportation planning agencies.

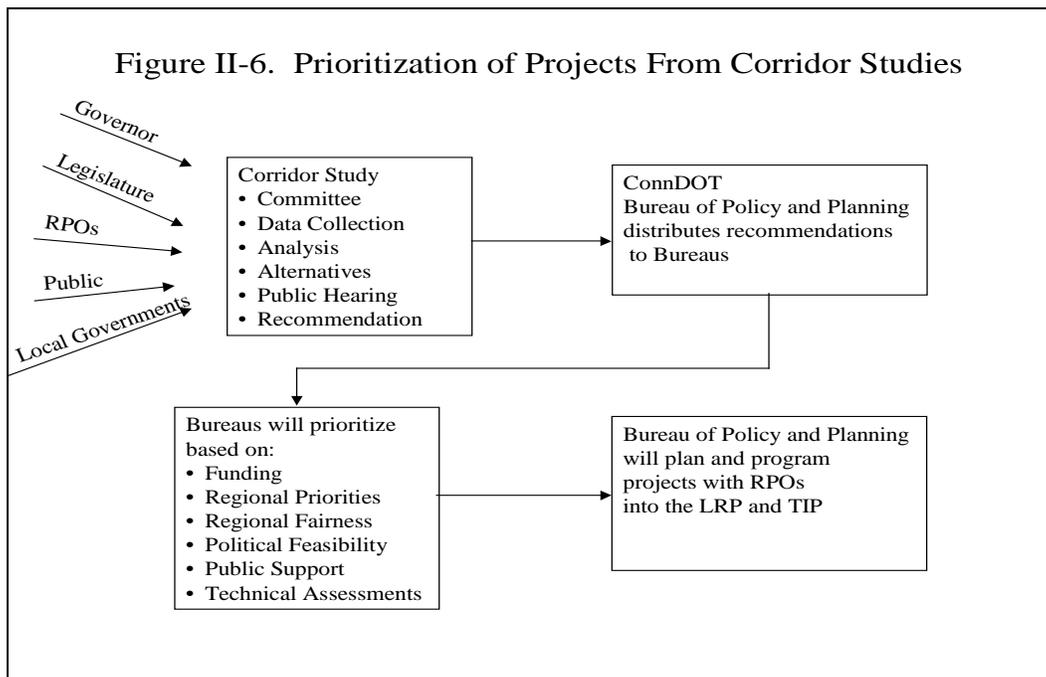
Corridor and Major Investment Studies

A planning tool that is becoming increasingly important in Connecticut is the major investment study (MIS) or corridor study. Solutions to transportation problems that result in significant projects are usually identified after a comprehensive regional assessment. These studies are initiated to promote a comprehensive understanding of a given transportation problem and facilitate viable and publicly acceptable projects.

These assessments are important because this is the point in the process where critical, large-scale, long-term changes can take place. There are several types of assessments. For large-scale capacity improvements, project selection usually occurs after or in conjunction with a corridor study, a major investment study, alternatives analysis, or an environmental study, such as an Environmental Impact Statement.

This outreach effort is different than in pre-ISTEA years (before 1991). Major investment studies refer to a specific kind of study required under ISTEA but no longer in TEA 21, although public input is still required. Prior to ISTEA, the department did not have advisory committees, but did meet with local officials and hold public meetings on proposed transportation improvements. An MIS and the other types of assessment now performed generally follow the same process.

As depicted in Figure II-6, requests to initiate studies for major improvements can come from within ConnDOT or external to the department. ConnDOT may base its decision to initiate a study based on an analysis of congestion, safety issues, and growth patterns within the state. Requests external to ConnDOT to initiate studies can come from the public, local governments, the governor, and the legislature. ConnDOT will schedule a study when it believes it is feasible and appropriate to do so. An RPO can also initiate a corridor study but depends on ConnDOT to provide matching dollars to fund the study.



Study process. The figure also illustrates the project identification and selection process. In typical corridor and MIS studies, the RPO, with the assistance of ConnDOT and usually a consultant, will conduct the following activities:

1. Organize an advisory committee made up of corridor municipalities, regional, state, federal, and other agencies and organizations. For the recent Hartford West MIS, which examined the area along I-84 west of Hartford, a technical and a policy advisory committee were established. Area residents as well as representatives of over 20 municipal, state, and federal public agencies served on these committees.
2. Data are collected and analyzed (traffic data, accident data, etc.) for the corridor.
3. Problem areas are documented and maps are developed for review by the committee and the public.
4. Committee meetings are held in a public forum, and public hearings are conducted. For the Hartford West study, 20 advisory committee meetings were held, as well as 20 public meetings. Advertisements for the public meetings were published in two major daily papers and 12 regional papers in the study area. In addition, three newsletters were published throughout the process, coverage was provided on network and cable public access television, and a toll-free information number was maintained.
5. Multi-modal transportation alternatives are identified and researched. The Hartford West MIS produced three technical reports. The first report established local goals and objectives and identified needs in the corridor. The second report identified six alternatives called Reasonable Alternative Packages (RAPs). Packages included highway, transit, transportation system management, and transportation system demand management strategies. In report three, the six RAPs were assessed to determine how well they functioned, and a hybrid package of improvements was proposed. Certain social, environmental, and economic impacts were identified on a conceptual level. No in-depth analysis of impacts is conducted at this stage.
6. A final plan is developed with project recommendations for the corridor. ConnDOT and the regional MPO supported further study and refinement for the strategies contained in the recommended package for the Hartford West MIS, whose main component is a bus rapid transit concept called the Hartford-New Britain Busway. The next step involves the development of an Environmental Impact Statement.

Projects are recommended at the regional level and then sent to ConnDOT for consideration. Not all MIS studies result in a unanimous or a single preferred option. The Bureau of Policy and Planning reviews the recommendations in coordination with other units and divisions of ConnDOT. For example, roadway and transit improvement recommendations from a single corridor study would be divided up and sent to the Bureau of Highways and the Bureau of Transit as appropriate. Each bureau is expected to prioritize the recommendations based on available funding and a combination of technical, political, and economic factors identified in Figure II-6. In some cases, multiple options will be forwarded to the next step -- the Environmental Impact Statement. It will, nonetheless, be the department that ultimately selects the preferred alternative, subject to RPO approval as described above.

The department has historically discouraged transit solutions to congestion in a corridor. This is still evidenced in a recent memo to RPOs advising them of their financial constraints in developing their LRP, and informing them that all operating funds for mass transit have been programmed and RPOs would have to identify new funding for any transit enhancements. One exception is the proposed busway between New Britain and Hartford identified above. However, while many observers acknowledge ConnDOT has become more responsive in many of its planning efforts, they also have indicated this busway selection is an exception. In addition, a source of funding for the estimated \$5.7 million operating subsidy has not been identified.

Thus, the on-going operating costs of an alternative can affect the project selection process. The federal government's share of operating costs for mass transit has been reduced over the last several years. The Federal Transit Administration provides about \$3 million in operating costs out of an estimated \$125 million needed to currently support mass transit in Connecticut. *ConnDOT provides nearly all the operating subsidy for local transit services.*

As of January 2000, approximately 17 corridor studies have been initiated by eight different RPOs, and another five are pending initiation. Additional studies are expected in the near future. Eight of the 17 have been completed. ConnDOT estimates adequate funding will not be available to implement all of the recommended improvements.

Southwest Corridor Example

ConnDOT's approach to transportation issues in the Southwest corridor of the state provides an example of the limitations of the current planning process, including the funding, environmental, and community preference constraints. Appendix F presents an overview that briefly outlines the department's actions in this area as they relate to long-term planning. It is not an analysis or evaluation of all of ConnDOT's actions in addressing the problems in this corridor.

AIRPORTS AND SEAPORTS

Airports and seaports represent economic engines in the areas they serve. In addition, these facilities provide access to international markets essential to the long-term economic success of Connecticut. Transportation by air and sea is a critical element in a trade dependent economy. Airports and seaports are gateways to domestic and international trade connecting the state to the rest of the world. The Connecticut Center for Economic Analysis has estimated about 73 percent of the state's *foreign exports* leave through either the seaports (20 percent) or by air (53 percent), with the remainder leaving by road or rail. This contrasts with the *total amount of freight* shipped into or out of the state. Overall, 19 percent of total freight is shipped through the ports, while less than 1 percent is shipped by air.

Being situated between two well-developed transportation networks in the metro areas of New York and Boston has an impact on the development of Connecticut's sea and air ports. Consequently, these facilities tend to be orientated to smaller, niche markets. For example, Bradley airport is served by 19 passenger airlines, but international service at Bradley is limited.

In addition, the state's seaports, including the State Pier in New London, cannot accommodate the increased size of transatlantic ships or their containerized cargo. This diminishes the types and amounts of cargo the ports can handle. ConnDOT and DECD evaluate port investments at the State Pier and the two other significant ports on a case-by-case basis. Their vision for the ports is to serve specialized markets. Other observations about planning for these facilities, which are developed in more detail below, include:

- long-term planning for Bradley has been largely focused on its physical layout and on some expansion. The terminal expansion for Bradley is scheduled to be completed in 2002, and will only accommodate the airport's growth until 2006;
- ConnDOT does not have a clearly defined strategic plan for airport development. ConnDOT tends to respond to demand, not shape demand;
- the potential economic impacts of alternative development scenarios are either not calculated or considered in ConnDOT's planning process and the planning outcomes tend to focus on fiscal impacts; and

-
- not all sea and air port facilities that impact Connecticut's ability to access national and international markets are under state control or fully integrated into the state's planning process.

Planning for the state's airports and seaport generally occurs outside the highway and transit process described in Chapter II. Although some regional long-range plans (and the department's long-range plan) mention the presence of an airport or seaport and acknowledge the importance of those facilities in the region, no significant planning for the facility is done through that process. Also, the Transportation Improvement Plan does not include any funding for these facilities. The principal planning documents used to guide development at the state's seaport and airports follow a process similar to the one used by ConnDOT for major investment studies.

ConnDOT's Bureau of Aviation and Ports manages the State Pier in New London, Bradley International Airport, and the five general aviation airports -- Hartford-Brainard, Groton-New London, Waterbury-Oxford, Windham and Danielson. The Bureau of Aviation and Ports conducts planning for these facilities along with support from the Office of Intermodal Policy Planning within the Bureau of Policy and Planning. (Appendix B contains ConnDOT's organization chart.) Detailed below are the processes followed for airport and seaport planning.

Airports

The principal long-term planning document used by ConnDOT to guide the development of Bradley International Airport and the general aviation airports is a master plan. It contains detailed analysis of the current facilities, aircraft operations, and cargo. The focus of the process is on the physical aspects of the airport in order to shape the size and timing of future passenger, cargo, and general aviation facilities.

Typically, the master plan covers 15 to 20 years, with the early years being more detailed than the later years. There is no requirement that the master plan be updated within a specified time frame, but a new plan should be prepared as implementation of the projects in an existing plan are completed or are no longer viable as a result of changing circumstances.

A major component and a primary emphasis of the master plan is the airport layout plan. It shows the basic physical layout for the airport including its boundaries, any proposed additions, the location and nature of existing and proposed airport facilities, any proposed modifications and additions, as well as the location of existing and proposed non-aviation areas (such as cargo handling, parking, and other facilities).

The airport layout plan, and any change in it, is subject to Federal Aviation Administration approval. According to federal requirements, an approved plan is required in order for airport improvements to be eligible for federal funding, and airport development must be done in accordance with an approved plan.

Planning process. The planning effort at Bradley will be highlighted below as an example of the master planning process. The essential steps are the same at the general aviation airports, though the scope for those airports is obviously smaller. In its planning process, the

focus of ConnDOT is on forecasting and responding to demand, not shaping demand. Overall, the approach is largely reactive and restrained by a limited vision.

Bradley master plan. The last comprehensive master plan conducted for Bradley was completed in 1993. It replaced a plan completed in 1977. A portion of the plan was updated by a 1997 study designed to assess aspects of the 1993 plan and begin refining and implementing some of its recommendations, specifically those dealing with construction of additional terminal capacity.

The process followed by ConnDOT for the development of the master plan in 1993 is similar to the process followed for major investment studies discussed in Chapter II. A technical committee was formed to advise ConnDOT and the consultants the department hired. This advisory committee was composed of representatives from the FAA, military, fixed base operators, airport business community, aviation industry, Bradley Commission, airlines (passenger and cargo), Connecticut Department of Environmental Protection, DECD, and citizens of the surrounding communities – a total of 37 members.

The consultants performed the following activities:

- Analyzed current and projected passenger capacity, cargo, fleet mix, and other aspects of the operation
- Examined the physical structures including the airfield, cargo and passenger terminal facilities, as well as the adequacy of airport access
- Predicted that Bradley's service area would experience only moderate growth, while changes in the number of enplaned passengers and cargo would increase by a high rate (e.g., from 2.3 million passengers in 1991, to 4.0 million in 2000, and to 5.8 million in 2015)
- Found the state needed to upgrade physical facilities, in particular:
 - increase cargo facilities significantly;
 - construct new passenger facilities;
 - construct taxiways to enhance aircraft groundflow and capacity; and
 - make other improvements such as deicing pads, runway lights, and pavement overlays.
- Developed seven alternative concepts for expansion of the passenger terminal facilities. (An evaluation matrix was generated based on established goals and objectives for passenger terminal planning and design. These were grouped into four categories – airside, terminal, landside, and constructability. A weighting factor for each criterion was established. Each of the seven alternatives was evaluated based on how well it met the criteria and assigned a score of zero to five. Individual scores were multiplied by the weighting factors and totaled).

- Developed the three best alternatives further on a larger scale to refine aircraft parking limitations and better study the construction phasing. (These alternatives were presented to the technical committee, the Bradley Commission, and the public.)

As a result of the input of the advisory bodies, ConnDOT, and the consultant one of the alternatives was selected as the preferred terminal concept.

1997 update. A consultant was hired in 1996 to perform a financial feasibility study; prepare new passenger, cargo, and air operation forecasts; and complete preliminary engineering studies for expanding the passenger terminal complex. The consultant presented ConnDOT with a different terminal configuration than what was selected in the master plan and lowered the passenger forecasts. The planned terminal expansion has an expected completion date in 2002. This expansion is projected to meet Bradley’s capacity needs only until 2006.

Schiphol report. Schiphol Project Consult, the airport management consultant hired in 1999 to examine the operation of Bradley, as discussed in Chapter IV, criticized ConnDOT’s overall management of Bradley. The Schiphol report points out Bradley is located midway between the very competitive markets of New York and Boston. The consultant asserts Bradley is faced with a choice of either languishing between these two giant markets or carving out a profitable niche. Schiphol delineates a number of areas where future growth can occur – especially in domestic and international service as well as in cargo opportunities.

Schiphol examined a wide range of management issues that impact the operation of Bradley and ultimately affect planning. For example, Bradley has been criticized for not having a professional marketing strategy. If marketing is not aggressive, then this impacts the number of airlines using Bradley, which in turn affects passenger and cargo volume as well as revenues, and in the end planning. Due to their complexity all of the management issues will not be examined in this report; the focus here is on the planning function. Table III-1 summarizes Schiphol’s findings and recommendations regarding the department’s planning efforts along with the department’s response.

<i>Finding</i>	<i>Recommendation</i>	<i>ConnDOT Response</i>
ConnDOT’s mission is limited by its focus on safety, efficiency, and convenience	Adopt a mission statement that addresses stakeholder objectives and include elements: <ul style="list-style-type: none"> • addressing growing competition; • breaking current management culture; • addressing need to upgrade facilities and services on an on-going basis; and • recognizing Bradley’s role and potential as an economic 	ConnDOT believes Schiphol should have taken a more “nuanced view of its performance with regard to mission, vision and strategic planning.” ConnDOT states it has not shared its vision broadly enough and has chosen to promise less and deliver more.

Table III –1. Schiphol’s Findings and Recommendations Regarding Planning at Bradley		
<i>Finding</i>	<i>Recommendation</i>	<i>ConnDOT Response</i>
	engine	
Certain elements of strategic planning exist, but no overall consistent strategic plan	Adopt a volume strategy geared toward generating additional traffic from both passengers and cargo that will enhance its return on investment	ConnDOT maintains it has pursued a volume strategy and identifies increases in the number of carriers, number of nonstop destinations, low-fare carriers, and cargo volume as proof.
Master plan is not updated on a timely basis. Because of this, a reactive, rapid, and costly redesign effort is necessary to cope with Southwest’s arrival. The current terminal expansion is providing only marginal additional capacity. Traffic projections are too conservative. If the new terminal is completed by 2003, the complex could be at capacity three years later.	<p>A number of recommendations were advanced including a reassessment of traffic forecasting to changing some specific elements in the master plan, such as reserving specific areas for long-term expansion and other land use suggestions.</p> <p>In addition, a strategic plan and a business plan were recommended in order to match long-term financial planning with the master plan to ensure the right capacity improvements are made at the right time and increase profitability.</p>	ConnDOT responded to each item criticized in the master plan by either explaining its rationale or identifying flaws in Schiphol’s analysis.
Source: Bradley International Airport: At the Crossroads, Schiphol Project Consult B.V. 1999 and A Response to Schiphol Project Consult’s Draft Study of BIA, ConnDOT, 11/12/99.		

Master plan update. The department is currently in the process of updating its master plan. It has recently hired a consultant and is working on developing a scope for the master plan. The new plan will not only include an airport layout plan but also a strategic plan and a business plan. The strategic plan for the first time will bring together the financial, management, and business plans to allow ConnDOT to manage the airport’s overall development as well as its operation and maintenance “in a manner that will best achieve its goals and objectives.” ConnDOT has also asked the consultant to perform a “back-in” financial analysis. Estimates of future revenue generated from existing sources will be used to establish budget figures that can be used in developing the capital plan.

Other concerns. There are two additional concerns worth noting about state aviation planning efforts having to do with other airports not under state control:

- Municipal airports are not really considered part of the state’s planning scheme, except that they may present potential competition to Bradley. Tweed-New Haven, for example, is located in a strategic corridor, as defined by Gallis in Chapter I, minutes from downtown New Haven and convenient to

Connecticut's population in the South Central and Southwestern parts of the state. It currently offers flights to major airports in New York, Philadelphia and Washington, though its capacity for expansion is limited; and

- In an effort to reduce congestion at Logan International Airport, Massport has developed a formal relationship with Manchester Airport in New Hampshire, Worcester Airport in Worcester, and T.F. Green Airport in Rhode Island. This relationship extends to joint planning, marketing, and interstate road and rail improvements. As feeder airports to and from New England's major hub and because Connecticut is not part of this network, this relationship may impact on future development of Bradley. This fact, combined with the already integrated air market in New York run by the Port Authority, increases the risk of Bradley losing market share as neighboring airports expand to consume Bradley's market.

Seaports

Connecticut has three deep-water ports that can service ocean-going vessels. The ports are located in Bridgeport, New Haven, and New London. Each port essentially serves a different niche of the import/export market. For example:

- New Haven, the largest port, handles most of the traffic flowing through Connecticut's ports. Liquid bulk accounts for 90 percent of the tonnage brought through the port, with petroleum products accounting for 95 percent of that tonnage. Petroleum products handled through the port have accounted for over 60 percent of those products used in the state. New Haven also imports some steel and iron, and exports iron and scrap steel. In addition, the Buckeye Pipeline, built in 1961 as part of a defense initiative, delivers 2.7 million gallons of heating oil, gasoline, and jet fuel daily along the I-91 corridor (including Bradley) from New Haven to its terminus at Westover Air Force Base.
- Tropical fruit from South America comprises the majority of the traffic at the port in Bridgeport, including most of New England's bananas. Other products include a small amount of liquid bulk product, coal, seafood, paper products, and vehicles. A Long Island ferry service (Bridgeport-Port Jefferson) also operates out of Bridgeport.
- The 1,000-foot State Pier Port of New London has recently been partially renovated after a collapse in 1993. Forest products, chemicals, road salt, and general cargo are the primary commodities of this port. A number of passenger and vehicle ferries also operate out of this port area serving Block Island, Long Island, Fisher's Island, Martha's Vineyard, and New Jersey.

Port operation and oversight. The responsibility for planning, managing, promoting, and operating the three major ports in Connecticut is spread among a number of entities. Only the State Pier in New London is under state control, and it is the only publicly owned port freight facility in the state. The essential strategy of the state is to promote the individual ports as one entity, “Port Connecticut,” each serving a unique market. One marine terminal operator, Logistec, runs all three ports.

A number of private and local entities, though, including the Bridgeport Port Authority, the New London Port Authority, and the New Haven Harbor cooperative, have port-related responsibilities. In addition, during the 1993 legislative session, the Connecticut Coastline Port Authority (CCPA) was created to promote the economic development of the three port areas. A recent report by the Auditor’s of Public Accounts found the effectiveness of the CCPA to be limited due to a low level of resources and lack of organizational independence from ConnDOT.

Port planning. Until recently, no comprehensive examination of port facilities and their development potential had been conducted. In the early 1990s, a number of events occurred that provided the impetus to examine the ports in a more systematic way. Ultimately, the process followed by ConnDOT was similar to the process used for its major investment studies.

1994 studies. In 1992, DOT initially formed a committee, composed of local officials, citizens, and representatives of DOT and the Department of Economic Development (DED -- now DECD) to select a new terminal operator for the State Pier in New London. The operator’s contract was to expire, and it was believed a new operator was needed to bring in more traffic at the port to help invigorate the local economy in Southeastern Connecticut. At that time the economic viability of the region was threatened by a decline in defense spending. Concerns arose about the structural deterioration of the pier, its layout, and other limitations, so DOT and DED decided to hire a consultant to examine port operations and determine what could be done to maximize the potential of the port as a whole.

At the same time, the agencies decided to fund studies of the ports of New Haven and Bridgeport to determine whether a unified port of Connecticut was viable, what role, if any, each port should play in the State’s economy, and what investments should be made to achieve these goals. The agencies also decided to use different consultants for each study because of the competitive nature of the ports for traffic and investments. The same basic scope of services was used to assure compatibility of the results.

State Pier collapse. While the studies were underway, the State Pier in New London collapsed, and service was discontinued. While the study of the New London port was intended to compare different alternatives to developing the State Pier, the focus shifted to measuring the financial feasibility of reconstructing the pier.

ConnDOT estimated the cost of reconstructing the State Pier would be about \$24 million. The study projected the future annual direct benefits for a range of cargo scenarios. Both the mid- and high-range scenarios for cargo tonnage (350,000 to 500,000 tons) were substantially greater than what had ever been handled at the port. The present value of the total benefits for each of the cargo ranges over a 40-year period was calculated to be between \$12 million and \$33

million. The consultant concluded the state's investment would break-even based on the probability that a middle range cargo estimate would be met. ConnDOT was focused on ensuring that the investment in the port essentially paid for itself regardless of the wider economic impacts. A principal reason for this is that ConnDOT has a limited amount of money to spend on port activities and would have to take money dedicated to another mode of transportation.

Economic impacts, though, were calculated for the mid- and high-range cargo alternatives and estimated an additional \$16 million to \$21 million in direct and indirect business revenue would be generated, and the ranges of full-time, direct and induced jobs would range from 174 to 268.

DOT and DECD conclusions. Based on the three studies of the ports completed in 1994, four conclusions were developed by DECD and DOT with regard to further port development. They became the guiding principles for the departments when considering port investments. They were:

- *Continued state agency coordination for port development* – two mechanisms were identified to coordinate both transportation infrastructure and economic development investments in the ports: 1) an interagency Major Projects group at the state level, which no longer exists; and 2) the regional planning process (described in Chapter II).
- *Continued recognition of the individual character of the three ports and their regional economies* – Although no study specifically examined how the ports could be joined together, a linked system of ports was rejected because it was asserted the three ports, from a transportation and economic development perspective, operate as independent facilities. The state's role then should be limited to avoiding any duplication of public investment and marketing each port's unique character.
- *Coordinated strategic investment for major economic development projects related to ports* – Further investment in specific facilities would be limited to specific projects that could demonstrate concrete economic development potential. State investment in cargo handling facilities or other cargo transports modes such as containers need to be evaluated on a case-by-case basis to determine economic benefit.
- *Determination of appropriate partnership among Connecticut Coastline Port Authority, ConnDOT, and other state agencies* – A primary responsibility of CCPA is the marketing and promotion of the ports and port-related economic development. The authority, though, relies on funding from ConnDOT to operate. ConnDOT is responsible for transportation infrastructure improvements, while DECD has the responsibility for economic planning and development. Investment related to port business has been determined to

require review on a case-by-case basis with all proposals submitted to DED and coordinated with ConnDOT. It was recommended DECD be added to the CCPA board to assist in evaluating the merits of any business request. In addition, joint support of marketing efforts was recommended. The commissioner of DECD subsequently become a member of CCPA.

1998 New London Study. In 1996, ConnDOT decided to take another look at possible development scenarios at the State Pier in New London. The 1994 study did not examine all of the development scenarios as intended because of the pier collapse in the middle of the study. A consultant was retained to conduct the study under the guidance of the Bureau of Policy and Planning.

Public participation in the process was obtained by the appointment of an advisory committee, key informant interviews, and a public meeting. A 13-member advisory committee was formed in August 1996. Regular public meetings were held with the advisory committee, and a formal public meeting was conducted to solicit the opinions of the general public for input. The general public meeting was held near the end of the study engagement (November 1997) to present the preferred development plan and implementation strategy.

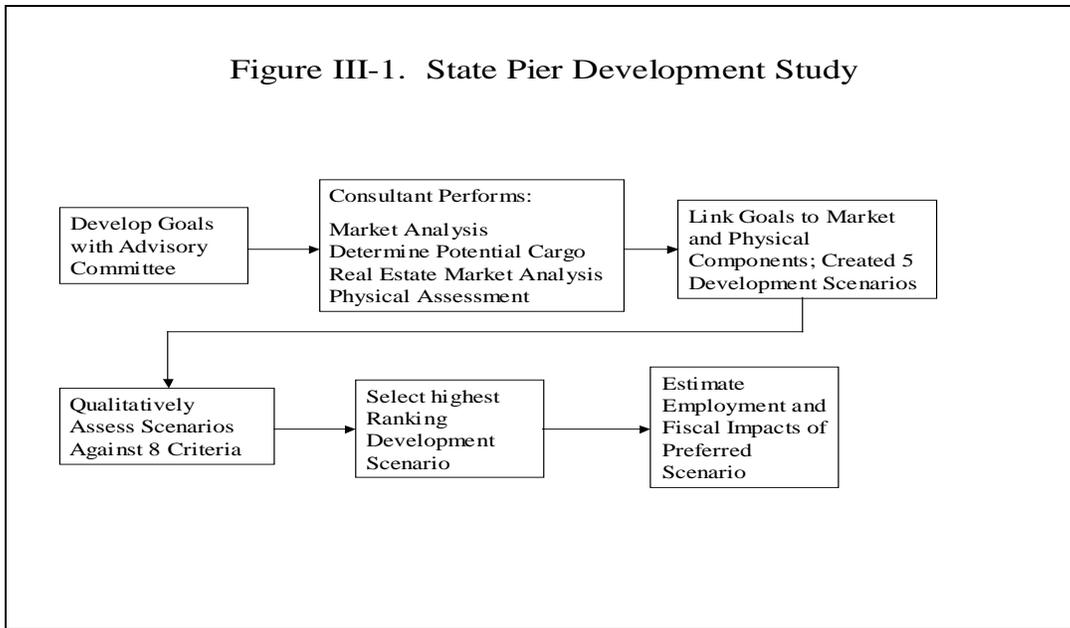
A six-step process for the selection of the preferred development plan is illustrated in Figure III-1. The major steps are described below.

1. The first step was to identify the goals of the study. The consultant developed a questionnaire to measure the attitudes and perceptions of the advisory committee toward the land use options and provide direction on establishing the goals, objectives, and evaluation criteria for development activities.

The results of the questionnaire showed a strong preference for using the pier as a port and intermodal facility. The primary land use should be for cargo port and ferry terminal, and it should not be residential. Using the questionnaire and input from ConnDOT and the advisory committee, the goals and objectives were formulated. The goals were:

- a. promote water dependent activities and encourage employment opportunities;
- b. prepare a plan that is fiscally responsible and based on market realities; and
- c. integrate the use of the pier facility with the capability of the physical characteristics of the site to support such uses.

Figure III-1. State Pier Development Study



2. After the goals were formulated, the consultant performed a market analysis of potential marine cargo, potential cargo volume, potential real estate market opportunities, and a physical assessment of the port facilities.
3. Five scenarios were developed based on alternative port and non-port related land uses, ranging from an all cargo port to a yacht club and residential area.
4. The five scenarios were assessed qualitatively based on the general impact of the land use activity on the goals and impact criteria. There were eight criteria developed based on the general goals. This included:
 - a. Response to land use goals
 - b. Employment generation
 - c. Local taxes produced
 - d. User demand
 - e. Development cost feasibility
 - f. Environmental compliance
 - g. Coastal zone consistency
 - h. Linkage to transportation network
5. The degree to which each alternative met the criteria was assigned a label of High, Moderate, or Low. Consequently, the preferred development plan was found to be a cargo port/ferry-cruise boat facility because it: had a land use activity that was strongly supported by the survey of advisory committee participants; had a terminal operator already interested; did not require a

major financial commitment; and would not result in any major construction that would impact on the environment.

Development scenarios were not assessed based on quantitative data, but on general qualitative considerations. Although economic impacts for revised cargo ranges were calculated, they were not a key factor in the selection process. The estimated cargo tonnages for the mid- and high-ranges were reduced from the 1994 study. Consequently, the estimated business revenue was reduced to between \$11 to \$17 million and the total of direct and induced full-time jobs ranged from 125 to 174. Not all improvements have been completed to date. The terminal operator had projected in 1998 the tonnage for the port would be approximately 180,000 tons. Actual tonnage for the State Pier has averaged about 68,000 tons over the last two years.

Chapter Four

DEPARTMENT OF ECONOMIC AND COMMUNITY DEVELOPMENT

As discussed in Chapter I, transportation infrastructure is an important element in economic development. Therefore, it is important that economic development efforts be coordinated with transportation improvements. The Department of Economic and Community Development is the state agency with primary responsibility for promoting economic growth.

Overall, contact between ConnDOT and DECD occurs on a formal and informal level to a limited degree as outlined below. While DECD's recent cluster development initiative has begun to identify certain shortcomings with the transportation system, there has not been any systematic consideration of the relationship between transportation investments and the strategic economic needs of the state by either DECD or ConnDOT.

Connecticut's Economic Development Strategy

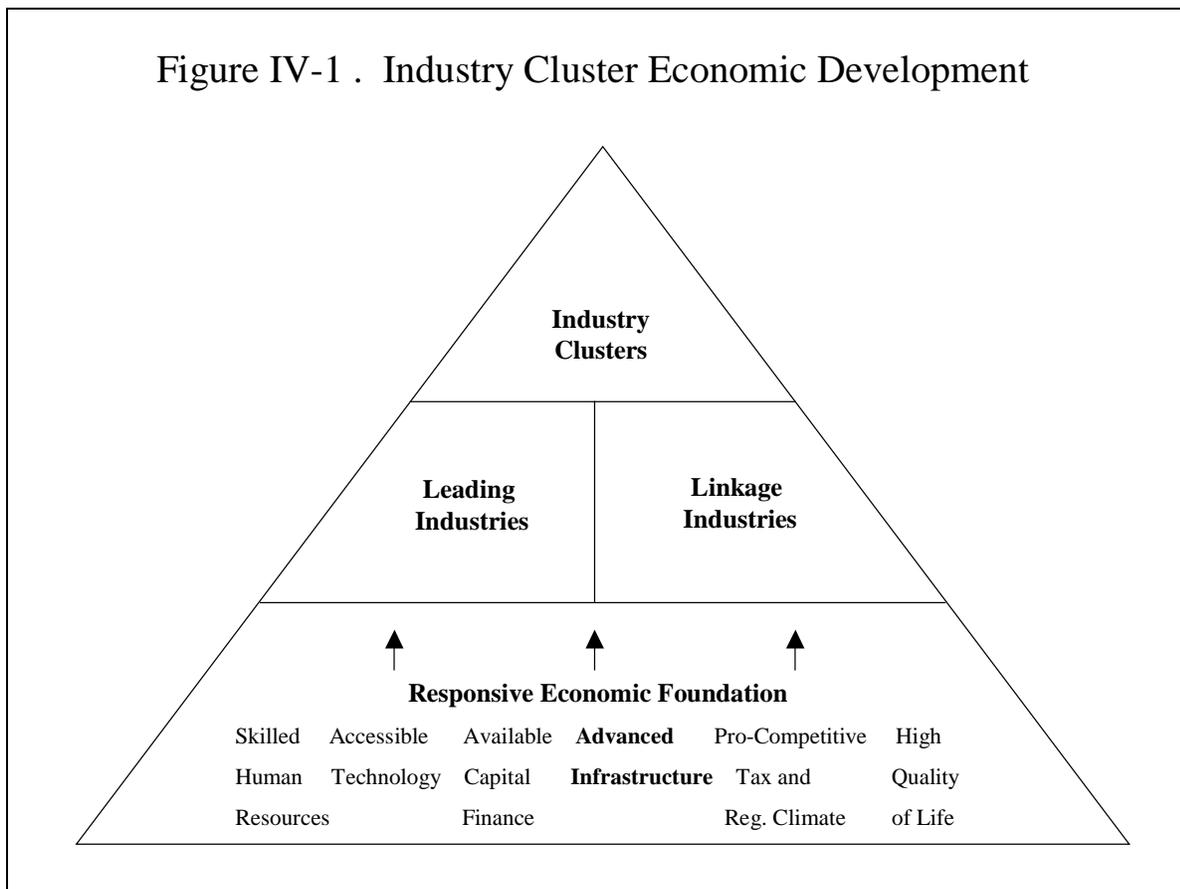
Recently, some states, including Connecticut, have expanded on what has been termed the traditional approach to economic development (i.e., the targeting of individual companies; the granting of special loans, grants, or other incentives; and an ad-hoc collaboration between economic development agencies and the private sector) and adopted a cluster-driven strategy. In Connecticut, this came about through a series of initiatives by the legislature and the governor over the last decade.

In the early 1990s, the idea of industry clusters surfaced as a way to revitalize Connecticut's economy. In 1995, DECD was reorganized, creating the Industry Cluster Division, and the initial clusters that drive Connecticut's economy were identified. In 1996, Public Act 96-257 required DECD to proceed with industry cluster development and the commissioner created the Industry Cluster and International Division as part of a larger reorganization of DECD.

In 1997, Governor Rowland recruited over 100 company executives throughout Connecticut to serve on five industry cluster advisory boards to analyze the constraints on growth and the opportunities to improve competitiveness, innovation, and productivity. In 1998, the cluster advisory boards produced the report *Partnership for Growth: Connecticut's Economic Competitiveness Strategy*. This report established the foundation for Connecticut's current economic development strategy.

The cluster approach. An industry cluster is defined as a grouping of companies and industries in close proximity, interconnected by the markets they serve and the products they produce, as well as the suppliers, trade associations,

and educational institutions with which they interact. Among other things, industry cluster economic development emphasizes: the involvement of large groups of related companies; a commitment to establish an environment that gives a broad range of companies the ability to compete in global markets; and new types of collaboration among business competitors and between government, educators, and the private sector. Clusters are believed to be the platform upon which the economy can flourish. The state, regional, and local economies grow when related and interdependent industries in a particular area work collaboratively. An example of a cluster is Silicon Valley in California where numerous computer and related technology companies are concentrated.



As Figure IV-1 shows, an industry cluster contains three important elements: leading industries; linkage industries; and responsive economic foundations.

- Leading industries are the core and driving force of an economic cluster. They are usually major firms that are nationally or internationally competitive, and sell their products outside the geographic region.
- Linkage industries support the leading industries by supplying raw materials, semi-finished products, parts and components and other specialized services.

-
- Economic foundations are the overall economic infrastructure in a geographic area and have a major effect on the growth and competitiveness of all the industries and clusters. *Advanced infrastructure refers to the basic and advanced transportation, energy, waste disposal, and communications systems essential for a highly productive economy.*

The role of the state in this effort is to identify and nurture clusters. To date, three clusters -- BioScience, Aerospace Component Manufacturers, and Software/Information Technology -- have been activated. Clusters are activated when companies in related industries come together formally as an organized industry cluster. While corporate leaders activate and drive the cluster's activities, the public sector supports and facilitates cluster activation. DECD has thus far provided \$425,000 in seed money to the three activated clusters and will leverage over \$1 million worth of in-kind matches and private investment. Other than what was identified in the *Partnership* report, described below, no assessment has been made of the cluster's infrastructure needs and if any changes could assist in promoting this economic development effort.

Another five clusters are being investigated. Responsibility for overseeing the cluster initiative is shared between DECD and the Connecticut Economic Resource Center, a private, non-profit organization. The goal is to phase-out government support for the clusters and allow businesses to administer and fund on-going cluster activities.

Transportation recommendations. The *Partnership* study identified a number of findings and recommendations related to the transportation infrastructure, with the primary recommendations involving the development of Bradley International Airport. Other areas of concern included congestion on the I-95 and Merritt Parkway corridor, the need to improve southern Connecticut's airport accessibility, enhancement of the northeast corridor high-speed rail service, and endorsement of initiatives related to transportation services that enable former welfare recipients access to jobs and job training.

As a result of the *Partnership* study, the governor created the Governor's Council on Economic Competitiveness and Technology (or Governor's Council) in December 1998 to coordinate the various industry advisory clusters. The Governor's Council is made up of a cross-section of industries, legislative leaders, educational institutions, labor representatives, officials of industry associations, and several state commissioners.

A Transportation Infrastructure Advisory Team was established, as a sub-committee of the Governor's Council, and it focused its activities on the development of Bradley. The advisory team sponsored two studies. The first, issued in 1998 by Frasca and Associates, examined the way in which airports were managed in the U.S. and internationally. The report pointed out the increasing commercialization of airports and that private/public partnerships were becoming a more prevalent form of airport management.

The purpose of the second report, by Schiphol Project Consult B.V., was to assess various aspects of Bradley's operation including customer service, financing, overall operations,

management, and facility design. The report, issued in December 1999, was critical of the operation and management of the airport.

The Governor's Council formed the Bradley Advisory Group in response to the Schiphol report to develop recommendations related to changing Bradley's mission, organizational culture, and governance and management structure. This advisory group, along with the Leadership Committee of the Governor's Council, issued a report in April 2000 recommending the creation of a Bradley Board of Directors with either a public/private partnership or the establishment of an airport authority. It was decided this new entity should develop a mission and a vision for the airport.

In May 2000, the Governor issued an Executive Order creating the Bradley International Airport Executive Council to work with ConnDOT to develop: long-term goals and a strategic plan, master plan, business plan, marketing plan, capital and operating budget, and a management team that will be held accountable for operating results, as well as any legislative recommendations necessary to enhance the operation of the airport. The council terminates on December 31, 2001.

DECD Contact and Coordination with DOT

Aside from the studies of Bradley airport, there has not been any assessment or any other effort by DECD that has examined the extent to which the transportation infrastructure is meeting the needs of the clusters or the state's broader economic goals. However, DECD and ConnDOT do have contact at various levels on a regular basis.

On the formal and recurring level, DECD's contact and communication with ConnDOT occurs through memberships on several boards and commissions, usually through statutory mandate or by practice. This is typically a purely advisory function. These include:

- Bradley International Airport Commission;
- Connecticut Economic Conference Board;
- Connecticut Coastline Port Authority;
- Connecticut Tourism Council;
- Connecticut Rivers Advisory Committee; and
- Scenic Roads of Connecticut.

DECD also works with ConnDOT on an ad-hoc, project-by-project basis. This may include membership on specific ConnDOT sponsored project committees or project specific coordination. For example, specific project committees for recent corridor or major investment studies sponsored by ConnDOT include the Advisory Committee for the Hartford- New Britain-Busway and the Interstate-84 Major Investment Study.

Project specific coordination refers to on-going processes where the activities of the two agencies intersect. This includes such activities as:

- State Traffic Commission permit coordination;

-
- surplus DOT property reuse/disposition; and
 - Connecticut Industrial Parks Development Program project masterplan (municipal development plan) preparation, review and approval.

In addition, both DECD and ConnDOT are required to review each other's projects because of requirements in either the National Environmental Policy Act (NEPA) or the Connecticut Environmental Policy Act (CEPA). Significant projects under both CEPA and NEPA require an evaluation that outlines potential social, economic, and environmental impacts, identifies alternatives, and recommends measures that may lessen certain impacts. The type of environmental evaluation required depends on the extent of the project. If a project includes both federal and state funding sources, then federal NEPA requirements will be followed and submitted to both the state and federal regulatory agencies. Projects that are only state funded must adhere to CEPA requirements and are ultimately submitted to the Office of Policy and Management.

DECD tries to coordinate their activities with all affected state agencies early in their process to assure compatibility with the planning goals of other agencies. DECD has a multi-stage process for project development. In Stage I, DECD will circulate among state agencies information about a project including a description of the project's scope, its location, and site maps. ConnDOT will make a cursory examination of access issues and potential impacts. ConnDOT will provide feedback and indicate any effects on current or planned transportation improvements for the area. There is a required sign-off by each agency for each project. There also may be occasions where DECD and ConnDOT jointly undertake projects, such as those involving surplus ConnDOT property. In addition, DECD and ConnDOT participated in a joint study and funding effort to revitalize the State Pier in New London.

DECD frequently provides funding for transportation improvements for individual business or large development projects. ConnDOT is prohibited by federal regulation and state statute from constructing transportation improvements that benefit an individual business. DECD, though, will participate in a variety of projects that may require transportation improvements of varying magnitude. These improvements can take the form of new or improved roads, intersection improvements, mass transit, waterborne transportation, or air freight. For example, DECD has funded all internal roads for 60 industrial parks statewide, including major intersection improvements such as Route 334 in Ansonia and Route 229 in Bristol.

TRANSPORTATION FINANCES

The State of Connecticut created the Special Transportation Fund (STF) to plan, budget, and account for all transportation-related activities. The fund, which is financed through various motor vehicle related taxes and fees, currently supports operating expenses of the Department of Transportation, and the Department of Motor Vehicles (DMV). It also provides the essential financial foundation for the capital program.

Overall, some important aspects of ConnDOT's operating and capital expenses should be noted:

- the overall state budget cap, which limits year-to-year growth in expenditures to either the five-year average in personal income growth or the 12-month rate of inflation, whichever is greater, also applies to the STF as part of total state funding;
- the main revenue engine for the fund is the motor fuel tax, which accounts for about 56 percent of the fund's revenues; this tax has been cut three times over the last four years, and though there has been some other revenue enhancements, they fall far short of what has been cut;
- using FY 00 as a snapshot of overall resources available to the department -- operating funds for DOT and DMV were \$465 million, debt service was \$375 million, and capital funds totaled \$672 million;
- ConnDOT and DMV operating expenses and debt payment represent only 7 percent of total state expenditures;
- federal resources provide the majority of funding for the capital program (57 percent), but federal funds come with certain requirements that may skew state priorities; and
- overall capital expenditures and state bonding for transportation declined in the last eight years.

This chapter highlights the history and purpose of the STF and its relationship to the capital program. Revenue and expenditure components of both the fund and the capital program are also examined. (Bradley International

Airport, which is operated through an enterprise fund, is not included in this analysis. A separate committee report addresses in detail the revenue and expenditures of Bradley.)

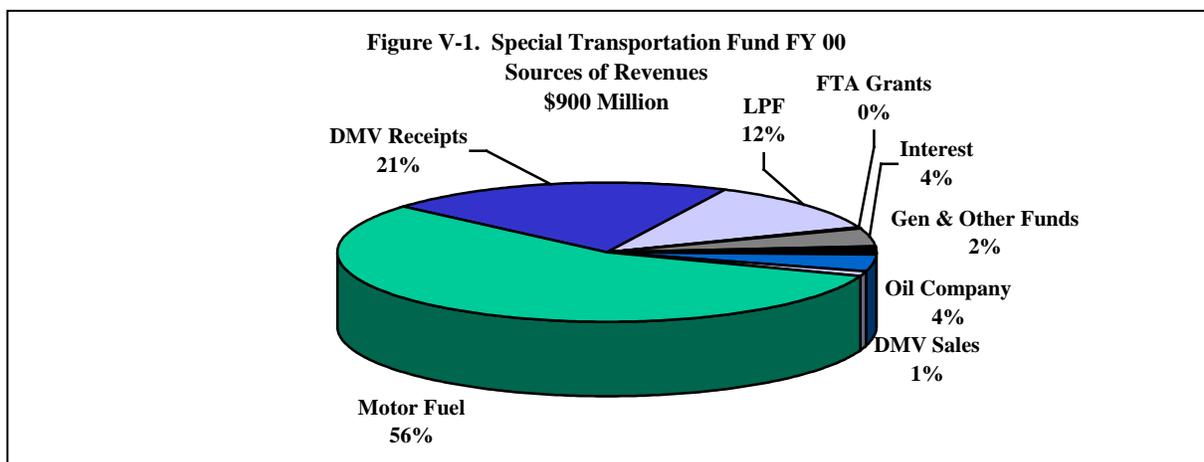
History and Purpose of the Special Transportation Fund

History. It is widely acknowledged that the state, during the mid- to late-1970s, underfunded highway and bridge maintenance. A Governor’s Task Force Report on Infrastructure in 1984 found, “the elimination of the dedicated highway fund, coupled with increasing emphasis on other priorities, and a decline in bonding for highway purposes caused a substantial under investment in our highway facilities.”

The General Assembly enacted Public Act 83-30 establishing the Special Transportation Fund on July 1, 1983, after a portion of I-95 fell into the Mianus River in Greenwich, resulting in the death of three people and injuring three others. In February 1984, Governor William O’Neill proposed a comprehensive Transportation Infrastructure Renewal Program based on the recommendations of a task force appointed in April 1983 (three months before the Mianus incident). At about the same time, the General Assembly considered and passed Public Act 84-254, which served to expand the existing STF. As a result, the STF could be used not only to finance an expanded infrastructure rehabilitation program, but could also support the operating expenses of the department and the state’s transportation system.

The legislation expanding the STF also provided for a series of incremental tax and fee increases, which produced a predictable revenue base for the initial 10 years of the infrastructure renewal program. This approach served to define the scope of the infrastructure program and provided a stable stream of revenue to support the improvements.

The principal financing instrument of the Transportation Infrastructure Renewal Program established by the act, (now called the capital program) was the Special Tax Obligation (STO) bond. As special obligations of the state, STO bonds are not chargeable against any other revenue of the state except those specifically identified in the act. There are some unique features of STO bonds by which the state is bound. By law, the first obligation of the STF is the payment of debt for STO bonds. In addition, bond covenants require that pledged revenues in each fiscal year equal two times the aggregate principal and interest payments on debt.



Sources of STF Revenue³

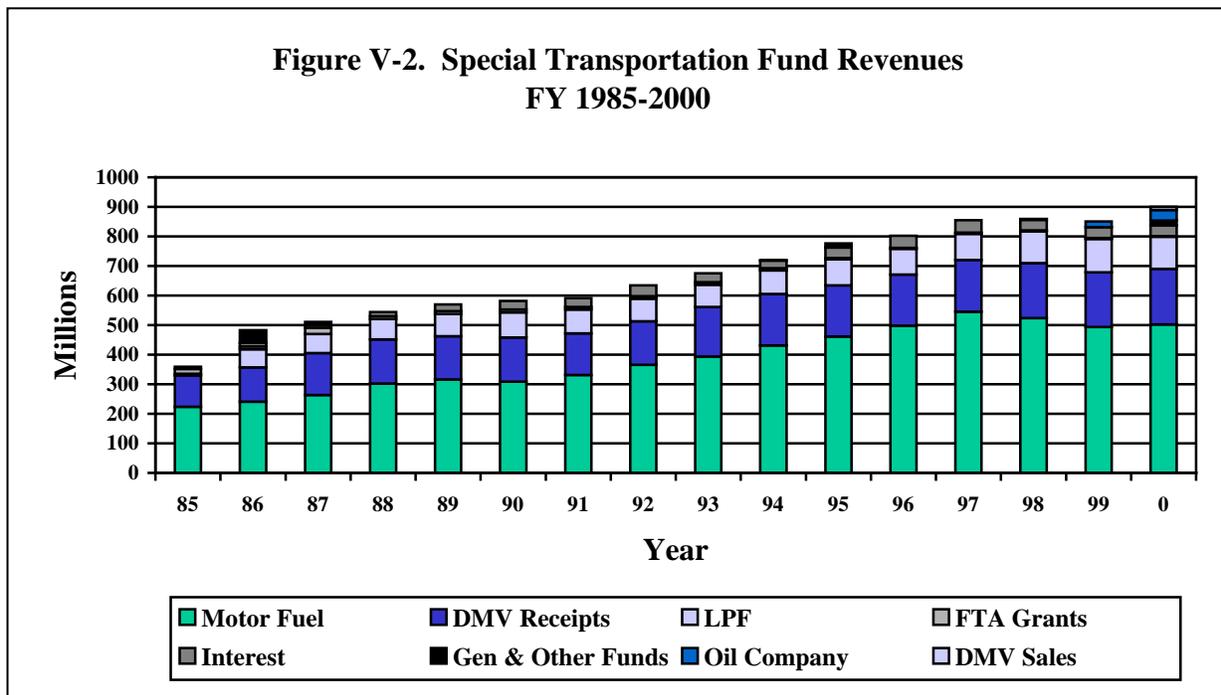
The STF has several sources of revenue specified in statute. There are three categories of transportation-related revenues: taxes on motor fuels; various motor vehicle fees; and license, permit, and other fee revenue. In addition, the fund receives grants from the Federal Transit Authority, interest income, and has on occasion received money from other state funds. Recently a tax on oil company revenues and the sales tax from automobiles have been added. Figure V-1 shows the revenues of the STF collected for FY 00. The major revenue categories are described below.

- **Motor fuels tax.** The motor fuels tax consists of three taxes: the gasoline tax, the special fuels tax (e.g., diesel and gasohol), and the motor carrier road tax. The gasoline tax has received much attention recently as it reached a high of 39 cents per gallon on January 1, 1997, and has since been reduced three times to the current 25 cents per gallon. Motor fuel taxes are the most significant revenue component of the STF. In FY 00, \$502 million was collected through the tax on motor fuels, 56 percent of STF's total resources after rebates for certain exempt entities (e.g., sales to U.S., state, and local governments). The tax on gasoline represents 90 percent of the total revenue for the motor fuels tax category.
- **Motor vehicle receipts.** Motor vehicle receipts are collected by the Department of Motor Vehicles and comprise 48 sections of the General Statutes that involve the levy of transportation related charges for licenses and services provided by the department. They include amounts collected for motor vehicle operator's licenses, registrations, and late fees. In FY 00, motor vehicle receipts provided 21 percent (\$188 million) of the income for the STF.
- **License, permit, and fee revenue.** The third category of funding assigned to the STF is license, permit, and fee revenue, which accounted for 12 percent (\$108 million) of STF revenue in FY 00. This income is derived from several sources and includes charges for certain permits issued and services provided by the department, the use of state property under DOT control, and traffic fines. The largest source of revenue in this category for FY 00 was motor vehicle fines and penalties, which brought in about 28 percent of LPF revenue.
- **Oil company tax and DMV sales tax.** In recognition of the recent reductions in the gas tax, two new revenue sources were added to the STF. The Petroleum Products Gross Earnings Tax (or oil company tax) is revenue received from the gross earnings from the sale of petroleum products attributed to sales of motor vehicle fuel. Beginning in FY 99, this source contributed \$20 million; in FY 00, \$36 million was added. Legislative

³ Revenue and expenditure data for STF and the capital program is derived from Official Statements of STO bonds dated 12/7/90, 10/1/96, 11/15/99, and from the preliminary statement dated 7/10/00.

changes in 2000 raised the amount transferred to \$46 million for FY 01. In 1998, legislation was passed pledging an increasing portion of the tax imposed on the sale of automobiles to the fund (i.e., \$10 million in FY 00, \$20 million in FY 01, \$30 million in FY 02, and \$40 million in FY 04 and each year thereafter). Legislative enactments in 2000 increased the amount to be received by the fund by authorizing the transfer of all of the sales taxes received on automobiles -- a net increase of about \$35 million in FY 01. The effect of the gas tax cut for FY 01 was a reduction of about \$95 million, the added revenue totaled about \$35 million to \$45 million, leaving a net loss for the fund of about \$50 million to \$60 million annually.

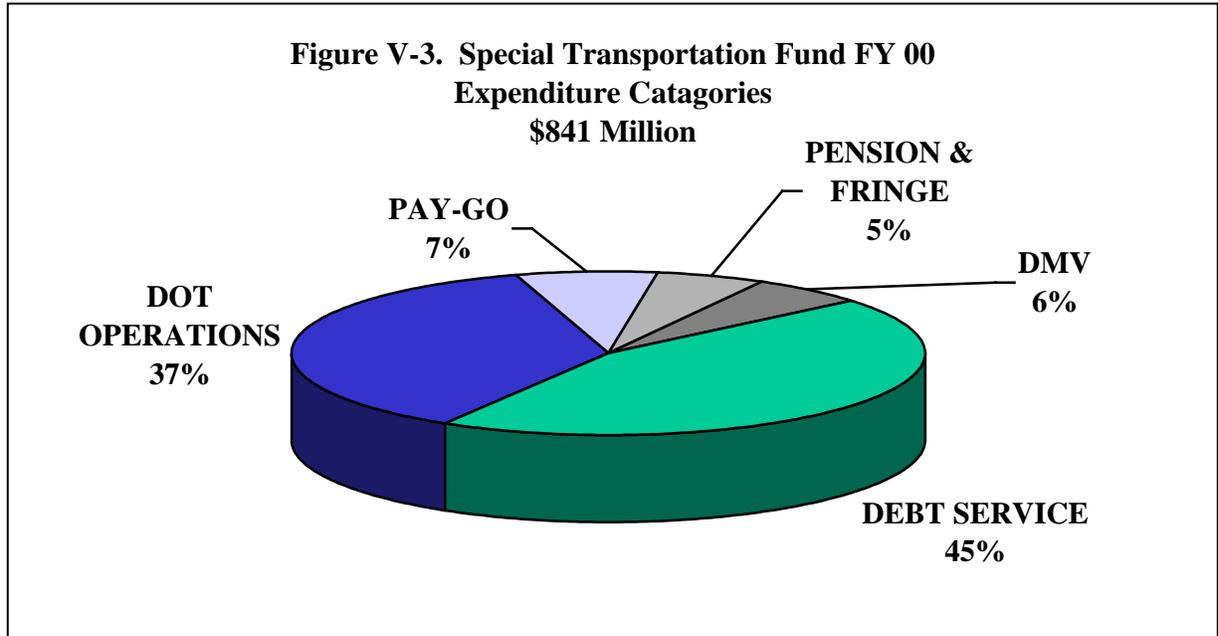
Other revenue. The remaining revenue sources contribute about 7 percent to the overall revenue of the STF. These include operating assistance grants from the Federal Transit Authority, interest earnings, and transfers from other funds. The state received \$3 million in FY 96 from FTA grants, which are treated as reimbursement for mass transit operating expenses. Interest earnings credited to the STF amounted to \$36 million in FY 00 and represented about 4 percent of STF's total resources.



Revenue trends. As Figure V-2 shows, total fund revenues increased from \$359 million to about \$900 million over the 16-year period, or 151 percent. This is somewhat misleading because not all first year collections from the LPF revenues were fully credited to the STF. If that revenue were accounted for, the increase would be 122 percent. The largest revenue increase occurred in interest income, which went from \$7.4 million to \$36 million (386 percent), followed by motor fuels -- \$223 million to \$502 million (125 percent). The only decrease was in Federal Transit Administration grants for mass transit operating assistance, which dropped 81 percent from \$15.7 million to \$3.0 million.

Expenditures of the STF

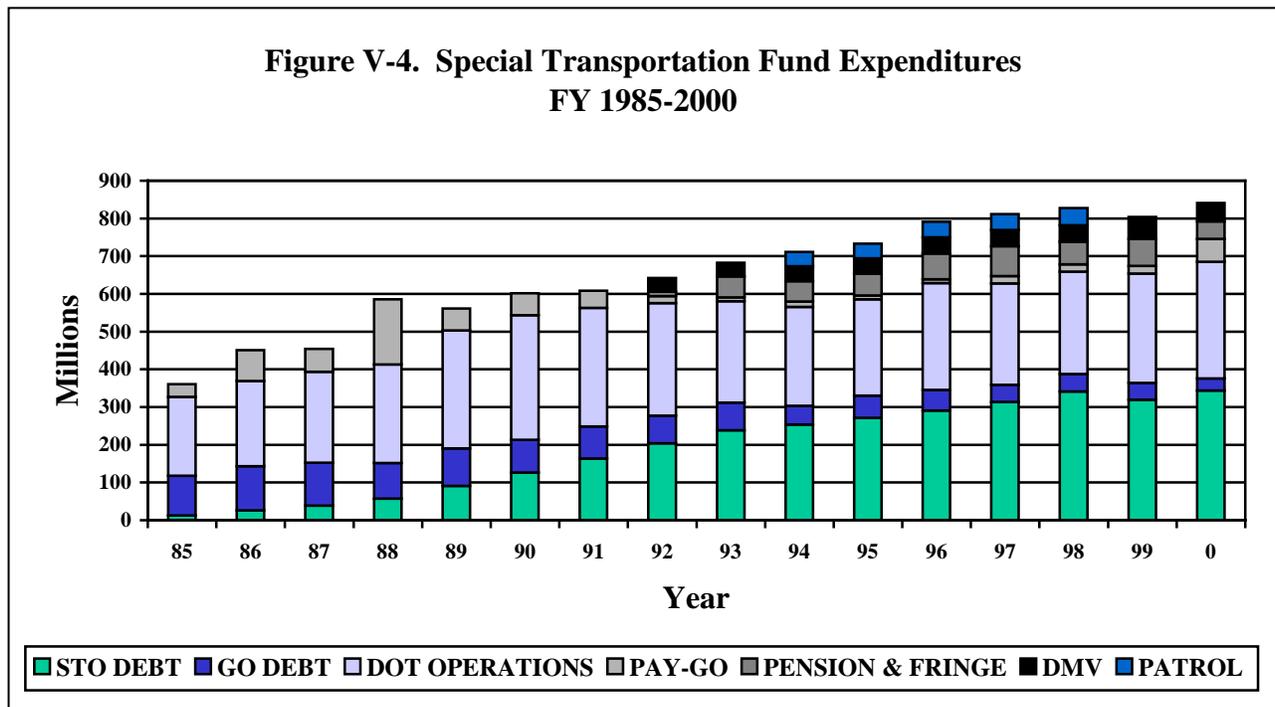
Figure V-3 shows the expenditures of the STF for FY 00. By statute, STF funds may only be used for specific activities. The first call on the fund is for the payment of debt service for Special Tax Obligation bonds that support the capital program. The other obligations of the STF are described below.



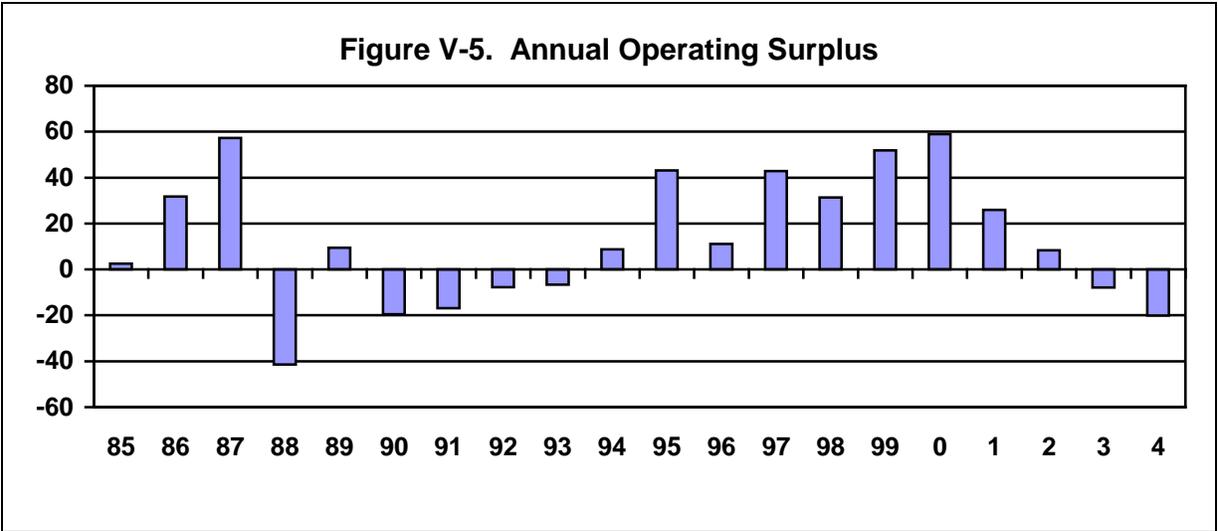
- **Debt payments.** As previously noted, the STF supports debt payments for both Special Tax Obligation bonds and general obligation bonds issued for transportation purposes. The combined payments for these two debt categories represented 45 percent of the STF expenditures for FY 00.
- **DOT operations.** The second largest expenditure of the fund (\$310 million in FY 00 or 37 percent of STF expenditures) goes to support the operations of DOT. The three largest expenses in this category were: personnel services for nearly 3,700 employees (\$118 million); bus operations for 15 urban and five rural systems (\$62 million); and rail operations for the New Haven Line and Shoreline East (\$61 million). In addition, the DOT operations category contains a program that impacts capital improvements. The Highway and Bridge Renewal account (or “pay-go”) provides funding, on a pay-as-you-go basis, for various highway and bridge maintenance, safety, and resurfacing projects. (Pay-go funding is normally included in the appropriations for DOT operations, but has been separated here for analysis purposes). Funding on a pay-as-you-go basis saves money by not incurring bond interest and issuance costs. The FY 00 expenditure of \$60 million represented an unusually high amount. For the last 5 years, pay-go has averaged \$16 million.

- Department of Motor Vehicles, and pension and fringe.** The final categories of STF expenses -- DMV operations and pension and fringe costs for ConnDOT and DMV -- were not originally assigned to the fund when it was established. In FY 00, these combined expenses were \$95 million or about 11 percent of fund obligations.

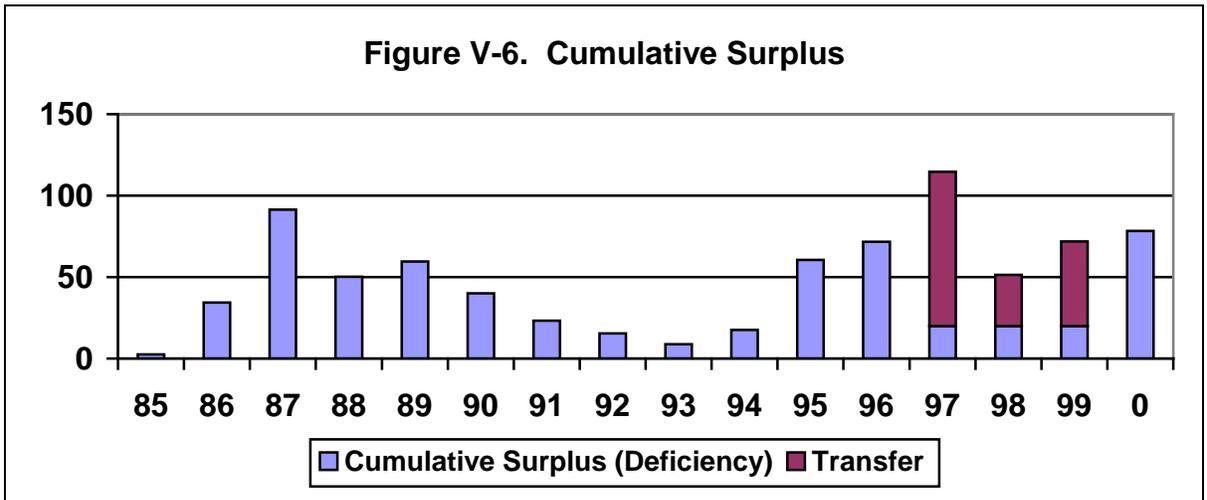
Expenditure trends. The 16-year expenditure history of the fund is shown in Figure V-4. Total fund expenses increased 134 percent from \$360 million to \$841 million. By comparison, the state's General Fund increased about 192 percent over the same time period. Some additions have been made to the STF because of the state's overall fiscal picture. DMV and pension and fringes costs were added to the STF to relieve some of the pressure on the state's General Fund. In addition, the Department of Public Safety's patrol function, which was not originally part of the fund in 1985, was added in FY 94. The patrol function costs were moved from the STF back to the General Fund in 1999.



State budget comparison. In comparison to other major government programs, transportation is a relatively small part of the overall state budget. Total expenses of the Special Transportation Fund represented about 7 percent of total non-capital state expenditures in FY 00. Human Services represented 29 percent of the state budget, education 22 percent, and corrections 8 percent. Further, debt service for transportation projects is about 29 percent of the state's overall debt payment.



Cumulative balance. Figure V-5 indicates the actual or projected *annual* surplus or deficiency for each year of the Special Transportation Fund from FY 85 through FY 04. Since FY 88, actual fund expenditures have exceeded revenues five times. Despite this, as Figure V-6 shows, the cumulative fund balance has remained positive. The highest cumulative surplus posted to the fund was about \$114 million in 1997. In 1997, ConnDOT was directed through legislative enactments to use all but \$20 million of its fund balance to service outstanding debt. This requirement was repealed in 2000, and the fund balance was approximately \$78 million on June 30, 2000. The annual operating position of the fund is expected to decline through FY 04, assuming current spending patterns.



Capital Program

The capital program is a financial entity distinct from the Special Transportation Fund. The capital program, though, is supported in part by funds from the STF. Capital financing is also supported by the federal government, state bonds, and to limited extent municipalities.

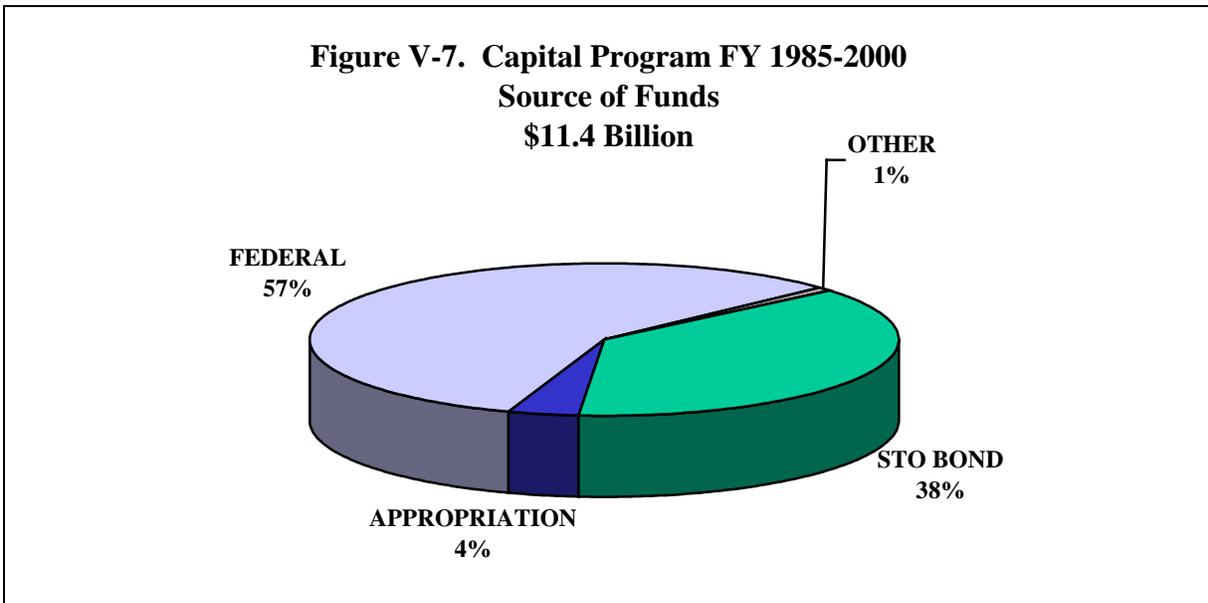


Figure V-7 shows the overall sources of funding for the \$11.4 billion that has been authorized for the capital program from FY 85 through FY 00. Revenue trends included:

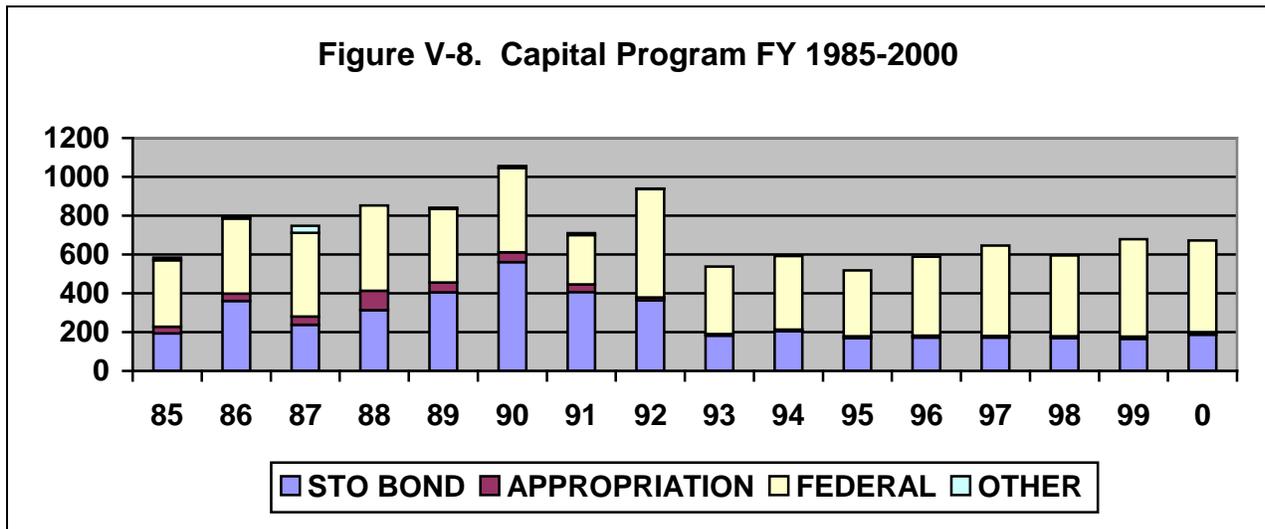
- federal resources provided the majority of funding for the capital program - \$6.5 billion or 57 percent;
- Special Tax Obligation bonds contributed \$4.2 billion or 38 percent of the total; and
- appropriations (or pay-go) were \$448 million (4 percent) and other matching funds provided principally by municipalities equaled \$90 million (1 percent).

State money is essentially used to leverage federal funding. Federal funding is critical to developing major transportation projects. However, federal funding sources come with certain restrictions. There are 17 major sources of funding under TEA 21; each has its own eligibility requirements, funding ratios (most are 80 percent federal and 20 percent state), and other limitations. This represents something of a dilemma. While federal priorities may not always match state needs, the department might open itself to criticism if it did not aggressively pursue federal funds.

Table V-1. Average Federal Funding Available Annually by Mode (millions)		
	<i>ISTEA (92-97)</i>	<i>TEA 21 (98-03)</i>
Highway	\$352	\$397
Transit	\$64	\$102
Total	\$416	\$499
Source ConnDOT		

Table V-1 shows the average amount of funding available from the federal government annually by mode of transportation. Both highway and transit funding is expected to increase under TEA 21 as compared to the ISTEA years.

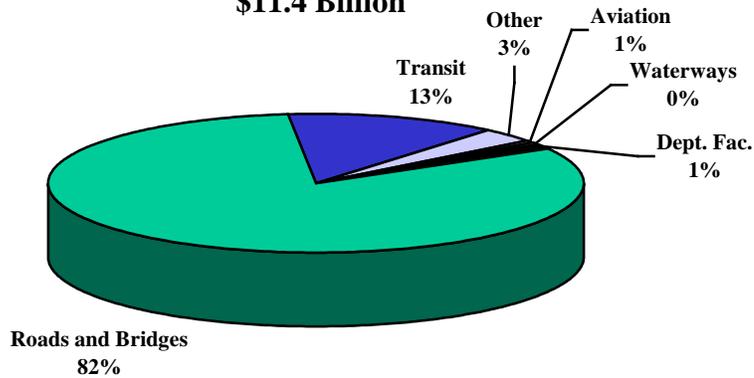
The average increase in total dollars is estimated to be about 20 percent.



Capital funding trends. The total amount committed by year for all capital elements is depicted in Figure V-8. As the graph shows funding levels fluctuate form year to year. Revenue trends include:

- total capital funding increased from \$583 million in FY 85 to \$672 million in FY 00;
- over the first six years, the trend was upward, hitting a high point of just over \$1 billion in FY 90;
- in the last 8 years, the total funding has fluctuated within a narrow range averaging \$603 million; and
- state bonding has declined from an average of \$355 million in the first eight years to \$178 million in the last eight years, while federal funding has increased over the same time period from an average of \$406 million to \$416 million.

Figure V-9. Capital Program FY 1985-2000
Funds Authorized
\$11.4 Billion



The funds for the capital program are disbursed among 17 program elements. Figure V-9 shows the allocation of the \$11.4 billion authorized for the capital program among six components. The largest amount of resources (82 percent) goes toward roads and bridges. Transit received 13 percent of the funding, while aviation and ports received 1 percent or less.

FINDINGS

The findings presented in this chapter taken together suggest transportation investments can have an effect on the state's economic prosperity that is not factored in ConnDOT's current planning processes or investment decisions. Further, the interaction between ConnDOT and the Department of Economic and Community Development (DECD) does not facilitate a strategic planning orientation to sustain economic growth.

The previous chapters provided a detailed description and analysis of ConnDOT's planning, priority-setting, and funding processes as well as an examination of the interaction between the Department of Economic and Community Development and ConnDOT upon which the committee based a number of findings presented below.

Role of Transportation in Economic Development

Economic growth can be linked to targeted investments in transportation infrastructure. The literature on transportation's effect on economic growth suggests investment in infrastructure has positive impacts in a number of areas including total economic output of a region, productivity of workers and firms, employment growth, the rate of private investment, location decisions of firms, and household and employment relocation decisions. In order to understand the implications of transportation investments, policies need to be targeted and evaluated

Targeting. There are several economic activities toward which transportation policy can be directed. The Transportation Research Board (TRB), a unit of the federally chartered National Academy of Sciences, indicates there are two principal distinctions between the various objectives that can be pursued. Objectives generally relate either to the distribution of economic activity (e.g., distribution of personal income or employment) or the growth in the volume of economic activity (e.g., growth in productivity or economic product). According to the TRB, transportation policies and investments are generally more effective at promoting productivity.

Thus, productivity is the key to economic growth and targeted capital investments are the key to improved productivity. Transportation infrastructure investments contribute to productivity by reducing the costs of producing and distributing goods and services, as well as ensuring people move through the transportation network in an efficient manner. *A proper understanding of the economic implications of transportation choices can facilitate identifying the most effective way to direct public and private investment in infrastructure and*

prioritize investments.

Economic growth in Connecticut is threatened by congestion in key transportation corridors and diminishing or inadequate connections to national and global markets by air, sea, rail, and road. These problems impact the performance and productivity of Connecticut's transportation network and influence the state's overall economic success.

Productivity, though, is not an end unto itself. Growth for growth's sake is not an appropriate centerpiece for public policy. The environmental effects of growth, for example, have economic as well as moral consequences that need to be considered. Nonetheless, growth through sustainable development (i.e., acceptable means and acceptable costs) is the only way to sustain living standards and the appropriate quality of life in Connecticut. The notion of living standards should encompass a fairly wide range of benefits and costs. When the overall gains exceed losses, then such a choice may be regarded as economically efficient.

Evaluating. Not every investment in infrastructure provides the prospect of economic growth. *At a minimum, decision-makers need to assure themselves that policies and programs will make a net contribution to economic growth and they must be able to compare various alternatives.* A number of techniques are available to assist decision makers in this process. Using measures of worth, such as cost/benefit analysis, rate of return, and net present value, can facilitate the evaluation of various investment choices.⁴

When considering the economic effects of transportation investments, the question is will the economy of the state as a whole be better off by undertaking a project rather than not undertaking it or by undertaking an alternative project instead. Many considerations besides economic efficiency are brought to bear in policymaking, planning, and program implementation. While not the sole determinant of a projects overall worth, these methods can provide a way to introduce the economic effects of infrastructure improvements into the transportation planning process.

⁴ These concepts are briefly defined as:

Cost/Benefit Analysis – Analytical procedure used to determine the economic efficiency of an investment, expressed as a relationship between costs and outcomes. Typically, a benefit-cost ratio is developed where present value of benefits are divided by the present value of costs, which indicates dollars of benefit per dollar of cost.

Rate of Return (ROR) – This refers to the percentage of total investment cost recovered in the form of economic benefits on a periodic basis. Benefits may include reductions in vehicle operating costs, time savings, reduced risks of accidents, enhanced business and industry productivity, and other economic enhancements. Rate of return analysis permits decision makers to discern whether transportation polices and investments make a worthwhile contribution to productivity and economic growth. Accounting for negative spillovers in ROR calculations ensures that transportation-related productivity and growth strategies are not at odds with the higher aim of improved living standards.

Net Present Value (NPV) - The costs and benefits of infrastructure investments occur at different times over the service life of the improvement. Calculating the NPV provides a basis to compare the worth of various investments by subtracting the present value of costs from the present value of benefits.

A number of states have targeted specific transportation investments to assist in economic development efforts. Appendix G provides some details on a few selected state efforts. Some examples include:

- the State of Washington gives priority to projects that relieve congestion. In addition, the state has established a funding mechanism to support emergent economic development needs and one element of this effort relies on partnerships with private and public entities;
- the State of Florida is using a variety of mechanisms to provide over \$2.5 billion to accelerate a number of projects aimed at enhancing the state's economic prosperity. One initiative uses a Fast Track Selection/Advisory team made up of executives outside of the department that created a quantitative methodology to screen and score projects. The selection committee recommended projects to be funded to the secretary of the department; and
- the State of Minnesota uses investment criteria, such as net present value, rate of return, and benefit/cost ratios, tempered by an evaluation of community values and social impacts to rank transportation investments and compare opportunities among modes

ConnDOT's Planning and Priority Setting Processes

The organization, process, and orientation of the state's transportation planning efforts do not adequately respond to the state's overall economic needs. The transportation planning processes and apparatus of the state are elaborate and complex. Federal and state laws require the development of several different plans and have certain mandates as to who must be involved and what their decision-making authority is. Transportation planning is heavily influenced by federal and ConnDOT funding priorities. However, there is no overarching guiding vision for the transportation system nor is there a strategic plan to prioritize the state's investments.

Transportation system planning is constrained by limited financial investment goals. Two events, one a disaster and the other a crisis, have conditioned the current investment orientation of the department. After a period of under-investment in the transportation system, the disaster of the Mianus river bridge collapse in 1983 spurred an effort that resulted in the creation of a 10-year infrastructure renewal plan and the Special Transportation Fund with the commitment of a predictable revenue stream over the 10-year period. In the early 1990s, the state was experiencing a fiscal crisis and an economic recession, resulting in a reduction in the size of the capital investment program. It is this legacy that directs ConnDOT's investments mainly toward system maintenance, while retaining a narrow view of economic development and assigning the lowest priority to capacity improvements. Consequently, any plans developed by the department represent a revenue-constrained view of future needs.

There is a guaranteed role for the public, as well as, local and regional bodies in the transportation planning process. This includes 15 planning regions in Connecticut and 14 transit

districts. *Because so many regional and local entities can be involved in the process, it can create complications in improving regional and statewide transportation assets. On the other hand, there is an emphasis on regional fairness in the funding process that diminishes ConnDOT's ability to address critical statewide needs.*

Transportation is a basic enabler of economic activity. *There is no conscious consideration in the planning and priority setting processes of the economic effect of transportation improvements on a statewide basis when making investment decisions.* Certainly providing a well-maintained and safe transportation network has positive economic effects. Economic growth, however, is threatened by conditions that limit accessibility and mobility to the local, national and international transportation network. *While the state's planning and funding efforts have improved its approach to the basic maintenance needs of the transportation network, it has not properly recognized the importance of identifying and addressing mobility deficiencies and opportunities in the system.* Identified below are some indicators of this, which were fully developed in the briefing document:

- measures of highway congestion in Connecticut show it has increased and is projected to worsen if the current funding priorities are followed, increasing time delays and threatening safety;
- Connecticut's seaports and airports are orientated toward small niche markets. The state is dependant on neighboring airports and seaports to provide connections to the worldwide marketplace, but access to these facilities is difficult;
- neighboring state actions regarding transportation investments are not analyzed by ConnDOT nor is there an on-going relationship with other nearby states to consider mutual strategic needs and concerns; and
- transportation facilities within the state but not under state control are not fully integrated into the state's planning efforts.

The adequacy of resources devoted to the transportation function in the state effects the extent to which the department can respond to the needs (economic or otherwise) of the system. *A number of trends indicate the state has reduced its commitment, especially in the capital program, to transportation investments.* Specifically:

- the amount the state spends on transportation in relation to the rest of the budget has declined somewhat over the last 10 years. For example, in 1991 and 1992 transportation fund expenditures represented about 8 percent of total state spending. In the last two years it has been about 7 percent;
- the main revenue engine for the state's transportation fund is the motor fuel tax, which accounts for about 56 percent of the fund's revenue; this tax has

been cut three times in the last four years, and though there has been some other revenue enhancements, they fall far short of what has been cut;

- from 1985 through 1992, total capital investment in the transportation system averaged about \$815 million per year. In the last eight years (1993 through 2000), capital investments have been about \$603 million per year; and
- state bonding declined from an average of \$355 million in the first eight years to \$178 million in the last eight years.

Link Between the State's Strategic Economic Planning Processes and ConnDOT's Planning Processes

Neither the Department of Economic and Community Development nor the Department of Transportation has systematically considered the strategic economic needs of the state and their relationship to the transportation system. The relationship and interaction between the two departments suffers from a lack of strategic vision and planning. The following findings are offered to support this conclusion:

- *There is no assessment of economic cluster's infrastructure needs.* The state has adopted a cluster-driven strategy for economic development. An industry cluster is defined as a grouping of companies and industries in close proximity, interconnected by the markets they serve and products they produce, as well as the suppliers, trade associations, and educational institutions with which they interact. The role of the state in this effort has been to identify and nurture clusters. While there have been studies issued in conjunction with DECD that have been critical of the operation of Bradley International Airport and its effect on economic development, no assessment has been conducted of the cluster's infrastructure needs and if any changes could assist in promoting this economic development effort.
- *Interaction between the departments is limited to either advisory roles or project specific coordination.* On the formal and recurring level, DECD's contact and communication with ConnDOT occurs through memberships on several boards and commissions, such as the Bradley International Airport Commission. This is typically a purely advisory function. DECD also works with ConnDOT on an ad hoc, project-by-project basis. This may include membership on specific ConnDOT sponsored project committees (e.g., the Advisory Committee for the Hartford-New Britain Busway and the Interstate-84 Major Investment Study) or project specific coordination (e.g., State Traffic Commission permit coordination).

RECOMMENDATIONS

The findings overall point to a number of problems and limitations with transportation system planning practices and funding priorities that affect the state's ability to meet existing and future service demands placed on this system. *While a considerable amount of ConnDOT's time, efforts, and other resources are spent on planning, a critical element is lacking. This is the absence of strategic thinking and action, at all levels of decision making, to address the critical issues that impact the performance and productivity of Connecticut's transportation system and have the potential to influence the state's economic success.*

As discussed in the previous chapter, the processes, organization and orientation of the state's transportation planning efforts are not sufficiently responsive to the state's overall economic needs. Certainly the department has substantially improved the physical condition of the transportation network compared to 20 years ago. However, the environment surrounding the transportation policy area and the expectations placed on the department have changed considerably. A number of factors including shifting demographics, increased service use and demand, a volatile and competitive global economy, competition for public funds (and budget caps), expanding demands made by underserved populations, and the need to balance modal interests have created a challenging climate that threatens the department's ability to adequately fulfill its responsibilities. Consequently, the state's response to citizen and business mobility requirements and how this is considered in relation to other policy areas requires change as well.

To that end, the committee offers a raft of recommendations that taken together provide a basis for thoughtful, measured, and comprehensive change in how the state approaches the transportation function. It is important to emphasize the proposed changes are to the transportation function and not just the department, though significant changes need to occur in the agency as well.

This enlarged view attempts to account for the blurring of organizational boundaries within this policy area where no one organization is fully in charge, and yet many are involved, affected, or have a responsibility to act. To address this increased jurisdictional ambiguity, the first four recommendations are aimed at improving decision making, by promoting strategic thinking and action, and enhancing organizational response. The last recommendation, after considering a range of options, proposes a new type of entity to act as a change agent, responsible for overseeing and guiding this effort.

Because the *last* recommendation identifies the organization to be responsible for implementing the *initial* recommendations, the text of the initial

recommendations does not indicate who should implement the recommendations

Create a Vision for the Transportation System and Revise the Mission of the Department of Transportation

The Connecticut Department of Transportation does not have a vision statement for the transportation system and the agency's mission does not fully capture the changed role ConnDOT needs to embrace.

Vision

It is important to identify where the state wants be in the near future. A vision statement provides a future orientation and is a picture of success. It describes where the state transportation network is going and where it should be. A vision statement also has to be realistic and have a probability of coming true in order to be convincing and useful.

Benefits. A number of benefits flow from a clear, succinct, inspiring, and widely shared vision of success. A vision of success makes it easier for people to discriminate between preferred and undesirable actions. The more specific and reasonable the vision, the more organizational members are supported in their pursuit of the vision, and thus the more likely the vision will be realized. It provides a way to claim the future; that is not just predict the future but also make it.

The creation of a vision statement will help foster some consensus and provide inspiration and guidance for the rest of the strategic planning process described in the following recommendation. It will help to provide a better sense for where strategy or an interconnected set of strategies should lead. The vision may be revised or become more detailed as the strategic plan development process proceeds.

Mission

A mission statement is a declaration of organizational purpose. It enables all members of the organization to share in the same view of the goals, philosophy, and direction of the agency.

Benefits. A number of benefits can be identified from clarifying and agreeing on an organization's mission, including:

- helping to focus discussion on what is important;
- clarifying organizational purpose. (Provides more effective leadership by making clear the purpose of the organizational structures and systems and resource allocation system); and
- assisting in getting employees and other stakeholders to invest in a goal other than self-interest and help mobilize organizational energies around a common purpose.

The creation of a vision statement for the transportation system will require a reexamination of ConnDOT's mission statement and how the department relates to the new vision. ConnDOT's stated mission is, "to provide a safe, efficient, and cost effective

transportation system that meets the mobility needs of its users.” Concepts such as safe, efficient and cost-effective are important, but fairly narrowly drawn. The current mission statement does not emphasize the transportation’s role in economic development.

ConnDOT clearly has a part to play in the economic success of Connecticut from providing mobility and responding to just-in-time economic pressures, to recognizing its role in improving the quality of life within the state. While the department’s current mission mentions meeting the mobility needs of users, which is an important aspect of ensuring the productivity of the system, the department relegates specific economic development concerns and the general provision of required capacity to last in its order of investment priorities. In practice, the majority of the funds received by the department have been for the upkeep of the current transportation system.

A well-developed, reliable transportation system is crucial to the growth and economic vitality of the state and requires a comprehensive network of multimodal components to work together to provide the efficient transport of goods, services, and people. Given the success of the department in rehabilitating the transportation system over the last 15 years, the expanding economy, and the increasing pressures on the state to remain competitive within a global context, a reexamination of its mission and function is warranted.

Program review committee recommends:

A vision statement for the state’s transportation system and a mission statement be created for the Department of Transportation in conjunction with ConnDOT where the vision emphasizes a picture of success for the transportation system and the mission clarifies the department’s purpose including elements that address economic development, customer service, and sensitivity to other societal goals.

This recommendation emphasizes a vision for the transportation system not just the department. This broader view recognizes the impact that other state departments, levels of government, and transportation providers have on the system and the state’s economic prosperity.

There is a relationship between the mission and vision. The vision includes the mission but goes beyond it. A mission outlines the organizational purpose of ConnDOT but a vision goes on to describe how the system should look when it is working extremely well in relation to its environment and its key stakeholders. Consequently, stakeholders need to be involved in the process. Stakeholder input and analysis of needs should be considered and can provide useful and valuable information for the preparation for a mission statement.

This new vision and mission should drive the strategic planning process, as described below, and provide the foundation for investment priorities. It also helps to visualize and understand the links between the department’s performance and successful accomplishment of strategic objectives.

Develop Strategic Transportation Plan

A considerable amount of ConnDOT's resources as well as those of regional planning organizations are devoted to transportation planning. The result is a number of short-term and long-term plans. *However, none of the planning documents produced by ConnDOT could accurately be described as a strategic plan.*

Current long-term planning is conditioned by the amount of money projected to be available. Consequently, long-term planning now assumes a posture of more of the same, or how can the department do what it does now only better. It is estimated that the state will have about \$13 billion available for capital improvements over the next 20 years and the department and the regions plan around this. At best, this is a form of capital investment planning. *However, there is no recognition of the transportation function's broader significance, such as its importance in the economic success for the state.*

While there are limited investment priorities, there are no real goals or strategies articulated. There is currently no attempt at gauging the performance of the transportation system as a whole, the department's efforts, or how this relates to a successful system. A shift in thinking and outlook needs to occur that not only considers what will happen in the future but also determines how the outcome can be shaped and influenced.

Moreover, there is a need for greater coordination between DECD and ConnDOT on a strategic level.⁵ The contact between the departments occurs mostly on a project-by-project level. There has not been any assessment or any other effort by DECD or ConnDOT to examine the extent to which the transportation infrastructure is meeting the needs of the economic clusters or the state's broader economic goals.

Strategic planning

There is no universally accepted definition of strategic planning, but strategic planning is not just long-term planning. One practitioner describes strategic planning as "a disciplined effort to produce fundamental decisions and actions that shape and guide what an organization is, what it does, and why it does it."⁶

A preponderance of the planning literature stresses when an organization initiates an effort to forecast and plan for the future it is not enough to create a document (a plan), rather it should engage in a process. For example, the Transportation Research Board advocates for a process it calls *strategic management*, where a strategic plan is just one element. The board defines strategic management as "the process of articulating a future vision of accomplishment for an organization and planning, directing, and controlling the organization's entire range of activities to work toward the desired state or position."⁷ Similarly, the Connecticut Office of Policy and Management (OPM) defines strategic planning as "a process of organizational self-

⁵ There is also a need for coordination between ConnDOT and other departments but they were not covered in the scope of this study

⁶ John M. Bryson, *Strategic Planning for Public and Nonprofit Organizations*, San Francisco: Jossey-Bass, 1995, pp. 4-5.

⁷ Gene R. Tyndall, et al, *Strategic Planning and Management Guidelines for Transportation Agencies*, Transportation Research Board, December 1990, p 9.

assessment, goal-setting, strategy development, and performance monitoring.”⁸ (For purposes of clarity, references to strategic planning hereafter mean the entire planning process.)

At its core, strategic planning differs from other types of planning because of its focus on the broad policy questions facing an organization or a policy area, such as its basic mission, purpose, and alternative courses of action or strategies to achieve that mission and those purposes. There is an emphasis on the future implications of present decisions as well as foreseeing and reacting to changes that impact on the success of the agency. Strategic planning is conducted at high levels of management. It is comprehensive, includes consideration of a large range of alternatives, covers a fairly long period of time, is characterized by a degree of uncertainty, grapples with more unstructured problems, and takes a broader (in this case, a state and region-wide) perspective.

Elements. While there may not be a universal definition, there are some commonly accepted practices of strategic planning. After defining the department’s purpose through a mission statement and the related vision of the transportation system as described above, the following activities are usually conducted:

- *Assess the current environment.* This is also referred to as an environmental scan and requires an agency to perform an internal and external assessment. The internal assessment identifies the agency’s strengths and weaknesses as an organization. The agency determines if its internal capabilities (e.g., work force, organizational structure, managerial style, etc.) are adequate to accomplish its mission and goals. The external assessment examines factors outside the agency that impact the accomplishment of its mission, such as demographics, political climate, the economy, and public opinion.
- *Perform a SWOT analysis.* Next an agency will identify its strength, weaknesses, opportunities, and threats, also known as a SWOT analysis. The purpose of this analysis is to examine the results of the environmental scan and identify the critical issues or challenges the agency must address to in order to prosper and achieve its mission.
- *Map a course of action.* In order to take an agency from its current position to a desired position, it must create a course of action. This involves the formulation of goals, objectives, and strategies that are aligned with the vision and mission. Goals and objectives outline *what* the department will accomplish; strategies indicate *how* the department will achieve those goals and objectives. Goals and objectives should be quantifiable and measurable.
- *Allocate resources.* All resources -- human, financial, technological and materials -- must be allocated in accordance with the organization’s goals, objectives, and strategies. The strategic planning process should be linked to

⁸ Office of Policy and Management, State of Connecticut, *Strategic Business Planning: A Guide for Executive Branch Agencies*, September 1998, p. 1.

the budgeting process. It should direct the allocation of resources in accordance with strategies.

- *Measure performance.* Performance measurement is the process of tracking progress toward the accomplishment of agency goals and objectives.

Benefits

There are a number benefits of strategic planning, including:

- *Promotes strategic action and thought.* Most of the strategic planning literature points out the process and discipline of strategic planning is as important, if not more, than the plan itself because decision makers develop a deeper understanding of the agency and the environment in which it operates;
- *Improves decision-making.* This type of planning allows decision makers to focus attention on the critical issues and challenges the organization faces and helps in determining what to do about it; and
- *Enhances organization responsiveness.* The process ideally allows the organization to clarify and address major issues and respond wisely to internal and external demands and pressures, and deal with rapidly changing circumstances.

Program review committee recommends:

A 10-year strategic plan be developed in conjunction with the Department of Transportation and with consideration of regional long-range plans. The purpose of the strategic plan will be to assist in defining and prioritizing the objectives of the state's transportation system and directing funding toward those objectives. The plan shall address specific areas including, but not limited to, the following:

- 1) Transportation's role in economic development, specifically**
 - a) promotion of mobility and productivity;**
 - b) linking of transportation modes (connectivity);**
 - c) the state's connection to the national and global transportation network; and**
 - d) support for economic clusters and regional economic priorities.**
- 2) Support for other societal goals, including but not limited to:**
 - a) ensuring safety within the system and maintenance of current transportation assets;**
 - b) balancing transportation improvements, development, and environmental impacts;**
 - c) providing mobility to underserved populations; and**
 - d) encouraging a customer centered orientation.**

The strategic plan shall identify objective criteria and procedures for prioritizing Connecticut's transportation needs and expenditures in relationship to the objectives of the strategic plan.

The strategic plan shall also consider and address elements normally outside the department's control, including but not limited to:

- **coordination of land use issues with transportation investments;**
- **coordination with other state departments, including the Departments of Economic and Community Development, Environmental Protection; and Public Safety;**
- **transportation facilities within the state, such as regionally significant airports and seaports, not under state control; and**
- **the actions of neighboring states with regard to their transportation networks.**

Rationale. Strategic planning is not practiced by the Department of Transportation, but it offers a systematic and rational way for the department to respond to the demands placed on it and shape its role in promoting the transportation function within the state. Certainly the elements of the strategic planning process outlined above should be performed, but there is already ample evidence suggesting attention needs to be paid to economic development issues. For example;

- *Mobility and productivity.* These issues have been discussed in previous chapters of this report and the briefing document issued on September 20, 2000. Transportation investments targeted toward productivity gains have a positive economic effect and should be factored into the decision making process. Certainly, protecting current assets must continue to be a main concern, but promoting mobility also means confronting congestion issues throughout the state. Opportunities should be identified for targeting transportation investment in such a way as to maximize economic vitality consistent with overall transportation objectives. For example, it would be worthwhile to value competing, significant transportation improvements and rank them to assist in the process of determining what projects should get funded. This does not mean the highest return should automatically get funded but significant projects should at least have some net economic effect. It also does not mean that *all* investments must have an economic effect, for transportation is still a public function serving a public good. The public sector, after all, primarily provides services or products the private sector cannot or will not provide. However, there is a value in raising the economic development issues and being more explicit about the state's priorities. Any new funding for mobility investments should be subjected to a more rigorous and objective ranking process.

-
- *Connectivity among modes.* Because it is generally acknowledged the state cannot build its way out of all its congestion problems, emphasis needs to be placed on ensuring an expanded, balanced, and integrated multimodal transportation network. This also has serious implications for customer service orientation, requiring a deep understanding of trip patterns, customer preferences, and marketing.
 - *Connection to national and global network.* This too has been discussed in some detail in the briefing document. Michael Gallis, in his report on the state's economic development strengths and challenges, has pointed out, "as globalization and the economic integration of North America continues, access to the international hubs and the continental grid will increasingly drive the location of economic activities.... Gaining a larger share of the New York market and stronger access to the global and continental marketplace will be central to continuing developments of the state's economy."⁹ Improved access to neighboring states, international transportation facilities, and the global network is essential to Connecticut's economic success.
 - *Support for economic clusters and regional economic priorities.* Transportation is part of the basic foundation of Connecticut's economic development strategy. Trends have been noted (such as the shift away from heavy manufacturing to smaller, more decentralized, lighter industrial products with just-in-time delivery requirements; the continued need to respond to the growing tourism industry; and the needs of economic clusters) that demonstrate the necessity for the transportation system to be receptive to new economic patterns. A properly functioning system responsive to the economic clusters in the state and to regional economic priorities, as long as the projects have some positive net economic effect, will serve to further the success of Connecticut business and industry.

Because there are elements outside the department's and even state government's immediate control impacting the functioning of the transportation system, these impediments need to be acknowledged. These issues often can only be effectively addressed by the legislative and executive branches. These issues currently represent significant limitations to the department's effectiveness at achieving larger goals and purposes and provide additional impetus to consider strategic challenges on a larger platform

There is a value in raising these concerns and making them known. The extent to which these issues are not identified and addressed above the departmental level, the less successful the transportation system will be. If properly structured, the entity to oversee the strategic plan can serve as a catalyst for change in these areas. For example, after appropriate direction is received from the executive and legislative branches, the implementing entity could work towards identifying and developing consensus on issues of multi-state significance.

⁹ *Connecticut Strategic Economic Framework*, Connecticut Regional Institute for the 21st Century, November 1999, p. 15.

Examine Department Structure and Other Organizational Issues

As shown in Appendix B, the Department of Transportation is currently organized around five bureaus that include the modes of transportation (public transit, engineering and highway operations, and aviation and ports) and support units (finance and administration, and policy and planning). The structure of the department, similar to its investment priorities, is orientated toward maintaining the current transportation system. *Creating a new vision for the transportation system and a new mission for the department as well as the development of a strategic plan will have internal and external organizational ramifications.*

A further complication is the current planning structure requires the involvement of 15 regional planning organizations (10 of which are Metropolitan Planning Organizations). *An emphasis on fairness in the planning and funding process coupled with the guaranteed involvement of so many planning bodies focused on small geographical areas diminishes ConnDOT's ability to address critical statewide needs.*

Program review committee recommends:

An assessment of the organization of the Department of Transportation be conducted to determine if the department is organized appropriately to carry out its new mission and responsibilities under the new strategic plan, and to analyze the adequacy of the department's organization, workforce, structure, managerial style, and competencies and make changes as necessary.

Further, it is recommended an assessment be performed for the legislature and governor aimed at reducing the number of regional planning organizations and Metropolitan Planning Organizations by changing planning boundaries to better reflect the needs and interdependencies of these areas by considering the predominate commuting patterns within regions and concentrations of economic activity or develop alternatives to compel existing regions to respond to the strategic objectives identified in the strategic plan within a larger geographical framework.

Rationale. A new vision for the transportation system and mission for the department will likely suggest a new organizational structure is necessary. For example, it may be appropriate to reorganize the department in a more business-like fashion by consolidating each modal area under one division and creating a new division dedicated to marketing and customer service. This would serve to make an organizational statement about the direction of the department by emphasizing customer relations. It would also begin to introduce a new management cadre that can assist in moving the organization from one that is construction focused to one that is customer focused. Many private sector organizations have had to struggle with this and have increasingly found that operational decision-making power needs to be shifted to units with direct customer contact.

It also must be acknowledged that an organization cannot be all things to all people; trade-offs must be made. The strategies of the organization should establish the criteria necessary for determining the priority tasks to be accomplished. Fundamentally, organizational design needs to reflect the priorities of the department as they are informed by the strategic plan.

The secretary of the Office of Policy and Management designates the state's planning regions. The regions assist in making plans of development for their areas. Ten of the regional planning organizations are also designated as Metropolitan Planning Organizations that have specific transportation planning duties under federal law. Several reasons to consolidate the regional planning organizations and MPOs are offered below:

- while regional representation is important and necessary for an effective, broad-based, and well-supported transportation strategy, the more planning bodies involved in the process, the more complicated, parochial, and lengthy the planning process becomes. The MPOs in particular have veto power, guaranteed in federal statute, over projects that have federal funding. This can blur the focus on critical statewide needs as well as the needs of regions whose decisions have a reach and effect larger than their planning boundaries;
- the boundaries of the MPOs and the regional planning organizations were created in the 1950s and 1960s, but do not make sense for transportation planning purposes. For example, to deal with transportation problems along the southwestern part of the I-95 corridor, ConnDOT must coordinate the activities of four MPOs;
- Connecticut is among the states with the largest number of MPOs. Seventeen states have 10 or more MPOs, and Connecticut is the least populous among these states;
- when the population of each state is divided by its number of MPOs, Connecticut with 328,203 people per MPO is the eighth smallest out of the 50 states. The range runs from 211,222 (North Dakota) to 2,714,471 (New Jersey);
- typically MPOs in Connecticut have small staffs and do not have the capacity to be a significant player in terms of initiating projects in the planning process. Consolidation may allow for larger and better resourced staffs;
- the Gallis study has identified *three* principle economic regions within the state and has recommended a mechanism be created so strategies can be developed for meeting each region's economic challenges. Among the challenges cited is the need for a better transportation network; and
- consolidation is not a new issue. The Connecticut Progress Council, a statutory body created under P.A. 93-387 to establish goals and benchmarks for state government programs and activities, recognized the need to reduce the number of regional planning bodies. In 1995, the council recommended the number of regions be reduced to five.

While the authority to change regional planning organization boundaries lies with OPM, changing MPO boundaries will not be as easy. In order to alter MPO boundaries, federal law requires agreement between the governor and the affected local governments representing 75 percent of the population in the metropolitan area. If a restructuring of the planning regions proves infeasible, perhaps other methods or incentives could be developed by the state to compel greater cooperation.

Address Adequacy of Funding Needs

Similar to the organizational issues identified above, a new orientation for the department requires an examination of the adequacy of its funding. A major reason for ConnDOT's current investment outlook and actions is because it compares what is currently available to what could be done and believes it can only maintain the current system. Requiring the department to address mobility issues and the other items in the strategic plan in a serious way will most likely require the investment of billions of dollars.

Program review committee recommends:

A 10-year financial plan be created in combination with the strategic plan to identify the level of investment necessary to achieve the strategic plan's goals over that time period. The financial analysis of said plan shall include a consideration of the estimated costs of implementing the goals outlined. At minimum the analysis shall include:

- 1) the effect of reallocating current resources;**
- 2) an exploration of new funding sources;**
- 3) the potential to increase current fees and charges; and**
- 4) the feasibility of using the state's General Fund.**

Recommendations of preferred funding mechanisms shall be developed and submitted to the governor and legislature.

Rationale. Budget allocations have a crucial significance for the implementation of strategies and plans. Budgets usually represent the most important and consequential statements that governments make.

The planning processes at ConnDOT generally revolve around what funds are currently available. This has consequences for how the department comes to view transportation problems. If there is no hope in addressing certain problems, then it becomes moot to consider them – resulting in a frustration that reverberates throughout the planning community. In addition, recent cuts in the department's main revenue source, the gas tax, tend to inhibit imagination and vision. *On the other hand, if there is no participant in the system acting as an advocate for the transportation function and if there is no agreed upon vision, any discussion about funding lacks a full understanding of the consequences of policy choices.*

Aside from the need to address mobility issues, arguments can be made the state is underinvesting in transportation based on historical spending patterns and by comparison to other policy areas. First, the amount the state spends on transportation in relation to the rest of the

budget has declined somewhat over the last 10 years. For example, in 1991 and 1992, transportation fund expenditures represented about 8 percent of total state spending. In the last two years, it has been about 7 percent.

Secondly, the amount of capital investment in transportation projects has declined over the last 16 years, even when not counting the effects of inflation. From 1985 through 1992, total capital investment in the transportation system averaged about \$815 million per year. In the last eight years (1993 through 2000), capital investments have been about \$603 million per year. Similarly, the state's participation in the capital program through bonding has declined from an average of \$355 million in the first eight years to \$178 million in the last eight years.

Finally, transportation is a relatively small part of the state's overall budget. In FY 2000, non-capital expenditures of the transportation fund, including debt service, represents about 7 percent of the state's total expenses. Human services represented 29 percent of the state's budget, education 22 percent, and corrections 8 percent.

Without a doubt, planning and budgets must meet at some point. But *planning to the budget* typically means the plan will be incremental, reactive, and predominately oriented toward accountability rather than long-term, comprehensive, proactive, and oriented toward the accomplishment of broad purposes and goals.

Petroleum-based motor fuel taxes have become the mainstay revenue source for operating, maintaining, and improving the transportation system. While this has proved to be a reliable user-fee approach to financing, it has not been politically popular. Connecticut has also made the choice to remove certain revenue generators from consideration, such as tolls. In addition, the state has relieved local transit districts from having to fully participate in the cost of transit. ConnDOT provides nearly all of the operating subsidy for local transit services. The exploration of new pricing and financing mechanisms is necessary if mobility issues are to be addressed.

Among the options that should be examined is the link between improvements and the benefits derived from transportation programs. Transportation investments generate substantial benefits. If certain improvements are generating benefits in a particular region, perhaps the region should participate in defraying the costs to the state. Some methods could be developed that tie transportation financing to economic growth, environmental preservation, and mobility enhancement by joining financial, investment and managerial strategies to economic, environmental, and mobility goals and objectives. The emphasis would be on delivering a specific level of service improvement in specific corridors or areas within a given program period, in return for the commitment of a specified tax package. These sources of revenue, such as special assessment taxes or value capture increment fees, could represent a fee or assessment on business owners, municipalities, or others who benefit from the transportation system.

Designate Entity Responsible for Developing and Implementing Strategic Plan

Five alternatives are offered for locating the entity responsible for implementing the strategic planning process. These options run the gamut from an in-house strategic planning unit

to an independent authority. Table VII-1 provides a description and outlines the advantages and disadvantages of each option.

Table VII-1. Strategic Planning Implementing Options

<i>Option</i>	<i>Description</i>	<i>Advantages</i>	<i>Disadvantages</i>
Strategic Planning Unit within the Department of Transportation (New Entity)	Separate unit within the department would perform strategic planning	<ul style="list-style-type: none"> • Department has expertise in planning and transportation issues • Maintains control of entire planning function • Easier to coordinate with other departmental units 	<ul style="list-style-type: none"> • Doesn't cross departmental boundaries • Confined to operating in the same organization/ culture • Not in a good position to be an advocate for the system • Vision statement should come from an external source • Doesn't allow for meaningful input from business professionals external to the department • Would be difficult to critique department actions, if warranted
Office of Policy and Management	Would carry out specific strategic planning duties for economic development and transportation within specific deadlines	<ul style="list-style-type: none"> • Strategic planning and development of goals and objectives for state agencies already a required function of the office (C.G.S. Sec. 4-65a, 4-66, 4-67-m) • Has a strategic planning unit • Conservation and Development plan already speaks to need for development balance and coordination among agencies • Office provides budget direction to state departments 	<ul style="list-style-type: none"> • Success in strategic planning and other required tasks has been extremely limited • C&D plan is limited and extent of enforcement unknown • No budget connection with strategic plans • Strategic planning function may conflict with budget duties
Connecticut Progress Council	28 member council created under CGS Sec. 4-67r mandated to develop long-	<ul style="list-style-type: none"> • Already in statute • Broad-based membership • Has developed state vision 	<ul style="list-style-type: none"> • Mandated task is broad • Developed benchmarks, but not a factor in policy making or

Table VII-1. Strategic Planning Implementing Options

<i>Option</i>	<i>Description</i>	<i>Advantages</i>	<i>Disadvantages</i>
	range vision for the state, including economic development and transportation	and some goals and benchmarks related to transportation and economic development	budgeting <ul style="list-style-type: none"> • No budget connection • Has not met in years
Transportation Authority (New Entity)	Government corporation governed by a separate board of directors appointed by the governor and legislature Would be independent of most state financial and administrative controls	<ul style="list-style-type: none"> • Maximizes the opportunity to make decisions based on system needs • Board has all the power to affect change • Maximizes flexibility and autonomy • Removes transportation spending from budget cap • Ability to raise own funds • May allow management to be more aggressive • Gives higher visibility to less tangible aspects of transportation that are often ignored because of ConnDOT's current focus 	<ul style="list-style-type: none"> • Dramatic shift in organization creating uncertainty among employees and legislature • Reduced accountability to elected officials • May raise or enact unpopular fees or fail to obtain necessary funding • Coordinating with other state departments may remain a problem • Effect on current bonding unclear • Impact of existing union contracts and pensions would have to be addressed
Connecticut Transportation Board (New Entity)	Board appointed by the governor and legislature Would have authority to approve the operating and capital budget before it goes to the governor and have a role in appointing commissioner	<ul style="list-style-type: none"> • Gives greater emphasis to voices outside the current system • Has ability to address interdepartmental issues • Provides platform to be a knowledgeable advocate for the system • Ability to provide greater scrutiny over ConnDOT actions • Gives higher visibility to 	<ul style="list-style-type: none"> • Adds an additional layer of overseers to department and may slow process • Diminishes some executive authority • Creates some tension between the board OPM, and DOT commissioner • Effectiveness dependant on skills and attendance of members

Table VII-1. Strategic Planning Implementing Options			
<i>Option</i>	<i>Description</i>	<i>Advantages</i>	<i>Disadvantages</i>
		less tangible aspects of transportation that are often ignored because of ConnDOT's current focus	
Source: LPRIC			

Highlighted below are a few of the key aspects of each option. Two key questions are driving the choice: What structure is best to facilitate the institution of strategic planning? How can state leaders be assured the structure in place will effectively shape the decisions and behaviors of the organization?

The program review committee found there were more advantages with an independent board (option five). *This option offers a more comprehensive approach, yet remains within the system of accountability to state government leaders and would not be influenced by the current culture and practices of ConnDOT.*

Option One - Strategic Planning Within the Department

This option would create a unit within the department as either a part of the Bureau of Policy and Planning or attached to the commissioner's office. The main advantage to this option is that the responsibility for the planning function remains under one roof within a department that has a considerable amount of expertise in transportation planning.

Among the principal disadvantages of this option is the lack of external input into the process. For example, a vision for the entire transportation network is difficult for the department to determine. At the program review committee's public hearing on October 12, 2000, the commissioner, citing the constraints on the department, suggested he would find it difficult and possibly inappropriate to construct a vision statement for the department or Bradley International Airport. In addition, this option does not adequately address the need to span organizational boundaries among executive level departments. Finally, this alternative does not allow for meaningful input to the strategic plan from business professionals and others external to the department and truly shape the outcome.

Option Two - Office of Policy and Management (OPM)

This option would require the assignment of specific strategic planning duties to OPM regarding economic development and transportation with mandated deadlines. The office already has a number of responsibilities other than preparing the governor's budget. For example, OPM has a statutory mandate to do strategic planning as well as determine the effectiveness of policies, management, organization, operating procedures, and services of state agencies. An additional function of OPM is to act as the central coordinating entity for executive departments. As OPM's website points out,

another critical role of OPM is that of coordinator/leader of interagency problem solving efforts. Most significant policy issues faced by the State involve the overlapping jurisdiction of more than one State agency, and encompass a range of programmatic, budgetary, and policy concerns. OPM is often called upon to lead, convene or facilitate multi-agency efforts to address these problems. In this role, OPM provides the Governor with an objective view of the issues and a clear assessment of the available policy alternatives. Moreover, OPM is in a position to clearly communicate the Governor's concerns to agencies involved in multi-agency efforts.

While OPM appears to be the most logical option, it has had limited success in actually doing strategic planning. This is evidenced in the emphasis the office affords strategic planning and the current status of strategic planning in state agencies, as described below.

- The office has a strategic management division that, among other things, is involved with, "facilitating the introduction of strategic and business planning in executive branch agencies and assisting in the development of such plans." The unit assigns two people to strategic planning issues. The division's primary activity is to act as a consultant to state agencies thinking about doing strategic planning. Therefore, the initiative to engage in strategic planning lies with the agencies, not with OPM.
- In September 1999, OPM reported the results of a survey it conducted of state agencies. In trying to determine the status of strategic planning and performance measurement in all 65 state budgeted agencies, it found that 30 agencies actually produce what the agencies characterize as a strategic plan. Upon closer examination, OPM found that only *five* agencies actually produce a plan that could be called strategic.

The office already has all the authority it needs to do strategic planning and establish priorities. If it were truly interested in doing strategic planning, it could or would have done it.

Option Three - Connecticut Progress Council

The Connecticut Progress Council was created by P.A. 93-387 to develop a long-range vision for the state and to define benchmarks to measure the state's progress. The council is composed of 28 members, including legislators and representatives of the executive branch and

the private sector. In its 1995 report, a tremendous undertaking, the council identified 300 benchmarks to be used to measure progress toward a long-range vision. A number of observations make the council an unlikely choice to implement the strategic planning initiatives, including;

- the council has had no discernable effect on policy making, budgeting or in holding any executive branch agency accountable;
- the council is still in statute and was supposed to continually monitor progress and submit/revise benchmarks to OPM biennially. It has only submitted the initial 1995 report; and
- the council has not met since it issued its initial report.

Consequently, there does not appear to be much executive or legislative interest in this initiative.

Option Four - Transportation Authority

This option would establish a type of government corporation governed by a separate board of directors appointed by the governor and legislature. It would be independent of many state financial and administrative controls.

There are several reasons why public authorities are established. Such entities minimize regular government controls and procedures. They provide more flexibility and autonomy so they can better respond to market conditions, changing technologies, etc. Most importantly they are empowered to issue revenue bonds that are not typically considered part of state debt. It can also be a vehicle for moving a fiscal activity off budget.

A number of states have used public authorities to oversee and operate many transportation facilities. Often different modes of transportation within the same state are under different authorities.

Massachusetts, for example, has a number of authorities including the Massachusetts Port Authority, which manages a number of airports (including Logan), the Port of Boston, and the Tobin Bridge. The Massachusetts Turnpike Authority is responsible for the Massachusetts Turnpike, while the Massachusetts Bay Transportation Authority is responsible for providing mass transit service to 175 communities. In addition, the state's highways are maintained by the Massachusetts Highway Department, which is not an authority, but is responsible for the state's largest project, the "Big Dig."

In the state of New York, there are a multiplicity of authorities that have differing scopes of responsibility. They range from the very large, such as the Port Authority of New York and New Jersey and the Metropolitan Transportation Authority, to the relatively small, such as the Albany Port Authority and the Fort Erie Bridge Authority.

Each authority has a different relationship to the state government. For example, while they all have some type of revenue raising capacity, a number are completely independent (e.g., the Port Authority of NY and NJ), while others rely in part on a subsidy from state government (e.g., MBTA).

While authorities have several advantages, a change to an authority in this case would not be the best choice because:

- authorities have the power to raise fees on their own, which may be unpopular given ConnDOT's main revenue source is the gas tax;
- the transition to an authority would represent a very dramatic shift in organization (including changing the status of employees) to develop and oversee strategic planning;
- the usual reasons for creating an authority do not apply. ConnDOT already has a dedicated revenue source, issues Special Tax Obligation bonds based on that revenue source, and its debt is not computed in the aggregate indebtedness of the state; and
- an authority does not necessarily solve the problem of the transportation function and approaching the transportation network as a system.

Option Five - Connecticut Transportation Board

This option would entail the appointment of a new board by the governor and the legislature. It would be able to influence investment choices through the planning and budgeting function, while the commissioner would retain administrative functions over the department. The detail and rationale for the proposal are described below in the formal recommendation.

Program review committee recommends the creation of the Connecticut Transportation Board, and it shall have the following characteristics:

Purpose:

To develop a vision for the transportation system and mission for the Department of Transportation, create and update a 10-year strategic plan and financial plan for the operation, maintenance, and improvement of the transportation system that emphasizes a comprehensive and balanced statewide system, oversee any organizational changes, and monitor the plan's implementation as previously described. The board shall also consider the actions of and coordinate its planning efforts as necessary with regional planning organizations, other state departments, neighboring states, and any other organization or agency that may have an affect on the operation and success of the transportation system.

Governing Body:

The Connecticut Transportation Board shall be attached to the Department of Transportation for administrative purposes only.

The board shall consist of nine voting members appointed by the governor and the legislature. In addition, the commissioners of transportation, economic and community development, public safety, environmental protection, and the secretary of the office of policy and management shall serve as nonvoting, ex officio members of the board.

The governor shall appoint five members, one of whom shall be a member of the Bradley Board of Directors. The speaker of the House of Representatives, the president pro tem of the Senate, and the minority leaders of the House of Representatives and the Senate shall each appoint one member. The members of the board shall be knowledgeable of transportation and economic development issues. Appointing authorities shall consider geographical balance of the board in making appointments. No appointed member shall be an employee of the Department of Transportation.

The governor shall appoint the chairperson of the board. The board may create other officers it deems necessary from among its membership. The powers of the board shall be vested in and exercised by not less than five members serving on the board. This number shall constitute a quorum.

The term of office of the members shall be for four years.

Powers and Duties:

The board shall develop a vision, mission, strategic, and financial plan, as described above, within one year of the board's formation or report its progress to the General Assembly and identify why it cannot complete those tasks within that time frame. The strategic and financial plan shall be updated every two years;

As part of the planning process, the board will determine priority programming based on objective criteria with respect to transportation investments as outlined in the strategic plan;

The board shall develop performance measures to track progress toward the accomplishment of goals and objectives outlined in the strategic plan;

The board shall review and approve the proposed operating and capital budget of the commissioner of DOT before submittal to the governor;

The board shall review and approve the Transportation Improvement Program and the Statewide Transportation Improvement Program before submittal to the governor;

The board shall submit to the governor a list of not less than three qualified candidates from which he shall appoint the commissioner of transportation when a

vacancy occurs. The commissioner shall continue to serve at the pleasure of the governor. The board may submit to the governor a recommendation for removal of the commissioner upon a finding of failure to carry out the board's policies, incapacity, neglect of duty, or unlawful conduct;

The board shall report annually to the governor and legislative committees having cognizance over transportation and economic development matters on the progress in implementing the strategic plan; and

The board shall establish an advisory committee to advise the board in carrying out its responsibilities. The number of members shall be at the discretion of the board, but at a minimum include representatives from each regional planning organization, rail and bus commuters, truck and rail freight operators, representatives of the port and airline industries, and a representative from a statewide environmental organization having an interest in transportation policy.

Compensation:

The voting members of the board shall be compensated for their attendance at public hearings, executive sessions, or other board business that may require their attendance at the rate of \$250, provided in no case shall the daily compensation exceed \$250. The annual compensation for any member for attending such meetings shall not exceed \$12,500.

Staffing:

The Department of Transportation shall serve as staff to the board. The board may, however, hire any staff it determines necessary to carry out its functions and purposes within the available appropriations of the Department of Transportation.

Sunset Review:

The board shall be scheduled to terminate five years from its effective date, unless reauthorized by the General Assembly. During the year prior to the automatic termination, the Legislative Program Review and Investigations Committee shall conduct a sunset review and report its findings and recommendations regarding the continuation, modification, or termination of the board for consideration by the General Assembly during the next regular legislative session.

Rationale. The rationale and explanation for this approach is explicated within the answers to a series of questions that follow.

- A. Why is a board, as described above, the best option? Won't a board just add another layer of bureaucracy?

Aside from the disadvantages already identified in each of the options in Table VII-1, the board is a better choice because:

- the board option helps to span organizational boundaries, which is difficult to do with an in-house alternative. The board will draw attention to issues and develop information that crosses internal and external organizational boundaries without introducing the radical approach of having an authority;
- virtually every strategic issue involves conflicts: what will be done, why it will be done, how it will be done, when it will be done, who will do it, who will be favored or disadvantaged by it. This is best guided by an entity outside the department that can assist in developing consensus around transportation issues before they come to the legislature;
- the purpose of developing a vision and a strategic plan is to establish a new outlook for transportation in the state. Current practices and organizational arrangements are not working well. The culture within and around the department can affect which issues get on the agenda and how they are framed, and it will also affect which strategic options get serious consideration. The task of strategy formulation typically involves highlighting what is good about existing patterns, reframing or mitigating what is bad, and adding what is necessary to complete the picture. The accepted mores become important during strategy formation, because whatever patterns exist are typically manifestations of the organization's culture. A board, then, would not be a layer of bureaucracy but would allow knowledgeable outsiders to assist in resolving standing issues in a new forum for decision making;
- with a vigorous advisory committee assisting, the board can act as an advocate for the transportation system. It is difficult for the department now to be a true advocate given its narrow focus and its need to be responsive to the current budget direction of the executive branch. The members of the board will have a deep understanding of budget issues and use their expertise to promote the objectives of the strategic plan in the larger political environment; and
- it is recognized that the department excels at implementation, but it is not as strong in being visionary.

B. Why does the board have the authority to review the budget and the ability to suggest a commissioner? Shouldn't the board be advisory only?

The board needs to have the appropriate authority to ensure it can carry out its responsibilities and fulfill its vision. Having a say in the appointment of a commissioner and in the development of the budget brings additional credibility to the board. It infuses the board with the authority and credibility to receive the attention of internal and external organizations.

Problems will be experienced if there is no relationship between strategic plans, day-to-day operation of the agency, and the budget of the agency. Budgets are central to implementation of strategies and plans. If the board has no role in the budget or is just advisory, then the strategic planning process could become a paper exercise with the time of the board wasted. Moreover, the state's ability to attract qualified people, willing to put in the necessary time will be diminished, especially if the board's ability to affect the result is uncertain.

An advisory type board would not be successful. Few advisory boards have had an impact on departmental priorities. For example, members of the Bradley Airport Commission (BAC) sent a resolution to the governor in July calling for a strong Bradley Board of Directors. The commission had become frustrated with, in their view, ConnDOT's failure to consult the group on important matters affecting the airport, submit quarterly reports to the BAC on master plan development as statutorily required, and its resistance to accept advice when given. The commission believes the way it is currently structured and functioning is ineffective.

Similarly, the Connecticut Coastline Port Authority (CCPA) was created to promote the economic development of the state's ports. A report issued by the Auditors of Public Accounts in May 2000 found the effectiveness of CCPA limited due to a low level of resources and a lack of organizational independence from ConnDOT. The auditors also found on many occasions the board failed to have a quorum at its meeting, had vacancies, and failed to prepare quarterly reports or an annual report for one of the three years audited. The auditors reviewed CCPA minutes and concluded there was "no great desire within the Board to see the Authority continue in its present state."

In the case of ConnDOT, having people just engage in a dialogue with the department about priorities is not enough. There was interest and momentum with the institution of each of the advisory boards that currently surround the department, when the immediacy and attention to certain issues fade, so too does the impact of an advisory board.

C. Does this board reduce the authority of the legislature?

There is no fundamental reduction of legislative power with the institution of this board. The legislature, for example, still receives and must approve the budget of the department. The purpose of the board is to bring major parties together, develop a strategic vision, and forge a consensus to support a statewide transportation strategy that is visionary, modally integrated, and responsive to customer needs.

D. Why do the voting board members get compensated?

By providing some form of compensation to the board, the legislature signals the seriousness of its intent. It expects results and is willing to pay for it.

In addition, the creation of a vision, mission, and strategic plan will require the intense participation of the board. Strategic planning is different from other planning, management, and administrative processes in that institutionalizing strategic management involves substantially

changing an organization's attitudes about nearly everything it does and the way it does it. Hundreds of hours will be required of board members to develop and oversee this effort.

Paying board members is not unusual. There are a number of state boards or commissions whose members are compensated. To cite just two examples, State Properties Review Board members receive a \$200 per diem, up to \$30,000 annually, and the Connecticut Siting Council members receive \$150 per meeting, up to \$12,000 annually.

E. Why isn't the board's membership larger?

Certainly there are a number of interests that need to be heard and satisfied in this broad policy area. Although every interest may not actually be represented on the board, the board must still consider and be responsive to various constituencies to be effective. The board must be conscious of the fact those not happy with board decisions will still have the traditional means to influence policy outcomes. The advisory committee to the board will have to be viewed as a partner and have a shared responsibility in fulfilling the duties of the board.

F. Why subject the board to sunset review?

Board activities should be reviewed at the end of five years to determine whether the board achieved its intended purpose. The legislature's sunset review process is a well-established and effective mechanism for carrying out this type of evaluation. The board should not become an obstacle to reforming the department. If it is not performing as expected, the board should either be modified or terminated.

G. Do other states have transportation boards?

The governance structures of any policy area are reflective of the history, culture, and issues within particular states. There are a variety of approaches to the organization of state government functions. However, a number of states do use boards or commissions to oversee the activities of their transportation departments. For example:

- The California Transportation Commission consists of nine members appointed by the governor and two non-voting members appointed by each house of the legislature. The commission is responsible for programming and allocating funds for the construction of highway, passenger rail, and transit improvements throughout California.
- The Texas Transportation Commission consists of three members appointed by the governor, one of which is selected as chair by the governor. All are appointed with the advice and consent of the state Senate. The commission heads the Department of Transportation whose executive director is appointed by the commission. The commission's duties include developing a statewide plan that covers all modes of transportation as well as establishing policy necessary to carry out the duties and functions of the department and the commission.

-
- The Arizona State Transportation Board is composed of five members appointed by the governor with the advice and consent of the state Senate. The governor appoints the chair. The board is granted general policy powers including the responsibility for establishing policies and criteria to guide the development of the five-year transportation construction program. The director is appointed by the governor from a list of qualified candidates submitted by the board and serves at the pleasure of the governor. The director is responsible for the overall administration of the department.
 - The Washington State Transportation Commission consists of seven members appointed by the governor, with the consent of the senate. The commission has the responsibility to direct the department head to prepare and submit to the commission a comprehensive and balanced statewide transportation plan based on the transportation policy adopted by the legislature and applicable state and federal laws. The commission must adopt the plan before submittal to the legislature. The commission appoints the head of the department. The department head serves as the chief executive officer of the department with full administrative authority to direct all of its activities, subject to policy guidance from the commission.

Summary. In short, the Connecticut Transportation Board, as described above, is the best option for initiating, developing and sustaining the strategic planning process. It will act as a “champion” to oversee the process (e.g., environmental scanning, planning and budgeting, goal setting), monitor and hold accountable the participants (e.g., commissioner, senior management, and line managers), and ensure the products (e.g., vision and mission statements, goals and objectives, organizational structure, budgets, etc.) are created.

Appendix A: Agency Response



STATE OF CONNECTICUT

DEPARTMENT OF TRANSPORTATION

2800 BERLIN TURNPIKE, P.O. BOX 317546

NEWINGTON, CONNECTICUT 06131-7546



Office of the
Commissioner

February 6, 2001

An Equal Opportunity Employer

Mr. Michael L. Nauer, Director
Legislative Program Review and
Investigations Committee
Connecticut General Assembly
State Capitol, Room 506
Hartford, CT 06106

Dear Mr. Nauer:

Subject: Report on Economic Development Considerations in Transportation Planning

The Department of Transportation has reviewed the findings and recommendations in the draft copy of the Legislative Program Review and Investigations Committee's report on Economic Development Considerations in Transportation Planning. The Department concurs with many of the findings and recommendations in the report.

The primary area where the Department disagrees with the recommendations is with the implementation strategies to create a Connecticut Transportation Board. The Department acknowledges the benefit of a strategic assessment of the Department's vision, mission, and organization. Such a strategic management review is common in the private sector. The Department believes that the creation of a Connecticut Transportation Board is unnecessary and would create a cumbersome additional level of bureaucracy. For instance, suggested powers and duties would include review and approval of the Statewide Transportation Improvement Program. This dynamic program, which is a federal funding requirement, is revised as often as 20 times each year. Often these revisions are in response to events that require an expeditious action to prevent either the loss of federal funds or a delay in project delivery. Both the Department of Transportation and Regional Planning Organization (RPO) required reviews and approvals are time consuming, and the addition of another process will become cumbersome. Additionally, once the Transportation Improvement Program (TIP) is approved by the RPO, the state is restricted from making individual program changes.

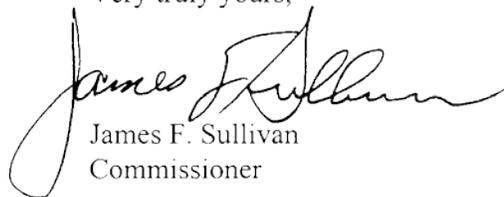
To address the primary issue of conducting a strategic assessment, the Department suggests the following proposal:

1. The Governor and Legislature appoint a five-member commission to manage and oversee a two-year effort to define a strategic vision and mission and to review the organizational structure of the Department.
2. In addition, the commission membership shall **also** include the Transportation Commissioner, the Economic and Community Development Commissioner and the Secretary of the Office of Policy and Management.
3. The commission may secure the services of a management-consulting firm with knowledge in the strategic alignment of public agencies to conduct the assessment.
4. The commission may seek the advice and counsel of a broad array of transportation interest activities, including the business community.
5. The commission may recommend interdepartmental linkages, commissions, or committees that may be appropriate.
6. The commission shall report its findings to the Governor and the Legislature in January 2003.

Utilizing this alternate approach ensures that the assessment will be independently conducted, that both gubernatorial and legislative perspectives would be considered, that an additional bureaucratic layer is not developed, that the program and projects can effectively continue during this assessment period, and that the resulting recommendations would become institutionalized.

This Department and its managerial team stand ready to work with the Legislative Program Review and Investigations Committee to advance this alternate proposal with additional specificity.

Very truly yours,



James F. Sullivan
Commissioner

Appendix B: ConnDOT Organization Chart

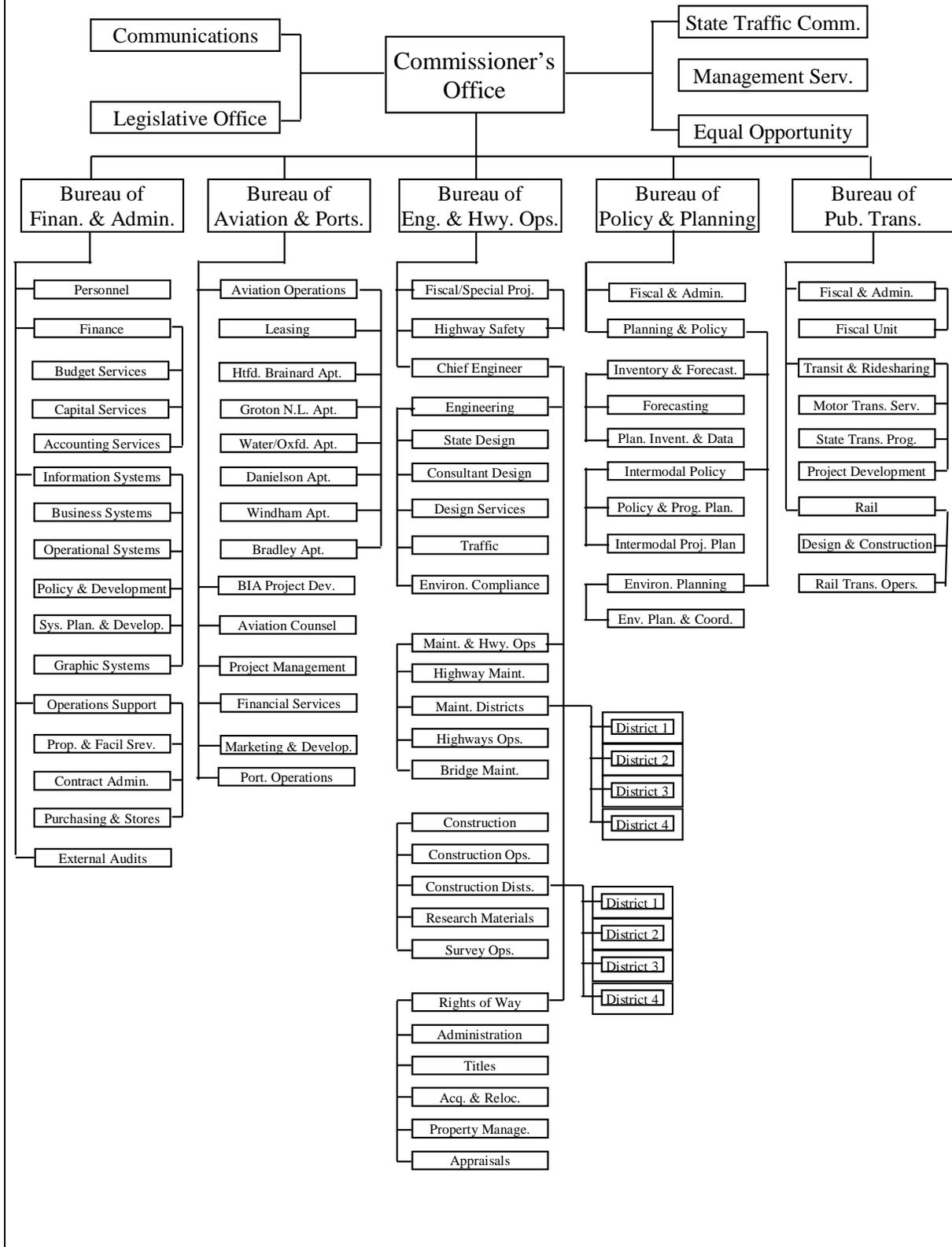
Department of Transportation Organizational Structure

The DOT is responsible for all aspects of the state's transportation system including the highway infrastructure renewal program that is the subject of this study. The department's declared mission is to provide a safe, efficient, and cost-effective transportation system that meets the mobility needs of its users. Its goals are to: ensure safety; maintain the existing system; increase system productivity; promote economic development; and provide required capacity.

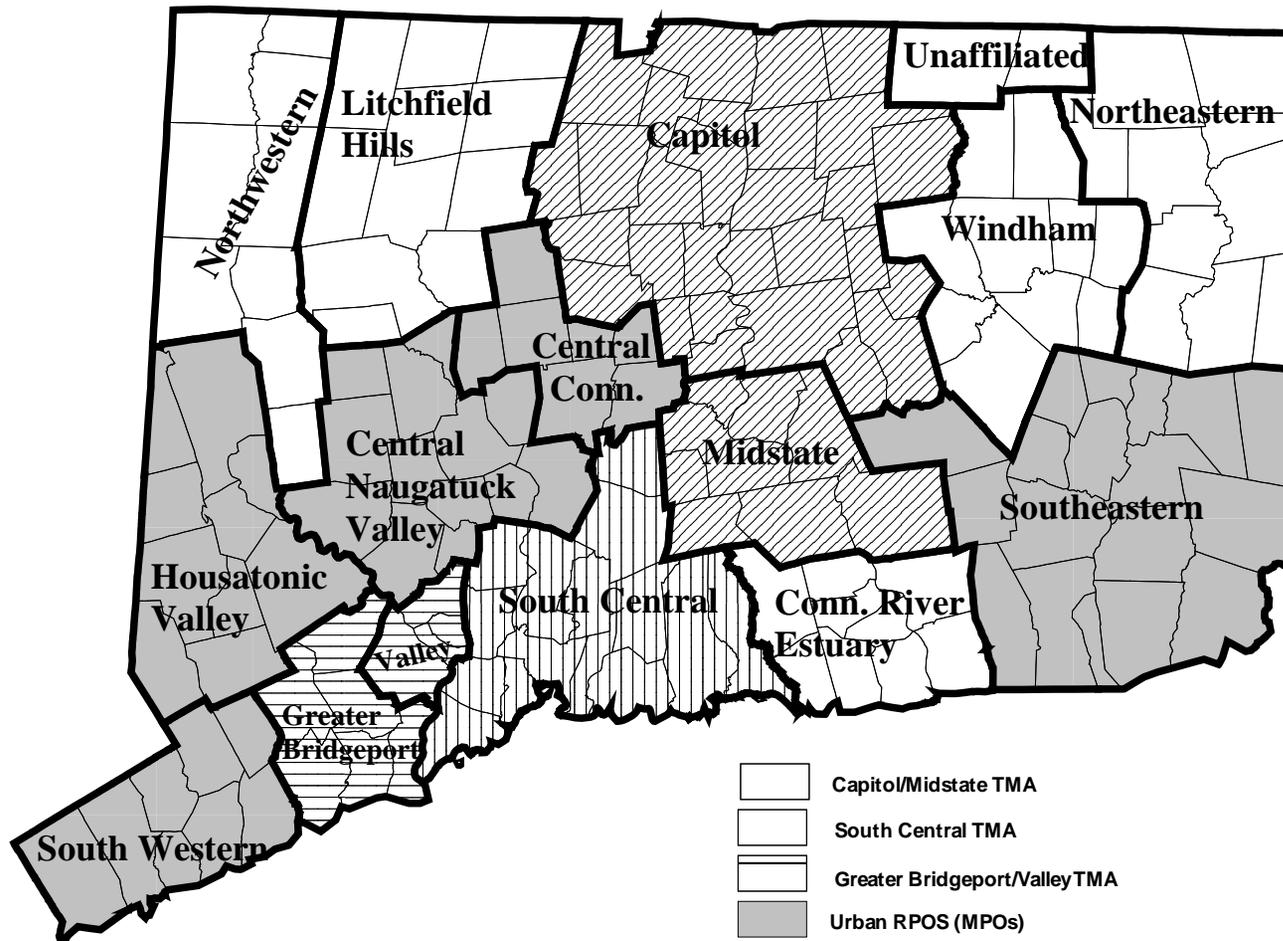
Figure B-1 is the current table of organization for the department. Structurally, DOT is organized into five major bureaus, each consisting of multiple offices designed to meet specific responsibilities. The five bureaus and their primary duties are:

- **Bureau of Finance and Administration** - provides fiscal and support services including budgeting, personnel, and accounting;
- **Bureau of Policy and Planning** - forecasts transportation needs, assesses environmental impact, and plans and prioritizes projects;
- **Bureau of Engineering and Highway Operations** - manages the design and construction of capital projects;
- **Bureau of Public Transportation** - provides a network of bus, rail, rideshare services, and regulates truck, bus, taxi, and livery services; and
- **Bureau of Aviation and Planning** - operates all state-owned airports, operates ferry services, and promotes the use of the state's navigable waters.

Figure B-1. Connecticut Department of Transportation



Appendix C: Map of Planning Regions



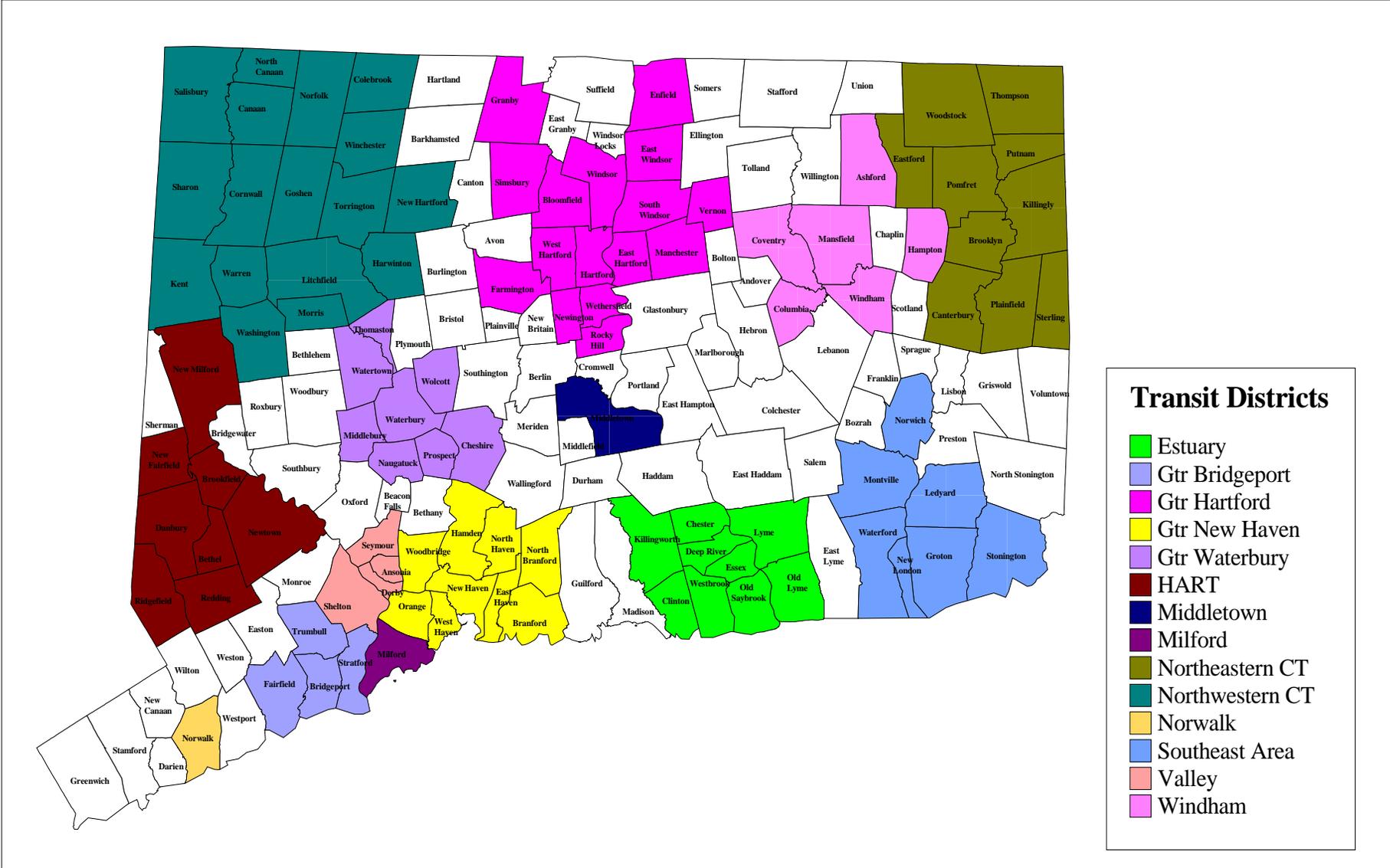
-  Capitol/Midstate TMA
-  South Central TMA
-  Greater Bridgeport/Valley TMA
-  Urban RPOS (MPOs)
-  Rural RPOs

**Appendix D: Allocation of Funding For
Long-Term Planning**

Table D-1. Allocation of Anticipated Funds to Planning Regions. 1999-2019				
	System Improvements	System Preservation		
Distribution	Weights			
Vehicle Miles of Travel	0.25	0.25		
Congested Vehicle Miles of Travel	0.75	0		
Lane Miles	0	0.75		
PLANNING REGIONS			MAJOR PROJECTS OF STATEWIDE SIGNIFICANCE	TOTALS
Southwestern	\$623,299,166	\$389,825,819	\$197,121,000	\$1,210,245,985
Housatonic Valley	237,506,158	293,385,005	232,672,000	763,563,163
Northwestern	18,489,239	189,998,294	0	208,487,533
Litchfield Hills	70,687,455	292,345,506	0	363,032,961
Central Naugatuck Valley	325,688,250	361,122,500	253,320,000	940,130,750
Valley	48,030,145	109,610,536	0	157,640,681
Greater Bridgeport	368,519,775	297,253,281	148,505,000	814,278,056
South Central	627,286,626	703,829,919	1,080,595,000	2,411,711,545
Central Connecticut	120,919,602	239,058,893	48,700,000	408,678,495
Capitol	786,964,384	1,100,465,240	216,623,500	2,104,053,124
Midstate	95,051,053	256,228,871	0	351,279,924
Connecticut River Est.	76,876,745	208,202,359	232,500,000	517,579,104
Southeastern	187,836,269	640,529,819	745,600,000	1,573,966,088
Windham	135,719,700	242,650,373	76,623,500	454,993,573
Northeastern	44,792,302	292,151,564	4,140,000	341,083,866
Undefined Towns	35,657,384	88,328,400	0	123,985,784
Total	\$3,803,324,253	\$5,704,986,379	\$3,236,400,000	\$12,744,710,632

Source: ConnDOT

Appendix E: Map of Transit Districts



Appendix F: Southwest Corridor Example

Southwest Corridor Planning Example

ConnDOT completed the Southwest Corridor Transportation Study in 1985 and provided an analysis of existing and projected travel demand through 2010. No advisory committee was used. The study identified deficiencies with the rail (New Haven Rail Line) and highway facilities (both I-95 and Route 15) in the 40-mile corridor from New Haven to Greenwich. The study found the following capacity expansions were necessary:

- I-95 will require up to three additional lanes in each direction;
- Route 15 (Merritt and Wilbur Cross Parkways) will require two additional lanes in each direction; and
- the New Haven Rail Line will require an additional 30 passenger cars and 2,700 parking spaces.

A Draft Environmental Impact Statement (DEIS) was initiated in 1988. The DEIS would examine in detail proposals to accommodate the increased travel demand in the corridor. While the DEIS was being conducted, the department decided to drop any Route 15 expansions because the Merritt Parkway was placed on the National Register of Historic Places in 1991, and major roadway expansions on both roads would be cost prohibitive.

In 1992, work on the DEIS stopped because, as described above, the department began a reassessment of its financial investment plan and priorities. In June 1993, ConnDOT published a report that detailed the work accomplished to date. The report outlined seven alternatives including: maintaining the current system, a transit alternative, expanding I-95 to 12 lanes, and others that combined transit and road expansion alternatives. The costs estimated for the alternatives ranged from \$3 billion to nearly \$8 billion. Given the financial investment goals outlined in 1993 and the environmental, social, and historic impacts, the department essentially decided to pursue a maintenance program for the corridor.

Because of the growing congestion problems in the Southwest, legislative attention focused on this area. In 1997, Special Act 97-13 required the commissioner of ConnDOT in cooperation with regional planning agencies to update the Southwest corridor study. The act further required the department to develop a plan of action that would reduce highway commuter demand during peak periods from the 1997 base levels by 5 percent within a period of five years. The act also mandated the commissioner to seek input from industry and civic groups and other interested parties.

The plan recommended by the department established eight numerical goals related to increasing train ridership, ridesharing, vanpooling, etc. to achieve a reduction of 8,600 vehicles within five years. In addition, a 14-step program was developed to achieve these goals.

In 1998, Public Act 98-119 required the commissioner to establish a comprehensive intermodal and interregional transportation plan for the Southwest corridor based on the plan established pursuant to Special Act 97-13. The act also created the Southwest Corridor Action Council to advise the commissioner on issues pertaining to plan implementation.

In January 2000, the department reported that only 55.7 percent of its two-year goal has been met, and 17.5 percent of the five-year goal has been achieved. Consequently, doubts have been raised about the department's ability to achieve the stated goals and even if the goals are attained, whether this will have an appreciable impact on the corridor's pervasive congestion problem. The plan did not anticipate the effect of a stronger economy and the increased congestion it has brought.

Efforts to expand the capacity of I-95 would no doubt encounter objections regarding air quality and other environmental issues. In addition, local opposition to expansion would probably be intense from residents in the area. ConnDOT is also exploring a number of operational improvements and technology-based techniques to reduce bottlenecks, such as a motorist-assistance program, installation of operational lanes (as opposed to through-lanes) between some exits, and a video and messaging system. It is unclear how effective these improvements can be at relieving congestion.

A major limitation that resonates throughout this process is the inadequate financing available to address the problems in the corridor. The department has outlined solutions and developed cost estimates in the 1980s and early 1990s. No substantive actions could be taken in 1993 due to funding constraints. Even with a legislative mandate in 1997, solutions to corridors problem must come from existing resources. This means significant enhancements requiring an on-going subsidy or major investment such as the development of a ferry service, or the diversion of freight from trucks to another mode, or new mass transit options represent a considerable if not impossible challenge.

**Appendix G: Mission, Strategic Goals, and
Funding Initiatives in Other States**

State	Mission or Vision Statement Supporting Economic Development	Goals/Objectives Supporting Economic Development	Transportation Economic Development Programs, Funding Initiatives or Investment Methodologies
<p>Washington State Transportation Commission</p>	<p><i>The purpose of Washington's transportation system is to provide safe, efficient, dependable, and environmentally responsible transportation facilities and services to:</i></p> <ul style="list-style-type: none"> • <i>Promote a positive quality of life for Washington citizens</i> • <i>Enhance the economic vitality of all areas of the state</i> • <i>Protect the natural environment and improve the built environment</i> 	<ul style="list-style-type: none"> • Protect our investments by keeping transportation infrastructure in sound operation condition • Operate transportation systems to work reliably and responsibly for the customer • Improve safety through continuous reduction in societal costs of accidents • Provide viable mobility choices for the customer and expand the system to accommodate growth • Support the economy through reduced barriers to the movement of people, products, and information • Meet environmental responsibilities • Cooperate and coordinate with public and private transportation partners so that systems work together cost effectively • Continuously improve the efficient and effective delivery of agency programs. 	<p><u>Targeting Transportation Funding</u></p> <p>Economic development is defined as economic activities which result in development or retention of income generative industries (those industries which raise the per capita income of the state).</p> <p>Washington State Department of Transportation project funding process shall support economic development through the following mechanisms:</p> <ol style="list-style-type: none"> 1. On a routine basis, economic development related highway transportation projects can compete for general mobility funding under the priority programming process. Projects most likely to successfully compete for funding under this program would be those that have a significant congestion relief benefit, since delay savings are a large factor in selecting mobility projects. As an added boost, projects competing in the mobility program which have a local and/or private financial partners rise in relative priority over other general mobility projects through the formula. 2. Establish a small separate funding allocation under the economic initiatives subprogram to quickly respond to transportation needs of emergent economic development projects that may be outside of the routine project selection process This funding will be to match local and/or private contributions for transportation projects which meet the definition of economic development contained in this policy 3. Establish innovative financing methods to enable the state to respond in a timely manner to major or emergent economic development related transportation needs that require timely commitments.

State	Mission or Vision Statement Supporting Economic Development	Goals/Objectives Supporting Economic Development	Transportation Economic Development Programs, Funding Initiatives or Investment Methodologies
<p>Florida Department of Transportation</p>	<p><i>The department will provide a safe transportation system that ensures the mobility of people and goods enhances economic prosperity and preserves the quality of our environment and communities.</i></p>	<p>Under the Mobility 2000 Initiative the state proposes to advance a number of highway projects over the next 10 years. These improvements are focused on three major areas:</p> <ul style="list-style-type: none"> • Expand Major Roadway Trade and Tourism Corridors • Urban Congestion Relief • Hurricane and Other Emergency Evacuation <p>• By speeding up the completion of nearly \$4 billion worth of major transportation projects throughout the state, Florida's citizens will see easier daily commutes, visitors will reach their destinations quicker, businesses will better serve their customers through expanded trade routes, and coastal residents will have faster emergency evacuation.</p>	<p><u>Mobility 2000 Initiative (Senate Bill 862):</u></p> <ul style="list-style-type: none"> • Plan provides more than \$2.5 billion of additional funds for transportation over a 10-year period without raising taxes. <p><u>Funding:</u></p> <ol style="list-style-type: none"> 1. Restoring state funds to transportation 2. Grant Anticipation Revenue Vehicle (GARVEE bonds) 3. General Revenue "one-time" surplus funds 4. Increase in Federal Aid <p><i>The State Infrastructure Bank (SIB)</i> provides \$150 million in state funding.</p> <ol style="list-style-type: none"> 1. (SIB) provides loans to help fund transportation projects that otherwise may be delayed or not built. 2. The loans will be repaid from revenues generated by the projects. 3. The repayments are then re-loaned to fund additional transportation projects. <p><u>Transportation Outreach Program (TOP):</u></p> <ol style="list-style-type: none"> 1. Created by the legislature to fund transportation projects of a high priority based on the following principles: <ul style="list-style-type: none"> a. Preserving the existing transportation infrastructure b. Enhancing Florida's economic growth and competitiveness c. Improving travel choices to ensure mobility <p><u>The Fast Track Transportation Initiative:</u> within (TOP)</p> <ul style="list-style-type: none"> • Fast Track allows public transportation projects that have been not been funded or are under funded to receive priority consideration for accelerated funding in the first year of the work program. • Uses an advisory team that selects projects based on specific criteria using a quantitative methodology to screen and score projects. <p><u>County Incentive Grant Program and Small County Program:</u></p> <ul style="list-style-type: none"> • FDOT will provide grants to counties to improve transportation facilities located on the state highway system or that relieve congestion on the state highway system. • FDOT will assist small county governments in rehabilitating county roads or in constructing capacity or safety improvements.

State	Mission or Vision Statement Supporting Economic Development	Goals/Objectives Supporting Economic Development	Transportation Economic Development Programs, Funding Initiatives or Investment Methodologies
<p>Michigan Department of Transportation</p>	<p><i>Providing the highest quality transportation for economic benefit and improved quality of life.</i></p>	<p>Goal 7 - Provide transportation infrastructure and services that strengthen the economy and competitive position of Michigan and its regions for the 21st century. Objectives include:</p> <ul style="list-style-type: none"> • Provide a reliable all-season transportation network. • Support tourism by providing transportation systems that facilitate travel, enhance recreation opportunities, protect natural amenities, and make the transportation system itself a tourist attraction. • Focus any transportation investment for economic development on those projects that improve Michigan's competitiveness or retain or increase employment opportunities within the state. • Improve Michigan's ability to compete in a global economy through more efficient connections and access to border crossings, inter modal facilities and improve linkage between modes. • Promote development and application of new technologies as appropriate and cost-effective to address transportation issues. 	<p><u>Transportation Economic Development Fund:</u></p> <ul style="list-style-type: none"> • Created in 1987 to assist in the funding of highway, road and street projects necessary to support economic growth. • The program mission is to enhance the ability of states to compete in an international economy, to serve as a catalyst for economic growth of the state, and to improve the quality of life in the state. • The fund is administered through the Michigan State Transportation Commission's Office of Economic Development. • There are several types of TEDF grants available: <ol style="list-style-type: none"> 1. Category A: projects are related to target industry development and redevelopment opportunities. Target industries include agriculture or food processing; tourism; forestry; high technology research; manufacturing; mining; or office centers of not less than 50,000 square feet. 2. Category B: was repealed in 1993. It funded conversion of local roads to state trunk lines. 3. Category C: overall goal is to promote increased economic potential and improve the quality of life by reducing urban traffic congestion levels. . 4. Category D: projects involve road improvements in rural counties to create an all season road network. 5. Category E: Construction of roads essential to the development of commercial forest in Michigan. 6. Category F: projects are for road and street improvements in cities and rural counties. <p>During its first 10 years of operation, the TEDF invested over \$800 million in road improvement projects throughout the state</p>

State	Mission or Vision Statement Supporting Economic Development	Goals/Objectives Supporting Economic Development	Transportation Economic Development Programs, Funding Initiatives or Investment Methodologies
<p>Minnesota Department of Transportation</p>	<p><i>To develop a coordinated transportation network by preserving, managing, and improving the state's highway system; by promoting and supporting transit, air, rail, waterways, bicycle, and pedestrian systems; by promoting non-travel alternatives; and by promoting and supporting connections among transportation systems.</i></p>	<p>Strategic Directions:</p> <ul style="list-style-type: none"> • Safeguard what exists • Make the network operate better • Make Mn/DOT work better <p>Strategic Objectives:</p> <ul style="list-style-type: none"> • Multimodal – to increase travel options for moving people and goods • Interregional Corridors – to ensure corridors of statewide significance link the state's regional trade centers • Program delivery – to streamline the highway construction/ maintenance program delivery process while improving quality and cost-effectiveness • Information - to listen to customers and respond with accurate, timely information upon which they can rely <p>Investment Principles:</p> <ul style="list-style-type: none"> • Focus on System Performance • Ensure Economic Efficiency • Support Societal Goals 	<ul style="list-style-type: none"> • Expansion of the transportation system is warranted when the total economic benefits from reduced transportation costs to businesses and individuals exceed the total life-cycle cost of the investment. Total economic benefits of transportation investments are assured in terms of improved safety; reduction in travel times; monetary or environmental resources consumed in moving people and goods; and other increases in the productivity of transportation services/network or increases in the value of economic resources. • Investment decision criteria, such as net present value, rate of return, and benefit-cost ratios, tempered by an evaluation of community values and social impacts, will be used to rank transportation investments and compare opportunities among modes • Transportation investments in anticipation of speculative business growth are not recommended for state spending. Investments to support development projects that only transfer business activity within or among localities are not encouraged. • Transportation investments necessary to maintain safety, essential connectivity, and a minimum level of access do not need to meet the investment criteria for economic return established for expansion projects. <p><u>Transportation Revolving Loan Fund:</u></p> <ul style="list-style-type: none"> • Represents a partnership between the Minnesota Department of Transportation, Minnesota Department of Tourism and Economic Development, and the Minnesota Public Facilities Authority. • The TRLF provides below market rate loans to borrowers for transportation projects approved by the Minnesota Department of Transportation.