

Washington State Freight Investment Study
Tasks 1-4: Funding and Financing Sources and Options

**Draft Working
Paper**

prepared for

State of Washington Joint Transportation Committee

prepared by

Cambridge Systematics, Inc.

with

**Foster Pepper & Shefelman PLLC
Public Financial Management**

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1.0 Introduction

This study is sponsored by the Washington State Joint Transportation Committee (WSJTC) and conducted by Cambridge Systematics, Inc. as prime consultant, in association with the following subconsultants: Foster Pepper & Shefelman PLLC, Public Financial Management, Gill V. Hicks & Associates Inc., and Leachman & Associates LLC. The overall intent of the study is to identify and evaluate funding sources to improve freight movement in the state, taking into account this state's current transportation finance structure and planned transportation system infrastructure improvements. The study will also examine the current institutional arrangements for identifying freight congestion relief projects, and make recommendations for alternative approaches for a project recommendation body including its membership, processes, and project selection criteria.

This first working paper covers material from the first four tasks of the study, pertaining to funding and financing sources and case study examples. It contains the following sections:

- **Section 2.0: Existing and Potential Funding Incentives** evaluates existing and potential Federal, state, and local government freight-related project funding incentives;
- **Section 3.0: Current Industry Taxes and Fees** analyzes current taxes and fees paid by the freight industry and the projects those taxes and fees fund;
- **Section 4.0: Dedicated Revenue Streams for Freight Investment** highlights several national and international examples of revenue streams dedicated to freight investment;
- **Section 5.0: Case Study Examples** provides case study descriptions of how freight investments have been funded and financed in other states;
- **Section 6.0: Options for Re-Directing or Leveraging Taxes and Fees** identifies options that Washington State could consider for re-directing or leveraging its taxes and fees for freight-related transportation improvements.

2.0 Existing and Potential Funding Incentives

2.1 OVERVIEW

From an overall national perspective, the sources of funding that are typically used for freight improvements vary by mode:¹

- Highway projects are usually funded using public sector funding from Federal and state sources.
- Railroads are usually funded privately, although public money has been used to improve safety at highway-rail grade crossings and for smaller railroads, especially when there is a risk of a railroad being abandoned.
- Ports are funded with a combination of public and private funds, port revenue, and revenue bonds.

This section identifies existing freight funding resources in the state of Washington and the amount of revenue by source. The intent of this evaluation is to provide a baseline assessment of what the revenue picture looks like without any new actions by the Washington State Legislature.

The remainder of this section is organized into the following subsections:

- **Federal Funds**, including formula grant programs, discretionary grant programs, non-U.S. DOT programs, and financing tools.
- **State and Local Funds**, including the Freight Mobility Strategic Investment Board (FMSIB).

2.2 FEDERAL FUNDS

In August 2005, authorization for Federal funding programs was renewed in SAFETEA-LU (Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users). There are a wide variety of SAFETEA-LU programs that are available and are being used to fund freight projects. These Federal funding programs for freight projects can be divided into the following main categories:

- **Formula grant programs** apportion funding annually to individual states based on a specified formula. These funds are then available to be used in

¹ Source: *The Freight Story*, pages 18-21; Federal Highway Administration, June 2006. http://www.ops.fhwa.dot.gov/freight/freight_analysis/freight_story/finan.htm

each state for qualifying projects, subject to matching criteria and other Federal and state guidelines.

- **Discretionary grant programs** are provided to selected projects across the nation identified based on a particular selection process. Federal discretionary grants for freight investments were almost completely earmarked (i.e., directed by Congress to states, local governments, or projects in a non-application based manner) in the most recent Congressional reauthorization bill.
- **Non-U.S. DOT programs** include those sponsored by the U.S. Army Corps of Engineers, U.S. Department of Commerce, U.S. Department of Agriculture, and the Environmental Protection Agency.
- **Financing tools** are not actual revenue sources in that they must be repayed, but provide mechanisms for states to either borrow funds to advance delivery of particular projects or reduce tax responsibility in the form of tax credits or tax-exempt financing.

Federal funds available within each of these four categories are described in the following subsections.

Formula Grant Programs

Federal grant programs apportioned to states by formula are the most significant funding sources available for freight projects at the Federal level.

National Highway System (NHS)

The NHS is comprised of about 160,000 miles of roadway determined by the Federal government to be important to the nation's economy, defense, and mobility. The NHS includes the Interstate highway system, as well as selected other highways and arterials. The NHS program provides funding for NHS roadway projects, including intermodal connectors between the NHS and intermodal terminals. Eligible project activities include construction, reconstruction, resurfacing, and rehabilitation.

The Federal share of NHS funding is 80 percent, with a 20 percent local matching requirement from non-Federal funding sources. When the funds are used for Interstate projects to add high-occupancy vehicle or auxiliary lanes, but not other lanes, the Federal share may be 90 percent. Certain NHS safety improvements have a Federal share of 100 percent.

The SAFETEA-LU Freight Gateways program created a new set-aside from each State's NHS apportionment for intermodal connector projects.² For these projects, the Federal share is up to 90 percent. Examples of such projects include:

² Source: <http://www.ops.fhwa.dot.gov/freight/freightfactsheet.htm>

- NHS routes connecting to and from intermodal freight terminals; and
- Strategic Highway Network (STRAHNET) connectors to strategic military deployment ports.

Funding Levels. The total SAFETEA-LU funding apportionment for the NHS Program is \$29.4 billion from FY 2005 to FY 2009. Washington State is estimated to receive about **\$521.9 million** of this amount, or **1.8 percent** of the total. Annual historical and estimated NHS funding apportionments in Washington State are as follows:³

- Historical: FY02: \$87.4 mil; FY03: \$84.5 mil; FY04: \$102.4 mil; FY05: \$96.9 mil; FY06: \$98.4 mil
- Estimated: FY07: \$112.8 mil; FY08: \$106.1 mil; FY09: \$107.8 mil

Surface Transportation Program (STP)

The STP program provides flexible funding for projects on any Federal-aid highway, bridges on public roads, transit capital investments, and intracity and intercity bus terminals and facilities. Freight projects that are eligible for STP funding include:

- Publicly-owned intermodal freight transfer facilities;
- Access to such facilities;
- Operational improvements to such facilities, including capital investments for Intelligent Transportation Systems;
- Preservation of abandoned rail corridors;
- Bridge clearance increases to accommodate double-stack freight trains;
- Capital costs of advanced truck stop electrification systems; and
- Freight transfer yards.

The SAFETEA-LU Freight Gateways program added publicly owned intermodal freight transportation projects that address economic, congestion, security, safety, and environmental issues associated with freight transportation gateways as STP-eligible projects.⁴

³ Source data for all Washington State Federal formula grant historical funding apportionments are Highway Statistics publications from the Federal Highway Administration. Source data for all Washington State Federal formula grant estimated funding apportionments are SAFETEA-LU Funding Tables from the Federal Highway Administration. FY07 estimated apportionments include the distribution of equity bonus and revenue aligned budget authority funds, after penalty shifts, exclusive of 2 percent for statewide planning and research.

⁴ Source: <http://www.ops.fhwa.dot.gov/freight/freightfactsheet.htm>

The Federal share of STP funding is generally 80 percent, with a 20 percent local matching requirement. For Interstate projects to add high-occupancy vehicle or auxiliary lanes or for certain safety improvements, the Federal share may be 90 or 100 percent.

Funding Levels. The total SAFETEA-LU funding apportionment for the STP Program is \$31.6 billion from FY 2005 to FY 2009. Washington State is estimated to receive about **\$607.8 million** of this amount, or **1.9 percent** of the total. Annual historical and estimated STP funding apportionments in Washington State are as follows:

- Historical: FY02: \$110.1 mil; FY03: \$108.2 mil; FY04: \$131.1 mil; FY05: \$122.6 mil; FY06: \$113.2 mil
- Estimated: FY07: \$126.3 mil; FY08: \$121.9 mil; FY09: \$123.8 mil

Interstate Maintenance

The Interstate Maintenance (IM) program provides funding for resurfacing, restoring, rehabilitating and reconstructing most routes on the Interstate System. These funds cannot be used to provide additional capacity on Interstate routes. Freight-specific projects are typically not eligible, although some activities may improve freight mobility.

IM funds are apportioned to States based on the following factors: 1/3 based on lane miles on Interstate System routes open to traffic; 1/3 based on total vehicle miles traveled on Interstate System routes open to traffic; and 1/3 based on state annual contributions to the Highway Account of the Highway Trust Fund attributable to commercial vehicles.

The Federal share of IM funding is generally 90 percent, with a 10 percent local matching requirement. For certain safety improvements, the Federal share may be 100 percent.

Funding Levels. The total SAFETEA-LU funding apportionment for the IM Program is \$24.0 billion from FY 2005 to FY 2009. Washington State is estimated to receive about **\$467.5 million** of this amount, or **1.9 percent** of the total. Annual historical and estimated IM funding apportionments in Washington State are as follows:

- Historical: FY02: \$77.2 mil; FY03: \$75.9 mil; FY04: \$92.0 mil; FY05: \$87.2 mil; FY06: \$89.3 mil
- Estimated: FY07: \$98.4 mil; FY08: \$95.5 mil; FY09: \$97.1 mil

Congestion Mitigation and Air Quality Improvement Program (CMAQ)

The CMAQ program was created in 1991 by the Intermodal Surface Transportation Efficiency Act (ISTEA) to provide funding for transportation projects that improve air quality, and help achieve compliance with national air quality standards set forth by the Clean Air Act. Since its founding, the CMAQ program has funded a variety of freight transportation projects, some of which are privately owned. Examples of these projects include intermodal facilities, rail track rehabilitation, and new rail sidings. CMAQ funds also can be used for construction activities that benefit private companies, if it can be shown that the project will improve air quality by removing trucks off of the road.

Funding Levels. The total SAFETEA-LU funding apportionment for the CMAQ Program is \$8.4 billion from FY 2005 to FY 2009. Washington State is estimated to receive about **\$151.4 million** of this amount, or **1.8 percent** of the total. Annual historical and estimated CMAQ funding apportionments in Washington State are as follows:

- Historical: FY02: \$20.9 mil; FY03: \$21.2 mil; FY04: \$25.6 mil; FY05: \$28.1 mil; FY06: \$28.8 mil
- Estimated: FY07: \$32.4 mil; FY08: \$30.8 mil; FY09: \$31.3 mil

Highway Bridge Program

The Highway Bridge Program provides funding to enable States to improve the condition of their highway bridges through replacement, rehabilitation, and systematic preventive maintenance. Funds are apportioned among states based on each State's relative share of the estimated total cost to repair or replace deficient highway bridges. States must use a minimum of 15 percent of its apportioned funding for projects on off-system bridges (i.e., on non-federal-aid eligible roadways).

The Federal share for Highway Bridge Program projects is 80 percent, with a local match requirement of 20 percent. For projects on the Interstate System, the Federal share is 90 percent.

Funding Levels. The total SAFETEA-LU funding apportionment for the Highway Bridge Program is \$20.5 billion from FY 2005 to FY 2009. Washington State is estimated to receive about **\$767.9 million** of this amount, or **3.7 percent** of the total. Annual historical and estimated Highway Bridge funding apportionments in Washington State are as follows:

- Historical: FY02: \$90.9 mil; FY03: \$90.5 mil; FY04: \$109.7 mil; FY05: \$145.9 mil; FY06: \$146.9 mil
- Estimated: FY07: \$153.3 mil; FY08: \$159.6 mil; FY09: \$162.2 mil

Highway Railroad Grade Crossing Program

The FHWA Section 130 Highway Railroad Grade Crossing program provides grants for the improvement of highway-railroad grade crossings that enhance safety, and other projects including: separation or protection of grades at crossings; the reconstruction of existing railroad grade crossing structures; and the relocation of highways or rail lines to eliminate grade crossings.

Funds from the FHWA Section 130 Program can be used to further freight rail projects, provided that the projects improve safety at grade crossings. In general, Federal funding is available at a 90 percent share. For certain projects (including signing, pavement markings, active warning devices, and crossing closures), the Federal share may be 100 percent.

Funding Levels. No funds were made available for the Highway Railroad Grade Crossing Program in FY 2005. The total SAFETEA-LU funding apportionment for the program is \$877.8 million from FY 2006 to FY 2009. Washington State is estimated to receive about **\$17.0 million** of this amount, or **1.9 percent** of the total. Annual historical and estimated Highway Bridge funding apportionments in Washington State are as follows:

- Historical: FY06: \$4.0 mil
- Estimated: FY07: \$4.0 mil; FY08: \$4.5 mil; FY09: \$4.5 mil

Section 1303: Coordinated Border Infrastructure Program

The purpose of the Coordinated Border Infrastructure Program is to improve the safe movement of motor vehicles at or across the land border between the U.S. and Canada and the land border between the U.S. and Mexico. States may use funds in a border region, defined as any portion of a border state within 100 miles of an international land border with Canada or Mexico, for the following types of improvements to facilitate/expedite cross border motor vehicle and cargo movements:

- Improvements to existing transportation and supporting infrastructure;
- Construction of highways and related safety and safety enforcement facilities related to international trade;
- Operational improvements, including those related to electronic data interchange and use of telecommunications;
- Modifications to regulatory procedures; and
- International coordination of transportation planning, programming, and border operation with Canada and Mexico.

A border state may use funds to construct a project in Canada or Mexico if the project directly and predominantly facilitates cross-border vehicle and cargo movement at an international port of entry in the border region of the state. Canada or Mexico must assure that the project will be constructed to standards

equivalent to those in the U.S., and be maintained and used over the useful life of the facility only for the purpose for which the funds were allocated.

Funding by state is currently determined by formula; the formula-based program replaced the TEA-21 discretionary program in 2005. Funds are apportioned among border states based on the following factors related to the movement of people and goods through the land border ports of entry: 20 percent based on the number of incoming commercial trucks; 30 percent based on the number of incoming personal motor vehicles and buses; 25 percent based on the weight of incoming cargo by commercial trucks; and 25 percent based on the number of land border ports of entry.

The Federal share of Coordinated Border Infrastructure Program funding is generally 80 percent, with a 20 percent local match requirement. For Interstate projects to add high-occupancy vehicle or auxiliary lanes or for certain safety improvements, the Federal share may be 90 or 100 percent.

A border state may also transfer up to 15 percent or \$5 million (whichever is less) of its funds to the General Services Administration (GSA), if the Secretary approves and GSA agrees. In this case, the state must provide its non-Federal share directly to GSA.

Funding Levels. The total SAFETEA-LU funding apportionment for the Coordinated Border Infrastructure Program is \$831.5 million from FY 2005 to FY 2009. Washington State is estimated to receive about **\$49.3 million** of this amount, or **5.9 percent** of the total (while the previously described Federal formula grant programs are apportioned to all 50 states, funds for this program are apportioned to only 15 designated border states. Washington State ranks 6th among the states in terms of funds received through this program, after Texas, Michigan, New York, California, and Maine). Annual historical and estimated Coordinated Border Infrastructure Program funding apportionments in Washington State are as follows:

- Historical: FY05: \$7.3 mil; FY06: \$8.5 mil
- Estimated: FY07: \$9.9 mil; FY08: \$11.2 mil; FY09: \$12.4 mil

Discretionary Grant Programs

Programs for which funding is identified at the discretion of the Secretary of Transportation or Congress include the following.

Section 1301: Projects of National and Regional Significance (PNRS)

The PNRS program was created by Section 1301 of SAFETEA-LU to provide grant funds for high-cost projects of national or regional significance, which may include freight-related highway or rail projects. Projects must have a total eligible project cost equal to or greater than \$500 million, or 75 percent of the total Federal highway funds apportioned to the state where the project is located (in the most recent fiscal year). Federal shares for this program are generally 80 percent of project total cost. Eligible project activities include development phase activities, right-of-way acquisition, construction, reconstruction, and rehabilitation, environmental mitigation, construction contingencies, equipment acquisition, and operational improvements.

Funds are allocated to projects based on a competitive evaluation process based on the ability of projects to satisfy criteria that include, but are not limited to, generating national economic benefits, reducing congestion, and improving transportation safety. Applicants for PNRS program funding are required to provide the following information within the following twelve topics: Statement of Purpose; Eligibility; Project Map; Scope of Work; Cost Estimate; Stakeholder Identification; Funding Disclosure; Timeline; Project History; Transportation Planning; Coordinated Planning; and Environmental Process.⁵

Funding Levels. SAFETEA-LU authorized \$1.78 billion for the PNRS Program from FY 2005 to FY 2009, for a total of 25 projects nationwide. Washington State is estimated to receive about **\$220.0 million** of this amount, or **12.4 percent** of the total. This funding is going towards two listed state projects: the Alaska Way Viaduct and Seawall Replacement, and the Replacement of Alaska Way Viaduct and Seawall.

Annual PNRS funding levels in Washington State are as follows:

- FY05: \$22.0 mil; FY06: \$44.0 mil; FY07: \$55.0 mil; FY08: \$55.0 mil; FY09: \$44.0 mil

Section 1302: National Corridor Infrastructure Improvement Program

The National Corridor Infrastructure Improvement Program is a discretionary program that provides funding for construction of highway projects in corridors of national significance to promote economic growth and international or interregional trade. These corridors of national significance include major freight corridors. SAFETEA-LU authorized \$1.9 billion for 33 earmarked projects.

⁵ Source: http://www.ops.fhwa.dot.gov/freight/safetea_lu/1301_pnrs_guid.htm

The Federal share for projects under this program is 80 percent. When the funds are used for Interstate projects to add high-occupancy vehicle or auxiliary lanes, but not other lanes, the Federal share may be 90 percent. Certain safety improvements receive a Federal share of 100 percent.

Applicants for NCIIP funding are required to provide the following information within the following twelve topics: Statement of Purpose; Eligibility; Project Map; Scope of Work; Cost Estimate; Stakeholder Identification; Funding Disclosure; Timeline; Project History; Transportation Planning; Coordinated Planning; and Environmental Process.⁶

Funding Levels. SAFETEA-LU authorized \$1.95 billion for the NCIIP Program from FY 2005 to FY 2009, for a total of 33 projects nationwide. Washington State is not receiving any NCIIP funding during this time period.

Section 1305: Truck Parking Facilities

This is a new pilot program that started in 2006. Eligible projects under Section 1305 include projects that:⁷

- Promote the real-time dissemination of publicly or privately provided commercial motor vehicle parking availability on the NHS;
- Open non-traditional facilities to commercial motor vehicle parking, including inspection and weigh stations, and park and ride facilities;
- Make capital improvements to public commercial motor vehicle parking facilities currently closed on a seasonal basis to allow the facilities to remain open year round;
- Construct turnouts along the National Highway System (NHS) to facilitate commercial motor vehicle access to parking facilities and/or improve the geometric design of interchanges to improve access to commercial motor vehicle parking facilities;
- Construct commercial motor vehicle parking facilities adjacent to commercial truck stops and travel plazas; and
- Construct safety rest areas that include parking for commercial motor vehicles.

Applicants for Truck Parking Facilities funding are to describe how the project, activity or improvement will relieve congestion in an urban area or along a major transportation corridor, employ operational and technological improvements that promote safety and congestion relief, and/or address major freight bottlenecks.

⁶ Source: http://www.ops.fhwa.dot.gov/freight/safetea_lu/1302_nciip_guid.htm

⁷ Source: http://www.ops.fhwa.dot.gov/freight/safetea_lu/truckparkingmemo.htm

The Federal share for Truck Parking Facilities funding is generally 80 percent. For certain safety improvements, the Federal share may be 100 percent. A report on the Truck Parking Facilities program is due to Congress in August 2008.

Funding Levels. SAFETEA-LU authorized \$25.0 million for the NCIIP Program from FY 2006 to FY 2009. The FHWA Office of Freight Management and Operations is currently reviewing year 2006 grant applications.

Section 1306: Freight Intermodal Distribution Pilot Grant Program (FIDPGP)

The FIDPGP pilot program was created under Section 1306 of SAFETEA-LU to provide grant funds to states to facilitate and support the development of intermodal freight transportation initiatives at the state and local levels for congestion reduction and safety enhancements, and to provide capital funds to address freight distribution and infrastructure needs at intermodal freight facilities and inland ports.

Applicants for FIDPGP funding are required to provide the following information within the following eleven topics: Statement of Purpose; Scope of Work; Project Map; Cost Estimate; Stakeholder Identification; Funding Disclosure; Timeline; Project History; Transportation Planning; Coordinated Planning; and Environmental Process.⁸ A report on FIDPGP is due to Congress in August 2008.

Funding Levels. Congress earmarked all the grant funds from this program, totaling \$30.0 million, to five states (Alaska, California, Georgia, North Carolina, and Oregon) for six projects (North Carolina has two projects), with each project receiving \$1.0 million for the 5 years from FY 2005 through FY 2009.

Section 1702: High Priority Projects

The High Priority Projects Program provides designated funding for specific projects identified in SAFETEA-LU, some of which affect freight mobility. A total of 5,173 projects are identified. The Federal share for projects under this program is generally 80 percent, with a local match requirement of 20 percent.

Funding Levels. SAFETEA-LU authorized \$14.8 billion for the High Priority Projects Program from FY 2005 to FY 2009, for a total of 5,091 projects nationwide. Each high priority project is designated a specified amount of funding over the five years of SAFETEA-LU from FY 2005 to FY 2009. Washington State has a total of 129 high priority projects, or 2.5 percent of the total number of projects. Washington State is estimated to receive **\$276.7 million** of High Priority Project funding, or **1.9 percent** of the total.

⁸ Source: http://www.ops.fhwa.dot.gov/freight/safetea_lu/1306_fidpgp_guid.htm

Section 1934: Transportation Improvement Projects

The Transportation Improvement provision in SAFETEA-LU provides funding for earmarked transportation improvement projects designated under Section 1934. Some of these projects are freight-related and/or may affect freight mobility, including funding allocations for major freight corridor projects such as the Alameda Corridor East (California) and ReTRAC (Nevada). The Federal share for Transportation Improvement Projects is generally 80 percent and 100 percent for certain safety projects.

Funding Levels. SAFETEA-LU authorized \$2.56 billion for the Transportation Improvement projects from FY 2005 to FY 2009, for a total of 466 projects nationwide. Washington State is one of seven states that is not receiving any funding through the Transportation Improvement Projects program. The other six states that are not receiving funding are Arizona, New Hampshire, South Carolina, Texas, Wisconsin, and Wyoming.

Section 5204 (h): Freight Planning and Capacity Building Program

The Freight Planning and Capacity Building Program is an initiative to support enhancements to freight planning to better target investment and strengthen decision-making capacity of State and local agencies.⁹ Eligible activities include research, training and education in best practices, peer exchange, data and analysis, agency reorganization, and public-private relationship building. The authorized funding level is \$3.5 million total from FY 2006 to FY 2009.

Section 5209: National Cooperative Freight Transportation Research Program

The National Cooperative Freight Transportation Research Program is being established by the Secretary of Transportation in partnership with the National Academy of Sciences (NAS).¹⁰ The program will be governed by an Advisory Committee selected by the NAS, and will recommend a national research agenda, solicit and review research proposals, award contracts, and disseminate research findings. The authorized funding level is \$15.0 million total from FY 2006 to FY 2009.

⁹ Source: *Freight Provisions in SAFETEA-LU*, slide 10; HOFM Director, September 2005; <http://www.ops.fhwa.dot.gov/freight/policy.htm>

¹⁰Source: *Freight Provisions in SAFETEA-LU*, slide 11; HOFM Director, September 2005; <http://www.ops.fhwa.dot.gov/freight/policy.htm>

Section 9002: Capital Grants for Rail Line Relocation and Improvement Projects

The Capital Grant Program for Rail Line Relocation and Improvement projects was created under Section 9002 of SAFETEA-LU to fund local rail-line relocation and improvement projects. States are eligible to receive grant funds from this program for the following types of rail projects:

- Rail line improvement projects serving the purpose of mitigating the impacts of rail traffic on safety, motor vehicle traffic flow, community quality of life, and/or economic development; and
- Rail line relocation projects involving a lateral or vertical relocation of any portion of the rail line.

The Federal funding share for this program is up to 90 percent. At least 50 percent of the grant funds awarded under this program in a fiscal year must be provided as grant awards not exceeding \$20 million each.

Funding Levels. Section 9002 of SAFETEA-LU authorizes, but does not appropriate, \$350 million per year for each of the FY 2006 to FY 2009 period. No funds were appropriated for this program in FY 2006.

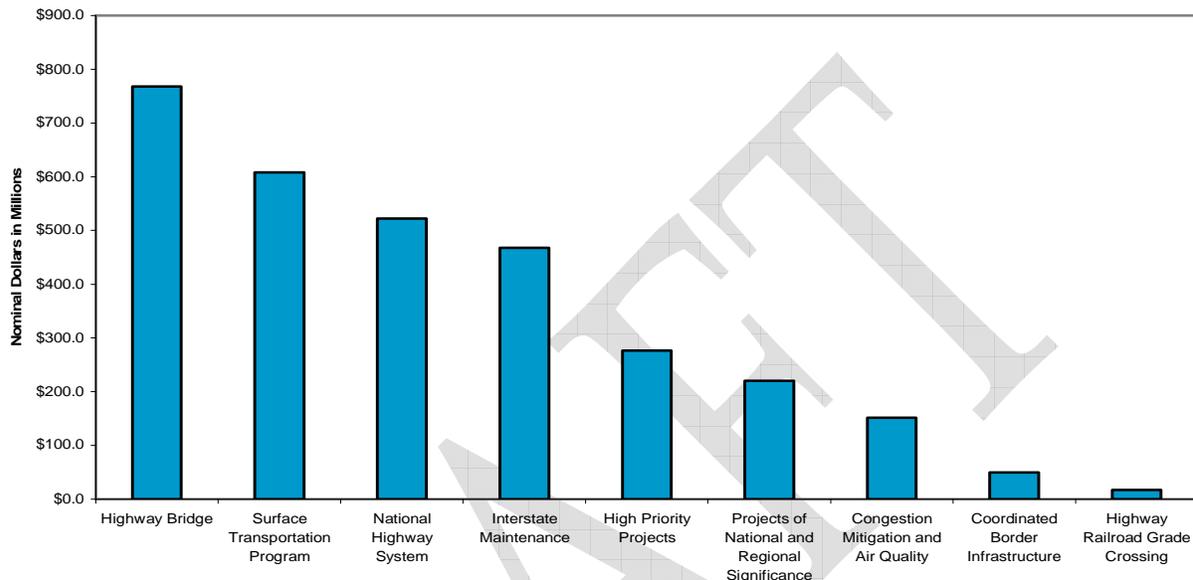
Ferry Boat Discretionary Program

The Ferry Boat Discretionary Program provides funds for the construction of ferry boats and ferry terminal facilities connecting to the NHS. Eligible locations represent logical extensions of the NHS roadways where construction of a bridge is neither practical or feasible. Ferry boat projects eligible under the program include services designed to carry motor vehicles from one point to another including commercial vehicles. The Federal funding share is 80 percent, with a 20 percent local match requirement.

Funding Levels. A set-aside of \$20 million per year is provided for the construction or refurbishment of ferry boats and ferry terminals and their approaches that are part of the NHS in the states of Alaska, New Jersey, and Washington. The remaining funds (\$167 million for fiscal years 2006 through 2009) are available for projects on a competitive basis. Because of the large number of requests, \$2 million or less is typically awarded, in order to disburse funding to as many states as possible.

Figure 2.1 provides a summary of the Federal funding levels apportioned to Washington State by program from FY 2005 to FY 2009.

Figure 2.1 Estimated Federal Program Funding Levels for Washington State, FY 2005 to FY 2009



Findings from Figure 2.1 are as follows:

- Among the Federal formula-based programs, the most significant for Washington State in terms of estimated funding are the Highway Bridge Program (\$767.9 million from FY 2005 to FY 2009), the Surface Transportation Program (\$607.8 million), the National Highway System Program (\$521.9 million), and the Interstate Maintenance Program (\$467.5 million).
- Among the Federal discretionary programs, Washington State is estimated to receive \$276.7 million from the High Priority Projects Program and \$220.0 million from the Projects of National and Regional Significance Program from FY 2005 to FY 2009. Washington State will not receive any Federal funding from discretionary programs that include the Transportation Improvement Projects Program and the National Corridor Infrastructure Improvement Program.

Most of these Federal programs may be used for transportation projects that do not necessarily have freight as its primary objective. How much of this Federal funding for Washington State will be going to freight-related projects could not be determined.

Non-U.S. DOT Programs

Harbor Maintenance Trust Fund

The Harbor Maintenance Trust Fund (HMTF), established by the U.S. Army Corps of Engineers (USACE) in 1986, is the main source of funding for waterway infrastructure improvements.¹¹ The HMTF provides funding for operations and maintenance (i.e., dredging costs) of Federally authorized channels for commercial navigation. Ports located along Federal navigation channels are eligible to receive HMTF funding. The Trust fund depends on an ad valorem tax of 0.125 percent on cargo value and reimburses the Treasury for 100 percent of harbor operations and maintenance.

Funding Levels. The USACE FY 2007 budget includes approximately \$2.3 billion for Operations and Maintenance (O&M), of which \$707 million (31.3 percent) will be appropriated from the HMTF. The funds are distributed among 21 designated USACE regions. The O&M budget for commercial navigation expenditures is estimated at \$1.3 billion (56 percent).

Inland Waterways Trust Fund

The USACE Inland Waterways Trust Fund (IWTF) is another potential financing option for marine transportation improvements.¹² This trust fund was created out of the Inland Waterways Revenue Act of 1978 and depends on fuel taxes for revenue. The barge and towing industry pays a diesel fuel tax of 20 cents per gallon into the Trust Fund under landmark cost-sharing legislation enacted in 1986. These funds, after being matched by general revenues from the Federal government, are dedicated by law to underwrite the cost of modernizing locks and dams on the fuel-taxed inland waterway.

Funding Levels. Current funding levels through the Inland Waterways Trust Fund could not be identified.

U.S. Department of Commerce

The U.S. Department of Commerce Economic Development Administration (EDA) provides grants for projects in economically distressed industrial sites that promote job creation and/or retention. Eligible projects must be located within an EDA-designated redevelopment area or economic development center. Eligible freight-related projects include: industrial access roads, port development and expansion, and railroad spurs and sidings. Grantees must

¹¹Source: *Financing Freight Transportation Improvements Workshop Proceedings*; page 4; http://www.ops.fhwa.dot.gov/freight/freight_analysis/financing.htm

¹²Source: *Financing Freight Transportation Improvements Workshop Proceedings*; page 4; http://www.ops.fhwa.dot.gov/freight/freight_analysis/financing.htm

provide evidence of economic distress that the project is intended to alleviate. Grant assistance is available up to 50 percent of the project, although the EDA could provide up to 80 percent for projects in severely depressed areas.

Funding Levels. During the last quarter of 2005, the EDA announced 117 grants greater than \$100,000, totaling almost \$103 million. These investments were part of projects that totaled over \$240 million. EDA's Fiscal Year 2004 investments totaled approximately \$278 million, with grants ranging from \$12,000 to \$5.6 million.

Economic Development Administration (EDA) Funds

The U.S. Department of Commerce's Economic Development Administration (EDA) provides grants for economic development projects in economically distressed industrial sites. A critical objective of the program is to promote job creation and/or retention in the region. Eligible projects must be located within an EDA-designated redevelopment area or economic development center. Freight-related projects that are eligible for funding from this program include: industrial access roads, port development and expansion, and railroad spurs and sidings.

Evidence of the economic distress that the project is intended to alleviate is required of the grantees. The program provides grant assistance up to 50 percent of a project cost; however, it can provide up to 80 percent of cost for projects located in severely-depressed areas.

Funding Levels. During the last quarter of 2005, the EDA announced 117 grants greater than \$100,000, totaling almost \$103 million. The total value of grants awarded under the program totaled over \$240 million.

Community Facilities Program

The U.S. Department of Agriculture Community Facilities program provides three types of funding for the construction, enlargement, extension, or improvement of community facilities in rural areas and towns with a population of 20,000 or less. The three programs are:

- Direct Community Facility Loans,
- Community Facility Loan Guarantees, and
- Community Facility Grant Program.

Grant assistance is available for up to 75 percent of project cost. Rail-related community facilities eligible for funding from this program include rail spurs serving industrial parks, and other railroad infrastructure in the region such as yards, sidings, and mainline tracks.

Funding Levels. The Community Facility Program amounts to \$297 million in direct loans, \$208 million in loan guarantees, and \$17 million in grants for FY

2007. The average loan, loan guarantee, and grant amounts are estimated to be \$442,000; \$860,000; and \$32,000, respectively.

Environmental Protection Agency

Through EPA's Brownfield Revitalization Program, the Federal government provides grants and loans for brownfield site cleanup. Brownfield sites could be redeveloped for commercial, residential, and/or industrial uses, including intermodal facilities (e.g., rail-truck transfer facilities). Site cleanup grants provide up to \$200,000 per site to fund cleanup conducted by cities, development agencies, nonprofit groups, and similar entities at sites that they own. A 20 percent match (of funds or in-kind services) is required, although this can be waived in the case of hardship. The Revolving Loan Fund (RLF) grants provide up to \$1 million per recipient, available for five years, to establish state or locally administered loan funds. Local governments, states, Indian tribes, and entities such as redevelopment agencies, regional councils, and land clearance agencies are eligible for these capitalization grants.

Funding Levels. As of May 2006, EPA has awarded 202 RLF grants totaling \$186.7 million, and 238 cleanup grants totaling \$42.7 million.

Financing Tools

Loans and credit enhancement programs allow states to pursue transportation projects without the need to have all the upfront revenue in place. Projects can be completed in a much faster timeframe, which can reduce the cost of project delivery and yield project benefits more quickly. Financing has its limitations in the form of future year interest payments and claims on future funding levels (i.e., commitment of future monies that could otherwise be available for pay-as-you-go projects). Financing tools of particular relevance to freight projects include the following.

Section 1601: Transportation Infrastructure Finance and Innovation Act (TIFIA)

The Transportation Equity Act of the 21st Century (TEA-21) formally recognized the need to link intermodal freight needs to infrastructure investments and advocated new investment schemes. The Transportation Infrastructure Finance and Innovation Act (TIFIA), which was created in 1998 by TEA-21, allows funds to be borrowed from the Federal government rather than from the capital market. The strategic goal of the TIFIA program is to leverage Federal resources and stimulate private capital investment by providing credit assistance (up to one-third of the project cost) for major transportation investments of national or regional significance.

The TIFIA program has a minimum project cost threshold for eligibility, which is the lower of \$50 million or 33 percent of a state's annual Federal-aid apportionment for highway projects. Interest rates are at the Federal funds' rate

rather than the tax-exempt municipal market rate, and are lower than the taxable rate. Funds are underwritten by Federal funding sources from dedicated user revenue streams. The saving between taxable and treasury rates is often between 125 and 200 basis points. Both principal and interest payments can be deferred for at least five years and possibly up to 10 years.¹³

Through the SAFETEA-LU Freight Gateways program, the definition of a project for the TIFIA program was amended to include "a public or private freight rail facility".¹⁴ As such, TIFIA eligibility was expanded to certain private rail projects. Eligibility for freight facilities now includes the following:

- Public or private freight rail facilities providing benefits to highway users;
- Intermodal freight transfer facilities;
- Access to freight facilities and service improvements, including capital investments for Intelligent Transportation System (ITS); and
- Port terminals, but only when related to surface transportation infrastructure modifications to facilitate intermodal interchange, transfer, and access into and out of the port.

Financing Levels. SAFETEA-LU authorized \$122 million per year to pay the subsidy costs of supporting Federal credit under TIFIA. There is no limit on amount of credit assistance that can be provided to borrowers in a given fiscal year; the lending authority cap is a function of the agency's budget authority. Repayment of TIFIA loans must come from tolls, user fees, or other dedicated revenue sources. As of July 2006, TIFIA assistance amounted to \$3.2 billion, leveraging \$13.2 billion of investment in 14 transportation projects. Among these projects were:

- Reno Transportation Rail Access Corridor (ReTRAC), a 2.25-mile below-grade rail freight corridor, which received \$51 million; and
- Washington Metropolitan Area Transit Authority Capital Improvement Program, replacing vehicles and rehabilitating facilities and equipment, which received \$600 million.

There are currently no projects being financed through the TIFIA Program in Washington State.

Section 1602: State Infrastructure Banks (SIB)

The State Infrastructure Banks (SIB) program was started as a pilot program authorized under Section 350 of the National Highway System Designation Act of 1995 (NHS Act). SIBs are revolving infrastructure investment funds which are

¹³Source: *Financing Intermodal Transportation*; page 12; William Ankner, September 2003.

¹⁴Source: <http://www.ops.fhwa.dot.gov/freight/freightfactsheet.htm>

established and administered by states and are eligible for capitalization with Federal-aid highway apportionments and state funds. The purpose of SIBs is to provide innovative and flexible financial assistance to states for rail, highway, and transit projects in the form of loans and credit enhancements.

Financial assistance is available to public and private entities through the SIBs. The assistance includes below-market rate subordinate loans, interest rate buydowns on third-party loans, loan guarantees, and line of credit for the FY 2005 to FY 2009 time period. The following Federal transportation funds may be used to capitalize SIBs:

- Highway Account. Up to 10 percent of the Federal-aid highway apportionments to the state for the NHS program, Surface Transportation Program (STP), Highway Bridge Program, and the Equity Bonus;
- Transit Account. Up to 10 percent of the Federal funds for transit capital projects under Urbanized Area Formula Grants, Capital Investment Grants, and Formula Grants for other than Urbanized Areas; and
- Rail Account. Federal funds for rail capital projects under Subtitle V (Rail Programs) of Title 49 USC.

A state setting up and using a SIB is obliged to match the Federal SIB capitalization funds on an 80 to 20 Federal/non-Federal basis. The exception is the use of funds from the highway account, where a sliding-scale matching provision applies.

Each SIB generally determines what types of credit products to offer, what interest rates to charge, how to screen applicants, and other matters related to the day-to-day business of the SIB. There is also discretion to determine what forms of repayment are acceptable. Even though it is desirable for a SIB to introduce new revenue streams (such as toll receipts) into the pool of funding available for transportation investment, it is possible for SIB loans to be repaid with existing state resources or even Federal funds.

Financing Levels. Washington State has established an SIB and has used it to finance three highway projects to date.¹⁵ The cumulative total of these loans is \$2.38 million, of which \$0.49 million has been disbursed.

Of the 32 states that are currently using SIBs, Washington State ranks 18th in the number of highway projects financed and 25th in the cumulative total of loans. Ohio has used SIBs for the most projects to date at 74 projects; South Carolina ranks highest in the cumulative total of SIB loans at \$2.7 billion.

¹⁵Source: *Highway Statistics 2005*; Table FA-22; Federal Highway Administration, October 2006.

Section 9003: Rail Rehabilitation and Improvement Financing (RRIF) Program

The Railroad Rehabilitation and Improvement Financing (RRIF) credit program was created under TEA-21 (later amended by Section 9003 of SAFETEA-LU) to help finance railroad capital improvements, particularly those that assist smaller short line and regional railroads. The RRIF program is administered by the Federal Railroad Administration (FRA) and provides financial assistance in the form of direct loans and loan guarantees to eligible recipients for the following types of rail projects:

- Acquisition, improvement, or rehabilitation of freight and passenger rail equipment and facilities, including tracks, yards, and bridges;
- Refinancing of outstanding debt incurred in the acquisition, improvement, or rehabilitation of freight and passenger rail equipment and facilities; and
- Development of new freight and passenger rail facilities.

Recipients eligible for direct loans and/or loan guarantees from the program include public and private entities, railroads, joint ventures (including at least one railroad), limited-option freight shippers (i.e., shippers who own a plant or facility served by no more than a single railroad), and interstate compacts consented to by Congress under Section 410(a) of the Amtrak Reform and Accountability Act of 1997. The RRIF program does not provide financial assistance for rail operating expenses.

Direct loans from the program can be used to finance 100 percent of the total project cost, while loan guarantees can be made for up to 80 percent of the cost of a loan, for terms of up to 25 years. The program requires applicants to cover the subsidy costs through payment of a “credit risk premium” equal to a fraction of the loan amount calculated based on the financial viability of the applicant and the value of the collateral provided to secure the debt.

Financing Levels. Thirteen loans, totaling \$517 million, have been issued since 2002. The smallest and largest loans approved were \$2.1 million for Mount Hood Railroad and \$233 million for the Dakota, Minnesota & Eastern Railroad.

Section 11-1143: Tax-Exempt Financing of Highway Projects and Rail Truck Transfer Facilities (Private Activity Bonds)

A tax-exempt bond is an obligation issued by a state or local government where the interest received by the investor is not taxable for Federal income tax purposes. Tax-credit bond financing is a new form of Federally subsidized debt financing, where the investor receives a Federal tax credit. Because of the exception of Federal income tax on the interest earned, these bonds have a lower cost of financing compared to taxable bonds.

Section 11143 of SAFETEA-LU created a new type of exempt facility eligible to be financed with tax-exempt bonds. These exempt facility bonds may be used to

finance certain surface transportation projects, projects for certain international bridges or tunnels, or facilities to transfer freight between truck and rail, provided the project or facility receives Federal assistance.

States and local governments are allowed to issue tax-exempt bonds to finance highway and freight transfer facility projects sponsored by the private sector. Passage of the private activity bond legislation reflects the Federal government's desire to increase private sector investment in United States transportation infrastructure, potentially resulting in new sources of money, ideas, and efficiency. Providing private developers and operators with access to tax-exempt interest rates lowers the cost of capital significantly and therefore enhances investment prospects.

Financing Levels. SAFETEA-LU includes a total national cap of \$15 billion on private activity bonds. The U.S. Secretary of Transportation is directed to allocate this amount among qualified facilities.

GARVEE Bonds

GARVEEs permit states to pay debt service and other bond-related expenses with future Federal-aid highway apportionments. The concept is that Federal funds are guaranteed at a certain level and therefore should be treated as income to the state/local entities. Candidates for GARVEE financing are typically larger projects that have the following characteristics:¹⁶

- They are large enough to merit borrowing rather than pay-as-you-go grant funding, with the costs of delay outweighing the costs of financing;
- They do not have access to a revenue stream (such as local taxes or tolls) and other forms of repayment (such as state appropriations) are not feasible; and
- The sponsors (generally state DOTs) are willing to reserve a portion of future year Federal-aid highway funds to satisfy debt service requirements.

GARVEE bonds may be used for projects that improve interconnectivity to airports, ports and rail stations. They cannot be used to build a rail freight line or new infrastructure for Amtrak, or any purely private transportation purpose.¹⁷

The issuer of a GARVEE bond has significant flexibility in structuring the terms of the transaction. Coverage ratios, interest rates, the term of the obligation, the level of debt service reserves, and the use of bond insurance are all matters determined by the issuer and the credit markets. Some states may need enabling legislation to issue GARVEEs. In some states, legislation includes clauses that place limits on the volume of GARVEE debt that can be issued. Another key decision left to the state's discretion is how to structure the revenue pledge.

¹⁶Source: *Innovative Finance Primer*; page 16; Federal Highway Administration, April 2002.

¹⁷Source: *Financing Intermodal Transportation*; page 12; William Ankner, September 2003.

Railroad Track Maintenance Credit

The Railroad Track Maintenance Credit authorized under Section 45G of the Internal Revenue Code provides tax credits to qualified taxpayers for expenditures on railroad track maintenance on railroad tracks owned or leased by a Class II or Class III railroad. The amount of tax credit provided is 50 percent of qualified railroad track maintenance and rehabilitation expenditures (including expenses for roadbed, bridges, and related track structures).

Eligible taxpayers qualifying for this credit include any Class II or Class III railroad, an entity transporting property on a Class II or a Class III railroad facility, or an entity furnishing railroad-related property or services to a Class II or a Class III railroad. The maximum credit allowed under this program is \$3,500 per mile of railroad track owned or leased by an eligible taxpayer, or railroad track assigned to the eligible taxpayer by a Class II or a Class III railroad that owns or leases the railroad track. This credit program, which was released in 2004, was for a 3-year period from December 31, 2004 to December 31, 2007. However, for eligible taxpayers not having enough taxable income to make full utilization of the credit, the credits can be carried forward for a 20-year period.

Special Experimental Project 15

SEP-15 is an experimental process for FHWA to identify, for trial evaluation, new public-private partnership approaches to project delivery. It is anticipated that these new approaches will allow the efficient delivery of transportation projects without impairing FHWA's ability to carry out its stewardship responsibilities to protect both the environment and American taxpayers.

Title XI Financing

The marine industry has its own type of innovative financing mechanism for the building of U.S. vessels and the modernization of U.S. shipyard facilities.¹⁸ This mechanism is known as Title XI and provides a U.S. government guarantee of private sector debt financing. The program offers up to 87.5 percent financing, longer term maturities (up to 25 years), and attractive interest rates. In order to meet the requirements for the program, the shipyard must have:

- Minimum of 12.5 percent equity must be funded or committed prior to any approval from MARAD;
- Positive working capital;
- Long term debt to equity ratio not exceeding 2:1; and
- Maintain net worth.

¹⁸Source: *Financing Freight Transportation Improvements Workshop Proceedings*; page 6; http://www.ops.fhwa.dot.gov/freight/freight_analysis/financing.htm

2.3 STATE AND LOCAL FUNDS

At the state level, there are few dedicated revenue sources to support freight investments. The legislature has funded several accounts dedicated to freight projects, including the Emergent Rail Assistance program, the Freight Rail Assistance Bank, and accounts that support projects of the Freight Mobility Strategic Investment Board (FMSIB). These accounts are funded from traditional transportation revenue sources, such as motor vehicle registration fees, license fees, and fuel taxes. No dedicated freight funding sources at the local level were identified.

Freight Mobility Strategic Investment Board (FMSIB)

FMSIB provides matching funds for freight improvement projects of regional or statewide significance. Every other year, the board receives a slate of potential freight improvement project proposals from cities, towns, counties, ports, and Washington DOT. Potential projects must meet three important criteria:

- The project must be included in an established regional or state transportation plan;
- The project must fall on one of Washington's defined Strategic Freight Corridors (which are updated every two years by Washington DOT) or emerging corridors; and
- The project must provide a minimum 35 percent match.

The FMSIB Capital Account was established in 2005 to receive levies from license fees, weight fees, motor vehicle or multimodal fees and private funds. The 2006 funding recommendations are estimated at over \$350 million, providing matching funds for a total investment of almost \$4 billion.

3.0 Current Industry Taxes & Fees

This section analyzes current taxes and fees paid by the freight industry, and the extent to which these taxes and fees could either be re-directed to freight investment or could be leveraged through other forms of financing. This section is organized into the following subsections:

- **Federal Taxes and Fees**, including Federal fuel taxes, heavy vehicle fees, and income taxes.
- **State Taxes and Fees**, including state fuel taxes, retail sales and use taxes, taxes with revenue going towards general state purposes, combined licensing fees, and other freight-related fees.
- **Local Taxes and Fees**, including local option fuel taxes, sales taxes, and property taxes.
- **Options for Re-directing or Leveraging Taxes and Fees**, which provides a discussion of options that Washington State could consider for redirecting tax and fee revenue and for increasing revenue for freight-related projects.

3.1 FEDERAL TAXES AND FEES

The primary Federal taxes and fees paid by the freight industry which go towards transportation purposes are fuel taxes and heavy vehicle fees:

- **Gasoline Fuel Tax.** The Federal tax on gasoline fuel is 18.4 cents per gallon, of which 15.44 cents (83.9 percent) goes to the Highway Trust Fund, 2.86 cents (15.5 percent) goes to the Transit Account, and 0.1 cent (0.5 percent) goes to the Leaking Underground Storage Tank Trust Fund.¹⁹ An increase to the Federal gasoline fuel tax rate was last authorized in 1993.

In FY 2005, highway users in Washington State are estimated to have paid \$407.0 million in gasoline tax revenue to the Federal Highway Trust Fund.²⁰ The majority of this revenue is derived from the use of personal automobiles, and a subset is derived from the use of light trucks and other gasoline-powered vehicles for freight-related purposes.

¹⁹Source: *Transportation: Invest In Our Future – Revenue Sources to Fund Transportation Needs*, page 15; American Association of State Highway and Transportation Officials, April 2007.

²⁰Source: *Highway Statistics 2005*; Table FE-9; Federal Highway Administration, September 2006.

- **Diesel Fuel Tax.** The Federal tax on diesel fuel is 24.4 cents per gallon, of which 21.44 cents (87.9 percent) goes to the Highway Trust Fund, 2.86 cents (11.7 percent) goes to the Transit Account, and 0.1 cent (0.4 percent) goes to the Leaking Underground Storage Tank Trust Fund.²¹ An increase to the Federal diesel fuel tax rate was last authorized in 1993.

In FY 2005, highway users in Washington State are estimated to have paid \$132.0 million in special fuels (primarily diesel) tax revenue to the Federal Highway Trust Fund.²²

- **Heavy Vehicle Fees.** Federal heavy vehicle fees include a heavy vehicle use tax for trucks over 55,000 pounds, a 12 percent sales tax on new trucks over 33,000 pounds, and a tire tax for tires over 40 pounds. This revenue goes to the Highway Trust Fund.

In FY 2005, highway users in Washington State are estimated to have paid \$18.4 million in heavy vehicle use taxes, \$50.4 million in truck sales taxes, and \$7.9 million in tire taxes to the Federal Highway Trust Fund.²³

The Highway Trust Fund is the primary funding source for a number of Federal programs used for freight-related and other transportation projects. Section 2.0: Existing and Potential Funding Incentives described the Federal programs most relevant to the freight industry.

In addition, for-profit companies within the freight industry pay Federal income taxes in accordance with the U.S. Internal Revenue Service (IRS) tax code. This revenue goes towards a variety of purposes at the Federal level.

3.2 STATE TAXES AND FEES

State Taxes

The freight industry in Washington State is subject to a number of state taxes, including retail sales taxes, use taxes, various property taxes, public utility (PUT) taxes, business and occupation (B&O) taxes, and taxes on fuels. Revenue from fuel taxes and transportation-dedicated vehicle retail sales and use taxes are allocated specifically to transportation purposes. The bulk of revenue collected

²¹Source: *Transportation: Invest In Our Future – Revenue Sources to Fund Transportation Needs*, page 15; American Association of State Highway and Transportation Officials, April 2007.

²²Source: *Highway Statistics 2005*; Table FE-9; Federal Highway Administration, September 2006.

²³Source: *Highway Statistics 2005*; Table FE-9; Federal Highway Administration, September 2006.

from other state taxes are used for a wide range of other state and local government purposes.

Taxes with Revenue Allocated to Transportation Purposes

The motor vehicle fuel tax, special fuel tax, and a 0.3 percent transportation-dedicated vehicle retail sales and use tax in Washington State are described below. The revenue from these taxes are used for transportation purposes.

- **Motor Vehicle Fuel Tax.** The motor vehicle fuel tax is imposed on all motor vehicle fuels, except diesel and other special fuels, when fuel is delivered from a refinery or import terminal in the state to an automobile, truck, trailer, or rail car. Gasoline is the primary fuel type in this category. The current state tax rate is 36.0 cents per gallon, and will increase to 37.5 cents per gallon in July 2008. This is the last rate increase that is currently planned as part of the 2005 Partnership funding package.

In FY 2005, an estimated \$754.7 million in state gasoline fuel tax revenue was generated in Washington State with the tax rate at 28.0 cents per gallon. For FY 2008, Washington State is projected to generate \$1,025.7 million in state gasoline tax revenue with the tax rate at 36.0 cents per gallon.²⁴ The majority of this revenue is derived from the use of personal automobiles, and a subset is derived from the use of light trucks and other gasoline-powered vehicles for freight-related purposes.

- **Special Fuel Tax.** The special fuel tax is imposed on diesel fuel and other special fuels (i.e., propane, natural gas) when fuel is delivered from a refinery or import terminal in the state to an automobile, truck, trailer, or rail car. The current state diesel fuel tax rate in Washington State is 36.0 cents per gallon (the same tax rate as for gasoline) or per 100 cubic feet for gases like propane. This tax rate held constant at 23.0 cents per gallon from 1991 to 2002, and has increased in phases since 2002 to its current rate with the approval of the 2003 Nickel funding package and the 2005 Partnership funding package. The tax rate will increase to 37.5 cents per gallon in July 2008, which is the last rate increase that is currently planned.

In FY 2005, an estimated \$149.7 million in state diesel fuel tax revenue was generated in Washington State with the tax rate at 28.0 cents per gallon. For FY 2008, Washington State is projected to generate \$221.9 million in state diesel fuel tax revenue with the tax rate at 36.0 cents per gallon.²⁵

²⁴Source: *Long-Term Transportation Financing Study*; revenue estimates and projections; Cambridge Systematics, January 2007.

²⁵Source: *Long-Term Transportation Financing Study*; revenue estimates and projections; Cambridge Systematics, January 2007.

- **Vehicle Retail Sales and Use Tax.** Persons or businesses who purchase or lease a vehicle in Washington State pay a one-time retail sales and use tax equal to 0.3 percent of the vehicle selling or leasing price, with the revenue dedicated to transportation purposes. This percentage is in addition to other applicable state and local retail sales taxes. For the two-year period from FY 2005-07, the average annual revenue from the retail sales and use tax is estimated at \$35.0 million.²⁶ Data which breaks out this amount for trucks separately from automobiles was not identified.

Individuals or businesses that rent vehicles pay a rental vehicle sales tax of 5.9 percent of the rental contract amount.

Taxes with Revenue Allocated to Other Purposes

- **Retail Sales Tax.** State retail sales taxes are collected by a business from its consumers on retail sales, unless there is a specific statutory retail sales tax exemption. The state retail sales tax is 6.5 percent; local and other retail sales taxes also apply. As noted previously, an additional state retail sales tax rate of 0.3 percent applies to sales and leases of motor vehicles.

Purchases of trucks, trailers, component parts, and repair work by motor carrier permit holders for “substantial” use in interstate or foreign commerce are exempt from the retail sales tax. Substantial use in interstate/foreign commerce means the equipment is used in such commerce at least 25 percent of the time as measured by state boundary line crossings, mileage, or revenue.

Proceeds of the state retail sales are deposited into the state’s general fund, and is the state’s principal source of tax revenue. Together with the use tax described to follow, the retail sales tax represents more than 50 percent of state taxes deposited into the general fund at nearly \$6.8 billion in FY 2006.²⁷

The second largest source of general state revenue is the property tax, described to follow. Washington State does not have a personal or corporate income tax; the public utility tax and the business & occupation tax (also described to follow) are used in lieu of an income tax.

- **Use Tax.** The use tax is a tax on the use of goods or retail services in Washington when sales tax has not been paid. Examples include goods purchased in another state (with a sales tax lower than Washington State) that are used in Washington State, goods purchased from someone not authorized to collect sales tax, and goods purchased out of state by subscription, Internet, or mail order. The state use tax rate is 6.5 percent. The distribution of use tax revenue is the same as for the retail sales tax.

²⁶Source: *Transportation Resource Manual*; page 92; Washington State Legislative Transportation Committee, January 2005.

²⁷Source: Washington State Department of Revenue, August 2007.

- **Property Tax.** Property taxes are paid by many businesses in the transportation industry. Real and personal property taxes are collected by the county treasurer's office where the property is located. While the state does not collect property tax revenue directly, property taxes are a form of state revenue (revenue is distributed among the state and local governments according to state statute; the state uses property tax revenue for general government purposes). Each year's levy of regular (non-voted) property taxes may not exceed one percent of the value of any piece of property; property taxes that have been voted on and approved may exceed that limit. In most Washington jurisdictions, voters have authorized a total property tax levy that exceeds one percent.
- **Leasehold Excise Tax.** The leasehold excise tax is a 12.84 percent tax levied on interests in publicly owned real or personal property, most typically private leases of public property. It is essentially in lieu of the property tax, which may not be imposed on public property. For example, it is common for warehouse or shipping companies that lease port or state property to pay the leasehold excise tax. Proceeds of the leasehold excise tax are distributed among the state and local governments according to a formula that differs somewhat from the formula for distributing the property tax.
- **Public Utility Tax.** The public utility tax is assessed on public service businesses including the operation of motor-driven vehicles used in transporting property. Examples of other businesses subject to public utility tax include passenger transportation and water utilities. The transportation of property across state boundaries, into and out of Washington, via "through freight billing" or shipments to ports for export, are allowed deductions for interstate transportation against the public utility tax (the Interstate Commerce Clause of the U.S. Constitution prohibits state taxation of interstate commerce). In general, this tax is computed only on trips that both originate and terminate within Washington State. The public utility tax is in lieu of state business & occupation tax for those activities to which the public utility tax applies.

Trucking businesses are potentially subject to two different public utility tax rates when "hauling for hire" (i.e., operating a motor vehicle to convey the property of others, including acting as an auto transportation company, common carrier, or contract carrier). The "Urban Transportation" rate is 0.642 percent and applies when the origin and destination of a haul are within: the corporate limits of the same city; five miles of the corporate limits of the same city; or five miles of the corporate limits of any two cities whose corporate limits are no more than five miles apart. The "Motor Transportation" rate of 1.926 percent applies to "hauling for hire" that does not meet the definition of "urban transportation." If a shipment crosses state boundaries, it is not subject to either tax rate.

Historical levels of public utility tax paid by the trucking industry in Washington State are as follows:²⁸

- Urban Transportation (0.642 percent rate): \$761,678 (2002); \$759,923 (2003); \$836,369 (2004); \$990,107 (2005).
- Motor Transportation (1.926 percent rate): \$9.33 million (2002); \$9.61 million (2003); \$11.08 million (2004); \$12.92 million (2005).

The vast majority (about 97 percent) of the public utility tax is deposited in the state general fund. The remainder is earmarked for the public works assistance account, from which money is loaned or granted to local governments for water, sewer and other infrastructure facilities.

- **Business and Occupation (B&O) Tax.** The B&O tax is a state gross receipts tax on the value of a business's products, gross proceeds of sale, or gross income. The tax rates vary by type of business, with major classifications including Retailing (0.471 percent), Wholesaling (0.484 percent), Manufacturing (0.484 percent), and Service & Other Activities (1.5 percent).²⁹ The B&O tax is not subject to deductions for labor, materials, taxes, or other costs of doing business.

Although the hauling for hire of freight is subject to the public utility tax and not the B&O tax, many trucking and transport businesses report some portion of their income under retailing, wholesaling, and service classifications that is subject to B&O tax. Gross receipts from the sale of motor vehicles, trailers, and component parts used in interstate or intrastate transportation, lease of motor vehicles and trailers, and repair/construction/cleaning services related to motor vehicles are all subject to the state B&O tax. Proceeds of the B&O tax are deposited primarily into the state's general fund.

- **Oil Spill Tax.** The oil spill tax is a four or five-cent tax assessed on each 42-gallon barrel of crude oil or petroleum products which is transported by ship or barge in Washington State waters and off-loaded at an in-state marine terminal. The proceeds of the four cent tax are used to cover the cost of oil spill prevention, response, and restoration programs. An additional one-cent may be levied depending on the fund balance in the state's oil spill response account and is used to cover state response costs.

State Fees

In addition to these taxes, the trucking industry in Washington State pays a number of other fees which include combined licensing fees, oversize/overweight fees, commercial drivers license fees, commercial vehicle

²⁸Source: Washington State Department of Revenue.

²⁹Source: Washington State Department of Revenue.

safety inspection fees, single trip permits, IFTA decals, and IRP fees. Revenue from these fees is used specifically for transportation purposes. The fees are described below.

- **Combined Licensing Fees.** Trucks registered in Washington State are assessed combined licensing fees that range from \$30 to \$3,402 annually depending on gross weight. For FY 2005-07, the average annual revenue from combined licensing fees in Washington State is estimated at \$142.0 million.³⁰ About \$550,000 in additional annual revenue is derived from monthly combined licensing fees paid by truck owners who purchase licenses for periods of less than one year.
- **Oversize/Overweight Fees.** Oversize or overweight vehicles are assessed special permit fees of \$10 for a single trip (oversize), \$10-\$20 for a 30 day oversize permit, \$70-\$90 for a 30 day overweight permit, \$100-\$150 for a one year oversize permit, and \$42 per 1,000 lbs for a 1 year overweight garbage truck permit. Fees for other overweight permits vary. For FY 2005-07, the average annual revenue from oversize/overweight fees in Washington State is estimated at \$6.15 million.³¹
- **Commercial Drivers License Fees.** Drivers of commercial vehicles in Washington State pay \$30.00 in renewal fees every five years. This fee increased by \$10.00 with authorization of the 2005 Transportation Funding Package. For FY 2005-07, the average annual revenue from commercial drivers license fees is estimated at \$1.1 million.³²
- **Commercial Vehicle Safety Inspection Fees.** Commercial motor vehicle carriers that have terminals in the state pay \$10.00 annually per vehicle for safety inspection fees. For FY 2005-07, the average annual revenue from commercial vehicle safety inspection fees is estimated at \$1.65 million.³³
- **Single Trip Permits.** Special fuel (primarily diesel fuel) users who temporarily enter the state for commercial purposes (maximum of three days) pay a single trip permit of \$25.00. For FY 2005-07, the average annual revenue from single trip permit fees is estimated at \$266,000.³⁴

³⁰Source: *Transportation Resource Manual*; pages 44 and 66; Washington State Legislative Transportation Committee, January 2005.

³¹Source: *Transportation Resource Manual*; page 96; Washington State Legislative Transportation Committee, January 2005.

³²Source: *Transportation Resource Manual*; page 45; Washington State Legislative Transportation Committee, January 2005.

³³Source: *Transportation Resource Manual*; page 46; Washington State Legislative Transportation Committee, January 2005.

³⁴Source: *Transportation Resource Manual*; page 94; Washington State Legislative Transportation Committee, January 2005.

- **International Fuel Tax Agreement Decals.** Motor carriers in Washington State pay \$10.00 annually per set of decals for the International Fuel Tax Agreement (IFTA). For FY 2005-07, the average annual revenue from IFTA decals is estimated at \$310,000.³⁵ The IFTA is described in more detail below.
- **International Registration Plan Fees.** Motor carriers in Washington State involved in interstate commerce pay fees in support of the International Registration Plan (IRP). This includes a \$5.00 fee per plate, a \$2.00 cab card fee, a \$2.00 validation tab fee, and a \$4.50 vehicle transaction fee. For FY 2005-07, the average annual revenue from IRP fees is estimated at \$750,000.³⁶ The IRP is described in more detail below.

IFTA and IRP

The International Fuel Tax Agreement (IFTA) and the International Registration Program (IRP) have been established to make sure that the transportation revenues collected by states are allocated between the states appropriately. The IFTA pertains to commercial vehicle fuel tax revenue, and the IRP pertains to commercial vehicle registration fee revenue.

International Fuel Tax Agreement. Since 1997, fuel use taxes on heavy vehicles have been administered throughout North America under the International Fuel Tax Agreement (IFTA), a multi-jurisdictional organization that provides a uniform framework for the imposition of such taxes.³⁷ IFTA covers the operations of interstate commercial and combination vehicles which (1) have two axles and a gross vehicle weight or registered gross vehicle weight over 26,000 pounds, (2) have three or more axles regardless of weight, or (3) are used in combination when the weight of the combination exceeds 26,000 pounds. This definition corresponds to the IRP definition as well.

IFTA employs the base-state concept to make fuel use tax administration and compliance simpler and more uniform. With the base-state system, motor carriers report fuel tax obligations to all IFTA members by filing one report and paying one lump sum of "net tax" to its base state. If the carrier shows an additional liability on its report to some IFTA states, and a credit owed from others, it pays only the net liability (or claims only the net credit). The base state pays those states which it owes more tax and recoups credits from states that owe it more tax by reconciling the reported carrier fuel tax obligations with the actual state-by-state collection of fuel tax revenue.

³⁵Source: *Transportation Resource Manual*; page 61; Washington State Legislative Transportation Committee, January 2005.

³⁶Source: *Transportation Resource Manual*; page 88; Washington State Legislative Transportation Committee, January 2005.

³⁷Source: *IFTA: An Introduction*; American Trucking Association, June 2005.

International Registration Program. The International Registration Plan (IRP) is a base-jurisdiction registration reciprocity agreement among the jurisdictions of the United States and Canada that provides for the payment of apportioned commercial motor vehicle registration fees on the basis of fleet miles operated in the various jurisdictions.³⁸ Through the IRP, each fleet owner reports vehicle registration fee revenue and fleet miles operated by state to its base jurisdiction. The fees are then reapportioned among the other IRP jurisdictions based on: percentage of mileage travel in each jurisdiction, vehicle specific information, and maximum weight.

3.3 LOCAL TAXES AND FEES

Local taxes and fees that apply in Washington State include:

- **Local Option Fuel Tax.** Counties and Regional Transportation Investment Districts (RTIDs) have the authority to levy an additional motor vehicle fuel tax and/or special fuel tax for local transportation purposes. The maximum authorized rate is 10 percent of the state rate. To date, no county or RTID has enacted the local option fuel tax.³⁹
- **Property Taxes.** Local property tax revenue, collected by the county treasurer offices and distributed to local governments, fund a wide variety of general government activities. This including roads, bridges and other infrastructure through a property tax road levy. Many port districts levy a property tax to help fund their operations and capital needs.
- **Sales and Use Taxes.** Local retail sales and use tax rates range from 0.5 to 2.4 percent, and are used to fund government activities including transportation.
- **Other.** Other transportation options that have been implemented by local governments include a commercial parking tax; motor vehicle excise tax (prohibited at the state level but permitted at the local level; trucks over 6,000 pounds are exempt); employer tax; business and occupation tax; household/utility excise tax; and motor vehicle license fee.

³⁸Source: *The International Registration Plan: An Introduction*; American Trucking Association, June 2005.

³⁹Three cities (Blaine, Nooksack, and Sumas) do assess a border area motor vehicle and special fuel tax of 1 cent per gallon.

4.0 Dedicated Revenue Streams for Freight Investment

Washington State is not alone in its need to find innovative sources of financing to accommodate its growing freight infrastructure needs. Many jurisdictions around the country and the world are facing the same challenge, and some have generated solutions that may be applicable to Washington State.

This section of the report provides several national and international case study examples of revenue streams dedicated to freight investment. For each case study, we describe the amount of the revenue source, the types of projects funded, and the program costs and benefits. Consideration of program costs and benefits is important given the frequent need to justify freight investments and to determine to what extent project benefits are distributed equitably among those who have paid for them.

The case studies illustrate the range of funding sources states and nations are drawing on. Examples of dedicated funds for freight investment include direct sources such as user fees and taxes, and indirect sources such as general obligation bonds issued to fund a stream of freight projects.

In the search for appropriate case studies, we determined that there are few examples of large revenue streams (>\$100 million/year) dedicated solely for freight projects. Nevertheless, many states have established low interest loan or grant programs for specific types of freight investments, such as preservation of rail lines or small-scale port improvements. One of the largest of these state grant programs is the Virginia Rail Enhancement Fund, which provides \$23 million per year in annual funding for passenger or freight rail improvements. A detailed description of the Rail Enhancement Fund is included in this section.

The remaining four case studies in this section focus on very large sources of funds available for freight improvements, including Germany's Toll Collect; Oregon's Transportation Investment Act; California's Trade Corridor Improvement Fund; and Florida's Strategic Intermodal system. These examples are most relevant to Washington State, which has very substantial infrastructure needs. The examples demonstrate how other states have gone about generating or redirecting large amounts of funds towards freight projects.

Truck Distance-Based User Fees

Germany's Toll Collect

Overview.⁴⁰ Recognizing the infrastructure costs imposed by heavy trucks, the German government implemented the world's first country-wide distance-based electronic truck tolling system in January 2005. The tolls apply exclusively to trucks that have a gross vehicle weight 12 tons or more using German's 7,500 miles of federal roadways.

The tolls were implemented not only to recoup the estimated \$3.4 billion Euros in costs per year associated with wear-and-tear from heavy vehicles, but also to ensure a level playing field between German and foreign trucks. Thirty-five percent of truck-kilometers on the motorways are made by foreign-registered vehicles that neither pay taxes nor comply with EU emission standards, giving them an advantage over German trucks.

To collect the tolls, a combination of satellite positioning systems (GPS) and mobile communications network (GSM) was placed in all trucks, whether foreign or domestic. The systems allow for determination of position, toll calculation and transmission of toll amount to the collection center. The toll collection system was developed and is operated by Toll Collect, a public private partnership that includes the German Ministry of Transport, Deutsche Telecom, Daimler-Chrysler Financial Services, and Cofiroute.

Toll rates vary by numbers of axles and emission category from 9 to 14 euro-cents per kilometer (\$0.19 to \$0.30 Euro-cents per mile, average of \$0.26). The toll rate was set too low to cover the entire cost of the yearly infrastructure damage associated with trucking. This was done to reduce the economic burden on the trucking industry.

Costs and Benefits. System revenues between January 2005 and July 2006 were 4.6 billion Euros (\$6.0 billion or \$13-14.5 million per day). Half of the revenues go towards road infrastructure and half is split between other freight modes, including rail (38 percent) and waterways (12 percent). The rationale behind this split is to maintain competition between modes. Road authorities have opposed this due to the other subsidies the government already gives other modes, such as the \$23.6 billion dollars in subsidies given to the rail industry. Road authorities would like to keep all of the revenues, which they view as road user fees. They complain that 100 percent of the revenues earned from distance based fees on rail carriers are invested in rail projects.

⁴⁰Source: State and Local Policy Program, Hubert Humphrey Institute of Public Affairs, University of Minnesota. Scanning Tour Summary Report: Pricing Experience in Northern Europe: Lessons Learned and Applicability to Minnesota and the United States. October 2006. pgs 11-16.

http://www.hhh.umn.edu/img/assets/20844/5790_Scan_Tour_Report.pdf.

Nevertheless, the system has gained political acceptance among the trucking groups, which believe it has helped improve their competitiveness vis-à-vis foreign trucks. They have passed on the cost of the program to consumers, as evidenced by an estimated 0.15 percent increase in the price of consumer goods.

Tax on Rental Vehicles

Virginia's Rail Enhancement Fund

Overview.⁴¹ In 2005, Virginia created the Rail Enhancement Fund as a dedicated source of funding for passenger and freight rail improvements. Three percent of the motor vehicle rental tax and interest on past earnings provides over \$25 million per year for the fund. Other funds supplement the rental car tax, including at least 4.3 percent from any transportation bonds issued.

Projects must have a minimum of 30 percent matching contributions from a railroad, regional authority or local government source or a combination thereof. At least 90 percent of funds are to be spent on capital improvements.

Projects are selected based on the recommendations of a Rail Advisory Board (RAB). The RAB consists of nine members appointed by the Governor, including representatives of industry (CSX and Norfolk Southern Railroads), government (Hampton Roads Planning Commission and Fairfax County), and other organizations, such as the non-profit Rail Policy Institute.

Examples of projects funded in fiscal year 2005 include rail line acquisitions, rail yard expansions, new track construction, railroad switch upgrades, and other projects. The largest projects to be financed through the fund were associated with Heartland Corridor effort, a series of freight capacity expansion projects between Chicago and the Port of Virginia.

One of these projects consisted of clearing tunnels to accommodate double stack intermodal trains and constructing an intermodal facility in Roanoke to transfer containers between rail and trucks. The Rail Enhancement Fund provided over \$20 million for this portion of the project, which is expected to reduce travel length between the Port of Virginia and Chicago by 233 miles. The planned

⁴¹ Eastern Federal Lands Highway Division (EFLHD), Heartland Corridor web site, http://www.efl.fhwa.dot.gov/special_projects/heartland-corridor-clearance-project/, accessed on August 20, 2007

Personal conversation with staff of the Rail Enhancement Fund, September 2007.

Virginia Department of Rail and Public Transportation. Rail Enhancement Fund Policy Goals and Implementation Guidelines, FY2005-2006. October 20, 2005. <http://www.drpt.virginia.gov/studies/files/Rail-Fund-Guidelines-10202005.pdf>

Virginia Department of Rail and Public Transportation. Rail Enhancement Fund Project Descriptions, December 12th, 2005.

<http://www.drpt.virginia.gov/studies/files/REF-Proj-Descriptions-12-15-2005.pdf>

intermodal facility in West Virginia will also provide cost savings to shippers who currently must move containers by truck.

Another \$25.8 million from the Rail Enhancement Fund was provided for the Commonwealth Rail Relocation portion of the Heartland Corridor project. The rail relocation involves moving the existing rail line out of densely populated areas and eliminating 14 at-grade crossings. The project is expected to divert containerized traffic from the regional highway network, thereby improving highway safety and reducing congestion.

Costs and Benefits. Rail infrastructure improvements in Virginia primarily benefit the shipping industry and local governments adjacent to rail infrastructure. Virginia residents also benefit indirectly from economic development associated with improved transportation infrastructure.

Since all Rail Enhancement Fund projects require a 30 percent match from industry or government sources, there is direct connection between those who pay for projects and those who benefit from them. The projects, however, do not benefit the primary contributors to the Rail Enhancement Fund, namely individuals who purchase rental car services. This lack of benefit may not have arisen as a political issue since vehicle renters are likely to be from outside the state.

Vehicle Title and Registration Fees; Truck Weight-Distance Fees *Oregon's Transportation Investment Acts (OTIA I, II, and III)*

Overview.⁴² Oregon's legislature responded to the state's transportation infrastructure needs by passing three Transportation Investment Acts (OTIA I, II, and III) between 2001 and 2003. The bond does not focus specifically on freight investments, but many of the projects benefit freight, and a significant portion of the funds are dedicated to improving bridges for freight operations.

OTIA I increased driver and motor vehicle fees to secure \$400 million in bonds to increase lane capacity and improve interchanges (\$200 million), repair and replace bridges (\$130 million), and preserve road pavement (\$70 million). OTIA II added \$50 million for projects to increase lane capacity and improve highway interchanges, \$45 million for additional bridge projects, and \$5 million to preserve road pavement. The \$500 million in bonds from OTIA I and II was combined with matching funds from local governments. This allowed ODOT and local governments to deliver transportation projects across Oregon worth a total of \$672 million.

⁴² Oregon Department of Transportation. Oregon Transportation Investment Act Financial Foundation. <http://www.oregon.gov/ODOT/HWY/OTIA/financial.shtml>

Policy on Formation and Operation of ACTs

<http://www.oregon.gov/ODOT/COMM/docs/acts/ACTPolicy0603.pdf>.

The third phase of the Oregon Transportation Investment Act (OTIA III) focuses specifically on the need to retrofit aging bridges. Many of the state's aging bridges require load limits for safety reasons. These load limits impede the flow of goods throughout the state, forcing heavy trucks to make costly detours. Passed in 2003, OTIA III uses existing ODOT funds and federal advance construction money, as well as increases in title, registration, and other driver and motor vehicle fees, to bond a total of \$2.46 billion. In addition, the 2003 Legislature approved an increase of nearly 10 percent in the weight-mile tax for commercial vehicles over 26,000 pounds gross vehicle weight to support the bond issue.

Costs and Benefits. As of July 2006, the DMV fee and the weight-mile tax increases have raised a total of \$396.9 million since the first fee increases approved by the Legislature went into effect in 2001.

Projects for the first two phases of the OTIA program were selected through an extensive public input process. Local governments and Area Commissions on Transportation (ACTs) worked together to recommend project lists to the Oregon Transportation Commission, which approved the final choices.

An ACT is a voluntary association of government and non-government transportation stakeholders and has no legal regulatory, policy or administrative authority. ACTs have a voting membership that includes at least 50 percent elected officials within the ACT boundaries, who may come from cities, counties, metropolitan planning organizations, tribal governments, port officials, and transit officials. The remaining membership is made up of stakeholder groups such as members of the freight and trucking industry, advocacy groups, and so on. ODOT also has a vote on each ACT.

General Obligation Bonds

California's Trade Corridor Improvement Fund

Overview.⁴³ In 2006, California voters passed proposition 1B, a bond measure that provides nearly \$20 billion for transportation infrastructure improvements. Part of the bond (\$2 billion) was earmarked for the Trade Corridor Improvement Fund, a source of finance for infrastructure improvements along federally

⁴³ California Transportation Commission, 6/4/2007. Draft Proposed Trade Corridor Improvement Fund Programming Framework Alternatives. http://www.catc.ca.gov/TCIF_DRAFT_Framework_Revised060407.pdf

Office of the Legislative Analyst, State of California, 7/20/2006. Proposition 1B, the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006. http://www.lao.ca.gov/ballot/2006/1B_11_2006.pdf

California Business, Transportation, and Housing Agency and the California Environmental Protection Agency, 1/2007. Goods Movement Action Plan. <http://www.arb.ca.gov/gmp/docs/gmap-1-11-07.pdf>

designated "Trade Corridors of National Significance" or other corridors with a high volume of freight movement. The proposition also stipulates that TCIF funds should be used for:

- Highway capacity improvements and operation improvements to more efficiently accommodate the movement of freight, particularly at the state's seaports;
- Freight rail system improvements, especially around seaports and airports;
- Port capacity and efficiency improvements; and
- Truck corridor improvements, including dedicated truck facilities or truck toll facilities.

The funds in the TCIF must be made available through an annual Budget Act approved by the Legislature, and are allocated to the California Transportation Commission.

Since passage of the bond measure, the California Transportation Commission has been meeting with stakeholder groups, working out a policy framework for allocation of funds and developing draft selection criteria. This has involved consultation with the Trade Infrastructure and Goods Movement Action Plan submitted to the Commission by the Secretary of Business, Transportation and Housing and the Secretary of Environmental Protection. The GMAP lists specific candidate projects for TCIF funding.

Costs and Benefits. The freight industry will benefit directly from freight infrastructure improvements through reduced costs and faster shipping times. Residents of California are likely to benefit indirectly from economic growth associated with freight improvements and from reduced pollution.

The funds for proposition 1B will be generated from the sale of General Obligation bonds, which are not backed by any specific funding source. The cost of debt associated with proposition 1B will be paid by existing and future residents of California. The California Legislative Analyst estimates that the state will likely make up the principal and interest payments on the proposition from the state's General Fund over a period of about 30 years.

Traditional Sources

Florida's Strategic Intermodal System

Overview.⁴⁴ Florida's Strategic Intermodal System (SIS) was established in 2003 to enhance Florida's economic competitiveness by focusing limited state resources on those transportation facilities that are critical to Florida's economy and quality of life. The SIS is a statewide network of high-priority transportation facilities, including the State's largest and most significant commercial service airports, deepwater seaports, freight rail terminals, passenger rail and intercity bus terminals, rail corridors, waterways, and highways.

Components of the SIS were designated by the Department of Transportation (DOT) in 2002, under the guidance of a 41-member Steering Committee. The Steering Committee represented the DOT and 31 statewide stakeholders with an interest in the future of Florida's transportation system, economy, and quality of life. Members included representatives from local governments, the private sector freight community, environmental interest groups, and others.

The SIS is not a funding source per se but rather a system for prioritizing critical transportation projects. No new funding source was designated for SIS projects. Instead, the SIS caused existing funds for capacity enhancements (funds left after system maintenance expenditures and distribution to public transit have been made) to be redirected towards strategic intermodal transportation priorities. Whereas in the past, half of all funds for new capacity were designated towards strategic transportation priorities and half went towards other highway needs, now 75 percent of capacity funds go towards strategic transportation priorities. In addition, after 2005, the legislature directed several hundred million dollars per year from the general fund to go towards the SIS.

Although the SIS did not provide new transportation funds to the state, it has increased funding emphasis on freight projects, since it allows non-highway projects to compete for state transportation funds. As a result, the SIS has dramatically expanded the State's involvement in funding freight projects across modes for both passenger and freight operations.

Costs and Benefits. Implementation of the SIS began in 2004 with the identification and funding of 36 projects on SIS connectors totaling \$100 million. Overall, SIS funding is expected to amount to \$2 billion per year by 2015.

SIS projects are funded through a combination of sources that flow to the state's transportation budget and its general fund (e.g. motor fuel taxes, vehicle registration fees). The exact source of SIS funds is not tracked.

⁴⁴ Cambridge Systematics project files for NCHRP Project 8-53, "Integrating Freight into Transportation Planning and Project Selection Processes." Ongoing.

Personal Communication, staff of Florida Department of Transportation Office of Policy Planning. 9/18/2007

5.0 Case Study Examples

This section of the report describes how several large freight infrastructure projects were funded and financed. Each case study example includes a project overview; the amount and sources of funds used for the project; and a description of the project costs and benefits. The costs and benefits of each project demonstrate the connection (or lack of connection) between those who pay for freight improvements and those who benefit from them. The case study examples are:

- Port User Fees: Alameda Corridor
- Taxes and Railroad Equity: Reno Transportation and Rail Access Corridor
- Developer Equity and Accessibility Payments: Port of Miami Tunnel
- Tolls and Developer Equity: Trans Texas Corridor I-35 (TTC-35)
- Rail Car Fees: Shellpot Bridge Replacement
- Railroad Equity: Chicago Region Environmental and Transportation Efficiency (CREATE) Program

The examples illustrate the fact that large freight projects often require multiple, complex funding sources, even when a dedicated revenue stream is available. They also demonstrate the range of funding sources that can be directed towards freight investments, some of which may be applicable to freight projects in Washington State. Instead of being financed through a single revenue stream, most large freight investment projects are financed through a package of sources, including grants from federal and state sources of support; equity and in-kind contributions from the private sector; new taxes and fees; and debt backed by new taxes and fees or other sources.

This case study examples also highlight financing tools (e.g. California's infrastructure bonds) and institutional arrangements (e.g. Trans Texas Corridor). Although financing tools and institutional arrangements can provide financing for specific freight projects, a long-term, stable source of funds for freight infrastructure must be derived from either fees or taxes. This is the case even if the user fees are collected by a private entity, as will likely occur in the case of the Trans Texas Corridor.

Port User Fees

Alameda Corridor

Overview. The ports of Long Beach and Los Angeles are the two busiest container ports in the country and, together, the fifth busiest port complex in the world, handling hundreds of billions of dollars of cargo each year. Recognizing that the rail network serving the ports was not sufficient to accommodate rapidly

increasing cargo volumes, the Alameda Corridor Transportation Authority initiated the Alameda Corridor project, a multi stage, \$2.4 billion dollar effort to improve the efficiency and capacity of rail service in the area. The project included consolidation of four low-speed branch rail lines, elimination of conflicts at more than 200 at-grade crossings, and provision of a high-speed freight expressway.

Project Costs. The Alameda Corridor projects were funded through a unique blend of public and private sources. The major source of finance comes from user fees charged to the railroads using the facility. The fees help to repay a revenue bond of \$1.165 billion, which is just under half of the project cost. The Alameda Corridor Transportation Authority (ACTA) issued the bond.

Railroads pay uniform fees as follows: \$18.04 per loaded 20' container (TEU) (accounts for 93 percent of revenue), \$4.57 for each empty waterborne container (5 percent), \$4.57 (per TEU) for non-waterborne containers that use the rail corridor, and \$9.13 for tankers, coal carriers and other types of loaded rail cars.^{45,46} Fees are charged to rail intermodal moves along the corridor-between the Ports and the rail hubs east of Downtown, whether they are by truck or by rail. Nevertheless, locally moving containers and those coming from or going to the inland via truck only are not subject to the fees.

From the project opening on April 15, 2002 until June 30, 2006, \$263.4 million had been collected. Revenues for FY08 are expected to be \$95.6 million. This revenue from user fees is in line with projections to meet debt obligations.⁴⁷

Project Benefits. Shippers experience the major benefit of the Alameda Corridor project in the form of faster and more reliable transit times and reduced traffic. For a specific shipper to finance efficiency improvements at this level is financially infeasible. By spreading costs across containers, which are the widest base, some of the economic impact of project construction is mitigated. Shippers have reported passing the user charge through to their shipper and carrier customers.

Local residents also benefit from the project through reduced traffic congestion at rail crossings; reduced pollution from trains and idling automobiles and trucks; and indirect economic benefit from improved freight operations.

⁴⁵ Effective January 1, 2007, increasing 1.5-3 percent per year.

⁴⁶ Alameda Corridor Transportation Authority. Program & Operating Budget. Fiscal Year 2007/2008. http://www.acta.org/PDF/Program%20Budget-FY08_final.pdf

⁴⁷ Alameda Corridor Transportation Authority. Basic Financial Statements. June 20, 2006 and 2005. http://www.acta.org/financial_reports/Basic%20Financial%20Statements%20June%2030,%202006%20and%202005.pdf

Taxes and Railroad Equity

Reno Transportation Rail Access Corridor (ReTRAC)

Overview. The Union Pacific Railroad's Central Corridor mainline between Oakland, California and the Midwest runs directly through downtown Reno, separating many of the casinos and other downtown businesses from other parts of the city. The City of Reno's interest in modifying this corridor to reconnect the city dates back to the Great Depression, when the United States Bureau of Public Roads proposed that the railroad be elevated. At that time, the Reno City Engineer recommended that the tracks be depressed instead, to avoid creating a barrier through the city. By 1942, the Chamber of Commerce endorsed the depressed trainway project as the "...number one civic improvement for the readjustment period after the war."

Beginning in April, 1996, the city, in conjunction with UP and (the then-separate) SP Railroads, funded a "Railroad Merger Mitigation Alternatives" study. The study identified alternatives, preliminary cost estimates, and schedules. The City Council's analysis established the Reno Transportation Rail Access Corridor (ReTRAC) Project, a below grade railroad transportation corridor, as the best long-term value for the region.

A design-build contract was awarded in August 2002, moving the project forward into the design and construct phases. The depressed rail trench was completed and opened to rail traffic in November 2005, with other project elements completed in 2006. After construction was completed, the City of Reno became owner of former UP's right-of-way along the 2.3 mile corridor.

Project Costs. The ReTRAC cost of \$280 million was met through a combination of financing sources, including loans backed by local taxes; contributions from the UP Railroad; federal funds and financing mechanisms; and other sources. These included:

- A federal TIFIA loan of \$50.5 million;
- Cash and in kind contributions from UP amounting to over \$58 million. These included the donation of land, air rights, right of way, construction and funding of the track ballast and ties, and funding the signal system. The construction of track ballast and ties accounted for \$17 million of the \$58 million in contributions. The rest consisted of in-kind donations of land and air rights to the City of Reno that would generate revenue to pay back the TIFIA loan;
- Approximately \$21.3 million in federal grants, earmarked within the TEA-21 legislation. These funds were passed to the City of Reno through the Nevada DOT;
- Local taxes, including a 1/8 cent sales tax in Washoe County and a special assessment district in downtown Reno (used to pay back a \$50.5 million TIFIA loan); a 1 percent occupancy tax on hotels in downtown Reno (proceeds directly funded the ReTRAC project);

- Lease income from UP properties;
- Bond Proceeds. The City of Reno issued \$111.5 million in Revenue Obligation bonds for the project; and
- Cash-on hand and interest earnings. Almost \$80 million were be provided in pay-as-you-go funding.

Project Benefits. One of the keys to the successful implementation of the ReTRAC project was the identification of the key regional stakeholders and the ability of the City of Reno to describe potential benefits of the project to those stakeholders. The public has benefited from the project through reduced vehicle delays and congestion, reduced noise and emissions, and safety improvements for vehicles and pedestrians by the removal of 11 at-grade crossing. The public also gained from indirect project benefits such as improved aesthetics and job creation associated with construction.

Private sector benefits include improved and more efficient freight rail operations. The rail speed through downtown Reno was 20 miles per hour before the completion of the project. The project allows rail speeds of 60 miles per hour. The trench was designed to accommodate a new connection to the North Reno branch, which connects two other UP routes (Overland Route and Feather River Route).

Developer Equity and Accessibility Payments

Port of Miami Tunnel

Overview.⁴⁸ Nearly 5,500 large trucks and buses travel to and from the Port of Miami (POM) through downtown streets each weekday. Existing truck and bus routes restrict the port's ability to grow, drive up costs for port users, present safety hazards, and congest and limit redevelopment of the northern portion of Miami's Central Business District. To increase port access and keep the port competitive, the Florida Department of Transportation, working in cooperation with Miami-Dade County, the Port of Miami, the City of Miami and other local stakeholders, is planning a package of port improvements including a new tunnel to the port; roadway work on Dodge and Watson Islands; and widening of the MacArthur Causeway Bridge.

Project Costs. Preliminary estimates for the Port of Miami Tunnel project are in excess of \$1 billion. The project is being procured as a public-private-partnership designed to transfer the responsibility to design, build, finance, operate, and

⁴⁸ Port of Miami Tunnel. Presentation at the 2007 FICE/FDOT Project Management Conference.<http://www.dot.state.fl.us/projectmanagementoffice/PMConference2007/Presentations/>

State of Florida Department of Transportation. Port of Miami Tunnel Web site: <http://www.portofmiamitunnel.com/>

maintain the project to the private sector. The project will be financed through the following sources:

- Florida Department of Transportation Strategic Intermodal System funds of approximately \$500 million (half of the project costs)
- County/port funds, including \$100 million in voter-approved general obligation bonds; \$114 million directed by the MPO from state gas taxes dedicated to Miami-Dade County; \$50 million in right-of-way; and \$113.5 in funds expected from port users.
- City funds, including \$50 million in Community Redevelopment Area funds and \$5 million in right-of-way.

The Port, which is controlled by the county, is investigating whether it will need to cover its share by tolling the tunnel and the Port Boulevard bridge. The Port may be able to provide its contribution through its current fee structure, but if project costs increase, the port may implement an “open road toll” to finance all or part of its obligation. The toll rate will depend on project total cost, traffic counts, and Port’s competitive position at the time of tunnel opening. Preliminary indications are that the toll, charged upon exiting, may be in the range of \$2 to \$3 per car, and between \$5 to \$7 per truck and bus.

FDOT’s portion of the project cost will be paid to the project concessionaire (a group headed by the French company Bouygues Travaux Publics) in phases as construction are completed, thus reducing the risk to the public sector.

FDOT will pay ongoing project operating and maintenance costs to the concessionaire as annual “accessibility payments”. These payments begin with the opening of the facility and inflate over time. They include the relatively fixed capital, operations, maintenance and major maintenance costs. The payments hinge on performance standards and may be reduced if they are not met. The concession may be terminated on substandard performance and the facility is to be returned to the FDOT at the end of the concession in a contract-specified condition.

The environmental process for the project is currently underway. The project location and alignment have been identified and a concessionaire (the Miami Tunnel Access Consortium) has been selected. A 47-month construction schedule will begin upon execution of a concession agreement and the project could be operational by 2012.

Project Benefits. The Port of Miami Tunnel will provide a direct connection from the Port of Miami to highways via Watson Island to I-395. This direct connection will reduce shipping times and improve port access, keeping the port competitive in future years. It will also relieve congestion and pollution caused by buses and trucks moving through downtown streets.

Tolls and Developer Equity

Trans Texas Corridor I-35 (TTC-35)

Overview. The Trans-Texas Corridor I-35 (TTC-35) is part of a proposed statewide multi-modal network of transportation routes that will incorporate existing and new highways, railways, and utility rights-of-way. Each corridor is envisioned to include:

- Separate lanes for passenger vehicles and large trucks;
- Separate freight and passenger rail lines; and
- Utility and telecommunication lines.

The new TTC-35 will roughly parallel the alignment of Interstate 35, a major NAFTA corridor serving the largest port of entry, Laredo, on the Mexican border. Heavy interstate truck traffic, including high percentages of NAFTA trade, combined with local congestion on IH-35 has made it one of the most congested Texas corridors. The planned TTC-35 corridor will provide a less congested alternative to I-35.

Project Costs. To finance construction of part of the planned corridor, the state has entered into a Comprehensive Development Agreement (CDA) with Cintra-Zachry, a private corporation. Cintra-Zachary will finance the design, construction and operation of two segments of the corridor (segments 5 and 6 of SH-130) at an estimated total cost of over \$1.3 billion, which will be paid for through a combination of developer equity, bank debt, and a TIFIA loan. In return, TxDOT will give the company a one-time concession fee of \$25 million payable upon notice to proceed, and will share the toll revenues over the 50-year term of the concession agreement. After the 50-year term, the roadway will be returned to the state.

Execution of the CDA with Cintra-Zachary required enactment of new authorizing legislation. The 2003 legislation allows everything from design, construction, financing and operation to be delegated to the private sector, in return for concession payments or revenue sharing.

Planning for the route got underway in March 2005, when TxDOT and Cintra-Zachry signed a comprehensive development agreement covering only the planning stages of the project (\$3.5 million). As of 2007, the project alignment had not been selected and construction had not been authorized.

Although project financing will come from a variety of sources, most of the project costs will eventually be recouped directly from roadway users (including freight and automobile traffic) through direct tolling, assuming demand is sufficient to cover project costs.

Project Benefits. The TTC-35 project is expected to provide several benefits to Texas' residents and to the freight industry. In particular, the new route will offer an alternative, uncongested route for trucks, which comprise a large percentage of existing traffic along the corridor. The route will also

accommodate increases in freight traffic which are expected throughout the state. By 2025, statewide freight volumes are expected to grow by 132 percent over 1998 levels, with a 403 percent increase over 1998 levels by 2060. Construction and operation of the corridor are expected to have significant economic impact, producing an estimated 434,000 permanent jobs at project maturity.

Rail Car Fees

Shellpot Bridge Replacement

Overview. The Port of Wilmington, Delaware is a full-service deepwater port located at the confluence of the Delaware and Christina Rivers, 65 miles from the Atlantic Ocean. The Port is a major Mid-Atlantic import/export gateway for a variety of maritime cargoes and trade, and is also a leading container port on the Delaware River handling more than 200,000 twenty-foot equivalent units (TEUs) per year for the Dole Fresh Fruit Company and Chiquita Banana North America.

Rail service to the Port is provided over Norfolk Southern's line, using the Shellpot Bridge to cross the Christina River (see Figure 1 below). The Shellpot Bridge is a swing-style railroad drawbridge originally constructed in 1888 on timber piers.

Conrail, which owned the bridge prior to its merger with Norfolk Southern and CSX, discontinued service over the bridge in December 1995. Closure of the bridge degraded service into the Port of Wilmington, as the Edgemoor Yard (on the north side of the river) was effectively stranded, and port-related traffic was rerouted on the Northeast Corridor (NEC), increasing transit times and decreasing reliability. In addition, some of this freight traffic was rerouted through Wilmington Station, a passenger rail station served by Amtrak and Southeastern Pennsylvania Transportation Authority (SEPTA) trains.

The Delaware Department of Transportation (DelDOT) and the Norfolk Southern Railroad both recognized the need to repair the aging bridge. However, DelDOT was concerned about spending money on a piece of privately owned infrastructure without knowing whether the public benefits would be fully realized. Norfolk Southern was hesitant to invest right away because the Conrail merger had left very little capital and the railroad felt that the return on investment may not be high enough to appease their stockholders.

Project Costs. The solution to the concerns of both Norfolk Southern and DelDOT was an innovative financing scheme backed by rail car fees. Delaware DOT provided a \$5 million dollar grant and an \$8.9 million loan to Norfolk Southern Railroad to repair the bridge. Norfolk Southern agreed to repay the \$8.9 million loan will be repaid based on the number of rail cars that it runs on the bridge, with guaranteed minimum annual payments over 20-years. Minimum payments are subject to increases every five years--\$150,000 in the first five years to \$300,000 in the last five years. This minimum will guarantee that half of the loan is paid back. Fees are determined based on a sliding scale: \$35 per car for the first 5,000 cars decreasing to \$5 per car when there are greater than

\$50,000 cars using the bridge. The sliding scale is meant to encourage bridge use. The bridge will be the first railroad toll bridge in the U.S. with annual payment terms⁴⁹.

This kind of agreement allowed both parties to share in the risks and rewards of restoring the bridge by allowing DelDOT to receive a guaranteed minimum payback on its loan and simultaneously encouraging NS to utilize the restored bridge to the largest degree possible. Even if the bridge were not utilized at all, DelDOT would make back its money from the loan from the minimum payback guarantees. If the restored bridge is a success, DelDOT has a chance to make back actually more than the original outlay of the loan, which can then be invested into other projects. At the same time, NS is encouraged to make better use of the restored bridge, as the more volume they put across it, the lower the per car tariff is. By allowing them to improve their service in and around Wilmington, they also have a chance to expand their business and provide a viable option to truck movements in the region.

Project Benefits. The \$13.5 million restoration project, completed in 2004, allows freight cars to run directly to the Port of Wilmington, and provides the port and neighboring industrial sites with greater flexibility for scheduling inbound and outbound train service. Since Norfolk Southern contributes directly to the project finance through rail car fees, there is consistency between project costs and benefits.

Railroad Equity

Chicago Region Environmental and Transportation Efficiency (CREATE) Program

Overview. Chicago is a national railroad hub and the busiest rail gateway in the United States. It accounts for one-third of the nation's freight rail traffic. The aging railroad system in Chicago is already congested and is not equipped to meet growing demand for rail service. The CREATE program seeks to address existing and future congestion issues on the rail system, which are expected to bring adverse effects to the national economy and the transportation system if they are not addressed in the near future.⁵⁰

The CREATE program encompasses the rationalization, reconstruction and upgrade of five passenger and freight rail corridors in Chicago. The program is operated through a Public-Private Partnership that includes the Illinois Department of Transportation (IDOT), the City of Chicago Department of Transportation (CDOT), Metra, Amtrak, six of the largest North American freight railroads (Burlington Northern Santa Fe, CN, Canadian Pacific, CSX, Norfolk

⁴⁹ *Shellpot Bridge is Getting Back on Track*. Port Illustrated, July/August 2003.

⁵⁰ CREATE program website; <http://www.createprogram.org>

Southern, and Union Pacific), and switching railroads Belt Railway Company of Chicago (BRC) and Indiana Harbor Belt Railroad (IHB).

The CREATE program will include approximately 78 projects, such as:

- Grade separation of six railroad crossings (rail-rail flyovers);
- Grade separation of 25 highway-rail crossings;
- Viaduct improvements;
- Grade crossing safety enhancements; and
- Extensive upgrades of tracks, switches, and signal systems.

Thirty-two projects are planned for design and/or construction for the initial 3-year plan (2007-2009). The projects that have advanced into this phase include six highway-rail grade crossing separations, four rail-rail flyovers, 21 railroad infrastructure improvements (tracks, switches and signals), and the viaduct improvement program.

Project Costs. The cost of the CREATE program was estimated in 2003 at \$1.534 billion, of which \$232 million will come from the railroads, as specified in the JSU. The percentage of private participation was based on an estimation of the economic benefits that the private sector will gain with the implementation of the program. The remaining funding will come from the public sector, including federal, state, and local partners.

Given funding limitations, the CREATE program will be implemented in phases, with Phase I currently underway. The cost of phase I is \$330 million, of which \$100 million comes from the Federal Projects of National and Regional Significance Program, \$100 million from the freight railroads, and \$30 million from the City of Chicago. The State of Illinois is expected to provide the remaining \$100 million to fund Phase I, which depends largely on whether a state capital bill is passed in 2007. Of the 32 projects in Phase I, two have been completed, while the remaining projects are currently in design or construction. The CREATE partnership will pursue additional federal funding in the next reauthorization, and also plans to pursue non-traditional sources for transportation funding.

Project Benefits. As part of a systemwide upgrade, three main stakeholder groups will benefit: freight shippers through additional routes and capacity. Passenger traffic will benefit from the new express corridor and other capacity improvements (signaling, switches, and flyovers) that will result in improved timekeeping, and highway users benefit through reduced congestion due to grade separation and more efficient rail traffic routing. Railroads will benefit from: 1) reduced fuel consumption and operating expenses; 2) increased rail capacity; 3) faster and more reliable deliveries; and 4) better utilization of rolling stock.

The CREATE program will also produce significant local, regional, and national benefits. It will expedite the movement of rail cargo throughout the Chicago

region, saving money for rail customers who will be able to reduce their inventory levels. It will also ime savings to rail commuters; reduced delays at grade crossings for motorists, improved air quality, and economic benefits associated with construction jobs. reduce highway congestion and improve commute times for passenger rail users.

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6.0 Options for Re-Directing or Leveraging Taxes and Fees

Washington State has a number of options that could be considered for re-directing or leveraging its taxes and fees for freight-related transportation improvements. This section focuses primarily on options available at the state level. Options at the Federal and local levels would also be possible, pending discussion with the appropriate decision-makers and stakeholders.

6.1 REVIEW OF EXISTING PROCESS

The revenue from freight-related taxes and fees collected by the state is pooled in with state transportation revenue derived from other Federal and state sources. The total revenue collected is then distributed to several entities:⁵¹

- **Washington State Department of Transportation (WSDOT).**
- **Other state agencies** including the Washington State Patrol (WSP), the Transportation Improvement Board (TIB), the Department of Licensing (DOL), and the County Road Administration Board (CRAB).
- **County and city governments.**

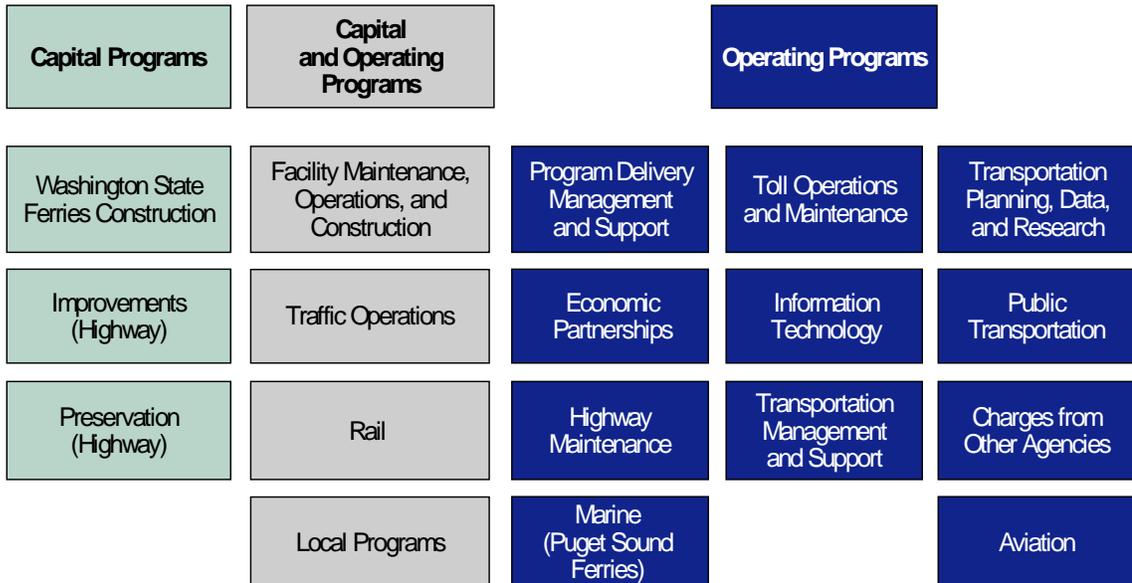
In addition, a certain portion of state transportation funding goes towards bond repayment (i.e., payment of principal and debt service).

The revenue from particular funding sources are legislatively mandated to be used only for specific transportation purposes. Most notably, revenue from the motor vehicle fuel tax and the special fuel tax must be deposited in the State Motor Vehicle Fund and are to be used exclusively for highway purposes, as stated in the 18th Amendment of the Washington State Constitution. Highway purposes has been interpreted to include state highways, ferries, certain highway-related transit facilities, and freight-related highway projects (such as projects to facilitate the movement of trucks).

Among the agencies that receive transportation funding, WSDOT is the agency with the most responsibility for the funding and delivery of freight projects. Figure 6.1 shows the current WSDOT program structure.

⁵¹Source: *Washington State Transportation Budget: An Overview*, page 10; Office of Program Research, January 2005.

Figure 6.1 Washington State DOT Program Structure



Source: *Engrossed Substitute Senate Bill 6091*, Washington State Legislature, approved May 2005.

The WSDOT program structure shown in Figure 6.1 is used for budgeting and funding appropriation purposes, with each program representing a certain mix of projects and functional activities. There are two main types of programs:

- **Capital programs**, which fund longer-lived projects such as the construction of roads, bridges, rail infrastructure, and ferry terminals.
- **Operating programs**, which fund non-capital, day-to-day expenses of running the agency and its programs.

Of the 18 WSDOT programs, three are capital programs, 11 are operating programs, and four have both a capital and an operating element. For the four programs with both capital and operating elements, separate appropriations are made for each component.⁵²

For the FY 2005-07 budget, the top five programs in terms of funding (Highway Improvements; Highway Preservation; Marine [Puget Sound Ferries]; Highway Maintenance; and Washington State Ferries Construction) represented about 86 percent of the total WSDOT budget.⁵³ About 75 percent of the single largest program, the Highway Improvement program, is earmarked for specific projects.

⁵²While these 18 programs represent the highest-level “roll-up” of the current WSDOT budget, in some cases separate appropriations are made at the subprogram level or at the project level for particular designated projects.

⁵³Source: *WSDOT Budget Methodologies Study*, page 2-3; Cambridge Systematics, June 2006.

While many of the WSDOT programs are currently being used to fund freight-related projects and activities, no program has freight as its sole purpose. The program with objectives that are tied most closely to freight is the Rail Program:

- The Rail Capital Program provides financial assistance for light density freight rail systems to preserve freight rail service to communities throughout the state, and for emergent freight rail assistance projects to improve the movement of goods throughout the state and to the ports.⁵⁴ This is in addition to management and funding of the state's investment in the capital components of the rail passenger program.
- The Rail Operating Program provides support, administration, coordination, and planning for both freight rail and passenger rail.

For FY 2005-07, the Rail Capital Program budget was \$88.1 million and the Rail Operating Program budget was \$36.5 million.⁵⁵ The total budget of \$124.6 million represented 2.8 percent of the total FY 2005-07 budget.

6.2 OPTIONS FOR RE-DIRECTION

An option that Washington State could consider would be to put state tax and fee revenue paid by the freight industry into a separate funding program specifically for freight-related projects and activities across multiple modes (highway, rail, ports). The most significant of these freight-related funding sources are the diesel fuel tax and combined licensing fees paid by trucking companies, which together currently generate more than \$360 million in revenue annually.

The freight aspects of the existing Rail Program could continue to be funded through the existing program. Alternatively, the Rail Program could be split to separate freight rail functions from passenger rail functions. The freight rail functions would then be funded through the separate freight funding program.

A more thorough analysis would need to be undertaken to assess the specific impacts that implementing this option would have in Washington State. This analysis hinges on assessing freight-related project needs relative to the amount of revenue derived from the freight industry:

- If freight industry revenue is greater than freight-related project needs, Washington State can address the needs by redirecting freight industry revenue to those projects. The implications of doing so on the delivery of non-freight related projects would need to be addressed.

⁵⁴Source: *Washington State Department of Transportation 2005-07 Current Law Budget*, pages 7 and 12; adopted by the Washington State Transportation Commission, Aug 2004.

⁵⁵Source: *Engrossed Substitute Senate Bill 6091*; Washington State Legislature, approved May 2005.

- If freight industry revenue is less than freight-related project needs, then needs must be met by using transportation funding from outside the freight industry for freight-related projects, and/or increasing the amount of tax and fee revenue that the freight industry pays (through rate increases or improved compliance/enforcement).

Another important consideration is how to encourage direct financial investments from the private sector in freight-related projects, above and beyond the taxes and fees that the private sector is mandated to pay. One of the WSDOT programs is Transportation Economic Partnerships, which provides management support for the development of partnerships with private firms to develop and operate needed transportation facilities and activities.⁵⁶ In FY 2005-07, the budget for the Transportation Economic Partnerships program was \$1.1 million or about 0.02 percent of the total budget.⁵⁷ The activities of this program could be reviewed and potentially changed or expanded to have more of a direct freight focus.

Public-private partnerships must have roles and responsibilities clearly defined. Looking at the freight rail industry as an example, the public sector can invest in the freight-rail infrastructure, but the railroads must be responsible for providing effective and cost-competitive services that will attract and retain shippers. There are other issues that railroads must take on as well, such as developing new business models for network ownership and operation, improving service reliability, and dealing with the possibility of mergers and acquisitions.

FHWA states that “The development of organizations and institutional relationships to improve freight transportation is needed to provide freight with a stronger voice in state and regional planning. These relationships are especially important in developing and financing freight projects in multistate transportation corridors”.⁵⁸

⁵⁶Source: *Washington State Department of Transportation 2005-07 Current Law Budget*, page 7; adopted by the Washington State Transportation Commission, Aug 2004.

⁵⁷Source: *Engrossed Substitute Senate Bill 6091*; Washington State Legislature, approved May 2005.

⁵⁸Source: http://www.ops.fhwa.dot.gov/freight/institution_bldg.htm

6.3 OPTIONS FOR ADDITIONAL FUNDING

There are a number of possibilities for Washington State to raise additional funding for freight-related transportation projects:

- **Container Fees.** Fees could be assessed on containers that move in or out of ports, which would be placed in a trust fund dedicated to freight-related improvements nationwide. The most successful container fee program to date is the Alameda Corridor: a 20-mile-long rail cargo expressway linking the Ports of Long Beach and Los Angeles to the transcontinental rail network near downtown Los Angeles. The \$2.4 billion cost was funded through a unique blend of public funds and private sources, of which 48 percent is composed of revenue bonds funded from user fees paid by the railroads. Railroads initially paid \$15.00 for each loaded 20-foot equivalent unit (TEU) container, \$4.00 for each empty container, and \$8.00 for other types of loaded rail cars such as tankers and coal carriers. Over a 30-year period, fees will increase between 1.5 percent and 3 percent per year, depending on inflation.

“PierPASS” is a related practice that began in July 2005. PierPASS is a not-for-profit entity created by marine terminal operators to reduce congestion and improve air quality in and around the Los Angeles and Long Beach ports. Any ocean container picked up at or delivered to the Ports of Los Angeles or Long Beach during peak hours - 3:00 a.m. to 6:00 p.m. Monday through Friday - is subject to the PierPASS Traffic Mitigation Fee (TMF). Payment is the responsibility of the Beneficial Cargo Owner (the importer or exporter). The TMF is \$100 per 40-foot container (FEU) and \$50.00 per 20-foot container (TEU). The program is credited with diverting up to 30 percent of the truck traffic out of the peak period.

AASHTO estimates that a container fee of \$30 on every 20-foot cargo container at all U.S. ports could generate about \$2 billion per year.⁵⁹ A thorough analysis of the application of container fees in Washington State will be provided as part of Task 6.0: Assessment of Marine Cargo Diversion of the study, using the port elasticity and diversion model to be calibrated and applied by Dr. Leachman of the CS team.

- **Diesel Fuel Tax.** The purchasing power of the diesel fuel tax will decline significantly over time due to inflation and rising construction costs. Indexing the diesel fuel tax to the Consumer Price Index (CPI) or another metric tied to inflation would preserve the purchasing power of the diesel fuel tax over time.

⁵⁹Source: *Transportation: Invest In Our Future – Revenue Sources to Fund Transportation Needs*, page 33; American Association of State Highway and Transportation Officials, April 2007.

- **Combined Licensing Fees.** Indexing the combined licensing fees for trucks to inflation is another way to increase the amount of transportation revenue over time.
- **Motor Vehicle Excise Tax.** Prior to the year 2000, owners of motor vehicles, trailers, and semi-trailers in Washington State paid a motor vehicle excise tax (MVET) of 2.2 percent annually of the vehicle value, of which 0.2 percent was dedicated to state transportation.⁶⁰ The MVET in Washington State was repealed by the State Legislature effective January 2000, due to voter concerns about equity. Re-enacting the MVET at the state level may be possible if these concerns can be addressed.

States that currently have an MVET in place include Arkansas, Colorado, Iowa, Kansas, Louisiana, Maryland, Missouri, New Mexico, Oklahoma, and Texas. Among these states, Texas has the highest tax rate at 6.25 percent.

- **Weight Distance Tax.** The weight distance tax, which is assessed on trucks based on actual mileage traveled in the state, is a way to generate revenue in a way that is linked to actual costs to the transportation system (heavier vehicles impose much higher wear and tear on roads than lighter vehicles).

The weight distance tax is currently used in four states: Kentucky, New Mexico, New York, and Oregon. Oregon charges the highest rates among the four states, with rates ranging from 4 cents per mile traveled for trucks of 26,000 pounds to 14 cents per mile for trucks of 78,000 pounds or more. Oregon collected \$266 million in revenue from the weight distance tax in 2006.⁶¹ This is followed by New York with \$116 million, Kentucky with \$85 million, and New Mexico with \$76 million.

- **Public Utility Tax and B&O Tax.** The portion of the public utility tax and the business and occupation (B&O) tax paid by the trucking/transportation industry could be dedicated to be used for transportation projects that have a freight emphasis. This puts the revenue generated by motor carriers directly into projects that improve freight mobility and reliability.
- **Customs Fees.** Customs revenues are derived from duties on imported goods passing through international gateways. AASHTO estimates that dedicating 5 percent of customs fees to port intermodal connections via rail and highways would bring in \$1.8 billion per year.⁶²

⁶⁰Source: *Transportation Resource Manual*, page 67; Washington State Legislative Transportation Committee, January 2005.

⁶¹Source: Cambridge Systematics based on phone calls and website information.

⁶²Source: *Transportation: Invest In Our Future – Revenue Sources to Fund Transportation Needs*, page 33; American Association of State Highway and Transportation Officials, April 2007.

- **Investment Tax Credits.** The Association of American Railroads is pushing for federal investment tax credits and tax deductions for freight rail improvements which improve capacity.⁶³ This would stimulate private capital investment by railroads as well as shippers, intermodal carriers, and other companies that make qualified expenditures for capacity expansion projects. AASHTO has indicated its support for this concept, provided that a satisfactory mechanism for determining public benefit can be mutually determined with the railroads. AASHTO estimates that such a measure at the Federal level could generate new, private investment capital of \$6 billion over a five-year period (\$1.2 billion per year).

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⁶³Source: *Transportation: Invest In Our Future – Revenue Sources to Fund Transportation Needs*, pages 32-33; American Association of State Highway and Transportation Officials, April 2007.