

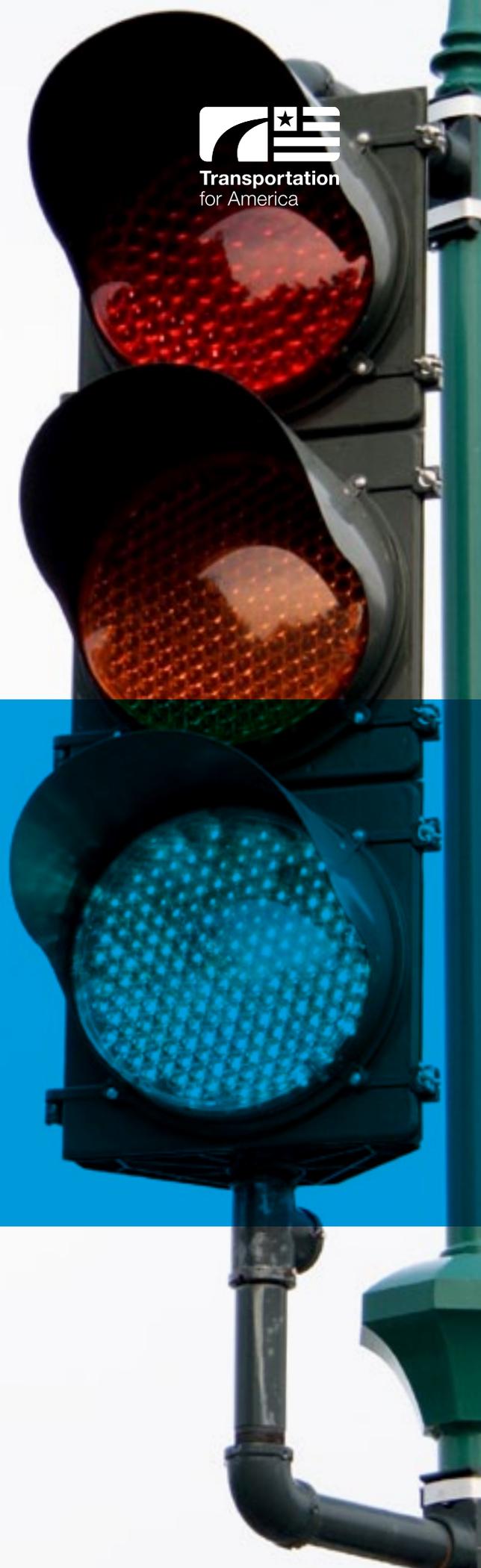


Transportation 101

AN INTRODUCTION TO FEDERAL
TRANSPORTATION POLICY

MARCH 2011

TRANSPORTATION FOR AMERICA



Transportation 101: An Introduction to Federal Transportation Policy



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Contents

Executive Summary	4
Introduction	12
(1) History: The Federal Role in Transportation	14
(2) Funding and Revenue	23
(3) The Current Federal Program	30
(4) Planning and Implementation	42
(5) The Reauthorization Process	52
(6) The Future of Transportation	59
Looking to the future	67
Appendix 6b: Transportation Impacts — Four Areas to Consider	68
Appendix A: Glossary of Transportation Terms	74

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About Transportation for America

Transportation for America (T4 America) is the largest, most diverse coalition working on transportation reform today. Our nation's transportation network is based on a policy that has not been significantly updated since the 1950's. We believe it is time for a bold new vision — transportation that guarantees our freedom to move however we choose and leads to a stronger economy, greater energy security, cleaner environment and healthier America for all of us. We're calling for more responsible investment of our federal tax dollars to create a safer, cleaner, smarter transportation system that works for everyone.

Executive Committee

Smart Growth America (co-chair)
Reconnecting America (co-chair)
Alternatives for Community & Environment
America Bikes
American Public Health Association (APHA)
Apollo Alliance
LOCUS: Responsible Real Estate Developers
and Investors
National Association of City Transportation Officials

National Association of Realtors
National Housing Conference
Natural Resources Defense Council
PolicyLink
Rails-to-Trails Conservancy
The Surface Transportation Policy Partnership
Transit for Livable Communities (Minn.)
U.S. Public Interest Research Group

Executive Summary

This is a pivotal moment for our nation and its commitment to America's transportation infrastructure. The Interstate Highway System has been built, but it no longer meets all our needs and is showing its age. The next transportation bill must address the many challenges our nation is facing: crippling commutes, rising costs, wasteful spending, lack of options and economic development in our urban, suburban and rural communities.

As Congress prepares to debate the next bill, Transportation for America offers this guidebook as a reference to existing policies and programs, their historical background and the issues that numerous stakeholders believe must be addressed this time around. The guidebook is divided into six sections: 1) The history of federal transportation policy; 2) Funding and revenue collection and distribution; 3) How our current federal program works; 4) How the federal policies are implemented at various levels of government; 5) The reauthorization process; and 6) The future of federal transportation policy.

How we got here

Over many decades, the federal government's interest in transportation has evolved in response to new opportunities, economic growth and shifting travel demand. Article I of the United

States Constitution articulates the importance of interstate commerce and allows Congress to regulate these activities.

As our transportation network evolved, so have our cities, towns and neighborhoods. Traditional, compact patterns of streets and buildings oriented for people on foot began to change in the first half of the twentieth century, when cars and trucks started reshaping the landscape. As car ownership grew and electrified trolleys became increasingly vital to the growing suburbs, the transportation system was increasingly important for connecting people and places within cities.



Photo by Detroit Publishing Company, between 1915 and 1925. Library of Congress Prints and Photographs Division

In 1941, President Roosevelt appointed the National Interregional Highway Committee, whose recommendation for a "National System of Interstate and Defense Highways" resulted in the Federal-Aid Highway Act of 1944. The federal role in highway building grew exponentially with the creation of the Interstate program in

the 1950s. The Interstate and Defense Highways Act of 1956, also called the 1956 Federal-Aid Highway Act (Interstate Act), appropriated \$25 billion¹ (about \$197 billion in 2009 dollars) to build 41,000 miles of multi-lane, limited access highways.



Flickr photo by triplefivedrew: <http://www.flickr.com/photos/triplefivedrew/2040918034/>

Originally intended as a system to connect economic centers and link states together, the Interstate System radically transformed the travel and development patterns within cities themselves and helped facilitate booming growth in the nation's suburbs. While urban highways were built with as much as 90 percent federal money, no similar program existed for non-highway networks or for public transportation. Transit systems struggled to compete with the subsidized highway program. Efforts to secure federal support for transit began around 1960, led by mayors from cities experiencing deteriorating

commuter systems. These mayors stressed the need to modernize antiquated transit systems and stem the decline in central cities.

Congress placed public transportation under the purview of the Department of Housing and Urban Development (HUD.) Congress authorized loans and demonstration grants through Urban Mass Transportation Acts, tentatively in 1964 and significantly in 1970 with long-term, contract authority of at least \$10 billion over 12 years. The new program provided capital grants for up to 50 percent of the cost of transit capital improvements – and starting in 1974, operating expenses administered by HUD.

In the early 1980s, Congress took steps to unify highway, transit and transportation safety programs under the Surface Transportation Assistance Act of 1982 and – with President Reagan's support and leadership – raised the gas tax from 4 to 9 cents and dedicated 1 cent per gallon exclusively for public transit programs for the first time.

The Interstate System as originally conceived was completed in 1991 and capped at 43,000 miles. In 1991, Congress passed the Intermodal Surface Transportation Efficiency Act (ISTEA), changing the overall program to allow greater flexibility in project selection and expanding the number of programs. With ISTEA, Congress recognized the need to shift beyond the narrow goal of building the interstate highway system, but subsequent bills have failed to articulate clear national objectives to guide federal investments.

1 Department of Transportation, Federal Highway Administration, "Highway History: Federal-Aid Highway Act of 1956," <http://www.fhwa.dot.gov/infrastructure/50interstate.cfm>

Current Transportation Policy

On August 10, 2005, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), our current transportation legislation, became law. The law, signed by President George W. Bush, authorized \$286.5 billion dollars to fund our nation's transportation network through September 2009, including \$228 billion for highway programs and \$53 billion for transit programs. The bill expired on September 30, 2009 and has been extended multiple times since that date.



The number of programs and the complexity of transportation funding have grown over time. SAFETEA-LU authorized more than 108 individual programs. The nine programs within the transit and highway titles generally are referred to as “core” programs. These formula-driven programs – six within the highway title and three within the transit title – are considered core because, together, they represent nearly 75 percent of authorized funding through SAFETEA-LU.

SAFETEA-LU establishes both formula and discretionary programs. Formula programs allocate funds to states and transit agencies by formulas based on criteria such as population and gas tax receipts. The discretionary programs allow the U.S. DOT to allocate funds through competitive processes. Formula programs have been criticized in several recent commission reports because they are unrelated to actual need or outcomes.

The U.S. DOT administers SAFETEA-LU through 13 divisions – 10 that are responsible for individual modes (highways, transit, marine, etc.) and 3 for administrative branches. States are given the majority of control to plan and build projects, and generally work with the federal government at the end of the process to arrange for reimbursement.

During the debate over SAFETEA-LU, Congress recognized the need to reform the structure and function of surface transportation authorizations. The law authorized two separate commissions to examine the future of transportation. We discuss their findings below.

Funding and Revenue

To run any transportation system requires two kinds of funding: initial, upfront money to build projects and ongoing funds for operations and repair. In the U.S., the federal government has traditionally focused on providing construction funds, while states and regions are tasked with paying for ongoing repair and operating costs.

Taken together, federal, state and local support for transportation totaled \$204.5 billion in 2006 alone.

Federal funding provides a significant amount of the financing for capital investments, but typically must be matched by funds from other sources – in most cases, state and local governments. Federal highway programs today generally pay 80 percent of project costs, requiring a 20 percent state or local match. Unlike highways, funds for new transit projects typically come from discretionary grant programs. As a result, the federal match in reality is often only 50 percent. In addition to matching federal funds, states and localities often use general funds or impose special tax levies to pay for new projects and maintain existing roadways.

The federal government funds transportation projects and programs in part through taxes and fees related to use of the transportation system. Herbert Hoover instituted the first, one-cent federal gas tax in 1932 – not for transportation but for deficit reduction. It was not until passage of the Highway Revenue Act of 1956 that the gas tax was tied to transportation projects through the Federal-Aid Highway program. The 1956 act created a dedicated transportation funding account, the Highway Trust Fund (HTF). In the early 1980s, Congress expanded the definition of federal highways beyond the Interstate, created new programs to address transit infrastructure and established a Mass Transit Account within the trust fund.

TRANSPORTATION TERMINOLOGY

Formula funding: Funding allocated to states/agencies by pre-determined formulas backed by numbers such as population or gas tax receipts.

Discretionary funding: Funding that can be allocated by the U.S. DOT or related agencies based on a competitive or merit-based process.

Since 1956, Congress has also taken gradual steps to increase the gas tax and diversify the taxes and fees associated with funding the transportation system. Federal gas taxes have been increased five times since 1932 to boost either the Highway Trust Fund or the federal general fund.

Congress counted on ever-increasing gas tax revenues generated from ever-increasing traffic volumes to keep up with the need for transportation funding. However, mileage driven per person has hit a plateau in recent years and improvements in fuel efficiency are slowing fuel consumption. During the recent recession, gas tax receipts fell well below funding levels authorized in the legislation. Since fiscal year 2008, Congress has transferred \$34.5 billion of from the Treasury to the Highway Trust Fund to address shortfalls. In its most recent estimates, the Congressional Budget Office (CBO) projected the fund will reach insolvency in spring 2013. The Mass Transit Account remains solvent today, though its long-term health is also believed to be in jeopardy. The current funding approach is unsustainable and most industry observers agree new sources of funds for transportation projects are essential.

TRANSPORTATION TERMINOLOGY

Metropolitan Planning Agency (MPO):

Regional policy agency serving urbanized areas with populations over 50,000. They are responsible in cooperation with the state and other transportation providers for carrying out the metropolitan transportation planning requirements of federal highway and transit legislation.

TRANSPORTATION TERMINOLOGY

Strategic planning: Is a planning approach that helps communities eliminate bureaucratic waste and prioritize more strategic investments to get the “best bang for the buck.” By taking a page from the private sector’s playbook and implementing a strategic plan, our communities can have less traffic, less taxes, and less wasteful misuse of critical infrastructure funding

How projects get built

As noted above, federal policies and programs are overseen by U.S. DOT and its modal agencies, but states, regional planning organizations and local jurisdictions exert enormous influence on project implementation. In metropolitan areas, three entities have some level of say over federal transportation dollars: 1) the state transportation agency (DOT), 2) public transportation operators (transit agencies), and 3) metropolitan planning organizations (MPOs). Created at the behest of the Congress, MPOs are made up primarily of representatives from local governments in the region. In rural areas and small towns outside census-defined urbanized areas, individual towns and counties participate in regional planning organizations and/or work with the state.

In order to receive federal funds, projects must be part of a long-range transportation plan. In these plans, local and state governments are required to project future travel demand and examine likely impacts of transportation investment, but this planning is inadequate, failing to examine the impact that projects would have on land

use and development, or how future changes in development patterns could impact travel demand.

Recognizing this disconnect, some communities have begun approaching long-range planning by starting with the desired outcomes for their region and then designing the future transportation system to meet those goals. To get there, planners model various investment and decision-making scenarios with the goal of reducing traffic, minimizing public and private transportation costs, leveraging private investment, making the best use of taxpayer money and increasing accessibility. Well-known examples include the Sacramento, California Blueprint plan and Nashville, Tennessee’s Cumberland Region Tomorrow Strategic Plan.

While MPOs set regional policies, state DOTs control the allocation of most funding and thus essentially choose and prioritize projects. The federal process for building, widening and extending the highway network differs fundamentally from similar investments in the transit system. Transit projects must clear

several levels of federal evaluation before they can be built, while highway projects generally are not subjected to the same level of scrutiny.

The Reauthorization Process

The authorization process in Congress presents the opportunity to shape funding, policy and program administration over the course of several years. The process involves two steps, authorization and appropriation. An authorization is a statutory provision that sets ceilings on funding levels for a program or agency. Obligation limitations within the bill set a ceiling on the total amount that can be spent in a single year. Although obligations are commitments to reimburse states for the federal share of a project's cost, actual cash reimbursements cannot be made until they are appropriated. Through annual appropriations acts, Congress sets the levels at which federal agencies are allowed to make payments out of the Treasury for specified purposes.

The adoption of a multi-year transportation bill typically begins with the Administration developing a legislative proposal or principles for the transportation bill. The Administration bill or principles are circulated through Congress and members within each of the different authorizing committees work independently to prepare versions of the bill in both the House and the Senate. Committees in both chambers hold hearings on parts of the legislation.

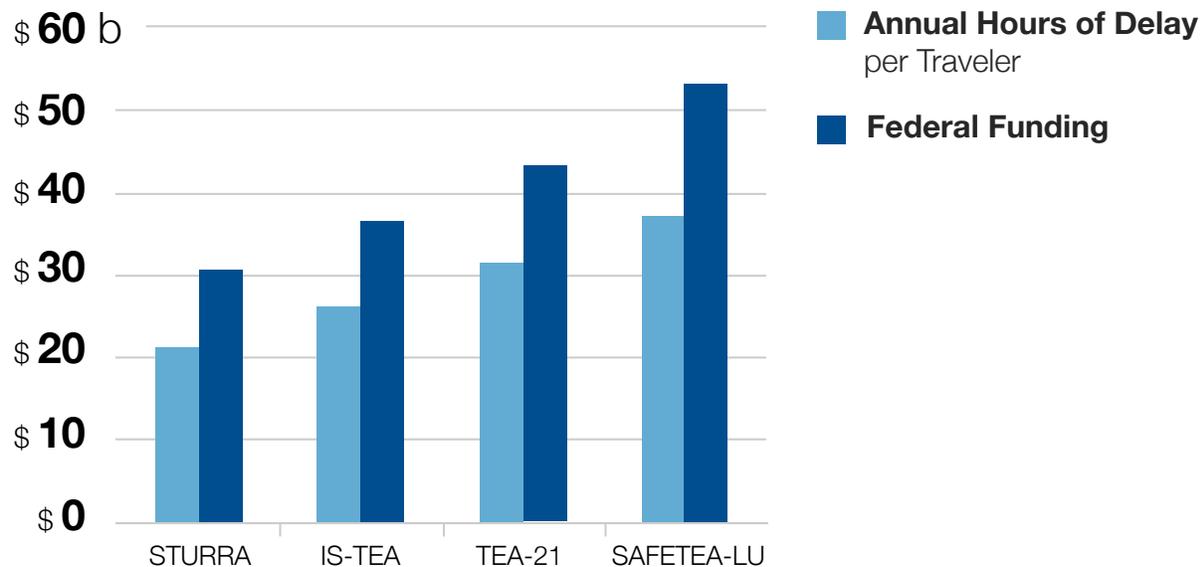
The 111th Congress saw work on the next authorization stall amid a stalemate over revenues and funding. In June 2009, then-chairman of the House Transportation and Infrastructure Committee James Oberstar (D-MN) proposed the \$500 billion Surface Transportation Authorization Act of 2009. While many agreed that the nation needed to make a significant investment to maintain and expand our infrastructure, the sum was nearly twice expected gas tax revenues, and neither the Administration nor Congressional leadership was prepared to seek a gas tax increase to pay for it. The 112th Congress faces a challenging but critical path forward, whether it chooses to constrain the program to available gas tax revenues or propose new sources of revenue to make up the shortfall.

Is the System Working? The Future of Transportation

There is widespread agreement on the need for a new direction in federal policy to address the many challenges we face. While the interstate system was built substantially with gasoline taxes, it cannot be said that the system is “paid for,” because as the system ages – many bridges, for example, are at or near their 50-year design life – the costs required to rebuild and repair are mounting.

Meanwhile, the development and travel patterns created by urban interstates have left those corridors congested with local traffic, causing headaches for commuters and threatening the

Spending more, but getting worse: despite increased spending, congestion has nearly doubled



efficiency of goods movement. Mere widening is no longer an option in most places, but building transit alternatives and improving development practices are arduous processes under existing policies. Nor does the current framework support creating the intercity rail alternatives that could relieve the interstates. One key revenue source that could help manage congestion and provide funding for alternatives could be tolls on existing corridors that vary according to volume of use. But those are off limits under current policy (which disallows tolls on the interstate system), for the most part.

Many of these issues were widely acknowledged starting in 2005, when Congress created two national commissions in the SAFETEA-LU authorization to study options and opportunities to reform transportation policy. Numerous other organizations, including the U.S. Government Accountability Office, the Congressional

Research Service, the Bipartisan Policy Center, the American Association of State Highway and Transportation Officials, the Miller Center for Public Affairs and the Brookings Institution, have also published analyses of the current situation.

While the recommendations and policy solutions put forth by these groups vary to some extent, their conclusions about the need for change do not: the federal transportation program needs to be fixed.

Four core challenges with potential for reform

The various commissions reached widespread agreement on core challenges and the potential for reform:

1. The next bill must express a **national vision and set clear goals that move our surface transportation program forward** and direct limited federal funds to get the best bang for our buck and develop a network that meets the needs of the 21st century.
2. There must be **increased accountability for results**. Federal transportation money cannot continue to be distributed with little accountability to demonstrate performance. Congress must restore voters' confidence that spending on transportation will improve conditions, build the system we need, and overall, meet established national goals.
3. Current **funding and financing structures of the federal transportation program** do not reflect new realities in the demand for and means of travel today.
4. The **institutions** managing the transportation system **need to employ the best tools and approaches to ensure effective investment decisions**.

This year's transportation authorization presents the opportunity to grow the economy, increase access to jobs and improve the quality of life for

our citizens. The transportation network does more than just move people. It provides the very framework around which we build our economy and our communities. Now is the time to renew our sense of purpose and refocus our policies to get the job done.

TRANSPORTATION TERMS

There is a glossary of transportation terms and common acronyms to provide some clarity where possible. It's available in **Appendix A** at the end of this full document. Look for this box throughout the chapters of Transportation 101 for a handful of short definitions.

Introduction

“Together, the uniting forces of our communication and transportation systems are dynamic elements in the very name we bear — United States. Without them, we would be a mere alliance of many separate parts.” — President Dwight D. Eisenhower (February 22, 1955)



Flickr photo by dziner: <http://www.flickr.com/photos/greencracker/4693155336/>

Since the 1950s, the federal government has been the principal driver of transportation policies and programs at the national, state and local levels. Federal funding over the last several decades has contributed 80 percent or more to construction of the highways that carry the lion’s share of traffic, and has paid about half the cost of public transportation systems. Congress and multiple administrations repeatedly have affirmed a federal interest in ensuring that a robust, extensive and efficient transportation network exists to move people to work, to get goods to market and to allow for travel, trade and tourism among the states.

As Congress prepares its latest update of a multi-year transportation bill, it is important to understand the evolution and basic structure of our existing program. Transportation for America conceived of this guide to federal transportation policy as an accessible reference for policymakers, practitioners and citizens.

The guidebook is divided into six sections:

Chapter 1 provides an overview of the historical context for the current federal transportation program and reviews the changing federal interest in transportation.

Chapter 2 assesses the funding and financing structures in place in the current transportation program and opportunities to use innovative finance in transportation projects and programs.

Chapter 3 reviews current federal transportation law and the major programs administered by the federal government.

Chapter 4 takes a look at implementation of the federal program at the state and local level, reviewing how decisions about transportation plans, projects and funding are made.

Chapter 5 provides an overview of the two legislative processes – authorization and appropriations – that determine the size and scope of federal funding.

Chapter 6 provides greater detail on the growing national consensus around our nation's transportation challenges and the potential to shift current policy in ways that address our 21st century needs.

You can use the tabs at the top right of each page to browse the six chapters.

TRANSPORTATION TERMS

There is a glossary of transportation terms and common acronyms to provide some clarity where possible. It's available in **Appendix A** at the end of this document.

(1) HISTORY: THE FEDERAL ROLE

(2) FUNDING AND REVENUE

(3) ABOUT THE CURRENT PROGRAM

(4) STATE AND LOCAL IMPLEMENTATION

(5) AUTHORIZATION AND APPROPRIATIONS

(6) FACING THE FUTURE



1904. Erie Canal at Salina Street, Syracuse, New York." Detroit Publishing Company, Library of Congress.

(1) History: The Federal Role in Transportation

The U.S. transportation system shapes our nation in ways large and small. It includes the highways and railroads that link businesses to consumers, the buses and sidewalks our children use to get to school and the transit services older Americans rely on to reach medical care. Americans depend on our nation's transportation network to be reliable and efficient, and this crucial infrastructure continues to evolve as we incorporate new technology to improve systems for the better.

The U.S. Congress provides a policy direction and framework, and most importantly, appropriates funding to state and local governments to build and maintain the transportation system. Over time, however, the federal government's interest

The Federal Interest

"It is declared to be in the national interest to encourage and promote the development of transportation systems embracing various modes of transport in a manner that will serve the states and local communities efficiently and effectively. - Section 9 of the Federal-Aid Highway Act of 1962

"The major objectives of urban transportation policy are the achievement of sound land-use patterns, the assurance of transportation facilities for all segments of the population, the improvement of overall traffic flow and the meeting of total transportation needs at minimum cost. Only a balanced transportation system can attain these goals – and in many urban areas, this means an extensive mass transportation network fully integrated with the highway and street system." - Report to U.S. Congress, Senate, March 1962 by the Secretary of Commerce and the Housing and Home Finance Administrator

Source: Weiner, Ed. Urban Transportation Planning in the U.S.: An Historical Overview. Fifth Ed. 1997.

in transportation has evolved in response to new opportunities, growth and shifting travel demands.

The U.S. Railroad Industry

In 1840, the U.S. had almost 3,000 miles of railroad track – mostly short spurs east of the Mississippi River. In the 1860s, Congress approved construction of a transcontinental railroad to develop the interior of the nation and connect coasts. In 1862, Congress gave two companies, the Union Pacific and the Central Pacific Railroads, a 30-year government loan and the right to lay down tracks. The companies were also given millions of acres of public land along the line that they could sell to make the money required to lay rails.

For the next 100 years, the railroad industry was one of the primary means of long-distance travel for people and goods. But by 1960 one third of the nation's rail industry was bankrupt or close to failure due to a changing economy and intercity freight movements.

Thus, the conditions for policy change were thrust on legislators, and they responded in 1976 with the Railroad Revitalization and Regulatory Reform Act (sometimes referred to as the 4R Act), which eased regulations on rates, line abandonment and mergers. Four years later, Congress followed up with the Staggers Rail Act of 1980. The most important features of the Staggers Act were the granting of greater pricing freedom, streamlining merger timetables, expediting the line abandonment process, allowing new ownership and permitting confidential contracts with shippers.

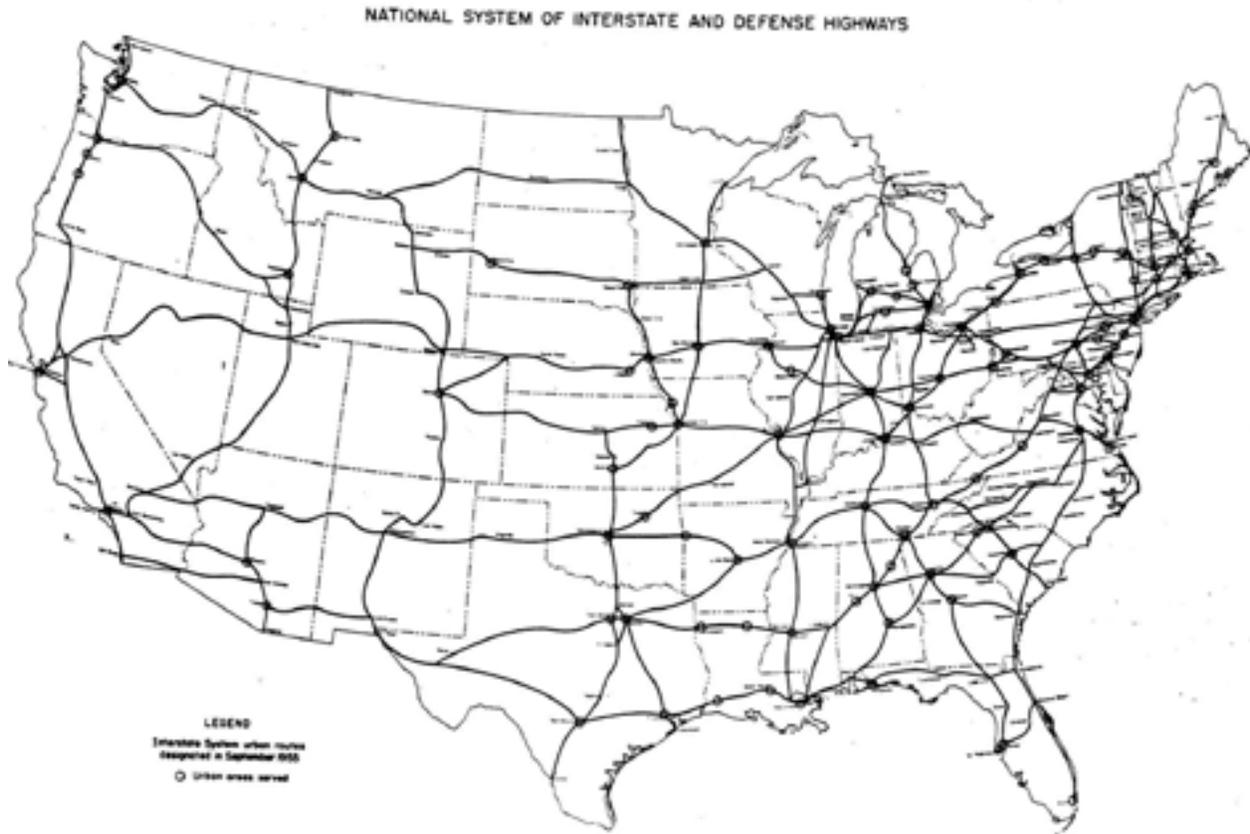
Consumers have benefited from lower rates, railroads have achieved much higher levels of performance and efficiency has increased. By 2008 the market share of rail freight shipments was 45 percent by volume, up from 35 percent in 1975.

Source:

<http://www.people.hofstra.edu/geotrans/eng/ch9en/appl9en/ch9a1en.html>



Library of Congress Prints and Photographs Division. <http://www.loc.gov/pictures/item/2002711305/>



Labeled by historians as the “Transportation Revolution,” improvements in transportation access through the 1800s increased the nation’s productivity and thus the quantity and quality of goods the nation produced. Two significant projects, the Erie Canal and Transcontinental Railroad, built in a partnership between the public and private sector, laid the foundation for a truly national economy.

The Erie Canal was built in 1825, creating the first continuous link between the Atlantic Ocean (New York City) and the western interior (the Great Lakes). The project opened regions further to the west for settlement and made New York the most significant U.S. port. The transcontinental

railroad was a vital link for trade, commerce and travel that joined the eastern and western halves of the late 19th-century United States.

From the beginning, responsibility for building and maintaining streets fell mostly to city government and private companies. Cities funded projects to pave streets while private companies built residential developments around private trolleys and streetcar lines that ran into the central business district. Each city, region and state developed local guidelines and building standards for their infrastructure design. Most rural roads remained unpaved and new paved roads were built short distances from the city center into the country for leisure day trips.

In 1925, Congress, responding to the growing ranks of drivers, standardized driving rules and road construction. Though it began mainly as a basis for route marking to guide motorists, the federal government's role soon expanded to funding state construction programs to connect gaps in the existing road network around cities, creating standardized engineering practices and ensuring the performance of vehicles and paving.

In order to make use of the new federal funding for highways, by 1940 all states had established state highway departments. Over time, the responsibility of these agencies expanded to become general departments of transportation, overseeing public transportation, biking, pedestrian and rail infrastructure as well. The federal government continues to use state DOTs as the primary recipient of federal funding. DOTs are responsible for planning, project selection and construction management within states.

As the number of cars and trucks on the road continued to grow, interest in a system of interstate highways also grew. In 1941, President Roosevelt appointed the National Interregional Highway Committee. The commission's recommendations for a National System of Interstate and Defense Highways were codified in the Federal-Aid Highway Act of 1944, which included 33,900 miles of Interregional Highways and an additional 5,000 miles of auxiliary urban routes.²

Real Estate and Transportation: A Critical Link

Transportation and land development are intricately linked. The nation's transportation system raises the value of land by providing new access to markets, jobs and services, while improvements to land — through construction of homes and businesses — further fuels travel demand.

From the beginning, the expansion of U.S. cities has paralleled reductions in the cost of getting around. For example, private companies initially invested in streetcars to support development of suburban housing in the late 1800s and early 1900s. Streetcars provided new accessibility for families and the means to live further away than was possible before.

Starting in the 1920s, however, automobile ownership, income growth, the growth in installment credit (long-term mortgages) and the income tax deduction for mortgages combined to fuel the rapid growth of new home construction in previously inaccessible areas.

2 FHWA, updated 8/31/2010. Dwight D. Eisenhower National System of Interstate and Defense Highways <http://www.fhwa.dot.gov/programadmin/interstate.cfm>

Figure 1.1 Federal milestones

1921-1925	Congress adopts federal-aid highway system and begins establishing routes
1944	Congress defines the 40,000 mile system and authorizes \$500M in funding
1956	Interstate Highway Act of 1956 includes a proposed 41,000-mile federal system and creates the program framework we work under today.
1964	Urban Mass Transportation Assistance Act provides 12 years of dedicated funding for public transportation.
1966	Congress establishes the Department of Transportation and National Highway Safety Bureau; Section 204 of the Demonstration Cities and Metropolitan Development Act creates area-wide planning agencies in all metro areas.
1970	Urban Mass Transportation Assistance Act provides 12 years of dedicated funding for public transportation.
1973	Federal-Aid Highway Act of 1973 allows flexibility to transfer highway funds for urban mass transportation.
1974	National Mass Transportation Assistance Act allows federal funds to be used for transit operating expenses as well as construction costs.
1976	Federal-Aid Highway Act of 1976 broadens use of funds to include repair of federal-aid highways.
1982	Surface Transportation Assistance Act is the first law to combine highway, transit and safety authorizations; authorizes bicycle projects, increased funding for bridge repair and establishes the 'Buy America' program. The bill also significantly increases the gas tax from 5 to 9 cents and sets interstate completion date for 1991.
1990	President Bush signs bill to increase gas tax by 5 cents, with 2.5 cents dedicated to deficit reduction and another 2.5 cents dedicated to transportation for a total of 11.5 cents dedicated to funding transportation.
1991	Intermodal Surface Transportation Efficiency Act (ISTEA) declares the interstate highway system completed and authorizes \$151 billion over 6 years. The Act creates a unified surface transportation program with increased flexibility.
1993	President Clinton signs bill to increase the gas tax by 4.3 cents for deficit reduction.
1995	Congress shifts 2.5 cents of gas tax from deficit reduction to transportation for a total of 14 cents dedicated to funding transportation.
1998	Transportation Equity Act for the 21st Century (TEA-21) authorizes new flexible programs and increases authorized funding to \$198 billion over 6 years, shifts more from deficit reduction to transportation, dedicating 18.3 cents to transportation funding.
2005	SAFETEA-LU continues ISTEA type programs and adds new safety programs, with an emphasis on transportation security.

The Federal Interest³

Significant work on the Interstate system did not begin until the 1950s, prompted by President Eisenhower's initiative to connect the far corners of the country through roads and highways. Eisenhower saw this as essential in order to secure borders and quickly mobilize military personnel and materiel in response to changing conditions anywhere in the world.

The resulting legislation, the Interstate and Defense Highways Act of 1956, also called the 1956 Interstate Act, was the largest single public works project in American history, and represented a revolutionary and truly national strategy for transportation.⁴

The 1956 Act appropriated \$25 billion⁵ (about \$197 billion in 2009 dollars) in loans to states to begin construction of the Interstate Highway System — approximately 44,000 miles of roadway critical to the nation's economy, mobility and defense — which was ultimately to be paid for with fuel taxes gathered in the Highway Trust Fund (HTF).⁶

3 This section draws heavily from: Weiner, Ed. Urban Transportation Planning in the US: An Historical Overview. Fifth Ed.1997.

4 Department of Transportation (hereafter cited as DOT), Federal Highway Administration (hereafter cited as FHWA), "History of the Interstate Highway System," <http://www.fhwa.dot.gov/interstate/history.htm>.

5 DOT. FHWA. "Highway History: Federal-Aid Highway Act of 1956," <http://www.fhwa.dot.gov/infrastructure/50interstate.cfm>.

6 DOT. FHWA., "The National Highway System," <http://www.fhwa.dot.gov/planning/nhs/>.

The National Highway System

The US Department of Transportation classifies roads based on their use, location, and size – called a functional classification. The Dwight D. Eisenhower National System of Interstate and Defense Highways is 46,876 miles of routes of highest importance to the nation, built to the uniform design and construction standards of 23 U.S.C. 109(h).

The National Highway System (NHS) includes all routes in the Interstate System plus urban and rural principal arterials and highways (including toll facilities) which serve major cities, border crossings and major transportation facilities, meet national defense requirements, and/or serve interstate and interregional travel. The maximum length of the NHS is 178,250 miles. A map of the entire system is available at: <http://www.fhwa.dot.gov/planning/images/nhs.pdf>

Source: <http://www.fhwa.dot.gov/legsregs/directives/fapg/cfr0470a.htm#470103>

Despite its national security roots, there is little doubt that facilitating economic growth was also a key objective and lasting legacy of the interstate system. This was a construction program and states – acting as construction agents of the federal government – were responsible for planning, building and maintaining the resulting highway system.

Federal transportation policy essentially consisted of a single construction-focused program. Congressional authorizations focused on policies and procedures designed to build a national transportation system.

Urban Mass Transit

Just as rapid growth in the use of cars and trucks increased the need for investment in highway and road construction, urban streetcar systems experienced similar shifts in ridership, ownership and investment, changing the way



People boarding a streetcar in Oklahoma City, 1939. U.S. Farm Security photo by Russell Lee.

private streetcar companies ran their business. Prior to World War II, the streetcar industry in U.S. cities responded to competition from cars

and the increasing size of urban areas by raising fares, focusing on essential service corridors and delaying modernization and maintenance.

However, unlike with highways, the federal government did not respond with a systematic, long-term commitment to these challenges until the 1960s. Local governments themselves took steps to take public ownership of transit services, and by the 1950s cities including San Francisco, Boston, New York, Philadelphia, Chicago, Seattle and Detroit had ventured into this arena.

Efforts to secure federal support for transit began around 1960, led by mayors whose cities were experiencing deteriorating commuter rail systems. These local officials sought to modernize what they saw as antiquated transit systems to renew downtown growth and development.

Choosing to pursue financial support through the framework of federal aid to cities rather than federal aid for public works was a tactical decision, but one that had huge ramifications for the future



Washington, D.C.'s iconic Metro system, along with Atlanta, San Francisco and others, were built during this era of transit funding in the 60's and 70's. Flickr photo by Eric F Savage. <http://www.flickr.com/photos/efsavage/2866402429/>

of transit in the U.S. Rather than including transit in the surface transportation authorization process, Congress instead considered transit an urban issue under the purview of the Department of Housing and Urban Development (HUD). Congress authorized loans and capital grants through Urban Mass Transportation Acts, first in 1964 and significantly in 1970 with long-term contract authority of at least \$10 billion over 12 years. These programs provided capital grants for up to 50 percent of the cost of transit capital improvements – and starting in 1974, operating expenses administered by HUD.

The Completion of the Interstate Highway System and A New Era

It became clear by the early 1980s that the current methods for planning and funding federal transportation investment were not keeping pace with the times. There was mounting evidence of deterioration in the nation's highway and transit infrastructure, urban planning efforts were ad hoc and uncoordinated and concerns persisted about rising transit operating costs.

In this environment, Congress took steps to unify highway, transit and safety public works programs under the Surface Transportation Assistance Act of 1982, increasing overall funding levels through a 120 percent increase in the gas tax and for the first time, dedicating 1 cent for transit programs exclusively. Concerned about the future federal role in transportation

and rising costs, Congress also determined that the Interstate system would be complete by 1991 and capped its length at 43,000 miles.

Following completion of the Interstate System, Congress changed the focus of the federal program to allow greater flexibility in project selection and an expansion in the number of programs. Beginning with passage of the Intermodal Surface Transportation Efficiency Act (ISTEA), the federal interest in transportation infrastructure shifted, as reflected in the statement of policy:

“It is the policy of the United States Government to develop a National Intermodal Transportation System that is economically efficient and environmentally sound, provides the foundation for the United States to compete in the global economy, and will move individuals and property in an energy efficient way” 49 USC 5501

ISTEA restructured the federal transportation program based on the completion of the Interstate Highway System. It created a specific program to help regions address and comply with new federal clean air standards, known as the Congestion Mitigation and Air Quality (CMAQ) program. In addition, it provided states and regions significant flexibility to use federal funds for surface transportation projects, including highways, transit, bicycle and pedestrian infrastructure. The Act also recognized the role of metropolitan planning organizations (MPOs) in transportation planning by requiring that each state “sub-allocate” a small portion of their funds for projects selected by large MPOs.

Lessons from the Past

From 1956 to 1991, our federal transportation program had a very clear goal: to complete the Interstate Highway System. However, since the completion of the system, Congress has struggled to articulate a coherent set of national goals for the transportation program.

With the passage of ISTEA in 1991, Congress expressly recognized the need to shift towards a new vision and goals beyond the Interstate System. The preamble emphasized the need for a transportation system that is economically efficient and environmentally sound, provides the foundation for the nation to compete in the global economy, and moves people and goods in an energy-efficient manner. In addition, it recognizes the need to focus beyond the interstates, by declaring that the National Intermodal Transportation System consists of all forms of transportation in a unified, interconnected manner.⁷ Although Congress set the creation of a coherent, intermodal system as a national priority, the legislation did not set clear national goals for the investment. Rather, Congress gave states and regions virtual carte blanche for use of the money.

At the threshold of the next iteration of a national program, there seems to be consensus that the aging highway network and legacy transit systems must be preserved, first and foremost. The seemingly inevitable rise in miles driven

per person has leveled off, thanks largely to demographic shifts and rising fuel prices, even as vehicles become more fuel-efficient. These trends are suppressing the gas tax receipts that fuel the program. At the same time, the demand for public transportation reached an historic high as the Great Recession set in, and rising rates of walking and bicycling in many communities is creating a demand for safer roadways. These changes – and others – present Congress with another opportunity to redefine a national program that has played a critical role in the nation's economic development.



More fuel efficient cars on American roads, like the Prius, mean less incoming revenue in gas tax receipts. Flickr photo by Toyota UK. <http://www.flickr.com/photos/toyotauk/5346437332/>

⁷ Intermodal Surface Transportation Efficiency Act of 1991. <http://ntl.bts.gov/DOCS/istea.html>

(2) Funding and Revenue

Transportation systems require two kinds of funding: upfront capital investment and on-going funds for operation and maintenance. In the U.S., the federal government has traditionally focused on construction and short-term funding, while states and regions have had to foot the bill for repair and operating costs.

Taken together, federal, state and local transportation spending totaled \$204.5 billion in 2006 alone. Of this, the federal government contributed about \$44.4 billion, mostly through direct grants to state and local governments. State governments contributed \$89.4 billion in state funds and local governments \$58.1 billion

of local funds.⁸ **Figure 2.1** illustrates the break down of funding sources for both highway and transit spending.

While federal, state and local governments are responsible for funding the majority of transportation projects throughout the country, the private sector also plays an increasingly important role — particularly with regard to debt financing of projects.

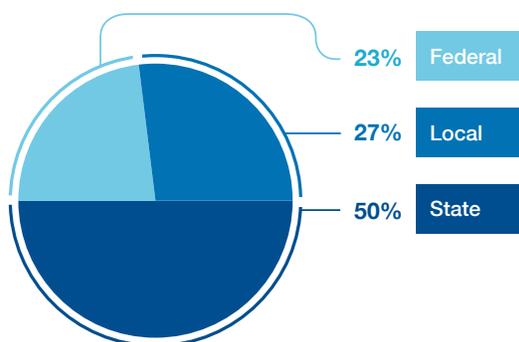
State and Local Transportation Funding

Federal funding provides significant support for capital investments, but it typically must be matched by state and local contributions. Federal highway and transit programs generally pay 80 percent of project costs, matched by 20

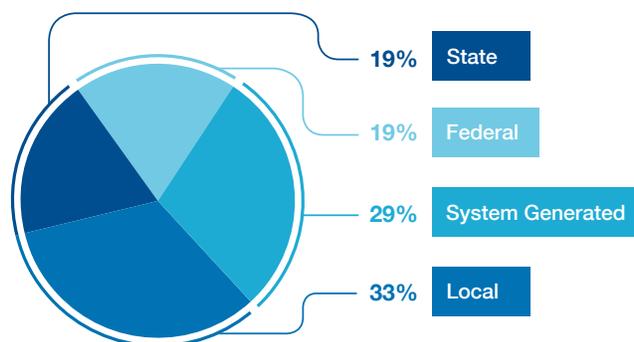
8 FHWA. 2008 Status of the Nation's Highways, Bridges, and Transit. Conditions and Performance Report to Congress. <http://www.fhwa.dot.gov/policy/2008cpr/index.htm>

Figure 2.1 Transportation funding sources

Highways, Roads, and Bridges



Public Transportation



SOURCE: 2008 STATUS OF THE NATION'S HIGHWAYS, BRIDGES, AND TRANSIT. CONDITIONS AND PERFORMANCE REPORT TO CONGRESS. WWW.FHWA.DOT.GOV/POLICY/2008CPR/INDEX.HTM

Capturing the Value of Transit

High-quality public transportation service – rail lines and dedicated busways – typically give a substantial boost to property values near transit stations. This increase in value can help fund transportation improvements through a concept known as value capture.

Under this concept, some of the increase in value can be “captured” in the form of a self-assessed fee paid by the property owners or by a property tax increment that is dedicated toward the transportation infrastructure.

More than half of the 55 transit agencies recently surveyed by the Government Accountability Office reported partnering with developers to create development at a transit station in order to help fund transit improvements, while about a third (19 of 55) reported using special local taxes on property.

For example, Portland partnered with property owners to create a local tax district to raise \$19.4 million to fund a portion of the streetcar. The Seattle South Lake Union Streetcar project used a \$25.7 million local tax mechanism, established by local property owners who agreed to a special property tax district to fund construction. This type of financing mechanism has been used in a number of other cities for transit and related development projects.

Source: Gloria Ohland, Center for Transit-Oriented Development, “Value Capture: How to Get a Return on the Investment in Transit and TOD.”

percent state and local funding. The funding match requirement for transit capital programs varies much more than highway programs, with the federal share between 50 and 80 percent. In general, capital maintenance is matched at 80 percent by the federal government while expansion projects typically only receive a 50 percent match from the federal government.

Taxes on motor fuels, such as gasoline and diesel, have been the primary source of state funding. States have also used revenues from vehicle and motor carrier taxes, tolls and general fund

appropriations to fund highways.⁹ In 2006, \$117.1 billion was collected in motor-fuel taxes, motor-vehicle taxes and tolls by all levels of government. The majority of the revenue, \$93.4 billion, went toward highways, \$11.4 was used for transit and

9 GAO. Trends in Federal and State Capital Investment in Highways. GAO-03-744R. June 18, 2003. <http://www.gao.gov/new.items/d03744r.pdf>

\$12.3 billion was used for other purposes, such as ports, schools, collection costs and general government activities.¹⁰

Dedicated sales taxes are a major source of transit funding for state and local governments. In 2006, they accounted for 28.4 percent of total state and 33.4 percent of total local funding for transit.¹¹ State and local governments also provide funding for transit from their general fund appropriations, as well as from fuel, income, sales, property and other unspecified taxes, specific percentages of which may be dedicated to transit.

Federal Transportation Funding

Since 1956, most taxes and fees related to the nation's transportation system have been deposited into a dedicated transportation funding account known as the Highway Trust Fund (HTF). This account was created to provide dedicated funding to build the Interstate Highway System. Initially, repair funds were not provided, as states were expected to maintain it thereafter. Congress believed that once construction of the system was complete, the federal highway

program and gas tax would either be eliminated or return to 1 cent and be directed toward the general fund, as was done before 1956.¹²

Over time Congress recognized the growing importance of the federal transportation program to economic growth and with it the necessity of ongoing gas tax revenues. In the early 1980s, Congress expanded the definition of federal highways beyond the interstates, created new programs to address transit infrastructure and established a Mass Transit Account within the Highway Trust Fund.¹³ Prior to this time, transit was funded by appropriations under the Department of Housing and Urban Development. While the Highway Trust Fund is designed to cover 100 percent of the federal government's contribution to highway expenditures, it covers only about 80 percent of federal transit expenditures, with the remainder coming from the general fund.¹⁴

The gas tax has been raised several times throughout the years by various presidents, including Ronald Reagan, George H.W. Bush, and Bill Clinton. While it has not been raised since 1993, the amount dedicated to transportation

10 FHWA. 2008 Status of the Nation's Highways, Bridges, and Transit. Conditions and Performance Report to Congress. <http://www.fhwa.dot.gov/policy/2008cpr/index.htm>

11 FHWA. 2008 Status of the Nation's Highways, Bridges, and Transit. Conditions and Performance Report to Congress. <http://www.fhwa.dot.gov/policy/2008cpr/index.htm>

12 FHWA. Office of Legislative and Governmental Affairs. Financing Federal-aid Highways. Publication No. FHWA-PL-07-017. March 2007. <http://www.fhwa.dot.gov/reports/financingfederalaid/>

13 Prior to FY 1983, all Federal funding for transit was from general revenue sources. In 1983 the Mass Transit Account (MTA) was established within the Highway Trust Fund, funded by 1.0 cent of the Federal motor-fuel tax. In 1990, the portion of the Federal fuel tax dedicated to the MTA was increased to 1.5 cents, in 1995 to 2.0 cents, in 1997 to 2.85 cents, and in 1998 to 2.86 cents.

14 Some portions of the federal transit program – the research budget and the New Starts Program – are funded through general funds, not the highway trust fund.

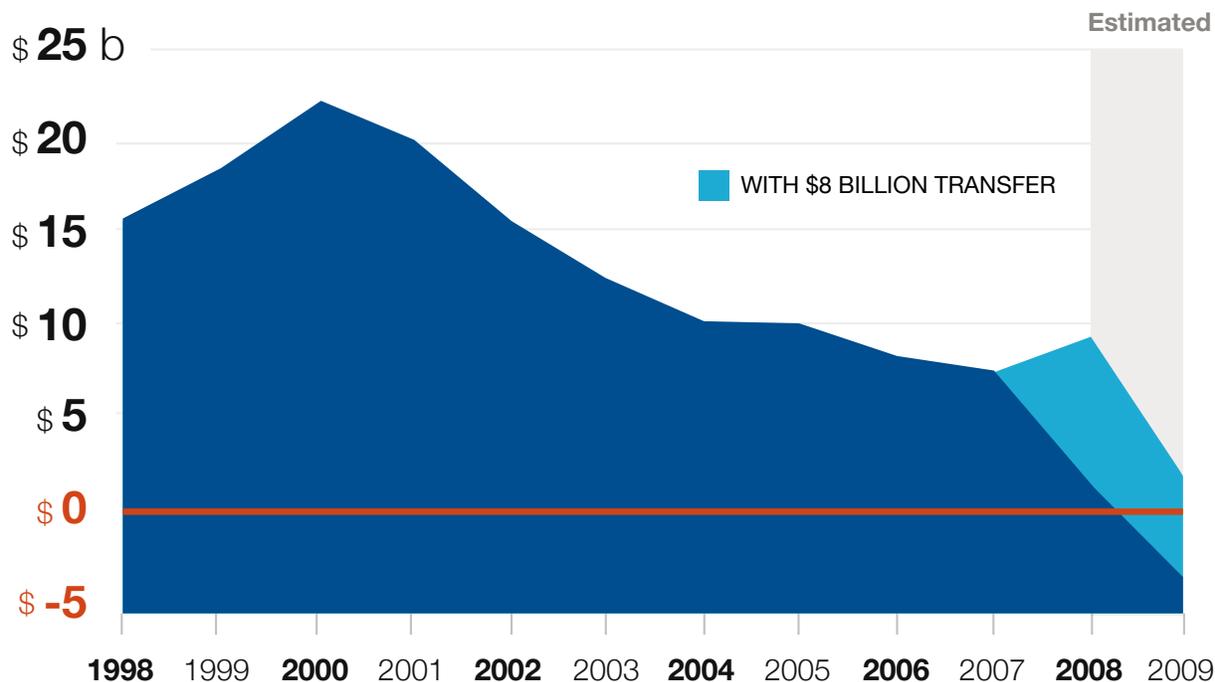
Figure 2.2 Federal gas tax increases, 1932-present

Year	Amount Increase	Purpose of Increase	Tax Rate Per Gallon
1932		General Funds	1 cent
1956	+ 3 cents	Highway Trust Fund	4 cents
1982/1984	+ 5 cents	Highway Trust Fund + Mass Transit Account	9 cents, with 1 cent going to transit and 8 cents to highways.
1986	+ 0.1 cents	+ Leaky Underground Storage Tank	9.1 cents, with the 0.1 cents for leaky underground storage tanks
1990	+ 5 cents	+ US Treasury General Fund + Highway Trust Fund + Mass Transit Account	14.1 cents, with 2.5 cents going to the general fund, 2 cents to highways and 0.5 cents to transit
1993	+ 4.3 cents	+ US Treasury General Fund	18.4 cents, with 4.3 cents going to the general fund
1995	No Change	- US Treasury General Fund	2.5 cents previously to general fund moved to highways
1998	No Change	- US Treasury General Fund	4.3 cents previously to general fund moved to highways
Current Distribution			15.44 cents for highways, 2.86 for transit, 0.1 cents for leaky underground storage tanks.

kept pace with inflation until 2005. This is due to reductions in gas tax revenues dedicated to deficit reduction and corresponding increases in the gas tax dedicated to transportation. The table in **Figure 2.2** (above) illustrates past raises in the gas tax, and **Figure 2.3** (next page) demonstrates that the gas tax has not kept up with inflation.

Why the Highway Trust Fund is “Going Broke”

Until recently, revenue from the gas tax consistently climbed upward as a growing population drove ever more miles. As a result, the Highway Trust Fund typically carried a significant balance from year to year. The HTF has been governed by a practice called Revenue Aligned Budget Authority (or RABA Calculation),

Figure 2.3 Highway account balance (in billions of dollars)

which automatically adjusts the amount of funds available to states based on actual gas tax receipts.

However, the 2005 SAFETEA-LU law modified the calculation so that downward adjustments in funding levels would only take place if the balance in the Highway Trust Fund was below \$6 billion, or around 11 percent of the total program. In essence, this meant that, given a pre-existing balance of more than \$6 billion, Congress could allocate more money to the states in a given year than was actually collected in gas taxes. This effectively has resulted in spending down the HTF over time.¹⁵ Before this SAFETEA-LU

provision, the HTF carried a balance year to year, ensuring that small variations in gas tax receipts would not impact overall funding levels. Congress counted on ever-increasing gas tax revenues generated from ever-increasing traffic volumes to keep up with expenditures.

Today, Americans are driving fewer miles, purchasing more fuel-efficient cars and reducing their consumption of gasoline. As a result, gas tax receipts have failed to keep pace with authorized spending levels – yet funding levels for states were not reduced because of the balance in the Highway Trust Fund. In addition, Congress has been unwilling to make painful cuts in previously authorized funding levels. This is in part because states have placed heavy pressure on Congress to waive the return of overpayments made to states that were required under the law.

15 GAO. Highway Trust Fund: Options for Improving Sustainability and Mechanisms to Manage Solvency. GAO-09-845T. June 25, 2009. <http://www.gao.gov/new.items/d09845t.pdf>

The rate of decline in the HTF balance has accelerated since 2005, when Congress set spending in SAFETEA-LU at levels that just barely covered projections of gas tax revenues. In essence, the law was designed to exhaust the HTF balance over the term of the authorization.¹⁶

The Current Funding Situation: Infusions

Given changing travel patterns and the current spending levels, gas tax receipts have been unable to keep pace with states' requests for reimbursements.

Because the Highway Trust Fund relies on estimates and after-the-fact reimbursements, the Congressional Budget Office (CBO) periodically releases projections of trust fund solvency. In their spring FY2009 baseline calculation, the highway account¹⁷ had outlays of \$35 billion for FY2007 against receipts of \$34.3 billion. In FY2008, outlays of \$37 billion were matched with only \$31.3 billion in receipts, not including the aforementioned injection of \$8 billion into the trust fund from Treasury general funds.¹⁸

The Highway Trust Fund had a balance of \$8.94 billion in August 2010.¹⁹ In its most recent estimates, the CBO projected the HTF would reach insolvency in 2013.

Unless a new funding source or revenue is dedicated to transportation additional money will be needed to keep a positive balance in the HTF. Since fiscal year 2008, Congress has transferred \$34.5 billion of general revenues to the HTF to address these shortfalls.²⁰ (**Figure 2.4**)

Without additional revenue, significant cuts will be necessary. Eliminating support for public transportation, as some in Congress have suggested, would harm Americans' access to jobs while failing to solve the problem: the entire transit program amounts to less than one-third of the amount of general revenues that have been transferred to the trust fund.

16 GAO. Highway Trust Fund: Overview of Highway Trust Fund Estimates. Statement of Katherine Siggerud, Before the Subcommittee on Highways, Transit, and Pipelines, Committee on Transportation and Infrastructure, U.S. House of Representatives. GAO-06-572T. April 2006. <http://www.gao.gov/highlights/d06572thigh.pdf>

17 Technically speaking, there is no "highway account" — this refers to the funds in the Highway Trust Fund other than the Mass Transit Account. Throughout this document, we refer to it as the Highway Account for simplicity's sake.

18 John Fisher. Congressional Research Service. Surface Transportation Reauthorization Legislation in the 111th Congress: Summary of Selected Major Provisions.

August 2009.

19 FHWA. Status of the Highway Trust Fund - Fiscal Year 2010. HPLS-10. Table FE-1. <http://www.fhwa.dot.gov/highwaytrustfund/index.htm#b>

20 John Fisher. Congressional Research Service. Surface Transportation Reauthorization Legislation in the 111th Congress: Summary of Selected Major Provisions. August 2009. <http://www.itsa.org/itsa/files/pdf/ReauthMajorProvisions.pdf>

Figure 2.4 Infusions to Highway Trust Fund during SAFETEA-LU

Year	Amount Transferred	Rationale for Infusion
September 2008	\$8 billion	Emergency Funds
September 2009	\$7 billion	Keep the account solvent through the end of the fiscal year
March 2010	\$19.5 billion	Reimburse the Highway Trust Fund for interest payments not received since 1998

(3) The Current Federal Program

Introduction

Each year, governments at all levels spend a combined average of \$200 billion on transportation infrastructure. At just over 20 percent of that total, the federal contribution wields outsized influence on construction of new highways and transit because it pays the lion's share of costs to build and expand the core of America's transportation network.

The surface transportation act is one of the largest multi-year program authorization bills and is typically passed every five or six years. The bill includes highway, safety, transit, motor carrier and several rail safety programs. The multi-year program plays a key role in shaping the overall direction of transportation policies and projects. State and local governments look toward the federal surface transportation law for direction in project funding eligibility, policy mandates and guidance on best practices and planning. It also provides state and local governments with fiscal and policy certainty, enabling officials to build multi-year transportation projects and plan future projects.²¹

In recent years, the transportation acts have tended to be extended beyond their intended duration. After the Transportation Equity Act for the 21st Century (TEA-21) expired on September 30, 2003, Congress passed an unprecedented 12 short-term extensions to keep programs going for almost two years.²² The most recent multi-year reauthorization act, the Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) was signed into law on August 10, 2005. We are seeing the pattern repeat itself today — SAFETEA-LU has been extended several times since its expiration on September 30, 2009, and as of this writing, had been extended through March 4, 2011.

Current Transportation Law

The passage of SAFETEA-LU stalled while Congress debated the bill's size, funding levels and the distribution of money to states. Both the House and Senate proposed much higher spending levels than the Bush Administration's stated ceiling of \$256 billion.²³ Representative Don Young, then chairman of the House Transportation and Infrastructure Committee, initially proposed the highest price tag of \$375 billion, but the House settled at \$275 billion while the Senate landed in the middle at \$318 billion.

21 Panagopoulos, Costas; Schank, Joshua. 2008. All Roads Lead To Congress: The \$300 Billion Fight Over Highway Funding

22 USDOT. TEA-21 Reauthorization. Extensions. <http://www.fhwa.dot.gov/reauthorization/extension.htm>

23 Panagopoulos, Costas; Schank, Joshua. 2008. All Roads Lead To Congress: The \$300 Billion Fight Over Highway Funding

How to divide federal dollars among the states was a major point of contention during the SAFETEA-LU authorization. The federal gas tax is tied to gas consumption and driving, and many states view this revenue as owed to the states where it was collected. “Donor” states — those that pay more gas taxes into the Highway Trust Fund than they get back — fought for a better rate of return, while “donee” states that got back more federal funds than collected in their state argued that the condition of the nationwide system is in the federal interest.²⁴ This has been a major point of contention for the last several federal transportation bills.

Congressional leaders eventually agreed to lower the overall cost of the bill, and the Bush Administration agreed to exceed its original target. To address the donor-donee issue, Congress adopted the Equity Bonus program that guarantees all states a minimum 92 percent return on gas tax contributions to the Highway Trust Fund (up from 90.5 percent in TEA-21). Under SAFETEA-LU, the overall size of the Equity Bonus program more than doubled in size from 9 to 23 percent of the entire transportation bill.²⁵

On August 10, 2005, President Bush signed SAFETEA-LU into law. The final product contained \$286.5 billion in transportation spending over six years, including \$228 billion

What is Donor/Donee

In 1982, Congress voted to give all states a “minimum allocation” of 85 percent of a state’s share of estimated gas tax payments, which was gradually increased to 90.5 and later 92 percent. However, since 2005, every state has received as much or more funding for highway programs than they contributed to the highway portion of the Highway Trust Fund. This occurred because more funding was authorized and apportioned than was collected from the states, and the HTF was augmented with general revenues from the U.S. Treasury.

During the construction of the Interstate Highway System, the gas tax rate of return was not an issue because states recognized the benefits of a national interstate system connecting all 50 states. All residents, for example, benefit from having the ability to access other parts of the country through transportation projects in those states. However, without a national vision for the transportation program once the Interstate System was complete, states became increasingly concerned about specific projects and fought to get the most federal funds for their own state interests.

Source: GAO-10-780. June 2010. Nearly All States Received More Funding Than They Contributed in Highway Taxes Since 2005.

24 Panagopoulos, Costas; Schank, Joshua. 2008. All Roads Lead To Congress: The \$300 Billion Fight Over Highway Funding

25 Panagopoulos, Costas; Schank, Joshua. 2008. All Roads Lead To Congress: The \$300 Billion Fight Over Highway Funding

“Earmarks” and The Bridge to Nowhere

Earmarking is funding provided by Members of Congress for specific projects, programs, or grants. SAFETEA-LU contained a record number of earmarks – 6,371 priority projects, at a cost of \$24 billion. Projects are multi-modal and include bridge replacement, pedestrian improvements, and transit investments. Earmarks are often criticized for limiting the transparency of decision-making, since representatives identify the priority projects. Also, spending earmarks can be difficult for states and local communities because the earmark is often only a small portion of the total project cost and requires local matching funds to meet the rest of the funding need, leaving a large amount unspent and taking funds from the larger program.

Gravina Island Bridge, commonly known as the “Bridge to Nowhere,” became a poster child for the high number of earmarks in SAFETEA-LU. The Taxpayers for Common Sense coined the “Bridge to Nowhere” moniker to highlight this issue. Congress granted \$223 million to build the bridge from Ketchikan, Alaska to Gravina Island, replacing a five-minute ferry ride. The island itself contains the Ketchikan International Airport and has a population of 50 residents. Congress removed the federal earmark for the bridge in 2005.

Source: The Taxpayers for Common Sense. 2005. \$315 Million Bridge to Nowhere. http://www.taxpayer.net/user_uploads/file/Transportation/gravinabridge.pdf



Photo of the site of the proposed Gravina Island Bridge and the existing ferry. Flickr photo by Ivan Lian. <http://www.flickr.com/photos/ivanlian/3193709257/>

for highway programs, \$53 billion for transit programs and \$6.5 billion for safety.²⁶ However, because the authorization was delayed for so long, this bill included retroactive funding for 2004 programs. When funding for the 2004 programs is removed, \$244.1 billion is often cited as the total authorized funding level for programs going forward.

Aside from adjustments in funding levels, the bill largely maintained the approach and formulas from ISTEA of 1991 and reinforced by TEA-21 and now SAFETEA-LU, which tweaked some existing programs and added new ones to address emerging issues.²⁷

SAFETEA-LU did break new ground in its focus on innovative finance, tolling and private sector participation in projects. These and other new funding instruments are discussed in greater detail later in this guide.²⁸

Characteristics of Current SAFETEA-LU Programs

The surface transportation authorization amends Title 23 and Title 49 of the United States Code. The law also reauthorizes the tax code provisions

related to the Highway Trust Fund. Further discussion of the reauthorization process is included in chapter 5 of this guidebook.

- » Title 23, or “the Highway Title”, includes laws governing the Federal-Aid Highway Program.²⁹ It includes six chapters — Federal-Aid Highways; Other Highways; General Provisions; Highway Safety; Research, Technology and Education; and Infrastructure Finance.
- » Title 49, “the Transportation Title”, includes laws related to governance and oversight, transit, motor vehicle regulation and rail programs.³⁰ There are 10 subtitles — Department of Transportation; Other Government Agencies; General and Intermodal Programs; Interstate Transportation; Rail Programs; Motor Vehicle and Driver Programs; Aviation Programs; Pipelines; Commercial Space Transportation; and Miscellaneous.

SAFETEA-LU authorized more than 108 individual programs, set-asides within programs and sub set-asides within set-asides for particular states, projects or research centers.³¹ The funding and policies laid out in these programs are filtered down to the State Departments of Transportation and Regional Planning

26 FHWA. SAFETEA-LU: A Summary of Highway Provisions in SAFETEA-LU. <http://www.fhwa.dot.gov/safetealu/summary.htm>

27 Panagopoulos, Costas; Schank, Joshua. 2008. All Roads Lead To Congress: The \$300 Billion Fight Over Highway Funding

28 FHWA. SAFETEA-LU: A Summary of Highway Provisions in SAFETEA-LU. <http://www.fhwa.dot.gov/safetealu/summary.htm>

29 Access Title 23, U.S.C here: http://uscode.house.gov/download/title_23.shtml

30 Access Title 49, U.S.C here: http://uscode.house.gov/download/title_49.shtml

31 National Surface Transportation Policy and Revenue Commission. Transportation for Tomorrow. 2008.

Organizations to determine which projects will be funded and distribute funds among those projects. Nine of the 108 programs — six within the highway title and three within the transit title — are considered “core” because they represent nearly 75 percent of authorized funding through SAFETEA-LU and are the funding source for most federally assisted projects at the state and local levels.³²

Most transportation programs can be described as either formula (apportioned) programs or discretionary (allocated) programs. The formula programs make funds available to the states based on factors such as population and road mileage. A GAO analysis found that the funding formulas used by Congress have only an indirect relationship to needs and many have no relationship to performance or outcomes.³³

A recent U.S. Treasury economic analysis of infrastructure investment found:

“Federal funding for infrastructure investments is not distributed on the basis of competition between projects using rigorous economic analysis or cost-benefit comparisons. The current system virtually ensures that the distribution of investment in infrastructure is suboptimal from the standpoint of raising the productive capacity of the economy.”³⁴

Discretionary programs distribute funding through a competitive process managed by either the federal government or the state. The administration that heads the program selects projects for funding based on applications received and evaluation of criteria. Each program has its own eligibility and selection criteria that are established by law, by regulation, or administratively.³⁵

The recent TIGER program (Transportation Investment Generating Economic Recovery) and Urban Partnership Program can serve as examples of a more merit-based approach. Projects in these two discretionary programs were selected based on national interest, goals and merit, thus enabling a more robust project evaluation, selection criteria and assessment. In

35 FHWA. Discretionary Programs. <http://www.fhwa.dot.gov/discretionary/>



Moline Multimodal Station, which received \$10 million in TIGER funding, will bring together Amtrak, local buses, taxis and bicycle and pedestrian facilities under one roof, enhancing this area of Moline’s waterfront and making travel easier for all Quad Cities residents. It is expected to support up to 825 new, permanent jobs, and eventually, when the new passenger rail link from Moline to Chicago breaks ground, will produce 1,600 direct and indirect jobs.

32 Congressional Research Service. Surface Transportation Reauthorization Legislation in the 111th Congress

33 GAO. 08-744T. Principles Can Guide Efforts to Restructure and Fund Federal Programs. 2008.

34 U.S. Department of the Treasury, An Economic Analysis of Infrastructure Investment, October 11, 2010, p. 20.

the TIGER program, applications had to show multiple benefits, with priority given to projects that: 1) improve the condition of existing facilities and systems; 2) contribute to the economic competitiveness of the U.S. over the medium- to long-term; 3) improve the quality of living and working environments for people; 4) improve energy efficiency; reduce dependence on foreign oil, reduce greenhouse gas emissions and benefit the environment; and 5) improve public safety.

The Urban Partnership Program evaluated projects on the degree to which they reduced congestion and improved travel times through tolling, transit, technology, and programs to promote teleworking and alternatives to driving alone.

Core Program Purpose

Figure 3.1 illustrates the funding distribution between the “core” Highway and Transit programs. **Figures 3.2** and **3.3**, provide more detail as to the general purpose of each “core” program. For example, the stated purpose of the core Highway Bridge Program is to “enable States to improve the condition of their highway bridges through replacement, rehabilitation, and systematic preventive maintenance.” However, states are not required to show their investment actually improved conditions, and many DOTs actually transfer money from the bridge account to new construction.³⁶

36 FHWA. Fact Sheets on Highway Provisions. Highway Bridge Program. <http://www.fhwa.dot.gov/safetealu/factsheets/bridge.htm>

The largest highway program, which also provides the most flexible funding use, is the Surface Transportation Program (STP), established by ISTEA in 1991. (Yes, the *Equity Bonus* program is larger in dollars, but it’s not a true program on its own. See glossary or box on p.35.)

Funds authorized under this program (STP) can be used to fund any project eligible under all federal highway and transit programs. In addition, once funding is distributed to states, 10 percent of each states’ STP funds are set aside for Transportation Enhancements, and 62.5 percent of the amount remaining is divided within the State based on population.³⁷ Transportation enhancement (TE) funds can be used for bicycle

37 FHWA. Fact Sheets on Highway Provisions. Surface Transportation Program. <http://www.fhwa.dot.gov/safetealu/factsheets/stp.htm>

TRANSPORTATION TERMINOLOGY

Equity Bonus: This program was created to ensure that every State is guaranteed at least a minimum amount of that State’s share of contributions to the highway portion of the Highway Trust Fund. The specified percentage, referred to as a relative rate of return, is 90.5 percent for 2005 and 2006, 91.5 percent for 2007, and 92 percent for 2008 and 2009. This program was created in part to address the **donor/donee** issue (see previous sidebar). It’s not a program in the same sense as others; all the money from this program is distributed to the other core highway programs.

Figure 3.1 Funding levels of core highway and transit programs (2009 levels)

Core Highway Programs



Core Transit Programs



Figure 3.2 Core highway programs purpose and funding details

Highway Program	Purpose	Percent of Highway Program FY09	Highway Program Funding FY09 (in billions)
Congestion Mitigation and Air Quality (CMAQ)	Projects and programs to reduce transportation emissions in areas with poor air quality	5.3%	\$2.225
Highway Bridge Program (HBP)	Projects to improve the condition of highway bridges through replacement, rehabilitation and systematic preventative maintenance	13.3%	\$5.580
Highways Safety Improvement Program (HSIP)	Projects designed to significantly reduce highway fatalities and serious injuries on public roads	3.9%	\$1.623
Interstate Maintenance (IM)	Projects to resurface, restore, rehabilitate and reconstruct interstate routes	15.5%	\$6.509
National Highway System (NHS)	Projects improving roads that are part of the national highway system	18.8%	\$7.896
Surface Transportation Program (STP)	Projects states and localities may carry out on any federal-aid highway, including bridges, transportation enhancements, transit capital and bus facility projects	19.6%	\$8.234

Figure 3.3 Core transit programs purpose and funding details

Transit Program	Purpose	Percent of Transit Program FY09	Transit Program Funding FY09 (in billions)
Formula Grants for Other than Urbanized Areas	Projects and funding to improve transit services in rural areas and small towns	5%	\$0.465
New Starts/Small Starts	Projects to expand or construct new fixed guideway transit service – funds are distributed through a competitive process	18%	\$1.809
Urbanized Area Formula Program	Planning, design and construction of bus and rail transit systems and related facilities	40%	\$4.160

Note: These amounts here differ from the amounts in Figure 3.1 because the \$9 billion in Equity Bonus funds that states receive – which is not a practical program – are divided and distributed to the core programs where they are actually spent. These amounts reflect the addition of Equity Bonus funds.

and pedestrian infrastructure as well as other purposes such as streetscape improvements. *(More info on TE can be found on page 39.)*

The largest transit program is the Urbanized Area Formula program, which provides funds to transit agencies in large urbanized areas for capital maintenance and operating assistance as well as for transportation related planning. But, the majority of these funds are distributed to areas over 200,000 in population, and in these large areas, the funds are restricted from being used on operating expenses.³⁸

The New Starts/Small Starts program is the largest, discretionary source of funding for the expansion of public transportation systems. The New Starts program funds new systems and extensions to existing fixed guideway systems through a competitive process. These projects include commuter rail, light rail, heavy rail, bus rapid transit, trolleys and ferries. The Small Starts program, a subset of the New Starts program, provides federal funding for similar projects with grants up to \$75 million for projects with total costs of \$250 million or less.³⁹

Factsheets on core programs and other key programs are available from FHWA at <http://www.fhwa.dot.gov/safetealu/factsheets.htm> and from FTA at http://www.fta.dot.gov/funding/grants_financing_263.html.

Three additional programs are sometimes considered “core” because of their size and importance within national transportation policy. The Equity Bonus Program, the largest federal program, distributes funding to states mostly through the other core highway programs. The individual program formulas determine the initial apportionment amounts provided to each state, and equity bonus funding is added to these levels to bring donor states up to their guaranteed rate-of-return. For FY2008, the funding distributed through this program reached nearly 22 percent of total apportionments.⁴⁰ *(The table in figure 3.2 above includes funds distributed to core programs through the equity bonus program.)*

Two transit programs — Fixed Guideway Modernization and the Bus and Bus-Related Facilities Capital Program — are also significant and sometimes considered “core” because of their importance to transit systems and, consequently, metropolitan mobility. Fixed Guideway Modernization constitutes 16 percent of the transit program and provides formula grants to modernize and improve existing heavy or light-rail, HOV lanes, or bus services with dedicated lanes. The Bus and Bus-Related Program is 10 percent of the transit program and is intended for bus purchases and bus-related equipment.⁴¹

38 FTA. Grant Programs. Urbanized Area Formula Program. http://www.fta.dot.gov/funding/grants/grants_financing_3561.html.

39 FTA. New Starts Program Overview. Introduction to New Starts. http://www.fta.dot.gov/planning/newstarts/planning_environment_2608.html

40 CRS. The Donor-Donee State Issue: Funding Equity in Surface Transportation Reauthorization.

41 Surface Transportation Policy Partnership. 2006. Margins to Mainstream

Transportation Enhancements

Created in the 1991 ISTEA authorizing legislation, the Transportation Enhancements (TE) program is approximately 1.5 percent of the total highway program. The program provides funds for innovative, community-based projects that expand travel choices by improving the cultural, historic, aesthetic and environmental aspects of the transportation system.



The TE program is popular among elected officials because it provides flexible funding for a range of transportation improvements that create safe and inviting conditions for walking and biking, expand access to public transportation and improve safety for motorists. The TE program has provided funding for more than 24,000 projects nationwide. States can choose how to administer their TE programs and set state-specific funding priorities for projects. Some select projects through a competitive process while others allow local jurisdictions to choose which projects to fund in a given year.

In 2003, the Transportation appropriations bill called for the elimination of funding to the program, but the House voted to strike this amendment by a 327-90 vote. Most recently in 2009, Senator Tom Coburn offered an amendment to the transportation appropriations bill to make TE optional—which is equivalent to removing the program — but was voted down 59-39.

Source: United States Roll Call <http://capwiz.com/artsusa/issues/votes/?votenum=469&chamber=H&congress=1081> and http://www.senate.gov/legislative/LIS/roll_call_lists/roll_call_vote_cfm.cfm?congress=111&session=1&vote=00034.

For more information, visit the National Transportation Enhancements Clearinghouse at <http://www.enhancements.org>. Flickr photo of the Silver Comet trail outside Atlanta, Georgia by Frankphotos. <http://www.flickr.com/photos/frankphotos/133139650/>

Flexibility and Transferability Provisions

The term “funding flexibility” is often used to describe the ability to invest a program’s available dollars in other transportation options — transit, walking, bicycling, car and vanpooling, etc. — but it also can mean the ability to shift or transfer funds from one program to another.⁴²

The Surface Transportation Program (STP) is the most flexible program, providing funds for projects eligible under all federal highway **and** transit programs. On the other hand, a less flexible program, the Interstate Maintenance (IM) program, only provides funds for resurfacing, restoring, rehabilitating and reconstructing — known as “the 4Rs” — routes on the Interstate System and cannot be used for construction of new lanes.

Most programs, with the notable exception of the Highway Safety Improvement Program, allow at least 50 percent of the program’s apportioned funds to be transferred for different purposes. STP, Equity Bonus and National Highway System (NHS) allow as much as 100 percent transferability. For example, while funding through the IM program is restricted to resurfacing, restoring, rehabilitating and reconstructing the interstates, states can transfer up to 50 percent of IM funds to other non-repair programs. These transfers do not require the

state to certify that their interstates are in a state of good repair. A state must provide a certification if they wish to transfer more than 50 percent of their IM funds.

The intent of funding flexibility within a program is to enable state and local governments, transit operators and metropolitan planning organizations to “more effectively meet their unique needs and facilitate a multimodal approach to meeting transportation needs at both the statewide and metropolitan levels.”⁴³

Federal Oversight

Responsibility for administering programs authorized by Congress falls to the U.S. DOT. The agency contains 13 divisions, ten of which are responsible for individual modes (highways, transit, marine, aviation, etc.) and three for administrative branches. These modal administrations oversee the activities of states and regions to ensure the intention of Congress and the rules of the law are being followed. A few smaller programs authorized in the surface transportation law are administered by other agencies, such as the Department of the Interior and the Internal Revenue Service.

42 Surface Transportation Policy Partnership. Margins to Mainstream. 2006.

43 FHWA/FTA Memorandum (2/06/06), Flexible Funding for Highways and Transit and Funding for Bicycle & Pedestrian Programs. <http://www.fhwa.dot.gov/hep/flexfund.htm>

Modal Administrations

- » Federal Aviation Administration
- » Federal Highway Administration
- » Federal Motor Carrier Administration
- » Federal Railroad Administration
- » Federal Transit Administration
- » Maritime Administration
- » National Highway Traffic Safety Administration
- » Pipeline and Hazardous Materials Safety Administration
- » Research and Innovative Technology Administration
- » Saint Lawrence Seaway Development Corporation

In practice, however, the modal administrations have very little ability to ensure that states and regions spend federal funds in ways that meet program goals. States must receive permission from these agencies before money is spent, but Congress articulates very few requirements on cost-effectiveness and economic growth potential.⁴⁴ The New Starts program is the exception – successful projects must demonstrate performance in several areas include cost-effectiveness and economic development. States are essentially given free reign to plan

and build projects, working with the federal government at the end of the process to arrange for reimbursement.

The debate over SAFETEA-LU confirmed a growing national consensus on the need to overhaul the structure and function of surface transportation authorizations. The law created two separate commissions to examine the future of transportation. Each confirmed the need to change the programs and program structure to make the system more performance-based and reassure the public that scarce resources are being used wisely.

44 GAO. 08-744T. Principles Can Guide Efforts to Restructure and Fund Federal Programs. 2008.

(4) Planning and Implementation

As any successful business owner can tell you, success starts with a good plan. Poor planning means wasted money, wasted resources, and wasted time. In the transportation world, poor planning can be catastrophic – millions of wasted taxpayer dollars and traffic as far as the eye can see. This chapter provides an overview of the current planning process and details how the next authorization can strategically reform it.

Under current law, planning requirements vary depending on population. Metropolitan Planning Organizations (MPOs) are responsible for leading the planning efforts for regions with 50,000 or more residents. In small towns and rural areas that fall outside census-defined MPO areas, individual towns and counties work with regional planning organizations, the state DOT and adjacent MPOs. **Figure 4.1** identifies the major players involved in transportation planning. For areas with a population of less than 50,000, state DOTs play the lead role in developing the transportation plan and the capital program.

Transit agencies also operate at the regional level and, less frequently, at the state and local level. The transit agency plans and operates transit services in the metro area or provides transit services in the rural areas of a state. Transit agencies are required to develop their own plans in coordination with MPOs or the state DOT.

TRANSPORTATION TERMS

Transportation Improvement Plan (TIP) and State Transportation Improvement Plan

(STIP): The TIP and STIP are 4-year plans for spending both federal and state funds for selected projects and programs. The Metropolitan Planning Organization typically assembles the TIP, which is compiled and added to the State's plan (STIP). Projects have to be on the TIP or STIP to be eligible for federal funding.

In the transportation planning process, two key documents must be developed: the 20-year long-range transportation plan and the four-year implementation plan known as the Transportation Improvement Plan (TIP). The TIP consists of specific projects that the state or MPO plans to fund during the next four years. Federal law requires state and local governments to involve the public in the transportation planning process. These documents provide the opportunity for public engagement, are often how local priorities are considered and where community members have the opportunity to voice their opinions.

Long-Range Transportation Plans

Long-range plans are supposed to be a vision for the future development of the transportation system. The plan should identify regional transportation goals, issues, and needs and

Figure 4.1 Major players in transportation planning

State Departments of Transportation (DOTs)	State Departments of Transportation (DOTs) exist in all 50 states and are tasked with transportation planning and project funding decision-making in their respective states. In many states, DOTs have regional offices that work on local planning and projects.
Metropolitan Planning Organizations (MPOs)	Metropolitan Planning Organizations (MPOs) exist in regions defined by the U.S. Census Bureau as having 50,000 or more people. The MPO is comprised of representatives of all the local governments (both city and suburb) in the region and may also have transit agencies or community groups on the Board. MPOs oversee long-range planning and some short-term project funding decisions in their region. MPOs in regions over 200,000 people are sometimes referred to as Transportation Management Areas (TMAs) and receive a portion of federal funds directly.
Regional Transportation Planning Organizations (RTPOs)	Some states also have Regional Transportation Planning Organizations (RTPOs) to coordinate transportation planning and work with state DOTs in areas with less than 50,000 people. RTPOs are formed through a voluntary association of local governments within a county or group of contiguous counties and are created by state legislation, as opposed to federal legislation. While RTPOs are not recognized by the federal government in the federal funding process, they serve an important role in the non-metropolitan regions where they do exist.
Regional and Local Transit Agencies	Regional and local transit agencies plan and operate public transportation services, usually separate from the state DOT, though they do coordinate with MPOs in developing regional plans and projects. Larger transit systems receive federal funding directly; small systems and on-demand paratransit providers receive funds through state DOTs and MPOs.
Cities, Counties, and Local Governments	Cities, counties, and local governments also undertake transportation planning along with regional planning organizations in rural areas.

defines the direction for regional planning, programming, and project development over a 20-year period.

Current long-range plans consider population projections, growth, and travel patterns, and analyze current conditions such as congestion and safety, the condition of the roads, bridges, transit vehicles and facilities, and other key

infrastructure. States and regions use modeling of projected local growth patterns to help determine future transportation needs.

Strategic Planning

The current flawed planning process often results in projects to nowhere – worse yet, it also results in plans to nowhere.

TRANSPORTATION TERMINOLOGY

Strategic planning: A new approach to long-range planning that starts with desired outcomes (less traffic, more affordable transportation, job centers closer to housing) and then models several alternatives of transportation spending to best reach those goals. Also called scenario planning or performance-based planning.

Current plans aren't fiscally constrained, aren't tied to achievable goals, and cost taxpayers millions of dollars. State plans are not fiscally constrained and may include any number of projects whether the state can afford to build them or not. The plans are also supposed to accomplish goals outlined in Federal law (Section 134 of Title 23), with the planning process guiding investments to projects and strategies to achieve these goals. However, with the flawed current planning practices – namely assumptions about future local land use – often the only outcomes of our investments are more traffic and more taxes.

In many places, the current planning process fails to accurately predict changes in our communities. Often states and regions assume that current local land use plans will not change over the next 20 years – ignoring zoning and site plan proposals that will be considered by the local governments and the potential impacts of such modifications on future transportation needs. This practice can lead to selection and construction of projects that do not provide states and regions with the best bang for their

buck because the projects were selected based on a set of needs that either never materialized or changed due to changes in local growth patterns.

Many communities have realized that the current planning system isn't helping them meet their economic and development goals. More than 100 communities have revised their planning process to a more strategic, business-like approach. Strategic planning starts with the region defining the desired outcomes and then designing the future transportation system to meet those goals. Through a strategic plan, communities are better able to assess the costs and benefits of various policy and investment scenarios.

(For an example of strategic planning, see box on following page: *Shaping the Future*.)

Transportation Improvement Plans: Selecting Projects and Setting Priorities

States and regions prepare short-term project lists and plans to guide the implementation process and set funding priorities.⁴⁵ In large regions, MPOs prepare TIPs and states incorporate these into Statewide Transportation Improvement Plans, or STIPs. The TIP and STIP are 4-year plans for spending both federal and state funds for selected projects and programs.

45 Surface Transportation Policy Partnership. 2006. From the Margins to the Mainstream. http://www.trb.org/Main/Blurbs/From_the_Margins_to_the_Mainstream_A_Guide_to_Trans_156769.aspx

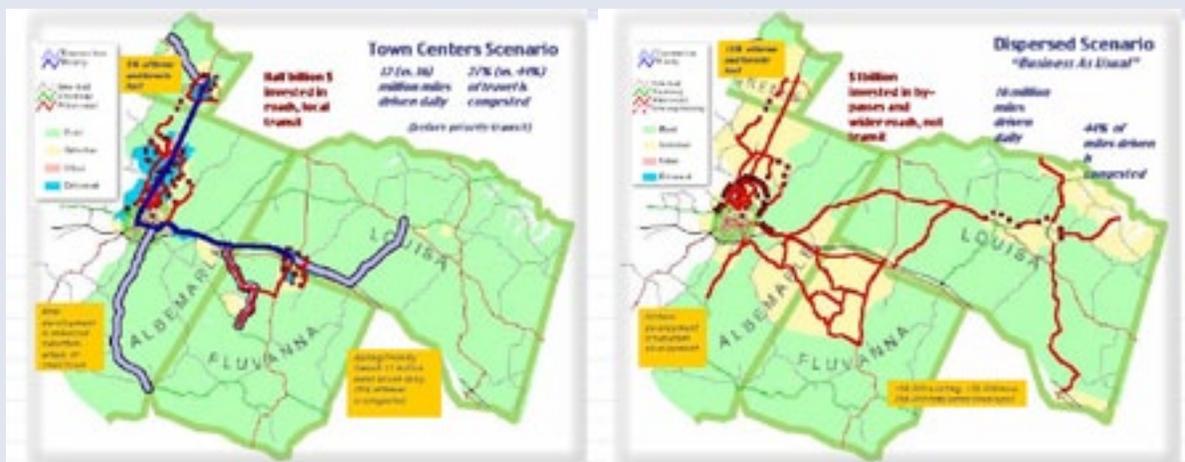
Shaping the Future Together

Strategic planning can help a community take control of its own future by measuring the costs and potential impacts of various transportation improvements, equipping the community with the information it needs to make smarter decisions about transportation spending and saving money while building the kind of community the leaders and citizens want in the future.

The Jefferson Area Eastern Planning Initiative in central Virginia relied on modeling to assess the impact of future growth patterns and transportation investments on the performance and costs of the needed transportation improvements as well as the environment. The analysis compared three scenarios – one baseline scenario that projected existing conditions (“business as usual”) forward 20 years and two other scenarios that considered different choices about transportation investment and growth patterns. These other two scenarios prioritized growth and investment in already built-up areas along with transit investment and improvement of current roads.

In the baseline scenario the improvements to the transportation network would cost approximately \$1 billion and 44 percent of travel would be congested while in the other two scenarios the transportation improvements would cost approximately \$500 million and 20-27 percent of travel would be congested.

Localities in the region are already working together to achieve the vision by updating zoning, changing development plans and working towards identified transportation improvements.



Why are our commutes so terrible? It's all in the planning

Traffic is everywhere, and it's getting worse. One of the reasons why commutes are so painful is that transportation planning has only focused on one part of the problem – travel speed. Distance is the other critical piece, and it's largely ignored in transportation plans.

Think about it this way – when you're driving from Chicago to Pittsburgh, you care about speed, because it determines how long it takes to get to your destination. But in your everyday life going to work, school, or the store, it's not just speed that impacts your commute – it's also how much time you have to spend driving, not just how fast.

Poor planning that focuses all of our resources on only increasing speed is a one-size fits all solution that doesn't work for many communities. Focusing on speed is critical for long distance travel, but in our communities plans need to address both speed and distance. By looking at both factors, we can shorten "killer" commutes.

TRANSPORTATION TERMS

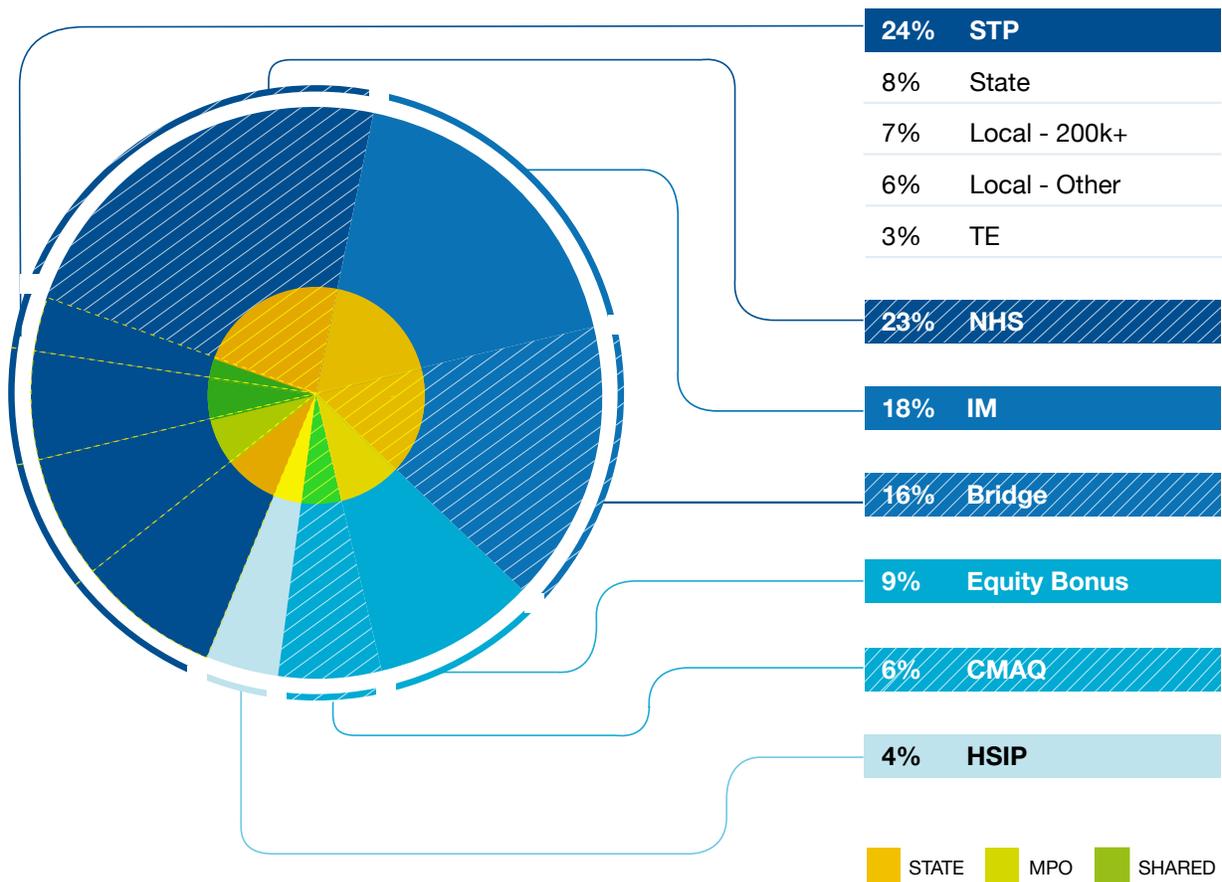
There is a glossary of transportation terms and common acronyms to provide some clarity where possible, available in **Appendix A** at the end of this document.

Just as with long-range plans, to be eligible for federal funds, a project must be included in the TIP or STIP. The STIP/TIP list includes all the projects the region or state would like to complete with anticipated revenues, particularly those that will require federal funding. These plans include total project cost estimates, amount of federal funds that should be distributed to the project each year, public and private sources of funding for the first year of the project, and assumed sources for the second and third year.⁴⁶

These short-term implementation plans are required to be fiscally constrained – meaning only projects that can be funded during the four-year period can be included. This is intended to ensure that these plans are realistic and provide the public with an accurate list of projects that will be built in the near term.

MPOs have a role in selecting projects for their region and have some say over what projects will be included in the STIP. [However, because state DOTs control the majority of federal funds the DOTs have the power to select which projects in the STIP will be funded through some of the largest federal programs.] Local officials only have direct control to select projects for their region with funds from a portion of one program – the Surface Transportation Program – shown above in **Figure 4.2** – though in some states, state law provides MPOs with increased authority.

46 Surface Transportation Policy Partnership. 2006. From the Margins to the Mainstream. http://www.trb.org/Main/Blurbs/From_the_Margins_to_the_Mainstream_A_Guide_to_Trans_156769.aspx

Table 4.2 Who controls federal transportation dollars (2006 funding levels)

* "Shared" means MPOs/local governments are generally more engaged in decisions on funding, usually due to program emphasis or directives in law, but states (except CA) make the decisions on when and if funds are actually obligated.

* CMAQ funds are intended for local areas in compliance with the Clean Air Act.

* STP Local funds (numbers broken out below STP) is the only program (except earmarks) where states must proportionally allocate share of obligation authority. Also, shares fluctuate slightly as population changes among the areas.

Source: Margins to the Mainstream.

Moving From Planning to Funding

From 1998 to 2010, states, regions and transit agencies were fairly certain about the level of federal formula funds they could expect each year because spending levels were set in advance

for five to six year periods.⁴⁷ Earlier this year, the House of Representatives adopted new rules that subject the transportation program to the annual appropriations process and would allow the House Appropriations Committee to provide states and regions with less funding than what was specified in the long-term transportation bill.

⁴⁷ Ibid.

From their highway budgets, states in 2006 spent:⁴⁸

- » 48 percent on improvements to physical highway infrastructure, including land acquisition and right-of-way.
- » 25 percent on maintenance to keep roads in usable condition, not including major resurfacings and operations management to keep traffic flowing, reduce environmental impacts and improve aesthetics.
- » 9.4 percent on highway law enforcement and safety.
- » 8.4 percent on administrative costs.
- » 4.6 percent on debt service.
- » 4.6 percent on transfers to local governments.

The majority of transit funds are allocated directly to larger transit agencies, with formula funds largely determined according to population, ridership and services delivered. In transit financing, federal dollars represent about one fourth of all spending, largely for capital investment – in most cases, capital maintenance. Local governments and transit users contribute substantially more than half of all transit funding, with states providing the remaining share.

According to their 2006 transit budgets, states spent:⁴⁹

- » 66 percent on operating expenses (mostly for scheduling and operations, less for vehicle and facility maintenance.)
- » 33 percent on capital maintenance and expansion expenses (mostly for replacement of existing facilities and vehicles.)

From Funding to Construction

Project development and construction typically occurs at the state or local levels.

The project development process differs between highway and transit projects, in part because the federal policies that govern them differ.⁵⁰ Major highway projects take about 10 years from project initiation to completion, according to the Federal Highway Administration, while Federal Transit Administration figures indicate that the average project-development period for New Starts – the most significant transit expansion funding program – is in excess of 13 years.⁵¹

48 National Conference of State Legislatures' "Surface Transportation Funding: Options for States" report, published May 2006. http://www.juddmatheny.com/NCSL_surface_transportation_funding_report.pdf

49 Ibid.

50 Brookings Institution. Taking the High Road. 2005. <http://www.brookings.edu/press/Books/2005/takingthehighroad.aspx>

51 National Surface Transportation Policy and Revenue Study Commission. Transportation for Tomorrow.

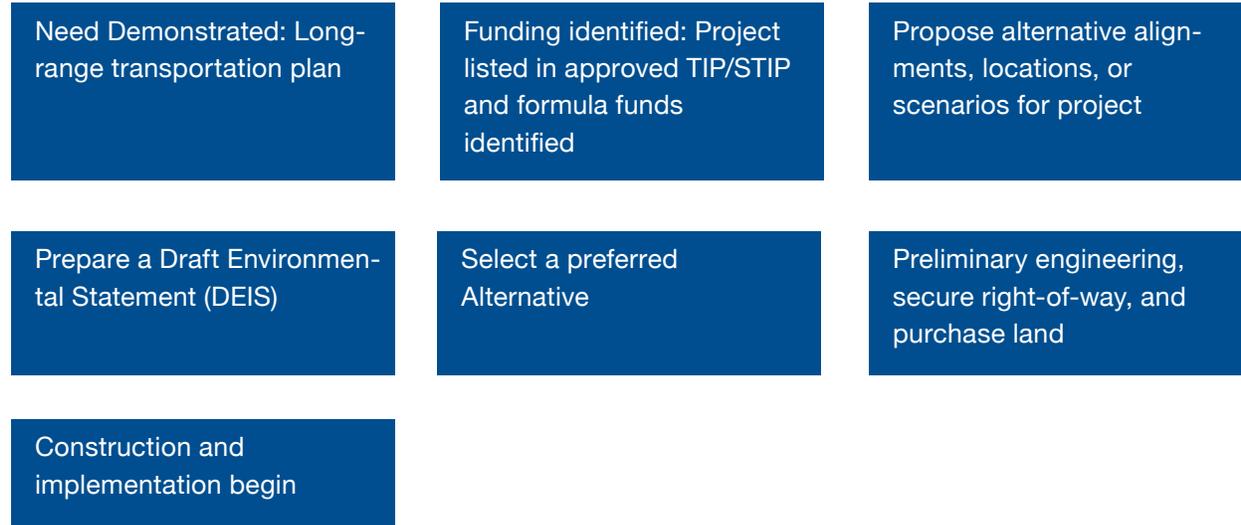
Transparency Equals Trust: Lessons from the Local Level

Recent polls show Americans do not believe their transportation funds are spent wisely, with several polls showing that the majority believe that transportation investments are based on politics rather than merit. According to a February, 2011 poll conducted on behalf of the Rockefeller Foundation, 90 percent of voters believe local regions should have a greater say in how transportation funds are used, and 63 percent strongly feel that way.

A review of ballot measures from 2000 to 2005 found that voters approved 70 percent of transportation initiatives, generating at least \$70 billion in new investment. While voters often oppose new taxes in general, they will more often than not vote to tax themselves for specific transportation investments, so long as they know what they will get for their money.

Transit expansion projects are typically more complex and difficult to build than highways because the major source of federal funding for transit expansion is distributed through the New Starts program. As stated earlier, this program is a discretionary program, which requires transit projects to participate in a nationally competitive program for limited funding, unlike highway projects, which are funded through formula funds. For many indirect reasons, this process created an uneven playing field for highway versus transit expansion.

- » The demand for the funds exceeds the available funds, resulting in intense competition.
- » By statute, projects can request up to 80 percent of project costs from the federal government (the same as highway formula funds), but the reality is that the average federal share is considerably lower. In the FY11 report to Congress, FTA noted the average federal share for recommended New Starts projects was 47 percent. In contrast, projects to plan and build new roads or highways have typically been funded through non-competitive formula programs, which have a standardized 80 percent federal match.
- » Before a project can even be recommended for a grant, it must progress through a lengthy and expensive regional review of alternatives, develop preliminary engineering plans and meet FTA's approval for final design before the project is recommended for a grant.
- » Once a project receives a grant agreement from the federal government, annual funding is still subject to annual budgetary appropriations and is not guaranteed – unlike formula funds.
- » Finally, transit projects must demonstrate they will be compatible with local land use, employment and the needs of low-income residents.

Table 4.3 Highway project process

Like highway projects, transit projects also go through a general process to get funded and built — demonstrated in **figure 4.3 (above) and 4.4**. A transit project must go through various steps before it can even be placed on a TIP. (Reminder: TIP is just a list of desired projects. Being on the list doesn't guarantee funding, but a project must be on the TIP to receive federal dollars.)

Figure 4.5 identifies the major differences in building a new highway project versus a transit project

Today, states, and to a lesser degree MPOs and transit agencies, control the funding decisions that shape the transportation system in our communities. While transportation projects go through a variety of planning and funding stages before proceeding to construction, the federal government sets the framework for the process. The entire lifespan of a project often exceeds 10-13 years. Differences in federal matching, Congressional earmarking and

approval guidelines result in a substantially different process for transit projects compared to highways. And while states, MPOs, and local governments retain much of the decision-making power over projects in their areas, the federal authorizing legislation is critical to shaping both the discussion and eventual results.

Table 4.4 Transit project process



Figure 4.5 Comparing major new highway and transit project development

	Major New Highway	New Fixed Guideway Transit
Federal Funding Source	Authorized through Highway Trust Fund	Appropriated through General Fund
Federal Matching (Avg.)	80 percent	80 percent in law, 50 percent in practice
Average Project Development Time	10 years	13 years
Federal Program	National Highway System, Surface Transportation Program, Congestion Mitigation and Air Quality + many more	New Starts Program

(5) The Reauthorization Process

Transportation policy and funding priorities are established through multi-year authorizations approved by Congress. Since 1991, most transportation authorizations have set funding levels for six years at a time. Congress sometimes relies on short-term extensions that temporarily extend the existing programs and funding during debate over the next authorization — which it has been doing since September of 2009.

The process of adopting transportation bills is long and complex, in part because multiple committees have jurisdiction over the measure, especially in the Senate where four separate committees are responsible for portions of the bill. See **Figure 5.1**

Because of this, legislation does not move through chambers or committees in a linear or predetermined fashion and major changes in the overall structure of the bill or policy direction are difficult to achieve, as changes require input and buy-in from at least six committees. As a result, bills involving surface transportation matters can occur simultaneously and independently in any of the relevant committees and in either chamber.

Figure 5.1 Congressional committees

Senate Committees

Highway policy (Title 23)	Environment and Public Works Committee
Public transportation	Banking, Housing and Urban Affairs Committee
Safety, commerce and freight	Commerce, Science and Transportation Committee
Highway Trust Fund and other revenue matters	Finance Committee

House Committees

All transportation policy	Transportation and Infrastructure Committee
Funding and financing mechanisms	Committee on Ways and Means

Understanding Authorization versus Appropriation

The formal federal spending process consists of two sequential steps: authorization and appropriation. Congress influences policy through the authorization process and the power of the purse lies with the appropriations process.

TRANSPORTATION TERMS

Authorization: establishes policies for spending and sets maximum spending levels on individual federal programs or agencies. It does not provide any actual money to the program or agency.

Appropriations: provides an agency with the authority to spend budgeted (or authorized) money. More simply, it's how agencies actually get their funding. Federal appropriations carve out the actual cash needed to reimburse states for spending.

Contract Authority: This gives states the ability to obligate (spend, commit) money before those funds have been appropriated (provided.) Among other things, this makes it possible to enter into longer contracts for multi-year projects.

An **authorization** establishes levels of funding for a program or agency. It does not provide any actual money to the program or agency. Authorizations establish policies for spending and set maximum spending levels on individual federal programs.

The **appropriations** process provides an agency with the authority to spend budgeted or authorized money. (Or more simply, it's how agencies actually get their actual dollars.) Federal appropriations allow the government to obligate funds that have been authorized, carving out the actual cash needed to reimburse the states for spending.

The surface transportation acts are tied to a dedicated source of revenue in the form of gas taxes and fees, and so they have a unique

appropriations process. Unlike other federal programs, this dedicated annual funding source prevents fights over annual appropriations. For the most part, annual transportation appropriations are contained in the annual DOT Appropriations Act, the Transportation, Housing, and Urban Development (THUD) bill.

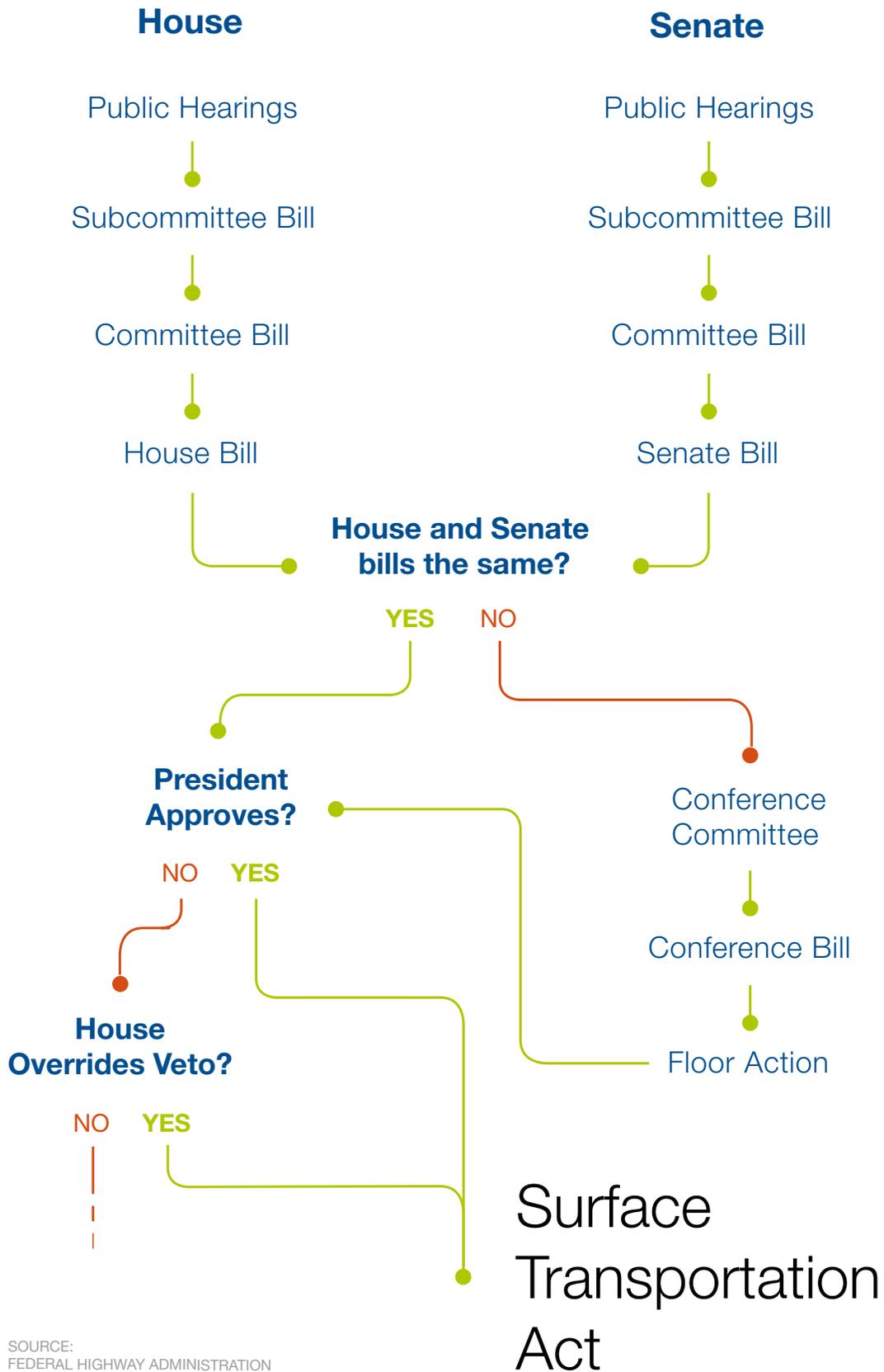
The permanent appropriation process in the authorizing legislation permits funding obligations to be made in advance of funds being appropriated, which provides states and regions the certainty to fund projects over multiple years. (Like a large transit or highway project that takes several years to complete.) This is referred to as 'contract authority.' The Highway Trust Fund and the certainty of appropriations each year it provides gives states and agencies the ability to enter into construction and manufacturing contracts up to the funding ceiling identified in the appropriation process.

The Authorization Process

The process for a new multi-year authorization typically begins with the incumbent administration developing either a legislative proposal or principles for the transportation bill. Working with U.S. DOT, states and other stakeholders on the draft legislation, the process can begin up to two years before the previous act expires.

The Administration bill or principles are transmitted to Congress and members within each of the different authorizing committees work independently to prepare versions of the bill in the

Figure 5.2 The reauthorization process



SOURCE:
FEDERAL HIGHWAY ADMINISTRATION

House and Senate. Committees in both chambers hold hearings on various aspects of the legislation to give interested organizations, stakeholders and the Administration the opportunity to present their views on key issues. Members can use these hearings as an opportunity to elevate issues and gain support from other members.

The House often moves first. The relevant Congressional committees and subcommittees prepare draft legislation for their portions of the bill and share ideas and drafts with other subcommittees and the parent committee. When the bill is considered complete, the full committee completes a mark-up session and works with other full committees with jurisdiction over any aspect of the authorization. This is an opportunity for members on the Committee to offer amendments and demonstrate support for key provisions. Once all committees have approved all sections of the draft legislation, the bill is “reported out” to the full membership of the House and the Senate for further debate, amendments and ultimately, a vote.

Once the House and Senate approve versions of the bill, a conference committee works to resolve any differences between the two bills. The conference committee is usually comprised of senior members of the relevant committees. Once the conference committee reaches agreement, a single bill and report are returned to both chambers for final passage. This conferenced bill must be voted on exactly as presented and members are not allowed to offer amendments. Once passed, the bill is sent to the President for his signature.

The entire authorization process can take as little as six months and as long as two to three years, depending on the legislative calendar, political landscape and public opinion. **Figure 5.2** illustrates the authorization process.

Extending an expiring authorization

The number of committees, widespread interest from House and Senate members outside of presiding committees, political hurdles for any reforms or more funding and the complexity of the process have resulted in significant delays in the authorization process.

When delay happens, as it does frequently, Congress usually votes to temporarily extend the previous law while it works out the details of the new one. For example, the 1998 law (TEA-21) was extended an unprecedented 12 times over a

TRANSPORTATION TERMS

SAFETEA-LU: The current transportation “authorization” that was passed in 2005. It has been extended several times since its expiration in September 2009, temporarily extending those old policies and funding levels. It stands for the “Safe, Accountable, Flexible, Efficient, Transportation Equity Act - A Legacy for Users.”

Extensions: These are temporary continuances of an old or expiring transportation law. Extensions typically just continue old policies and funding, but ensure that money keeps flowing to the states, allowing projects to continue.

23 month period from its September 30, 2003 expiration until final agreement was reached on its successor, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), signed on August 10, 2005.

These temporary extensions ensure that the activities and revenue sources that support the federal transportation program continue while Congress debates future policy and funding. (This means that all the old policies and funding levels are simply continued.) The extensions allow states a minimal ability to continue to sign contracts, manage planning and construction and be assured of reimbursement for expenses.

However, these temporary extensions present a problem for states and the people who build and repair our transportation systems because they lead to uncertainty and increased costs. State DOTs are unable to enter into multi-year contracts on the largest and most critical projects until a long-term bill is approved. Prolonged extensions also impact the private sector's ability to access innovative financing opportunities from the federal government and the states.

The 2005 surface transportation law, SAFETEA-LU, expired on September 30th, 2009. Congress has not passed a new six-year authorization of the federal surface transportation program, opting instead for a series of temporary extensions of SAFETEA-LU, the old law. These extensions will continue until a new authorization bill is signed into law.



Photo of former Chairman Oberstar by Flickr user-House Committee on Education and the Workforce Dem <http://www.flickr.com/photos/edlabor-dems/4188893312/>

Though the Senate Environment and Public Works Committee and the Administration advocated for an 18-month extension of the old law in September 2009, the House Transportation and Infrastructure Committee supported a shorter, three-month extension. To break the impasse and avoid a very real gap in funding, Congress agreed to a one-month extension through October 31, 2009, followed by several short-term extensions in 2010.

What happens if an extension is not passed? Congress was unable to approve the needed extension in February 2010 because of an objection by Senator Jim Bunning (R-KY). As a result, federal transportation funding stopped and the Highway Trust Fund was temporarily suspended, resulting in furloughs of about 2,000 Department of Transportation employees and the suspension of reimbursements to states. On March 2, the Senate approved a 28-day extension of the old law through March 28, 2010, putting

the HTF back in operation. In a fifth extension, Congress approved extending the law through December 31, 2010 as well as a \$19.5 billion infusion of general funds to the HTF (discussed in chapter 2). Both houses passed the latest continuing resolution during the lame-duck session in December 2010. As of this writing, a sixth extension of SAFETEA-LU until March 4th, 2011 is currently in place.

The 111th Congress

The 112th Congress faces a difficult path forward. The most significant hurdle to passing a long-term authorization is the need to identify a sustainable funding source. Due to changes in demographics, fewer miles being driven and the popularity of more fuel-efficient vehicles, the gas tax dollars that replenish the HTF are no longer sufficient. Thus, while most transportation stakeholders and elected leaders agree on the need for increased investment in infrastructure to meet our growing needs and address the backlog of neglected repairs, few proposals for revenue have thus far been acceptable to Congress.

The 111th Congress ran into this dilemma head-on. In June 2009, House Transportation and Infrastructure Committee Chairman Jim Oberstar released the Surface Transportation Authorization Act of 2009. The bill was not formally introduced in part because it lacked a concrete plan for funding, but was nonetheless subject to be voted on by both the full Committee and the Subcommittee on Highways and Transit.

Transportation in the economic stimulus

The transportation sector has played a crucial role in rebuilding the U.S. economy, most recently through the American Recovery and Reinvestment Act (ARRA). ARRA provided considerable new funding for surface transportation programs – including \$27.5 billion through the existing federal-aid highway program and \$8.4 billion for transit. High-Speed Passenger Rail, previously a small federal program, received \$8 billion.

An additional \$1.5 billion was made available by a new discretionary grant program known as TIGER (Transportation Investments Generating Economic Recovery). TIGER awarded funds to projects that addressed economic, environmental and travel issues at once. The TIGER program awarded \$1.5 billion in the first round of grants and \$600 million in the second for innovative transportation projects. TIGER helped fund innovative projects across the country that can have a hard time getting funded within the outdated structure of the current federal transportation program.

The 112th Congress and beyond

The 112th Congress has the opportunity to step up and put their mark on transportation by passing a six-year authorization bill. Declining gas tax revenues will not fully fund the transportation

needs of our nation, and finding a new source of funding will be a challenge. If a new bill relied solely on expected gas tax revenues for funding, the bill could be smaller in actual dollars than the last bill (SAFETEA-LU) in 2005.

The authorization process is often long and difficult, but with the White House release of reauthorization principles expected in early 2011 and the desire to pass a bill before election season ramps up, Congress and the newly reshuffled committees and subcommittees will be working with renewed energy on a transportation bill that meets the needs and challenges of the 21st C\ century.

TRANSPORTATION TERMS

There is a glossary of transportation terms and common acronyms to provide some clarity where possible, available in **Appendix A** at the end of this document.

(6) The Future of Transportation

We're entering a new era for transportation in America. Investments in canals created new cities and connected them to the world, railroads opened up America's interior, construction of our unmatched interstate system connected states, cities and towns and transit arose initially to meet the travel needs of urban areas. We must maintain these investments while recognizing new challenges and finding ways to make each dollar go further.

Our nation's transportation system will continue to play a crucial role as we face the challenges in this new century head-on. As we enter this new era, 60 years after the beginning of the interstate era, we have a once-in-a-generation opportunity to set a new course, grow the economy, increase access to jobs and opportunity and show leadership on protecting the environment and public health.

What will this era be known as 50 years from now?

Assessing Performance: Are We Satisfied with a 'D'?

Transportation agencies at all levels of government collect data and information to assess the performance of our system. So how are we doing as a nation?

- » Nearly 40,000 people are killed each year on U.S. roads – the equivalent of a 737 airliner crashing every weekday – and approximately 2.5 million people are injured every year.⁵² The economic cost alone of these traffic-related tragedies is estimated at \$230 billion annually. The American Automobile Association estimates that crashes impose a “tax” of \$1,050 on residents annually.⁵³
- » The mix of commuting traffic with freight movement in our busiest corridors creates a growing challenge. Interstates intended for longer-distance travel have become local traffic arteries. With demand for freight transportation expected to double by 2035, failure to address this congestion adds to the cost of goods movement and threatens America's economic competitiveness.⁵⁴
- » The typical rush-hour commuter spends a full work week stuck in traffic each year, totaling 4.2 billion hours, 2.8 billion gallons

52 Farmer, C. “Injury Prevention.” *BMJ Specialist Journals*. Volume 11: 18-23.

53 Cambridge Systematics. “Crashes vs. Congestion: What's the Cost to Society?” March 2008.

54 American Association of State Highway and Transportation Officials. “Unlocking Freight.” 2010..

- of wasted fuel, and a direct cost of \$87 billion⁵⁵ without considering the broader economic, environmental and quality of life impacts.
- » Low- and moderate-income households, including those in rural areas, spend about 42 percent of their total annual income on transportation, compared to 22 percent of annual income for middle income households.⁵⁶
 - » Americans living within 1,000 feet of major highways are more likely to have asthma, leukemia and cardiovascular disease.⁵⁷
 - » The transportation sector is responsible for 70 percent of the oil consumed in the U.S.⁵⁸ and contributes nearly one-third of the nation's carbon dioxide emissions; current policies do little to encourage greater efficiency and performance⁵⁹ — in fact, many policies do exactly the opposite.
 - » The U.S. population is growing and aging, exacerbating an already strained system. More than half of non-driving senior citizens report staying home each day simply because they lack adequate transportation.⁶⁰ By 2050, more than one in five Americans will be over the age of 65, increasing the need for more transportation options.⁶¹
 - » The gas tax no longer generates sufficient revenue to sustain current federal spending; dwindling gas tax receipts have resulted in three separate bailouts from the Treasury totaling \$34.5 billion to maintain current spending levels.
 - » The lack of transportation options imposes significant costs on Americans — households that live in auto-dependent areas spend an average of 25 percent of their income on transportation, compared with 9 percent for households that live in areas well served by transit.
 - » Across the nation, drivers encounter more than 90,000 miles of crumbling highways and more than 70,000 structurally deficient bridges.⁶² Approximately 12 percent of our nation's bridges are structurally deficient.

55 Texas Transportation Institute. "2007 Urban Mobility Report." September 2007.

56 The Bureau of Transportation Statistics, Consumer Expenditure Survey, Transportation Statistics Annual Report, 2000, <http://www.bts.gov> In http://www.publictransportation.org/reports/asp/mobility_rural.asp

57 Bullard, R.D. (2005). Environmental Justice in the Twenty-first Century. The Quest for Environmental Justice. Sierra Club Books. San Francisco, California.

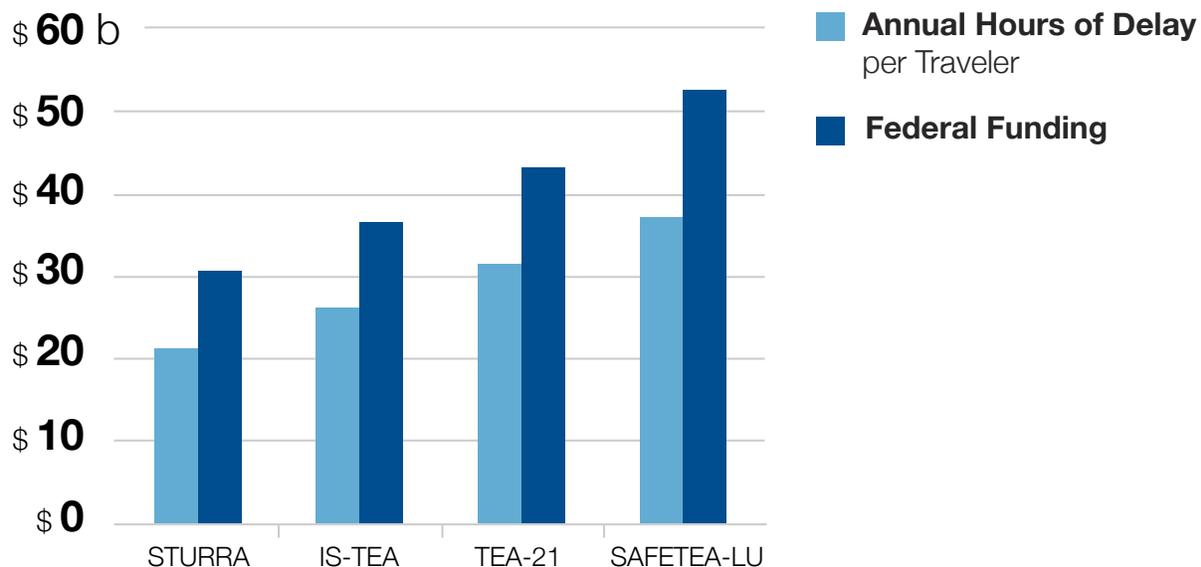
58 U.S. Energy Information Association. "Annual Energy Review: U.S. Primary Energy Consumption by Source and Sector." 26 July 2009.

59 U.S. Energy Information Association. "U.S. Carbon Dioxide Emissions from Fossil Fuels Virtually Unchanged in 2005 as Price Increases Dampen Energy Demand." 2006..

60 American Public Transportation Association. "Expanding the Transportation Options in an Aging Society." 2006.

61 U.S. Census Bureau. "Future Projections." 2000.

62 FHWA. 2008 Conditions and Performance Report.

Figure 6.1 Federal investment and congestion (in billions of dollars)

» The American Society of Civil Engineers gave the condition of the nation’s bridges a “C” grade and roadways a near-failing “D-” grade in 2009 and transit systems a “D.”⁶³

Fixing What’s Broken: The Next National Transportation Program

As several blue-ribbon review commissions have concluded in recent years, there are myriad ways to improve the return on our investment in infrastructure, and that need becomes ever more urgent as the U.S. struggles to regain our economic primacy.

Are we satisfied with what our dollars are buying us? How might we improve our investment strategy?

Figure 6.1 illustrates that as federal investment in our transportation system has increased throughout the years so has congestion. We’ve been spending more money, but getting less.

Reports, Commissions and the Next Authorization

Congress created two national commissions in SAFETEA-LU charged with evaluating the current program and making recommendations for a new direction in transportation policy. The Commission findings were intended to provide insights and recommendations to be discussed and included in the reauthorization of SAFETEA-LU.

63 American Society of Civil Engineers. Report Card for America’s Infrastructure. 2009. <http://www.infrastructurereportcard.org/>

The two commissions are:

National Surface Transportation Infrastructure Financing Commission:

<http://financecommission.dot.gov/>

National Surface Transportation Policy and Revenue Study Commission:

<http://transportationfortomorrow.com/>

In addition, numerous other organizations, from the U.S. Government Accountability Office (GAO) and the Congressional Research Service (CRS) to the Miller Center for Public Affairs and the Brookings Institution, have also published analyses of the current situation.

While the recommendations and policy solutions put forth by these groups vary depending on the focus and intent of their work, there is widespread consensus that the current system isn't meeting our country's needs and we need to dramatically reform current federal transportation policies and programs.

As participants in the David R. Goode National Transportation Policy Conference noted in "Well Within Reach: America's New Transportation Vision,"

A system launched with a bold and historic vision is now characterized by pork and political opportunism. Financing models that once served America well are no longer sustainable. Stimulus funding will add capacity in some communities and will bring other elements of the system into a state of

better repair, but will not provide the efficient, scalable, state-of-the-art transportation system necessary to drive future economic growth. What's needed is nothing less than a fundamental overhaul of America's transportation policies and programs.⁶⁴

Consensus about changes to the system

Across the transportation industry and within these commissions, there is widespread recognition of **four** core challenges in the current system that present opportunities for reform.

1. A national vision with clear goals

There is a need for a **national vision with clear goals that move our surface transportation program forward**, spending limited federal funds more wisely to meet clearly defined goals and develop a network that meets

A NATIONAL VISION WITH CLEAR GOALS

MORE ACCOUNTABILITY AND A FOCUS ON RESULTS

SUSTAINABLE FUNDING AND INNOVATIVE FINANCING

A BETTER WAY TO PLAN AND PICK PROJECTS

the needs of the 21st century.

64 Miller Center for Public Affairs. Well Within Reach America's New Transportation Agenda. David R. Goode National Transportation Policy Conference Norman Y. Mineta and Samuel K. Skinner, Conference Co-Chairs and former Secretaries of Transportation. Jeffrey N. Shane, Conference Director

1) A NATIONAL VISION WITH CLEAR GOALS

3) SUSTAINABLE FUNDING AND INNOVATIVE FINANCING

2) MORE ACCOUNTABILITY AND A FOCUS ON RESULTS

4) A BETTER WAY TO PLAN AND PICK PROJECTS

- » “America requires a new vision for transportation. While our needs have changed in the last 50 years, our national models for selecting, prioritizing, coordinating, and funding transportation investments have not.”
- Miller Center for Public Affairs⁶⁵
- » “With the clear unsustainability and performance issues of the current program, it is an opportune time for Congress to better define the federal role in transportation and improve the progress toward specific, nationally-defined outcomes.”
- Government Accountability Office⁶⁶
- » “Since substantial completion of the Interstate Highway System in the late 1980s, this country has lacked a clear, comprehensive, well-articulated and widely understood strategic vision to guide transportation policymaking at the national level.”
- National Surface Transportation Policy and Revenue Study Commission⁶⁷

2. More accountability and a focus on results

There needs to be **increased accountability for results in the federal transportation program**. Federal transportation money cannot continue to be distributed with little accountability from states and regions to demonstrate performance. Congress needs to restore voters’ confidence that spending on transportation will reduce congestion, address the most pressing issues and build the system that we need.

- » “U.S. transportation policy needs to be more performance-driven, more directly linked to a set of clearly articulated goals, and more accountable for results.”
- Bipartisan Policy Center⁶⁸
- » “Top-to-bottom reforms are needed to guarantee that taxpayers will get their money’s worth. What we need is a program that will be accountable for results, make

65 Miller Center of Public Affairs. Well Within Reach: America’s New Transportation Agenda. http://web1.millercenter.org/conferences/report/conf_2009_transportation.pdf

66 Government Accountability Office. Restructured Federal Approach Needed for More Focused, Performance-Based, and Sustainable Programs. March 2008. <http://www.gao.gov/new.items/d08400.pdf>

67 National Surface Transportation Policy and Revenue Study Commission. January 2008. Transportation for Tomorrow. http://www.mtc.ca.gov/news/NSTPRSC/nstprsc_exec_summ.pdf

68 Bipartisan Policy Center. Performance Driven: A New Vision for U.S. Transportation Policy. June, 2009. <http://www.bipartisanpolicy.org/library/report/performance-driven>

1) A NATIONAL VISION WITH CLEAR GOALS

3) SUSTAINABLE FUNDING AND INNOVATIVE FINANCING

2) MORE ACCOUNTABILITY AND A FOCUS ON RESULTS

4) A BETTER WAY TO PLAN AND PICK PROJECTS

investments based on community needs.”
- American Association of State Highway Transportation Officials⁶⁹

- » “Federal funding for transportation has increased significantly in recent years, but because spending is not explicitly linked to performance, it is difficult to assess the impact of these increases on the achievement of key goals.”
- Government Accountability Office⁷⁰

3. Sustainable funding and innovative financing

Funding and financing structures of the federal transportation program need to reflect new realities in the demand for and means of travel today. Just as a successful business invests today for future growth, our country must also look to the future and invest now to meet those demands – an aging system, increasing population and a doubling of freight

traffic. Chapter 2 reviewed current funding and financing mechanisms – the largest hurdle to passing a reauthorization bill.

While there is widespread recognition of the need for new revenue within the transportation industry, members of Congress and the American people, the current funding structure is unsustainable. The National Surface Transportation Policy and Revenue Commission estimates that America needs between \$155 and \$200 million in additional investments annually to meet our transportation needs.⁷¹ As it is very unlikely that we will be able to generate this level of funding, we must become more strategic and systematic in our approach to transportation planning and investment.

- » Recommendation 1.7 of President Obama’s National Commission on Fiscal Responsibility and Reform is to “fully fund the transportation trust fund instead of relying on deficit spending. ...The Commission recommends significant reforms to control federal highway spending. Congress should limit trust fund spending to the most pressing infrastructure needs rather than forcing states to fund low-priority projects. It should also end the practice of highway authorization earmarks

69 American Association of State Highway Transportation Officials. AASHTO Authorization Policy, Topic 1: Performance Management. http://www.transportation.org/sites/policy_docs/docs/i.pdf

70 Government Accountability Office. Restructured Federal Approach Needed for More Focused, Performance-Based, and Sustainable Programs. March 2008. <http://www.gao.gov/new.items/d08400.pdf>

71 <http://financecommission.dot.gov>

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3) SUSTAINABLE FUNDING AND INNOVATIVE FINANCING

2) MORE ACCOUNTABILITY AND A FOCUS ON RESULTS

4) A BETTER WAY TO PLAN AND PICK PROJECTS

such as the infamous Bridge to Nowhere.”
- The National Commission on Fiscal Responsibility and Reform⁷²

- » “Estimates indicate that the U.S. needs to invest at least \$225 billion annually for the next 50 years to upgrade our existing transportation network to a good state of repair and to build the more advanced facilities we will require to remain competitive. We are spending less than 40 percent of this amount today, and the current fuel-tax-based revenue mechanisms probably cannot be relied upon alone to raise the needed sums... The most viable approach to efficiently fund federal investment in surface transportation in the medium to long run will be a user charge system based more directly on miles driven.”
- National Surface Transportation Policy and Revenue Study Commission⁷³

To finance the needed investment in the short term, the Commission recommended raising the current federal fuel tax rate and, in addition, recommended a number of other user-based fees

such as tolling, congestion pricing and freight fees to provide additional revenue for transportation improvements.⁷⁴

4. A better way to plan and pick projects

The **institutions** managing the transportation system **need to employ the best tools and approaches to ensure effective investment decisions**. Chapter 4 highlighted how metropolitan planning organization and state transportation planning decisions are often de-coupled from other important housing and land development decisions, both of which influence travel demand. Chapter 5 reviewed the reauthorization process and issues related to committee jurisdiction in the House and Senate.

- » “This shortsightedness and underinvestment – at the planning level and on our nation’s roads, rails, airports and waterways – costs the country dearly. It compromises our productivity and ability to compete internationally; transportation users pay for the system’s inefficiencies in lost time, money and safety. Rural areas are cut off from economic opportunities and even urbanites

72 The National Commission on Fiscal Responsibility and Reform. The Moment of Truth. December 2010. http://www.fiscalcommission.gov/sites/fiscalcommission.gov/files/documents/TheMomentofTruth12_1_2010.pdf

73 National Surface Transportation Policy and Revenue Study Commission. January 2008. Transportation for Tomorrow. http://www.mtc.ca.gov/news/NSTPRSC/nstprsc_exec_summ.pdf

74 National Surface Transportation Infrastructure Finance Committee. February 2009. Paving Our Way: A New Framework For Transportation Finance, <http://financecommission.dot.gov/>

1) A NATIONAL VISION WITH CLEAR GOALS

3) SUSTAINABLE FUNDING AND INNOVATIVE FINANCING

2) MORE ACCOUNTABILITY AND A FOCUS ON RESULTS

4) A BETTER WAY TO PLAN AND PICK PROJECTS

suffer from inadequate public transportation options. Meanwhile, transportation-related pollution exacts a heavy toll on our environment and public health.”

- Miller Center of Public Affairs⁷⁵

- » “Federal rules remain stacked against transit, and funding highway projects is far easier... New transit and highway programs are treated differently by federal legislation and policy... And those differences lead to an unlevel playing field, distorting good local planning, management, and decision making.”

- Brookings Institution⁷⁶

- » “Efficient investment decisions can be facilitated by employing the best tools and approaches, using mechanisms such as congestion pricing to make more efficient use of existing infrastructure, applying updated grant design features such as varying matching requirements and maintenance of effort provisions,

supporting improved data collection, and promoting intermodal approaches.”

- Government Accountability Office⁷⁷

77 Government Accountability Office. Restructured Federal Approach Needed for More Focused, Performance-Based, and Sustainable Programs. March 2008.

75 Miller Center of Public Affairs. Well Within Reach: America's New Transportation Agenda. http://web1.millercenter.org/conferences/report/conf_2009_transportation.pdf

76 Brookings. December 2003. Highways and Transit: Leveling the Playing Field in Federal Transportation Policy. http://www.brookings.edu/reports/2003/12metro_politanpolicy_beimborn.aspx

Looking to the future

There is a widespread consensus, then, that the 2011 authorization is a watershed moment for our national surface transportation program. When surveyed, Americans consistently say that infrastructure investment is a primary and critical role of their national government. But they are reluctant to pay more for a program that has become little more than a collection of earmarks and outmoded priorities. They are looking to be inspired by a vision as compelling as was the Interstate Highway System in its day. They are eager to see real progress in challenges such as providing alternatives to congestion and the rising cost of transportation.

Even the transportation officials most closely associated with the status quo agree that now is the time for a new direction. The American Association of State Highway and Transportation Officials (AASHTO), in a recent report entitled “Transportation—Are We There Yet? Reform of the Surface Transportation Program,” concluded

“Americans have a right to demand that transportation investments meet community needs, are spent wisely and accountably, and improve their quality of life. ...While transportation investments must be increased, top-to-bottom reforms are necessary to guarantee that taxpayers get their money’s worth.”⁷⁸



Appendix 6b:

Transportation

Impacts – Four

Areas to Consider

This section of additional information to accompany Chapter 6 examines how transportation impacts quality of life in four key areas – economic security, access to opportunity, energy and the environment and public health and the environment.

Investing for Economic Security

Research shows that maintaining and rebuilding our existing transportation infrastructure produces a higher return on investment than new construction for at least three reasons:

- » It extends the useful life of infrastructure and reduces the need for reconstruction, which costs two to four times as much as repair – leaving more money over time for other improvements to our transportation system.
- » It saves users money by reducing damage from potholes and vibrations.

- » It produces more jobs and more economic activity than building new infrastructure. Less money is spent on land, more is spent on capital and labor.

A study of Cincinnati found that the highest return on investment comes from better coordination of new development with existing transportation infrastructure, and the next highest came from increasing access to transportation options.⁷⁹ Similarly, in metropolitan Atlanta, according to McKinsey and Co., the highest return on investments was associated with managing the current highway system more effectively rather than building new highways.⁸⁰

Maximizing the economic benefits means choosing projects based on the expected return on investment. The rate of economic return from highway spending, which yielded high returns in the 1950s and 1960s when the bulk of our national interstate system was being built, fell almost 66% from 1950 and 1989.⁸¹ Although the overall pace of highway construction also fell since the 1960s, new highway investments on average may

79 HLB Decision Economics, The Economic and Community Benefits of Transportation Options for Greater Cincinnati, February, 2001, prepared for Ohio-Kentucky-Indiana Metropolitan Planning Organization. Cited in “The Best Stimulus For the Money: Briefing Papers on the Economics of Transportation Spending” published by Smart Growth America and the University of Utah. April 2009

80 McKinsey and Company, IT3 Scenario Results and Implications, Briefing to the General Assembly, State of Georgia, Discussion Document, December 3, 2008, slide 11. Cited in “The Best Stimulus For the Money: Briefing Papers on the Economics of Transportation Spending” published by Smart Growth America and the University of Utah. April 2009

81 Eno Transportation Foundation, Inc. (1996), Economic Returns from Transportation Investment, Page 16. <http://www.fhwa.dot.gov/policy/otps/060320a/index.htm>.

not generate marginal rates of return as high as earlier investments. For example, a new freeway extension might not generate as many benefits as the existing freeway due to a diminishing rate of return.⁸²

Job creation from investments in the transportation sector result both from direct employment on transportation construction sites and from indirect jobs created through related and supporting industries. Taken together, the transportation and distribution sector supports over 2 million jobs throughout the country.⁸³

And yet, economists know that not all transportation spending is equal. Spending in different areas creates differing numbers and quality or categories of jobs. Public transportation investments generate 31 percent more jobs than new road and bridge construction, while road and bridge repair generates 16 percent more jobs than new construction.⁸⁴ This is in part because repair and maintenance projects require minimal job skills training, lower equipment costs and less time spent on plans and permits.

The Economic Policy Institute examined the jobs impact of two investment scenarios: a continuation of current transportation law

(SAFETEA-LU) and a package of investments proposed by Transportation for America that emphasized maintenance and retrofits of existing infrastructure and completing the transportation network with adequate public transportation, in addition to highway capacity. The analysts found that, given an investment of \$500 billion under either scenario, the T4 America proposal would yield 400,000 more jobs over the six-year life of the law, for a total of more than 7.2 million direct and indirect jobs.⁸⁵

Further, smaller-scale projects to improve safety and convenience for pedestrians and bicyclists such as building sidewalks and bike trails, accessibility improvements and street restriping are quicker to start than large new projects and are also generally more labor intensive. Today, the national bicycling industry contributes an estimated \$133 billion a year to the U.S. economy and supports nearly 1.1 million jobs. The industry generates \$17.7 billion in federal, state and local taxes and another \$46.9 billion from secondary sources.⁸⁶

Transportation investments also play an increasingly important role in growing regional economies to ensure overall national economic competitiveness. Our metropolitan regions contribute 74 percent of total U.S. gross domestic product and are home to almost two-thirds of the

82 The Best Stimulus For the Money: Briefing Papers on the Economics of Transportation Spending” published by Smart Growth America and the University of Utah. April 2009

83 Bureau of Labor Statistics, U.S. Department of Labor. <http://www.bls.gov/oco/cg/cgs021.htm>

84 The Best Stimulus For the Money: Briefing Papers on the Economics of Transportation Spending” published by Smart Growth America and the University of Utah. April 2009. <http://www.smartgrowthamerica.org/stimulus>

85 Economic Policy Institute. Issue Brief 280: The Job Impact of Transportation Reauthorization. June 2010.

86 The League of American Bicyclists. The Economic Benefits of Bicycle Infrastructure Investments. Darren Flusche. June 2009.

population.⁸⁷ It's critical for our economic success to ensure that employers can find locations near the broadest possible pool of workers, and that workers in turn can reach the widest range of employment opportunities.⁸⁸

Expanding Access to Opportunity

Transportation is a crucial link to ensuring opportunity for all Americans — connecting us to jobs, schools, housing, healthcare and groceries. But millions of poor Americans and people of color live in communities where quality transportation options are unaffordable, unreliable or nonexistent. More than 1 in 5 households earning less than \$25,000 per year do not own a personal vehicle.⁸⁹ African-American households are more than twice as likely as the national average to be transit-dependent and Hispanic households are more than one and a half times as likely as the national average not to own cars.⁹⁰ Transportation policies can either exacerbate poverty and inequity or move towards communities that provide opportunities for all.

Communities designed with well-connected residential areas, mixed use neighborhoods (residential combined with commercial uses) and connected streets and paths enjoy better health. Residents living in these communities are more physically active, enjoy more social interaction, develop social capital and have improved mental health.⁹¹

People of all incomes choose where to live based on a multitude of factors, including the housing itself, the safety of the area, quality of schools and other public services, the time it takes to get to work and the character and cost of living in the community. However, when looking at the cost of housing — whether owning or renting a place to live, many do not take into account that a community's location, character and design are better predictors of overall affordability than household size and income. Connected, walkable, mixed-use communities with convenient access to transit and jobs may be more expensive on paper. But these places are often more affordable than newer exurban communities because household transportation costs are typically higher in such exurban areas.

In a recent analysis, seven out of ten communities (69 percent) were considered affordable under the traditional definition of housing costs at or under 30 percent of income. That shrinks, however, to just four out of ten (39 percent) when both housing and transportation costs are considered and a 45 percent affordability

87 The Brookings Institution. "City Centered: Investing in Metropolitan Areas to Build the Next Economy Growth through Innovation, U.S. Economic Growth, Competitiveness, Cities, Jobs and the Economy." By Bruce Katz. November 2010. http://www.brookings.edu/articles/2010/1021_metro_economy_katz.aspx

88 Antonio Ciccone Robert E. Hall (1996), "Productivity and the Density of Economic Activity." *American Economic Review*, v86, n1, pp. 54-70.

89 Jeffery Memmott, "Trends in Personal Income and Passenger Vehicle Miles." 2007.

90 A. Pisarski, "NCHRP Report 550-TCRP Report 510: Commuting in America III: The Third National Report on Commuting Patterns and Trends." 2007.

91 Frank, L, Engelke, P, Schmid T. *Health and Community Design. The Impact of the Built Environment on Physical Activity.* Washington, DC: Island Press; 2003.

benchmark is applied.⁹² For working families living in neighborhoods far from employment centers, especially those in the \$20,000 - \$35,000 income bracket, combined housing and transportation costs consume a particularly large share of income, with transportation costs exceeding those for housing.⁹³

Energy and the Environment

While our nation's transportation system creates economic opportunities, it also presents significant environmental challenges relating to air pollution, greenhouse gas emissions and water quality degradation. It's critical to find a way to invest in transportation and build the economy while minimizing these negative impacts.

Transportation emits air pollutants considered harmful to the environment and public health. The Environmental Protection Agency (EPA) regulates these pollutants under the Clean Air Act. Cars, trucks and other vehicles release harmful emissions, which are a major source of the pollutants that form ground level ozone and particulate matter.⁹⁴ Small particles of dust, smoke, soot and other pollutants in the air can penetrate deep into lungs and cause serious health problems.

The six "criteria pollutants" that are emitted by cars and trucks and regulated by the government include nitrogen dioxide (NO₂), sulfur dioxide (SO₂), carbon monoxide (CO), particulate matter (PM), lead (Pb) and ozone (O₃).⁹⁵ In 2008, more than 126 million people nationwide lived in counties with pollution levels above those levels established in the National Air Ambient Air Quality Standards.⁹⁶

The transportation sector also consumes the largest share of oil in our economy and constitutes the second-largest source of global warming emissions in the United States. It is also the fastest-growing, due mainly to the increasing driving rates. Over the past 15 years, vehicle-miles traveled rates have grown at three times the rate of population growth.⁹⁷ Though they've flattened over the short-term, if long-term trends on vehicle miles traveled continue, the emissions from the extra driving would wipe out the expected CO₂ reductions of auto efficiency standards and renewable fuel requirements recently passed by Congress.

Finally, transportation infrastructure (including roads, parking lots and driveways) account for 55 to 75 percent of all pavement on open space in cities, towns and subdivisions.⁹⁸ Such impervious surfaces create excess stormwater

92 Center for Neighborhood Technology. Pennywise and Pound Foolish. March 2010.

93 Center for Neighborhood Technology. A Heavy Load. October 2006.

94 US EPA. Office of Mobile Sources. <http://www.epa.gov/otaq/consumer/05-autos.pdf>

95 For More Information: <http://www.epa.gov/air/urbanair/>

96 US EPA. Air Quality Trends Report. <http://www.epa.gov/airtrends/aqtrends.html>

97 S. Winkelman based on EIA AEO 2008 (revised), HR6 and sources cited in Growing Cooler

98 Chesapeake Bay Program. Transportation. <http://www.chesapeakebay.net/transportation.aspx?menuitem=14672>

runoff, which contributes a growing amount of pollution to rivers, streams and aquifers. The impacts of runoff from roads and parking lots include alteration of natural water flow in local streams and stream bank erosion, which causes increased sediment pollution and loss of habitat for aquatic creatures. Transportation also causes increased nutrient and chemical contaminants to flow into storm drains and local waterways.

Transportation and Public Health⁹⁹

Our transportation decisions have a profound impact on public health. Transportation infrastructure, the safety of vehicles and thoroughfares and the shape of the built environment all impact the health of millions of Americans.

As the American Public Health Association notes

“the opportunity to be physically active is being essentially engineered out of daily life. Communities are spread out with limited connectivity to other communities or services; there is often no walking/biking or public transit that allows people to get to home,

school, work, or play safely. Auto-oriented communities are directly linked to low rates of physical activity.”¹⁰⁰

In 2004, the total cost (including health care and loss of wages) of being obese or overweight was estimated at \$117 billion, and physical inactivity’s health care tab runs up to \$76 billion per year.¹⁰¹

Transportation injuries and fatalities resulting from use of the transportation system continue to be a highly preventable public health issue. In 2005, crashes were the leading cause of death for people ages 5 to 34 in the United States and the leading cause of injury-related death among all ages. Over the past two decades, U.S. traffic fatalities have averaged approximately 43,000 annually, with approximately 2.5 million people injured on our roads every year. In addition to loss of life, traffic crashes costs about \$164 billion annually in property damage and injuries.¹⁰²

Transportation safety is of particular concern to the most vulnerable users including children, bicyclists and pedestrians, especially in sprawling neighborhoods and on roads that are not built for everyone to use. The absence of safe routes for pedestrians results in nearly 5,000 pedestrian deaths each year. Of the 9,168

99 This section draws directly from the American Public Health Association report “At the Intersection of Transportation and Public Health: Promoting Healthy Transportation Policy.”

100 American Public Health Association report “At the Intersection of Transportation and Public Health: Promoting Healthy Transportation Policy.” Page 5.

101 Pratt M, Marcera C, Wang, G. Higher direct medical costs associated with physical inactivity. *Physician Sports Medicine*, 2000;28:63–70.

102 AAA. Crashes versus Congestion Report. What’s the Cost to Society? Cambridge, MD: Cambridge Systematics, Inc.; 2008. [8.08.pdf](#). Accessed October 10, 2008.

pedestrian fatalities in 2007-08, for which the location of the collision is known, more than 40 percent were killed in areas where no crosswalk was available. Providing safe places for walking and bicycling are among the lowest-cost and most effective ways both to promote healthful activity and save lives.¹⁰³

Sources for More Information:

Miller Center of Public Affairs. Well Within Reach: America's New Transportation Agenda.

http://web1.millercenter.org/conferences/report/conf_2009_transportation.pdf

National Surface Transportation Policy and Revenue Study Commission. Transportation for Tomorrow.

www.mtc.ca.gov/news/NSTPRSC/nstprsc_exec_summ.pdf

National Surface Transportation Infrastructure Financing Commission. Paving Our Way: A New Framework For Transportation Finance.

<http://financecommission.dot.gov/>

Government Accountability Office. Restructured Federal Approach Needed for More Focused, Performance-Based, and Sustainable Programs.

www.gao.gov/new.items/do8400.pdf

Congressional Research Service. Surface Transportation Reauthorization Legislation in the 111th Congress.

<http://www.itsa.org/itsa/files/pdf/ReauthMajorProvisions.pdf>

The Brookings Institute: Metropolitan Policy Program. A Bridge to Somewhere.

http://www.brookings.edu/reports/2008/06_transportation_puentes.aspx

American Association of State Highway Transportation Officials. (AASHTO) Are We There Yet Series.

<http://arewethereyet.transportation.org/>

Bipartisan Policy Center. Performance Driven: A New Vision for U.S. Transportation Policy.

<http://www.bipartisanpolicy.org/library/report/performance-driven>

103 Transportation for America. Dangerous by Design.
<http://t4america.org/resources/dangerousbydesign>

Appendix A: Glossary of Transportation Terms

Looking to decipher wonky and mysterious transportation terminology? Keep this book on your shelf and turn here if you run into a term or phrase you're not familiar with. Unfortunately, there's a near endless supply of complicated (often needlessly so) transportation terms, but we'll do our best to provide some clarity in these pages. This exists as an online resource at <http://t4america.org/resources/glossary>

Accessibility — The ability to reach a variety of destinations. By focusing on access to services, goods and contacts, accessibility emphasizes projects that make reaching everyday destinations easier and more efficient. Accessibility considers both speed and distance of travel.

Allocation — A distribution of funds for programs that do not have statutory distribution formulas.

American Recovery and Reinvestment Act (ARRA) — The economic stimulus package enacted in February 2009 by the 111th Congress. The stimulus was intended to create jobs and promote investment and consumer spending during the recession. ARRA provided considerable funds for surface transportation including \$27.5 billion through the existing federal-aid highway program

and \$8.4 billion for transit. High Speed Passenger Rail, previously a relatively small federal program, received \$8 billion. An additional \$1.5 billion was made available by a new competitive, discretionary grant program known as TIGER to be used for any eligible surface transportation purpose.

Apportionment — The distribution of funds as prescribed by a statutory formula. The amount of funds distributed is set in law.

Appropriated Budget Authority — a form of Budget Authority that requires both an authorization act and then an appropriations act before any funds can be obligated. The surface transportation authorization is an example.

Appropriations Act — Legislation that makes funds available with specific limitations as to amount, purpose and duration. Generally, it permits money previously authorized to be obligated and payments to be made, but for the highway program operating under contract authority, the appropriations act specifies the amount of funds that Congress will make available for the fiscal year to pay out obligations.

Authorization Act — Substantive legislation that establishes or continues Federal programs or agencies, determines all policies and establishes an upper limit on the amount of funds for the programs. The current authorization act for surface transportation programs is the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). Transportation authorizations are usually written to cover 5 or 6 years.

Authorization Extensions — these temporary measures essentially extend the policies and spending levels of the old transportation law, pushing the debate about changing policies or funding amounts to a later date. These ensure that the activities and revenue sources that support the federal transportation program can continue. The authority of the extensions allows states to continue to sign contracts with obligation authority, manage planning and construction and be assured of reimbursement for expenses.

Budget Authority — Empowerment by Congress that allows Federal agencies to incur obligations (debts, payments, etc.) that will be paid later by appropriated federal dollars. For most of the highway programs, they operate under contract authority.

Budget Resolution — A concurrent resolution passed by Congress presenting the Congressional Budget for each of the succeeding 5 years. A concurrent resolution does not require the signature of the President.

Capital Program Funds — Financial assistance from the major transit capital programs of the transit title of the U.S. Code (49 U.S.C. Section 5309.) This program enables the Secretary of Transportation to make discretionary capital grants and loans to finance public transportation projects divided among fixed guideway (rail) modernization; construction of new fixed guideway systems and extensions to fixed guideway systems; and replacement, rehabilitation, and purchase of buses and rented equipment, and construction of bus-related facilities.

Complete Streets — Streets that provide for safe, convenient, efficient, and accessible use by all users — motor vehicles, pedestrians of all ages and abilities, people with a disability, bicyclists and transit vehicles. Communities with complete streets policies ensure that new and reconstructed streets take the needs of all users into account and ensures that they are accommodated.

Congestion Mitigation and Air Quality Improvement Program (CMAQ) — A federal-aid funding program created under ISTEA (1991 authorization). CMAQ directs funding to projects that contribute to meeting national air quality standards. CMAQ funds generally may not be used for projects that result in the construction of new road capacity available to single-occupancy vehicles.

Conformity — A Clean Air Act requirement that ensures that federal funding and approval are given to transportation plans, programs and projects that help meet the air quality goals established by a State Implementation Plan (SIP). Conformity requires transportation activities will not cause new air quality violations, worsen existing violations or delay timely attainment of the National Ambient Air Quality Standards (NAAQS).

Contract Authority — A form of Budget Authority that permits obligations to be made (sometimes over several years) before dollars have been appropriated by Congress. Most of the programs under the Federal-Aid Highway Program operate under Contract Authority

Dedicated sales taxes — sales taxes collected and used for a specific purpose. Sales taxes are often dedicated to fund transit and are a major source of transit funding for state and local governments

Department of Transportation (U.S. DOT)

— The United States Department of Transportation (USDOT) is a cabinet-level department of the United States government responsible for transportation infrastructure, which institutes and coordinates the federal transportation programs. Each state has their own State Department of Transportation (DOT) that regulates the use of funding distributed to states from the federal transportation program and constructs and maintains the state's transportation infrastructure.

Discretionary funding — Discretionary funding is money that states or MPOs can receive outside of statutory or formula funding programs. Often, these funds are awarded at the discretion of the Secretary of Transportation or U.S DOT programs, sometimes by a merit-based or competitive process. This would be in contrast to formula funding, which is determined by law or based on specific, measurable numbers like population, vehicle miles traveled, gas tax receipts, etc.

Donor / Donee — This refers to whether or not a state gets back more or less from the federal government than they pay in gas taxes each year. The disparity comes from the formulas that dictate the funding levels to states compared with how much gas tax they generate each year. It has been a recurring point of contention for the last several transportation authorizations. In 1982, Congress voted to give all states a “minimum allocation” of 85

percent of a state's share of estimated tax payments, which was gradually increased to 90.5 and later 92 percent. (See Equity Bonus)

Dwight D. Eisenhower National System of Interstate and Defense Highways —

Commonly called the Interstate Highway System (or simply, the Interstate System), this is a network of limited-access highways (also called freeways or expressways) connecting states and metropolitan areas that was created in 1956 by Congress. The system includes a total length of 46,876 miles of roadway.

Earmarks — An earmark is a legislative provision that directs approved funds to be spent on specific projects, programs, or grants.

Equity Bonus Program — This program was created to ensure that every State is guaranteed at least a minimum amount of that State's share of contributions to the highway portion of the Highway Trust Fund. The specified percentage, referred to as a relative rate of return, is 90.5 percent for 2005 and 2006, 91.5 percent for 2007, and 92 percent for 2008 and 2009. This program was created in part to address the donor/donee issue. It's not a program in the same sense as others; all the money from this program is distributed to the other core highway programs.

Federal-Aid Highway Program — Generally refers to most of the Federal programs providing highway funds to States. In a budgetary sense, this specifically refers to highway programs financed by contract authority out of the Highway Account of the Highway Trust Fund (HTF), plus any HTF

supplemental appropriations for the Emergency Relief Program. The authorizations for this program are contained in titles I and V of SAFETEA-LU and in 23 U.S.C. 125.

Federal Highway Administration (FHWA)

— The agency within the U.S. Department of Transportation that administers the Federal-Aid Highway Program, principally providing financial assistance and technical and programmatic support to states to construct and improve highways, urban and rural roads and bridges.

Federal Transit Administration (FTA)

— The agency within the U.S. Department of Transportation that provides financial and other resources to transit agencies in developing and improving public transportation equipment, facilities, services, techniques, and methods

Firewall — A budgetary device separating (and protecting) certain discretionary Federal spending from other spending in the discretionary category. The spending for programs with firewalls may not be reduced in order to increase spending for other discretionary programs. SAFETEA-LU establishes, for fiscal years 2005-2009, a firewall to protect highway and highway safety spending and a firewall to protect transit spending.

Fiscal Year — The accounting period for the budget. The Federal fiscal year is from October 1 until September 30. The fiscal year is designated by the calendar year in which it ends. For example, FY 2011 runs from October 1, 2010 until September 30, 2011.

Federal Match Requirement — Many projects in the various states and communities are partially funded with federal grants with a requirement for matching funds generated from state, local, or private funding. For example, the Interstate Highway System was primarily built with 90 percent funds from the Highway Trust Fund and 10% matching state DOT funds.

Funding Flexibility — is often used to describe the ability to invest available dollars in other transportation options —transit, walking, bicycling, car and vanpooling, etc.— as part of the program's eligibility, but it also can mean the ability to shift or transfer funds from one program to another. The Surface Transportation Program (STP) is an example of a flexible program.

Gas Tax — A tax imposed on the sale of fuel. The federal gas tax receipts (18.4 cents per gallon) are dedicated to transportation projects and stored in the Highway Trust Fund.

Highway Bridge Program — Formerly known as the Highway Bridge Replacement and Rehabilitation Program (HBRRP), this program funds the replacement of structurally deficient or functionally obsolete highway bridges or the rehabilitation necessary to correct major safety (functional) defects. Deficient highway bridges eligible for replacement or rehabilitation must be over waterways, other topographical barriers, other highways, or railroads. The condition of bridges may also be improved through systematic preventive maintenance.

Highway Trust Fund (HTF) — A fund credited with receipts that are held in trust by the government and allocated by law for use in funding the federal transportation program. Founded by the 1956 Highway Revenue Act, most taxes and fees related to the nation's transportation system have been deposited into this dedicated transportation funding account. The Highway Revenue Act of 1982 mandated a separate account to support public transportation.

Indian Reservation Roads Program (IRR)

— The Indian Reservation Roads Program addresses transportation needs of tribes by providing funds for planning, designing, construction, and maintenance activities. The Federal Highway Administration's Federal Lands Highway Office and the Bureau of Indian Affairs (BIA) jointly administer the program. Indian Reservation Roads are public roads, which provide access to and within Indian reservations, Indian trust land, restricted Indian land, and Alaska native villages. Approximately 25,000 miles are under the jurisdiction of BIA and tribes and another 24,000 are under State and local ownership.

Innovative financing — This refers to a range of non-traditional financing mechanisms to supplement—not replace—traditional highway financing methods. The primary objectives of innovative finance are to maximize the ability of states and other project sponsors to leverage Federal capital for needed investment in the nation's transportation system; more effectively use existing funds; move projects into construction more quickly than under traditional financing mechanisms; and make possible major transportation investments that might not otherwise receive financing.

Intelligent Transportation Systems (ITS)

— Any number of advanced technologies that can improve the efficiency and safety of roads and transit services. This includes but is not limited to things like trip-planning services, congestion pricing, high-occupancy vehicle lanes, tolling, and demand management.

Intermodal — The ability to connect and make the connections between different modes of transportation, such as walking, biking, and transit. Also used to refer to an intermodal hub or system, one that uses multiple modes or connects them.

Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)

— The 1991 Federal authorization that restructured funding for transportation programs; authorized an increased role for regional planning agencies/MPOs in funding decisions; required comprehensive regional and statewide long-term transportation plans; and provided for a uniform federal match for highway and transit projects. This authorization was also notable for declaring the Interstate System mostly complete and making multimodal spending a focus of federal legislation.

Interstate Maintenance Program (IM)

— The Interstate Maintenance Program was established by the Intermodal Surface Transportation Efficiency Act of 1991 to fund resurfacing, restoration, rehabilitation, and reconstruction projects (The 4 R's).

Long-Range Transportation Plan

— A multi-year transportation plan developed by state DOTs and MPOs in collaboration with a range of

stakeholders that defines a vision for the region's or state's transportation systems and services. For metropolitan areas, it includes all transportation improvements proposed for funding over the next 20 years.

Mass Transit Account — An account within the Highway Trust Fund created in 1982 to pay for public transportation projects. A portion of the Federal motor fuel taxes are dedicated to the Mass Transit Account, totaling 2.86 cents per gallon.

Metropolitan Planning Organization (MPO) — A regional policy agency serving urbanized areas with populations over 50,000 established by the state. MPOs are responsible for carrying out the metropolitan transportation planning requirements of federal highway and transit legislation, in cooperation with the state and other transportation providers

Mobility — Refers to the movement of people and goods, or the speed of travel. Traditionally, mobility has been synonymous with 'traffic', and measured through one-dimensional level-of-service ratings that focus on vehicle movements, throughput and speed, failing to accurately measure congestion or the true difficulty of a commute.

Mode — A specific form of transportation such as automobile, subway, bus, bicycle or train

National Highway System (NHS) — A federal transportation program to create an interconnected system of principal arterial routes to serve major population centers, international border crossings, ports, airports, public transportation facilities, other intermodal transportation facilities,

and other major travel destinations; meet national defense requirements; and serve interstate and interregional travel. The National Highway System today is approximately 160,000 miles of roadway important to the nation's economy, defense, and mobility. The National Highway System includes the 46,000+ miles of the Interstate Highway System, other Principal Arterials, Strategic Highway Network, Major Strategic Highway Network Connectors, and Intermodal Connectors.

National Ambient Air Quality Standards (NAAQS) — Federal standards that set allowable concentrations and exposure limits for various pollutants as required under the Clean Air Act. Air quality standards have been established for the following six criteria pollutants: ozone, carbon monoxide, particulate matter, nitrogen, dioxide, lead and sulfur dioxide.

National Environmental Policy Act of 1969 (NEPA) — This law established a national environmental policy requiring that any project using federal funding or requiring federal approval, including transportation projects, examine the effects of proposed and alternative choices on the environment.

National Surface Transportation Infrastructure Financing Commission — One of two national commissions created by SAFETEA-LU and charged with assessing the existing transportation program. The Commission findings were intended to provide insights and recommendations to be included in the current transportation reauthorization. The Final report *Paying Our Way: A New Framework for Transportation*

Finance offers specific recommendations for addressing the significant and widening gap between federal investment and the nation's transportation infrastructure needs, while at the same time moving the federal government away from reliance on motor fuel taxes toward more direct fees charged to transportation infrastructure users.

National Surface Transportation Policy and Revenue Study Commission —

One of two national commissions created by SAFETEA-LU and charged with assessing the existing transportation program. The Commission findings were intended to provide insights and recommendations to be included in the current transportation reauthorization. In the final report *Transportation for Tomorrow*, the commission reviews the condition and future needs of the surface transportation system, recommends future roles and programs, and identifies finance mechanisms for the surface transportation system in the immediate, short and long terms.

New Starts/Small Starts — This program is the largest, discretionary source of funding for building new systems and the expansion of public transportation systems. Projects to expand or construct new fixed guideway transit service funds are distributed through a competitive process.

Nonattainment Areas — Areas considered not to have met Clean Air Act standards for designated pollutants. An area may be in attainment for one pollutant and in nonattainment for another. In the transportation debate, nonattainment usually refers to areas that do not comply with applicable federal air quality standards for ozone, carbon monoxide

and particulate matter. Being in nonattainment can threaten a portion of federal funds for a state or metro area.

Obligation Limitation — Also called the “ceiling,” a restriction of maximum amount of Federal assistance that may be promised (obligated) during a specified time period. This is a statutory budgetary control that does not affect the apportionment or allocation of funds. Rather, it controls the rate at which these funds may be used. The transportation authorization sets the obligation limitation for the life of the bill.

Obligation Authority — The Federal government's legal commitment to pay or reimburse the States or other entities for the Federal share of a project's eligible costs.

Outlays — Actual cash payments made to the States or other entities as reimbursement for the Federal share of a project's eligible costs.

Penalty — Action taken by Federal agencies when the grant recipient does not comply with provisions of the law. For the highway program the imposition of penalties, which are defined in law, may prevent a State from using or receiving its full apportionment or may force a transfer from one program to another.

Performance Measures — Indicators of how well the transportation system is performing with regard to such things as asset management, on-time performance, system access/availability, and accident rates. Used as feedback in the decision-making process for transportation spending.

President's Budget — A document submitted annually (due by the first Monday in February) by the President to Congress. It sets forth the Administration's recommendations to Congress for the Federal budget for the upcoming fiscal year. The power to make and pass a budget still lies with Congress.

Public Private Partnerships — Public-private partnerships (PPPs) are contractual agreements formed between a public agency and a private sector entity that allow for greater private sector participation in the delivery and financing of transportation projects. Considered a type of innovative financing.

Regional Councils of Government/ Planning Organizations — Multipurpose, multi-jurisdictional public organizations, created by local governments to respond to federal and state programs, regional councils bring together participants at multiple levels of government to foster regional cooperation, planning and service delivery. They have a variety of names, ranging from councils of government to planning commissions to development districts.

Rescission — A rescission is essentially the cancellation of some amount of a state's transportation funds that have not been obligated to a contract or to a project. Otherwise known as contract authority, states are given a certain amount of money each year to enter into contracts with builders to construct transportation projects of all kinds. This rescission takes away a portion of those funds that states would otherwise spend on projects to build highways, repair roads and bridges, build bike lanes, and plan transit systems.

Revenue Aligned Budget Authority (RABA) — A provision of TEA-21 (1998 authorization) still in effect that ensures that transportation funding follows actual revenue from gas taxes and vehicle taxes.

Rural Planning Organization (RPO) — These serve as the forum for local engagement in rural transportation issues. They are mainly comprised of local elected officials and serve as the link between state DOTs and citizens. States are not required to have RPOs in place, though some states have created these government entities for planning and project selection purposes outside metropolitan planning areas.

Safe, Accountable, Flexible, Efficient, Transportation Equity Act — a Legacy for Users (SAFETEA-LU) — The current Federal surface transportation law enacted in August 2005 that continues most ISTEA reforms but placed added emphasis on safety, security and freight issues. SAFETEA-LU authorized \$286.5 billion in spending over six years for transportation.

Set-aside — A requirement that a certain percentage of a program's funds are reserved for a specific purpose.

State Implementation Plan (SIP) — A plan mandated by the Clean Air Act and produced by the state environmental agency, it contains procedures to monitor, control, maintain and enforce compliance with the National Ambient Air Quality Standards. Must be taken into account in the transportation planning process.

State Infrastructure Bank — A revolving fund mechanism for financing a wide variety of highway and transit projects through loans and credit enhancement. State Infrastructure Banks are designed to complement traditional federal-aid highway and transit grants by providing states increased flexibility for financing infrastructure investments

State Strategic Highway Safety Plan — A new requirement under SAFETEA-LU requiring state DOTs to prepare a highway safety plan focused on strategies to reduce fatalities and injuries, including how Highway Safety Improvement (HSIP) funds are to be expended.

State Transportation Improvement Plan (STIP) — The STIP is the state's comprehensive 4-year plan for spending both federal and state transportation funds for selected projects and programs. The Metropolitan Planning Organizations in a state assemble what's known as a Transportation Improvement Plan (TIP) which is compiled and added to the State's plan (STIP.) Projects have to be on the TIP or STIP to be eligible for federal funding.

Strategic Planning — Is a planning approach that helps communities eliminate bureaucratic waste and prioritize more strategic investments to get the "best bang for the buck." By taking a page from the private sector's playbook and implementing a strategic plan, our communities can have less traffic, less taxes, and less wasteful misuse of critical infrastructure funding.

Surface Transportation Program (STP) — Federal-aid highway funding program that supports a broad range of surface transportation capital needs, including many roads, transit, sea and airport access, vanpool, bike and pedestrian facilities. This is the largest program dollars-wise in the federal transportation program, and these funds are flexible, i.e., can be used on multiple different projects and modes.

System-generated revenues — Monies generated by those using the system and collected. These revenues are composed principally of passenger fares, augmented by revenue from advertising and concessions, park-and-ride lots, investment income, and rental of excess property and equipment.

Transit Formula Grants — Federal transit funds allocated by FTA to transit providers, these funds are very flexible and can fund a range of transit-related improvements.

Transportation Investment Generating Economic Recovery (TIGER) — A competitive grant program funded through the economic recovery package (ARRA) which awarded a total of \$2.1 billion to innovative transportation projects that address economic, environmental and travel issues. The 125 projects that were awarded money are typified by projects that have a hard time getting federal funding under the current program, and included bridge replacements, addressing freight bottlenecks, the creation of alternative transportation options, and multimodal hubs and networks, to name a few.

Transit Agencies (Regional and Local) —

Regional and Local transit agencies plan and operate public transportation services, usually separate from the state DOT, though they do coordinate with MPOs in developing regional plans and projects. Larger transit systems receive federal funding directly; small systems and on-demand paratransit providers receive funds through state DOTs and MPOs.

Title 23 of the United States Code “The Highway Title” —

includes laws governing the Federal-Aid Highway Program. It includes six chapters — Federal-Aid Highways, Other Highways, General Provisions, Highway Safety, Research, Technology and Education and Infrastructure Finance.

Title 49 of the United States Code “the Transportation Title” —

This includes laws related to governance and oversight, transit, motor vehicle regulation and rail programs. There are 10 subtitles — Department of Transportation; Other Government Agencies; General and Intermodal Programs; Interstate Transportation; Rail Programs; Motor Vehicle and Driver Programs; Aviation Programs; Pipelines; Commercial Space Transportation; and Miscellaneous.

Transportation Enhancements Program (TE) —

The federal Transportation Enhancement (TE) is a 10 percent set-aside within the Surface Transportation Program and ensures funding to expand transportation choices and enhance the transportation experience through 12 eligible types of activities. The TE program is about 1.5 percent of overall federal transportation funding. Eligible enhancements include pedestrian and bicycle infrastructure and safety programs, scenic

and historic highway programs, landscaping and scenic beautification, historic preservation, and environmental mitigation.

Transportation Equity Act for the 21st Century (TEA-21) —

Enacted in 1998, TEA-21 renewed the 1991 ISTEA law and authorized a significant increase in federal funding commitments for fiscal years 1998-2003.

Transportation Improvement Plan (TIP) —

A prioritized listing/program of transportation projects covering a period of four years that is developed by an MPO as part of the metropolitan transportation planning process, required for projects to be eligible for funding. The TIP is assembled into the STIP. See State Transportation Improvement Plan.

Transportation Management Area (TMA)

— An urbanized area with a population of 200,000 or more as defined by the U.S. Bureau of the Census and designated by the Secretary of Transportation, or any additional area where TMA designation is requested by the Governor and the MPO and designated by the U.S. Secretary of Transportation.

Transit Operating Assistance —

The ability to use federal transit funding for operating expenses (The recurring costs of providing public transportation service.) They include: employees’ wages and salaries; fringe benefits; operating supplies such as fuel, and oil; contractors’ charges for services; taxes; repair and maintenance services, parts, and supplies; equipment leases and rentals; marketing; lease or rental costs; insurance; and administrative expenses.

Urbanized Area — Area that contains a city of 50,000 or more population plus incorporated surrounding areas meeting size or density criteria as defined by the U.S. Census. Urbanized areas are used for allocating transit funding from the Federal Transit Administration.

Urbanized Area Formula program — Formula funding program to fund planning, design and construction of bus and rail transit systems and related facilities for urbanized areas.