



## **LATIN AMERICA TRADE AND TRANSPORTATION STUDY (LATTS) II - FINANCING STRATEGIES**

### **Introduction**

Traditional funding mechanisms such as regular Federal-aid highway apportionments, licensing fees, and gasoline and motor fuel taxes have provided extensive resources to develop and maintain our nation's network of transportation infrastructure. Over time however, the demand for new traffic infrastructure and services has outpaced traditional funding mechanisms leading to fiscal distress for state DOTs. Many factors have led to deficit revenues including increased fuel efficiency in newer vehicles, political opposition to increasing fuel taxes, development of alternative fuel and hybrid vehicles and increasing uses of alternative transportation including air, transit and bike/pedestrian. In addition, state DOTs have fallen victim to state budget deficits.

As a result, of fiscal pressure, states have been forced to explore alternative funding mechanisms for transportation investments. The purpose of this document is to highlight the measures Alliance states have taken to fund critical infrastructure investments and to assess options for future funding. Evidencing the role and importance of alternative funding mechanisms, investment needs through 2020 are provided for marine, air and highway transportation modes for each of the LATTS Alliance states in the initial LATTS report.

### **Investment Needs**

During the 1990's, the nation's unprecedented economic growth fueled

a dramatic increase in demand for freight transportation services. At the same time, changes in the business sector resulted in new demands for higher quality freight transportation service. Just-in-time manufacturing, e-commerce, and demand for small package service resulted in smaller, but more frequent, individual shipments of high-value goods. As the number and frequency of shipments have increased, reliability has become more important. Freight transportation today is also more complex than it was in the past. A single shipment might move across two or three modes of transportation en-route to its final destination. The rapid growth in freight transportation, the increasing emphasis on reliability and the emergence of containerization of freight have led to the elevation of freight transportation as a high priority national issue.

The original LATTS report highlights the investment needs for waterports, airports, and highways over a 20-year period. Rail was excluded from the investment needs analysis, because they are for the most part the responsibility of the private sector. Investment needs were compiled for each Alliance State by mode from the individual LATTS State Reports.<sup>1</sup> Exhibit 1 shows the needs directly related to Latin American trade relative to total needs. The needs attributable to Latin American range from less than 2.0 percent to over 90.0 percent.

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<sup>1</sup> Missouri and Oklahoma were not part of the original LATTS study; therefore, statistics for the needs of these two states were not available.



## LATTS II Transportation Infrastructure Financing Strategies

### Exhibit 1

State	LATTS Total Infrastructure Needs in 2020 (1999 Dollars in Millions)											
	Waterport			Airport			Highways			Total		
	Total	% LATTS	LATTS	Total	% LATTS	LATTS	Total	% LATTS	LATTS	Total	LATTS	
Alabama	\$350.0	47.00%	\$164.5	\$10.0	0.40%	\$0.0	\$5,300.0	7.55%	\$400.0	\$5,660.0	\$564.5	
Arkansas	\$68.0	36.00%	\$24.5	\$7.4	0.00%	\$0.0	\$3,400.0	2.94%	\$100.0	\$3,475.4	\$124.5	
Florida	\$6,400.0	82.00%	\$5,248.0	\$744.0	39.80%	\$296.1	\$6,800.0	7.35%	\$500.0	\$13,944.0	\$6,044.1	
Georgia	\$3,000.0	35.00%	\$1,050.0	\$287.0	1.20%	\$3.4	\$4,100.0	4.88%	\$200.0	\$7,387.0	\$1,253.4	
Kentucky	\$19.1	45.00%	\$8.6	\$667.0	0.01%	\$0.1	\$4,000.0	2.50%	\$100.0	\$4,686.1	\$108.7	
Louisiana	\$5,700.0	52.00%	\$2,964.0	\$12.9	0.00%	\$0.0	\$2,100.0	19.05%	\$400.0	\$7,812.9	\$3,364.0	
Mississippi	\$741.6	34.00%	\$252.1	\$29.0	0.00%	\$0.0	\$700.0	14.29%	\$100.0	\$1,470.6	\$352.1	
North Carolina	\$299.0	35.00%	\$104.7	\$149.0	2.70%	\$4.0	\$6,600.0	1.52%	\$100.0	\$7,048.0	\$208.7	
Puerto Rico	\$180.4	72.00%	\$129.9	\$133.0	5.50%	\$7.3	\$1,421.0	100.00%	\$1,421.0	\$1,734.4	\$1,558.2	
South Carolina	\$834.0	23.00%	\$191.8	\$70.0	2.70%	\$1.9	\$4,500.0	2.22%	\$100.0	\$5,404.0	\$293.7	
Tennessee	\$0.0	29.00%	\$0.0	\$631.0	1.10%	\$6.9	\$4,500.0	8.89%	\$400.0	\$5,131.0	\$406.9	
Texas	\$3,900.0	58.00%	\$2,262.0	\$487.0	1.50%	\$7.3	\$18,100.0	10.50%	\$1,900.0	\$22,487.0	\$4,169.3	
Virginia	\$536.5	18.00%	\$96.6	\$49.0	0.90%	\$0.4	\$4,500.0	6.67%	\$300.0	\$5,085.5	\$397.0	
West Virginia	\$0.0	0.00%	\$0.0	\$13.0	0.00%	\$0.0	\$704.0	4.83%	\$34.0	\$717.0	\$34.0	
<b>TOTAL</b>	<b>\$22,028.6</b>		<b>\$12,497</b>	<b>\$3,289.3</b>		<b>\$327.6</b>	<b>\$66,725.0</b>		<b>\$6,055.0</b>	<b>\$92,042.9</b>	<b>\$18,879.2</b>	



## LATTS II Transportation Infrastructure Financing Strategies

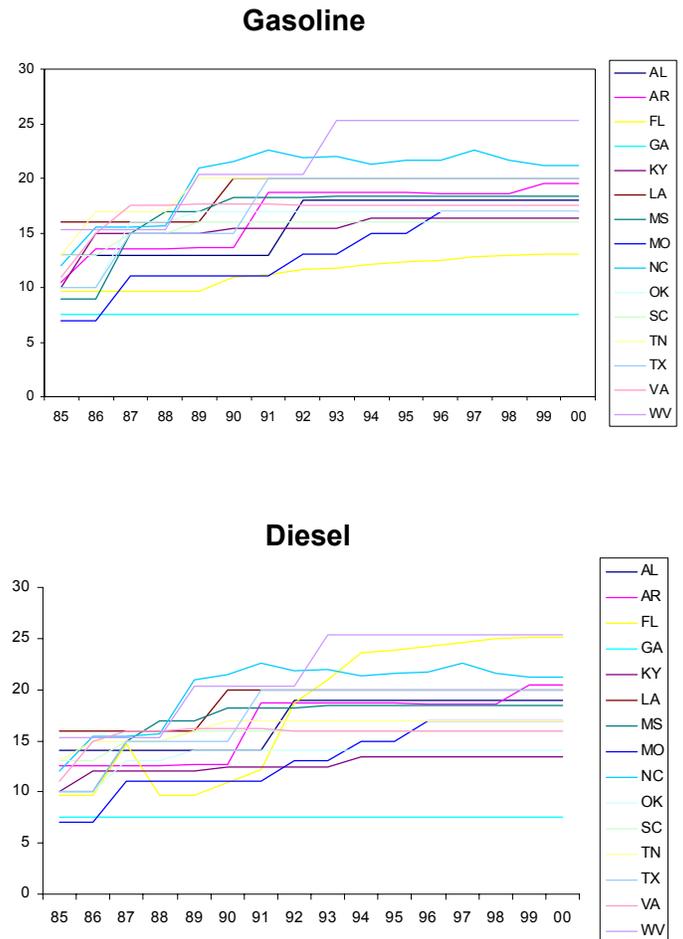
### State Motor Fuel Tax Rates

State motor fuel taxes have been the traditional funding mechanism for highways and state DOTs. Reviews of the tax rates for states in the Alliance Region show 80% of the states within the Alliance are below the national average for gasoline (excluding Puerto Rico) and 73% of the states within the Alliance are below the national average for diesel (excluding Puerto Rico). The Alliance region also differs in its treatment of gasoline and diesel as the national average for diesel is greater than gasoline, but for Alliance states Florida is the only one with a higher tax on diesel relative to gasoline. Others tax diesel at a rate that is less than or equal to the gasoline tax rate.

It is important to note that some of the differences in tax rates relate directly to the amount of roads for which the DOTs have responsibility. For example, in Georgia, the DOT has much less responsibility as counties and cities have ownership of a large share of the roadways and it is reflected in their relatively low state motor fuel tax rates.

An examination of state motor fuel tax rates over a 15-year period from 1985 to 2000, as seen in Exhibit 2, reveals similar patterns among Alliance states. Not only are the rates below the national average, but there has been little change in the rates since the early nineties. While several states increased both gasoline and diesel taxes between 1988 and 1992, the rates have SINCE remained relatively constant. Despite increasing fiscal pressures and demands on DOTs, only three states in the Alliance region increased rates from 1998-2000. In fact, one state, North Carolina, actually decreased both tax rates in 1998.

**Exhibit 2: State Motor Fuel Tax Rates - Gasoline and Diesel Cents per Gallon**



These trends demonstrate the political sensitivity of increasing motor fuel tax rates. It also highlights the expanding gap between investment needs for transportation improvements that increase on a continuum while motor fuel tax rates remain constant, for the most part.



## LATTS II Transportation Infrastructure Financing Strategies

### Innovative Financing Techniques

Innovative finance techniques range from fairly modest strategies that permit states greater flexibility in satisfying the standard matching requirements for receipt of Federal funds to ambitious credit enhancement strategies suitable for capital intensive projects. Notable is the fact that none of them actually increase federal funds for transportation but instead offer methods intended to allow states to be able to do more with the same dollars.

A key to the effective/successful use of innovative finance strategies is the ability to recognize what kind of projects can most benefit from the various tools. The FHWA has grouped the innovative finance techniques and strategies into four classifications, innovative management of federal funds, debt financing, credit assistance, and tolling. A summary of these techniques is provided in Exhibit 3. More detailed discussions of the tools are provided in the Financing Strategies working paper.

<b>Exhibit 3: Finance Techniques</b>	
<b>Classification</b>	<b>Strategies</b>
Innovative Management of Federal Funds	<ul style="list-style-type: none"> <li>▪ Advance Construction</li> <li>▪ Partial Conversion of Advance Construction</li> <li>▪ Tapered Match</li> <li>▪ Flexible Match</li> <li>▪ Toll Credits</li> </ul>
Debt Financing	<ul style="list-style-type: none"> <li>▪ Grant Anticipation Revenue Vehicles (GARVEEs)</li> </ul>
Credit Assistance	<ul style="list-style-type: none"> <li>▪ Section 129 Loans</li> <li>▪ State Infrastructure Banks (SIBs)</li> <li>▪ Transportation Infrastructure Finance &amp; Innovation Act (TIFIA)</li> </ul>
Tolling	<ul style="list-style-type: none"> <li>▪ General Toll Provisions</li> <li>▪ Interstate Reconstruction &amp; Rehabilitation Program</li> <li>▪ Value Pricing Pilot Program</li> </ul>



## **LATTS II Transportation Infrastructure Financing Strategies**

### **The Alliance Region's Use of Innovative Financing Options**

#### **State Infrastructure Banks**

The Alliance states have been very active in participating in state infrastructure banks (SIBs). As illustrated in Exhibit 4, there were four states in the Alliance actively participating in the SIB program as of 2001. Of those four, South Carolina is the most aggressive in its use of the SIB as the state implements its "27 in 7" program. In 2001, the participation of the Alliance region states represents over 70 percent of the total SIB program loan agreement amount and more than 60 percent of the total disbursements to date.

#### **TIFIA Loans**

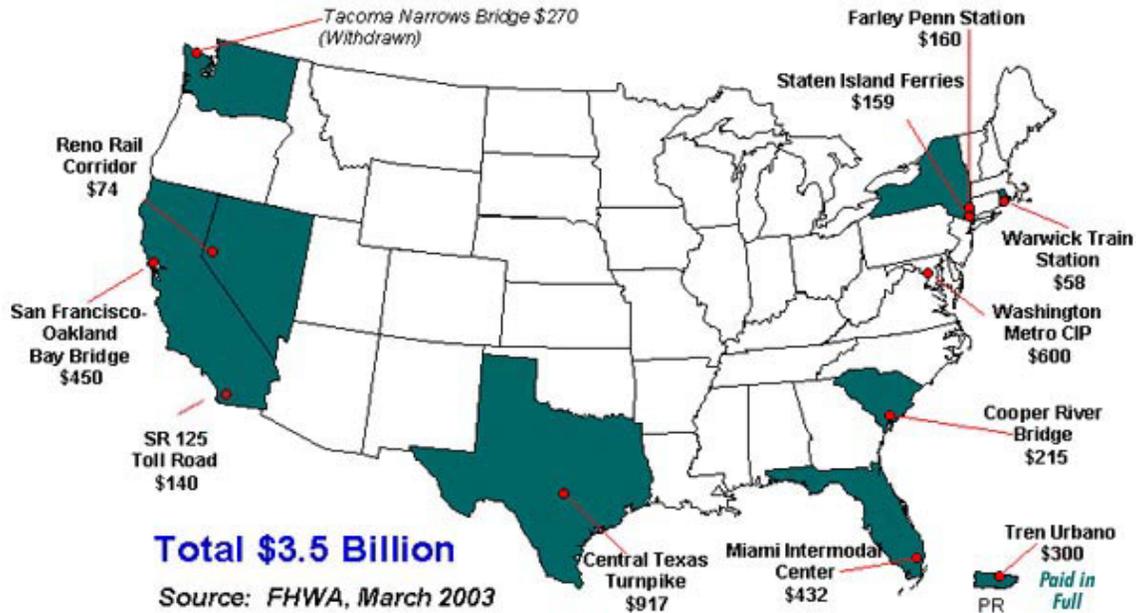
The Alliance region has also been very aggressive in its use of TIFIA loans. To date, 2003, \$1.5 billion had been loaned to states through the program.

Exhibit 5 displays a map of TIFIA funded projects as of March 2003. Nearly half of the value of all loans to date has been to states located in the Alliance region including Texas, Florida, South Carolina and Puerto Rico. In addition, Louisiana submitted an application for consideration for the 2004 funding cycle. Again, the Alliance has taken the lead on the use of innovative funding mechanisms to finance their transportation needs.

**Exhibit 4: SIB Program Summary 2001**

<b>State</b>	<b>Number Agreements</b>	<b>Loan Agreement Amount (1,000)</b>	<b>Disbursements To Date (1,000)</b>
South Carolina	5	1,502,289	510,428
Florida	32	465,000	94,000
Texas	32	88,900	70,016
Missouri	10	69,251	66,754
<b>Subtotal</b>	<b>137</b>	<b>\$2,026,540</b>	<b>\$741,198</b>
<b>Total</b>	<b>245</b>	<b>\$2,891,187</b>	<b>\$1,179,956</b>

**Exhibit 5  
TIFIA Funded Projects as of 2003**



**Public-Private Partnerships**

For the most part, the public and private sectors have been investing heavily in the freight transportation network. However, historically these investments have not been coordinated or even discussed between the two sectors. Specifically, the public sector has invested heavily in the nation's highway network and the private sector has invested heavily in the rail and marine transportation systems. The private sector has also invested in access roads and interchanges to the National Highway System to reduce their costs, increase productivity and improve

profits. Despite the lack of coordination, the investments have benefited each other. The reasons for the lack of integration between the two planning sectors are numerous but they are primarily built upon lack of understanding. Traditionally, there has been a mismatch between the perspectives of the private and public sectors regarding freight transportation. This mismatch in perspectives has been exacerbated by a lack of understanding of those perspectives by both sides. For the most part, the public transportation perspective regarding freight is that it is a local or regional issue whereas the private sector is concerned with national and global freight networks.



## **LATTS II Transportation Infrastructure Financing Strategies**

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The dual public/private nature of the country's transportation infrastructure creates a challenge for public agencies considering whether to provide support to projects owned by the private sector. The primary challenges include arguments that:

- Public agency would be benefiting one railroad over another;
- Public benefits are sufficient to justify public cost sharing for projects that benefit the private industry; and
- Railroads are being given preferential treatment over the trucking industry.

Another clarity issue arises with intermodal projects. Intermodal projects are much more complicated than the more traditional single mode projects. There might be a project designed to link transportation modes such as a connector between a marine terminal and a rail yard or Interstate highway. In this case there is no clear owner of the project to initiate planning and development and assembling financing.<sup>2</sup>

With the demand for new traffic infrastructure and services continuing to outpace the limited amount of public funds, the need for public-private partnerships has gained momentum and public approval. The latest public private partnership initiatives utilize contractual relationships with a private entity/team that can provide full service "one-stop-shopping" to include the design, construction, financing, maintenance or operation of a project. One major advantage of such a relationship is the

ability of the public agency to accomplish important high priority projects without having to staff up several hundred new full-time positions to accomplish the additional workload. Exhibit 6 highlights several Public-Private Partnership initiatives within the Alliance states.

The Alliance region is following a growing trend toward pursuing public-private partnerships to help close the funding gap and to promote a multi-modal approach to adequate infrastructure to accommodate the ever-increasing demands of ensuring efficient flow of goods and people. While there are numerous examples of PPP initiatives throughout the Alliance region, three initiatives highlight especially innovative approaches including truck-only tollways (TOT Lanes). These states include:

- Mississippi -- Canal Road
- Texas -- Trans Texas Corridor Plan
- Virginia -- I-81 Development Plan

All three initiatives are being driven in large part by the voluminous truck traffic and the critical role that accommodating increasing trade activity plays in ensuring the future competitiveness of their respective state from an economic development perspective. Case studies for each of these projects can be found in the Financing Strategies working paper.

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<sup>2</sup> FHWA. Freight Financing Options for National Freight Productivity. October 2002.



## **LATTS II Transportation Infrastructure Financing Strategies**

### **Exhibit 6: PPP Initiatives in Alliance States**

<b>State</b>	<b>Initiative</b>
Florida	Toll Facilities Revolving Trust Fund Loans (TFRTFL) encourages development and enhances financial feasibility of revenue producing road projects undertaken by local governments, Expressway Authorities, and Turnpike Enterprise. 19 entities served. \$169.6 million awarded and advanced.
Kentucky	<p>Kentucky Turnpike Authority utilizes resource recovery and economic development revenue bonds. Active Tolls:</p> <ul style="list-style-type: none"> <li>• Audubon Parkway</li> <li>• Green River Parkway</li> <li>• Cumberland Parkway -- (Portion of I-65)</li> <li>• Daniel Boone Parkway</li> </ul>
Mississippi	MDOT is currently conducting a toll feasibility study for Canal Road in October 2003. Preliminary information is due to MDOT December 2003, so they can approach the 2004 Legislature in January 2004 to get authority to establish toll roads and authority for Design/Build.
North Carolina	<p>NC Turnpike Authority Board, established October 2002, authorized to construct, operate and maintain up to 3 toll roads in the state. Also authorized to study, plan, develop and prepare preliminary designs for three additional toll roads that will require legislative approval to build.</p> <p>November 2003 Board meeting to discuss I-95 Toll Feasibility Study and the development process.</p>
Oklahoma	<p>Oklahoma Transportation Authority (OTA) operates the Oklahoma Turnpike:</p> <ul style="list-style-type: none"> <li>• Generates approximately \$60 million in state &amp; federal motor fuel tax.</li> <li>• Approximately 40% of toll revenues collected</li> </ul>



## LATTS II Transportation Infrastructure Financing Strategies

	on OTA turnpikes come from out-of-state motorists.
South Carolina	<p>“27 in 7” Peak Performance – SC DOT is accomplishing 27 years of road and bridge projects in 7 years by putting aside conventional ways of doing business. The SCDOT selected the assistance of Construction and Resource Managers (CRM) that has experience in highway/bridge design construction. In 1999, two CRMs were selected and act as an extension of SCDOT. By partnering with the CRMs, SCDOT avoided having to hire an estimated 500 employees to handle the additional workload.</p> <p>The Cross Island Parkway completed in 1998 was SC’s first toll in 50 years. Also, the Greenville Southern Connector, a 16-mile, four lane road linking Interstates 85 and 385, was completed in February 2001. It was financed by “The Connector 2000 Association” a local not for profit corporation set up to finance and operate the facility.</p>
Texas	<p>Texas voters provided the framework for funding transportation infrastructure in November 2001 when they approved Proposition 15. Proposition 15, a constitutional amendment, allows Texas more flexibility than it has ever had to pay for transportation projects. Proposition 15 includes public-private partnerships called exclusive development agreements, and funding options like toll equity, the Texas Mobility Fund, and Regional Mobility Authorities.</p> <p>New Proposed Rules for Regional Mobility Authorities (RMA) and toll roads were presented in 2003. The Texas Transportation Commission (TTC) was seeking public comment on proposed rules allowing TXDOT to convert non-tolled highways to toll facilities. Through an RMA, counties can establish an authority to develop, construct and maintain local turnpike projects as part of the state highway system.</p> <p>In 2002 the commission approved the state’s first RMA to serve Travis and Williamson counties. In August 2003, \$63.2 million was provided for construction contract putting nearly half of the SH 45 north toll road under construction serving these two counties. The TTC is seeking a public/private partnership to expedite/</p>



## **LATTS II Transportation Infrastructure Financing Strategies**

	<p>fast track SH 45 southeast, a candidate toll road project connecting I-35 and SH 130/U.S. 183.</p> <p>In addition, House Bill 3588 signed into law in June 2003 provides new financial tools to expedite needed construction. The new law allows TXDOT to enter into comprehensive development agreements with a private entity for the design, construction, financing, maintenance or operation of a turnpike project.</p>
<p>Virginia</p>	<p>The just recently completed Route 895 Connector Project, "Pocahontas Toll Road," was the first capital project under the <i>Virginia Public-Private Transportation Act of 1995</i>. This legislation allows for innovative financing, including tax-free bond financing of projects on which private developers and the state collaborate.</p> <p>VDOT through the procurement process has received two proposals from teams that can design, build, finance, operate and maintain the I-81 Corridor Development Program.</p>
<p>West Virginia</p>	<p>WV Parkways, Economic Development and Tourism Authority operates the WV Turnpike, 88 miles of toll road.</p>

### **Funding Strategies for the Future**

Transportation investments needs continue to outpace the growth in transportation funding. As Latin American and other international trade continues to increase, the ability of the Alliance region to compete in the global marketplace will hinge on its ability to properly fund its transportation system. The current report provides evidence of slow or stagnant growth in motor fuel tax rates, the primary source of funding for public transportation investments. Furthermore, the states have aggressively pursued alternative means of funding much need infrastructure by participating in the federal programs

aimed at expanding financing opportunities. The Alliance region has been a leader in the use of SIBs and TIFIA loans. Still, it is not enough. As a result the states are now more actively pursuing innovative uses of tolls. In particular, two projects currently underway in the region will have potentially dramatic impacts on the future of transportation and trade related investments. The Trans Texas corridor and the I-81 initiative in Virginia are a major departure from the traditional way of approaching transportation projects.

Despite the intensive use of innovative methods established by federal legislation, the transportation needs will



## **LATTS II Transportation Infrastructure Financing Strategies**

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continue to outpace the available revenue. After all, these programs did not provide for new revenue streams but simply allowed DOTs to treat the same pot of money in a different manner. However, the same dollar can only do so many tricks.

The Alliance region, via its aggressive utilization of innovative financing practices, has demonstrated the need for increased funding. The most likely sources for the increased funding include:

- Increases in the motor fuel tax rates
- Development of alternative mileage based user fees
- Increases in public-private partnerships

An Increase in the motor fuel tax rates is the most critical source of increased funding. Evidence demonstrates that despite the unquestionable need for added capacity and deterioration of our current system, politicians have been reluctant to increase tax rates to fund critical investments. LATTS has established the necessity of these investments to the future economic vitality of the region and the nation. The states have done their part by embracing and actively participating in other potential solutions such as SIBs, TIFIAs, GARVEEs and other fund management tools and there are still unmet needs. Therefore, the DOTs should unite and make a call for increases to motor fuel tax rates.

However, due to the increased pressures and incentives to decrease

our reliance on gasoline, an increase in motor fuel tax rates alone is not adequate. The efforts impacting motor fuel usage include mandated fuel efficiencies, incentives for alternative fuel vehicles and increased funding for mass public transportation. The effect of these programs is to lower the consumption of gasoline, thus lowering the tax revenue generated. Therefore, it is important that the Alliance states rely not just on gasoline taxes but that they also unite in their promotion of the development of alternative mileage based user fees. The key is that new user fees should be mileage based as opposed to the more generic user fees such as the current vehicle registration fee. To the extent that this effort is successful, the new user fee could replace revenue loss due to future declines in gasoline usage.

Another important financing strategy for the future is public-private partnerships. PPP will continue to increase in popularity for a variety of reasons including insufficient public funding and the increasingly multimodal nature of necessary investments. As the significance of freight traffic increases, the need to make investment decisions involving two or modes, including both public and private, will increase. Therefore, taxpayers will demand that the cost and risk of these investments be shared among the potential beneficiaries.