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# **CRS Report for Congress**

# Public-Private Partnerships in Highway and Transit Infrastructure Provision

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#### Summary

Growing demands on the transportation system and constraints on public resources have led to calls for more private sector involvement in the provision of highway and transit infrastructure through what are known as "public-private partnerships" (PPPs). A PPP, broadly defined, is any arrangement whereby the private sector assumes more responsibility than is traditional for infrastructure planning, financing, design, construction, operation, and maintenance. This report describes the wide variety of public-private partnerships in highways and transit, but focuses on the two types of highway PPPs that are generating the most debate: the leasing by the public sector to the private sector of *existing* infrastructure; and the building, leasing, and owning of *new* infrastructure by private entities.

PPP proponents argue that, in addition to being the best hope for injecting additional resources into the surface freight and passenger transportation systems for upkeep and expansion, private sector involvement potentially reduces costs, project delivery time, and public sector risk, and may also improve project selection and project quality. Detractors, on the other hand, argue that the potential for PPPs is limited, and that, unless carefully regulated, PPPs will disrupt the operation of the surface transportation network, increase driving and other costs for the traveling public, and subvert the public planning process. Some of the specific issues raised in highway operation and costs include the effects of PPPs on trucking, low-income households, and traffic diversion. Issues raised in transportation planning include non-compete provisions in PPP agreements, unsolicited proposals, lease duration, and foreign control of transportation assets.

On the question of new resources, the evidence suggests that there is significant private funding available for investment in surface transportation infrastructure, but that it is unlikely to amount to more than 10% of the ongoing needs of highways over the next 20 years or so, if that, and probably a much smaller share of transit needs. With competing demands for public funds, there is also a concern that private funding will substitute for public resources with no net gain in transportation infrastructure. The effect of PPPs on the planning and operation of the transportation system is a more open question because of the numerous forms they can take, and because they are dependent on the detailed agreements negotiated between the public and private partners. For this reason, some have suggested that the federal government needs to more systematically identify and evaluate the public interest, particularly the *national* public interest, in projects that employ a PPP.

Three broad policy options Congress might consider in how to deal with PPPs in federal transportation programs and regulations are discussed in this report. The first option is to continue with the current policy of incremental changes and experimentation in program incentives and regulation. Second is to actively encourage PPPs with program incentives, but with relatively tight regulatory controls. Third is to aggressively encourage the use of PPPs through program incentives and limited, if any, regulation.

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# Public-Private Partnerships in Highway and Transit Infrastructure Provision

### Introduction

Growing demands on the transportation system and constraints on public resources have led to calls for more private sector involvement in the provision of highway and transit infrastructure through what are known as "public-private partnerships" (PPPs). The opportunity to own or lease assets that have the potential for generating stable, medium-level revenues over the long term has attracted private sector interest. According to the U.S. Department of Transportation "the term 'public-private partnership' is used for any scenario under which the private sector assumes a greater role in the planning, financing, design, construction, operation, and maintenance of a transportation facility compared to traditional procurement methods."<sup>1</sup> Typically the "public" in public-private partnerships refers to a state government, local government, or transit agency. The federal government, nevertheless, exerts influence over the prevalence and structure of PPPs through its transportation programs, funding, and regulatory oversight.

Proponents of PPPs argue that they are the best hope for injecting additional resources into the surface freight and passenger transportation systems for upkeep and expansion. Furthermore, PPP proponents argue, private sector involvement often reduces costs, project delivery time, and public sector risk, and may improve project selection and project quality. Detractors, on the other hand, argue the potential for PPPs is limited, and that, unless carefully regulated, PPPs will disrupt the operation of the national surface transportation network, increase costs for the traveling public, and subvert the public planning process. With competing demands for public funds, there is also a concern that private funding will substitute for public resources with no net gain in transportation infrastructure.

A wide variety of public-private partnerships in highways and transit exist, but this report focuses on the two types of highway PPPs that are generating the most debate: (1) the leasing by the public sector to the private sector of *existing* infrastructure, sometimes referred to as "brownfield" facilities; and (2) the building, leasing, and owning of *new* infrastructure by private entities, sometimes known as "greenfield" facilities. A common, though not essential, element to greater private sector participation in highway infrastructure provision is the use of tolling. Vehicle tolls provide a revenue stream to retire bonds issued to finance a project and to provide a return on investment. Highway tolling can be implemented by public authorities, but it is widely believed that the privatization of transportation

<sup>&</sup>lt;sup>1</sup> U.S. Department of Transportation, Federal Highway Administration, Public-Private Partnerships Website, "PPPs Defined." [http://www.fhwa.dot.gov/PPP/defined.htm].

infrastructure will hasten the spread of tolling and may raise toll rates. Consequently, a discussion of PPPs must include, as this report does, the issue of vehicle tolling and other direct pricing mechanisms.

This report begins with a brief discussion of the surface transportation system and its financing needs as background to the debate on PPPs. That is followed by sections describing the different types of PPPs, with details of a few prominent examples, and the development of federal legislation with respect to PPPs. The report then discusses the main issues of contention with the construction and longterm leasing of highways by the private sector, particularly as they relate to the funding, planning, and operation of the surface transportation system, before providing some policy options Congress may wish to consider.

# Background

The appropriate role of the private sector in the provision of ostensibly public surface transportation infrastructure has been discussed for decades. But this debate has recently taken on a new urgency because of the magnitude of estimated future needs of the surface transportation system coupled with problems funding existing highway and transit programs at the federal, state, and local levels. A number of high profile PPP agreements, including the leasing of the Indiana Toll Road and the Chicago Skyway described below, have also contributed to this heightened interest.

Although estimating future infrastructure needs is fraught with difficulty,<sup>2</sup> a number of recent reports have concluded that the nation's surface transportation infrastructure will require substantially more funding over the next few decades to deal with physical deterioration, congestion, and future demand for both passenger and freight travel.<sup>3</sup> Capital cost estimates prepared by the Department of Transportation (DOT), for example, suggest that the nation as a whole, including all levels of government and the private sector, needs to increase highway capital spending by 12% and transit capital spending by 25% from 2005 through 2024 in order to maintain the current condition and performance of the system.<sup>4</sup> Investment to improve conditions and performance would be higher than these estimates. The National Surface Transportation Policy and Revenue Study Commission (NSTPRSC), created under Section 1909 of the Safe, Accountable, Flexible, Efficient

<sup>&</sup>lt;sup>2</sup> Problems associated with estimating future infrastructure needs include defining a "need" and predicting future conditions, especially consumer demand which can vary depending on economic conditions and public policy choices such as how a service is funded and priced.

<sup>&</sup>lt;sup>3</sup> See, for example, Transportation Research Board, National Cooperative Highway Research Program, *Future Financing Options to Meet Highway and Transit Needs*, NCHRP Web-Only Document 102 (Washington, DC, 2006), p. 2-16. [http://onlinepubs.trb.org/ onlinepubs/nchrp/nchrp\_w102.pdf].

<sup>&</sup>lt;sup>4</sup> U.S. Department of Transportation, Federal Highway Administration and Federal Transit Administration, 2006 Status of the Nation's Highways, Bridges, and Transit: Conditions and Performance (Washington, DC, 2007). [http://www.fhwa.dot.gov/policy/2006cpr/index. htm].

Transportation Equity Act — A Legacy for Users (P.L. 109-59; SAFETEA), estimated significantly greater needs than DOT in its report to Congress.<sup>5</sup> NSTPRSC's middle range capital spending estimate for highways by all levels of government and the private sector over the next 30 years (2006 through 2035), for instance, suggests an increase of between 96% and 176% over currently sustainable expenditures, and for transit the equivalent range is between 31% and 92%.<sup>6</sup>

At the same time that many argue for greater surface transportation infrastructure funding, there is concern that the main revenue mechanism at the federal level, the fuels tax, is faltering. The federal contribution to highway and transit infrastructure, approximately 40% of capital spending on these modes since the 1990s, is largely derived from the Highway Trust Fund which relies primarily on the federal fuels tax and less so on other vehicle-related taxes.<sup>7</sup> Almost all federal highway funds and approximately 80% of federal transit funds are derived from the trust fund. In its most recent estimates, the Congressional Budget Office (CBO) suggests that on its current path the Highway Account of the Highway Trust Fund will go into deficit sometime in FY2009, before the end of the current authorization period, and that the Mass Transit Account will go into deficit in FY2012.<sup>8</sup>

Funding shortfalls in the Highway Trust Fund are related to a few key underlying factors, particularly the erosion of the real per gallon value of the fuels tax. The federal tax on gasoline was last raised in the early 1990s, by 5 cents in 1990 (P.L. 101-508) and then by 4.3 cents in 1993 (P.L. 103-66). Of the 5 cent increase in 1990, 2.5 cents was directed to the Highway Trust Fund and 2.5 cents was directed to the General Fund of the U.S. Treasury for deficit reduction, whereas in 1993 the entire 4.3 cents was directed to the General Fund for deficit reduction. The 2.5 cents increase in 1990 for deficit reduction was redirected to the Highway Trust Fund beginning October 1, 1995 with 2 cents going to the Highway Account and 0.5 cents to the Mass Transit Account (P.L. 103-66). The 4.3 cents raised in 1993 was redirected to the trust fund beginning October 1, 1997 with 3.44 cents going to the Highway Account and 0.86 cents to the Mass Transit Account (P.L. 105-34; P.L. 105-178). Consequently, the gasoline tax flowing to the Highway Trust Fund went from 9 cents to 11.5 cents per gallon in 1990, to 14 cents per gallon in 1995, and to 18.3 cents per gallon in 1997.

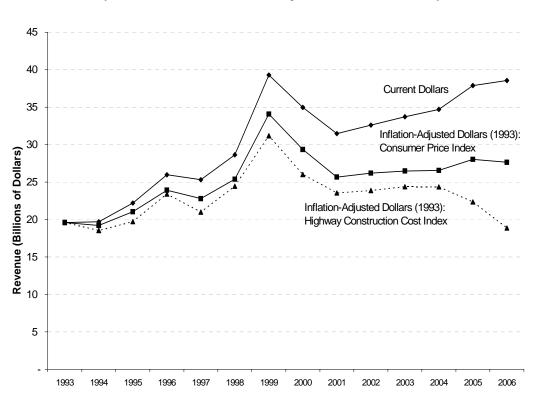
<sup>&</sup>lt;sup>5</sup> National Surface Transportation Policy and Revenue Study Commission, *Transportation for Tomorrow* (Washington, DC, 2007). [http://www.transportationfortomorrow.org/final\_report/].

 $<sup>^6</sup>$  Ibid., Volume II, pages 4-6 and 4-12. High range estimates were 168% to 268% for highways and 78% to 162% for transit.

<sup>&</sup>lt;sup>7</sup> The federal tax on gasoline is currently 18.4 cents per gallon, of which 15.44 cents is deposited in the Highway Account of the Highway Trust Fund, 2.86 cents in the Mass Transit Account, and 0.1 cents in the Leaking Underground Storage Tank Trust Fund.

<sup>&</sup>lt;sup>8</sup> Estimates provided to CRS by the Congressional Budget Office, February 29, 2008.

Adjusted for changes in the consumer price index (CPI), the federal tax on gasoline in 2006 was worth about 72% percent of its value in 1993.<sup>9</sup> Adjusted for changes in the price of materials used in highway construction, as estimated by FHWA, however, the federal gasoline tax was worth only 49% in 2006 compared with 1993.<sup>10</sup> Although the federal fuels tax in absolute terms has lost a good deal of its purchasing power since 1993, revenues to the trust fund in inflation-adjusted terms have not suffered as much because the amount of driving and, therefore, fuel consumption, has until recently continued to grow (see **Figure 1**). Indeed, through the 1990s revenues continued to grow in real (inflation-adjusted) terms. However, revenues have been flat in real terms since at least 2001, and when adjusted for the price of highway construction materials fell sharply in both 2005 and 2006. For these reasons, many point to a disconnect between growing infrastructure needs on the one hand and the purchasing power of the revenues in the Highway Trust Fund on the other.



#### Figure 1. Total Highway Trust Fund Revenue, 1993-2006 (Current and Inflation-Adjusted 1993 Dollars)

**Sources:** U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics*, 2006 (Washington, DC); U.S. Department of Transportation, Federal Highway Administration, *Price Trends for Federal-Aid Highway Construction* (Washington, DC: 2008); and U.S. Department of Labor, Bureau of Labor Statistics, Consumer Price Index.

<sup>&</sup>lt;sup>9</sup> U.S. Department of Labor, Bureau of Labor Statistics, Consumer Price Index.

<sup>&</sup>lt;sup>10</sup> U.S. Department of Transportation, Federal Highway Administration, *Price Trends for Federal-Aid Highway Construction* (Washington, DC: 2008). [http://www.fhwa.dot.gov/programadmin/pt2006q4.pdf].

How the federal government ought to deal with the gap between revenues from traditional funding mechanisms, particularly the federal fuels tax, and future infrastructure investment needs is a major underlying issue in the debate about the role of PPPs. The two main sides of the debate were evident in the NSTPRSC report that contained both majority and minority views. The majority view, supported by nine of the twelve Commissioners, contended that severe underinvestment is the main problem facing transportation infrastructure in the years ahead. Expressing the desire for maintaining a strong federal role in financing the capital needs of the transportation system, at the aforementioned 40% level, they recommended a 25 to 40 cent-per-gallon increase in the federal fuels tax to be phased in over the next five years, and indexing the tax to inflation beginning in year 6, although, they argued, these increases need to be accompanied by major reforms of the federal program to make it more focused and efficient. The majority also argued that PPPs, private capital, and tolling, including congestion pricing, would need to be employed to a greater extent, but under a set of rules and regulations designed to protect the public interest.

An opposing viewpoint, expressed by three commissioners including the U.S. Secretary of Transportation Mary Peters, proposed that there is some need for additional resources in transportation infrastructure, but not to the extent estimated in the majority report. They argued that "a failure to properly align supply and demand, not a failure to generate sufficient tax revenues, is the essential policy failure" in transportation infrastructure provision.<sup>11</sup> A key ingredient of change, in their view, should be market-based reforms of highway systems allowing for much greater reliance on tolling, particularly congestion pricing, private sector participation, and, thus, PPPs. Moreover, they argue that the Federal role ought to be reduced and refocused in order to allow innovation at the state and local level.

# **Types of Transportation Public-Private Partnerships**

Public-private partnerships are typically conceived of as distinct from the traditional method of planning, building, operating, and maintaining highway and transit infrastructure. In the traditional method, known as "design, bid, build," the public sector decides there is a need for building a new facility, plans its development with a wide variety of community input, organizes the financing from tax revenue (either on a pay-as-you-go basis or through government bonds backed by tax revenue, tolls, or fares), lets out contracts to design and build the facility, and takes final ownership to operate and maintain the facility. In contrast, a public-private partnership involves more private sector participation in any or all phases of infrastructure development and operation. In many PPPs, private sector involvement is predicated on a revenue stream from the operation of a facility such as a vehicle toll or container fee.

<sup>&</sup>lt;sup>11</sup> National Surface Transportation Policy and Revenue Study Commission, 2007, p. 60.

According to the U.S. Department of Transportation, PPPs in highway and transit infrastructure provision can be categorized into six basic types, although the exact arrangements vary from project to project, many other types of PPPs are possible, and there is some overlap among types.<sup>12</sup> From least to most private responsibility, these six basic types of PPP are:

- **Private Contract Fee Services.** These types of PPPs turn over to the private sector more responsibility for providing services than is traditional. This may include contracting for operations and maintenance (O&M) services and program and financial management services. An example of this type of PPP is the partial outsourcing of street maintenance in the District of Columbia, including snow and ice removal.
- **Design-Build (DB).** This type of partnership arrangement combines two services that are traditionally separate, design and construction, into one fixed-fee contract. The public sector, nevertheless, retains ownership of the facility as well as responsibility for planning, preliminary engineering, financing, and O&M. An example of this type of PPP is the 12-mile light rail system in Minneapolis, Minnesota, opened in 2004, that was mostly constructed using two design-build contracts, one to construct the rail track and signal equipment and one for the trains.
- Design-Build-Operate-Maintain (DBOM). These partnerships go even further than design-build PPPs by adding private sector responsibility for O&M once a facility goes into service. The public sector is still responsible for financing, and retains the risks and rewards associated with the operating costs and revenues. The 21mile Hudson-Bergen light rail system in New Jersey is a good example of DBOM. The original fixed-price contract awarded to the 21<sup>st</sup> Century Rail Corporation in 1996 was for design and construction of the initial 10 miles by a guaranteed date and then 15 years of operation and maintenance. The contract was subsequently renegotiated for extensions to the system and to lengthen the O&M contract.
- Long Term Lease Agreement. This type of partnership typically involves the leasing of an existing facility to a private company for a specified amount of time. The private company usually pays an initial concession fee and must operate and maintain the facility to prescribed standards. The private company typically collects tolls on users and keeps the revenue to pay bond holders and to generate a return on its investment. Prominent examples of this type of PPP are the Chicago Skyway and the Indiana Toll Road (see descriptions below).

<sup>&</sup>lt;sup>12</sup> U.S. Department of Transportation, Federal Highway Administration, Public Private Partnerships Website, "PPP Options." [http://www.fhwa.dot.gov/PPP/pcfs.htm].

- **Design-Build-Finance-Operate** (**DBFO**). In addition to the designing, building, and operation of an infrastructure project, these types of PPPs also transfer to the private sector most of the financing responsibility. Debt financing leveraged with a revenue stream, such as tolls, is the most common mechanism in this type of PPP. However, financing may be supplemented with public sector grants and/or in-kind contributions such as right-of-way. The 14-mile Dulles Greenway toll road in northern Virginia is an example of this type of PPP.
- **Build-Own-Operate (BOO).** In this type of PPP, the public sector grants to the private sector the right to design, build, operate, maintain and own a facility in perpetuity. Consequently, conception of the project and subsequent planning is more likely to lay with the private sector. An example of this type of PPP is the 6 mile Foley Beach Express near Gulf Shores, Alabama that incorporates a toll bridge over the Intracoastal Waterway.

# **Prominent Examples of Public-Private Partnerships**

To illustrate the way in which PPPs can be structured, this section describes a few prominent examples, four dealing with highways and one dealing with transit. Two of the examples, the Chicago Skyway and Indiana Toll Road, both involve longterm leases of existing facilities, and have received a good deal of attention over the past few years. Both leasing deals have raised questions, among other things, about the loss of control of a major public asset for several generations, increases in toll rates, and the effects on the surrounding transportation network. Another example, the addition of High Occupancy Toll (HOT) Lanes to the Capital Beltway (I-495) in northern Virginia, involves private investment in new highway capacity that is seen by some as a boon to a state with limited public funding for major infrastructure projects. However, it too raises several public policy questions, including those about the public planning process for transportation infrastructure and the ability of lower-income travelers to pay tolls that may be high during the weekday morning and evening peak periods. The development of the Las Vegas Monorail provides an example of the potential and the difficulties of private investment in public transit. And the final example, the Missouri Safe and Sound program, details a plan for private involvement in repairing and maintaining a significant number of highway bridges. While innovative, the Missouri plan may commit a substantial amount of the state's federal bridge funding for 25 years, potentially tying the hands of future decision makers and reducing the flexibility of the state to react to other transportation challenges. The issues raised by these questions and several others are discussed in more depth in the "Issues for Congress" section later in this report.

### **Chicago Skyway**

The Chicago Skyway is a 7.8 mile elevated toll road connecting the Dan Ryan Expressway (I-94) to the Indiana Toll Road (I-90). Built in 1958 without federal funds, the Skyway was operated and maintained by the City of Chicago Department

of Streets and Sanitation until 2004 when it was leased for 99 years to the Skyway Concession Company (SCC), a private concessionaire that involves two well-known foreign companies involved in infrastructure investment, Cintra (Spain) and Macquarie Infrastructure Group (Australia). SCC won this concession with a bid of \$1.83 billion in a competition that included four other detailed proposals. The City of Chicago and SCC signed a contract on October 27, 2004, and SCC began operating the Skyway on January 24, 2005. According to the lease agreement, SCC must operate and maintain the Skyway to certain standards, and, within limits, can collect and retain all toll revenue. For cars, tolls are limited to \$2.50 through 2007, gradually rising to \$5.00 in 2017. After that tolls can be increased by the greater of 2%, the percentage change in the CPI, or the percentage increase in per capita nominal GDP. Of the \$1.83 billion collected by the City of Chicago, \$463 million was used to repay the outstanding debt on the road, \$392 million is being used to pay down the city's general obligation debt, and \$875 million was placed into long-term and medium-term reserve funds.<sup>13</sup>

#### Indiana Toll Road

The Indiana Toll Road is a 157-mile segment carrying an Interstate designation that runs across northern Indiana linking with the Chicago Skyway in the west and the Ohio Turnpike in the east.<sup>14</sup> The Indiana Toll Road, built largely without federal funds and opened in 1956, was operated by the Indiana DOT from 1981 to 2006. After a bidding process involving eleven proposals, a 75-year lease concession was awarded to the Indiana Toll Road Concession Company (ITRCC), a partnership between Cintra and Macquarie Infrastructure Group, for \$3.8 billion. ITRCC began operating the facility on June 29, 2006. For cars, tolls are limited to \$8.00 through June 30, 2010. After that tolls can be increased by the greater of 2%, the percentage change in the CPI, or the percentage increase in per capita nominal GDP. The proceeds from the lease are being used by the Indiana DOT to fund 200 highway construction projects and 200 highway major preservation projects under the state's 10-year "Major Moves" initiative.<sup>15</sup> In addition, the 7 counties through which the toll road passes will receive payments of \$40 million to \$120 million for local transportation projects and all counties will receive extra state aid for transportation.

#### Northern Virginia I-495 HOT Lanes

In December 2007, the Virginia Department of Transportation (VDOT) signed an agreement with a private consortium to build and operate four new HOT lanes, two in each direction, on a 14-mile stretch of the Capital Beltway (I-495) from the

<sup>&</sup>lt;sup>13</sup> Government Accountability Office, *Highway Public-Private Partnerships: More Rigorous Up-front Analysis Could Better Secure Potential Benefits and Protect the Public Interest*, GAO-08-44 (Washington, DC, February 2008), p. 21. [http://www.gao.gov/new.items/ d0844.pdf]; see also, "The Pros and Cons of Toll Road Leasing," *Public Works Financing*, Vol. 2005, May 2006, p. 1-11.

<sup>&</sup>lt;sup>14</sup> Government Accountability Office, February 2008.

<sup>&</sup>lt;sup>15</sup> Indiana Department of Transportation, Major Moves Website. [http://www.in.gov/indot/7039.htm].

Springfield Interchange to north of the Dulles Toll Road. The partnership between VDOT and the private consortium is an example of a Design-Build-Finance-Operate (DBFO) PPP. The new lanes will be operated using congestion pricing technology that collects a variable toll based on traffic levels. High-occupancy vehicles (HOV-3), motorcycles, buses, and emergency vehicles will travel without charge. The private consortium, Fluor Corporation and Transurban, is expected to finance all but \$409 million of the estimated \$1.9 billion project. The private consortium is committing \$349 million in equity and will borrow the rest using Federal credit assistance, a Transportation Infrastructure Finance and Innovation Act (TIFIA) loan of \$585 million and \$586 million in tax-exempt private-activity bonds.<sup>16</sup> The contract is a fixed-price, fixed time, design-build contract, with an 80-year lease for operations, maintenance, and toll collection. Work to construct the new lanes began in the spring of 2008 and must be completed by spring 2013. The \$409 million committed by the state will finance a number of additional highway improvements including the final phase of the Springfield Interchange, improvements to the I-66 interchange, reconstruction of some bridges on the Beltway, and participation in a regional congestion plan. The state will retain ownership of the new lanes and will share in toll revenues if they exceed an 8.1% return on investment. A similar project involving VDOT and Fluor-Transurban is being pursued on a 70 mile segment of I-395/I-95 from Arlington to Massaponax.<sup>17</sup>

### Las Vegas Monorail

Possibly one of the most innovative PPPs in transit over the past few years has been the development of the Las Vegas Monorail system, currently a 4-mile system that connects hotels and other attractions on the Las Vegas Strip. Most transit PPPs have been of the design-build variety and a few have been design-build-operatemaintain, but direct government ownership and financial support has been an essential element of these types of projects. The Las Vegas Monorail, by contrast, has been more of a private venture, owned and operated by the Las Vegas Monorail Company, a non-profit corporation, financed with some tax-exempt bonds and an exemption from sales tax as a charitable organization.<sup>18</sup> The original segment of the system, operating between two major hotels, was opened in 1995. The system was expanded in 2004 with financial and in-kind contributions from hotels and resorts in addition to the sale of tax-exempt bonds that are being repaid with passenger fares and advertising revenues.<sup>19</sup> A proposal to extend the system to McCarren International Airport was approved by Clarke County in November 2006. Despite this approval, the project does not appear to have attracted the approximately \$500

<sup>&</sup>lt;sup>16</sup> Virginia Department of Transportation, Virginia Hot Lanes, "Capital Beltway Project Funding." [http://www.virginiahotlanes.com/beltway-project-info-funding.asp].

<sup>&</sup>lt;sup>17</sup> Fluor-Transurban, Virginia Hot Lanes Website. [http://www.virginiahotlanes.com/].

<sup>&</sup>lt;sup>18</sup> McCabe, Francis, "Monorail Tax Break Renewed," *Las Vegas Review-Journal*, March 4, 2008, p. B2.

<sup>&</sup>lt;sup>19</sup> General Accounting Office (now the Government Accountability Office), *Highways and Transit: Private Sector Sponsorship of Investment in Major Projects Has Been Limited*, GAO-04-419 (Washington, DC, March 2004), pp. 52-53. [http://www.gao.gov/new.items/ d04419.pdf].

million needed to finance construction.<sup>20</sup> Financial problems with the existing system may be to blame. Recent newspaper reports have stated that the system is failing to meet its operating and debt expenses by about \$30 million annually and that the company may exhaust its reserve funds by 2010.<sup>21</sup> One estimate suggests that while the monorail carried about 22,000 passengers a day in late 2007, it needs to carry about 35,000 a day to break even.<sup>22</sup>

### **Missouri DOT Safe and Sound Program**

Another innovative PPP is the Safe and Sound Program proposed by Missouri Department of Transportation (MoDOT).<sup>23</sup> Under this program, MoDOT is seeking a private sector partner to repair 802 state bridges by 2012 and then to maintain them in good condition for another 25 years. MoDOT estimates the state has about 10,000 bridges, of which about 1,000 are rated in poor or serious condition.<sup>24</sup> In exchange for financing the repair and maintenance costs, beginning in 2012, the private partner will receive regular payments from the state for the remaining 25 years. The state is proposing to use federal bridge program funds to make the payments. The state has called this type of PPP, Design-Build-Finance-Maintain, the bridge equivalent of the Design-Build-Finance-Operate model described above. The state received two bids for the contract and chose Missouri Bridge Partners, a consortium of firms including Zachry American Infrastructure, Parsons Transportation Group, Fred Weber Inc., Clarkson Construction, HNTB, and Infrastructure Corporation of America. MoDOT estimates that the project will cost between \$400 million and \$600 million. Although it is not yet clear how the project will be financed, in 2007, the U.S. Department of Transportation approved a \$700 million allocation of Private Activity Bonds to the MoDOT for the project.<sup>25</sup>

<sup>&</sup>lt;sup>20</sup> McCabe, Francis, "Monorail Extension Going Nowhere Fast," *Las Vegas Review-Journal*, January 13, 2008, p. B2.

<sup>&</sup>lt;sup>21</sup> McCabe, Francis, March 4, 2008.

<sup>&</sup>lt;sup>22</sup> McCabe, Francis, "Monorail Ridership Climbs in 2007," *Las Vegas Review-Journal*, January 19, 2008, p. B3.

<sup>&</sup>lt;sup>23</sup> Missouri Department of Transportation, Safe and Sound Program Website. [http://www.modot.gov/safeandsound/index.htm].

<sup>&</sup>lt;sup>24</sup> Ibid; see also Stokes, D.C., L. Gilroy, and S.R. Staley, "Missouri's Changing Transportation Paradigm," Show-Me Institute, *Policy Study*, No. 14, February 27, 2008. [http://showmeinstitute.org/docLib/20080225\_smi\_study\_14.pdf].

<sup>&</sup>lt;sup>25</sup> U.S. Department of Transportation, Federal Highway Administration, "PPP Update: \$3.37 Billion in Conditional Private Activity Bond Allocations Made," *Innovative Finance Quarterly*, Vol. 13, No. 2, Spring 2007. [http://www.fhwa.dot.gov/innovativeFinance/ifqvol13no2.htm].

# Federal Legislation and Public-Private Partnerships

In the period from the mid-1950s through the 1970s, highway and transit infrastructure provision were both marked by a large infusion of public funding, particularly from the federal government.<sup>26</sup> Highway spending grew from the mid-1950s, in large part to finance the construction of the Interstate Highway System, whereas transit spending grew from the mid-1960s with the public sector takeover of struggling private transit companies and an investment in new vehicles and infrastructure. During this period, the private sector's role was largely limited to bidding on and building what the public sector had planned, designed, and financed, a process known as "design-bid-build". With the effective completion of the Interstates by the early 1980s, however, public capital spending on highways had already declined in real terms, and the federal share of total public capital spending that had reached highs in the late 1970s and early 1980s began to decline.<sup>27</sup> Transit spending by all levels of government, that had grown rapidly in the 1970s, slowed dramatically in the 1980s and the Federal share declined.<sup>28</sup>

According to some analysts, these trends spurred interest in the use of publicprivate partnerships, as states and localities, particularly those in fast growing parts of the country, searched for new ways to fund and build transportation infrastructure.<sup>29</sup> In highway transportation during the 1980s, there was some renewed focus on vehicle tolling, a potential revenue stream that was of interest to private investors as well as public authorities. Consequently, by the late 1980s, spurred on by experience in other parts of the world and developments in automated toll collection technology, seven states had approved legislation to allow private investment in highway projects.<sup>30</sup> Two of the earliest projects developed under these new rules were the Dulles Greenway in Virginia and SR-91 in California, toll roads that both opened in 1995. According to DOT, 23 states currently have PPP enabling legislation.<sup>31</sup>

In transit, new revenue was sought from the development of new private facilities on or over transit agency land, a process known as joint development.<sup>32</sup> For example, joint development was used in the construction of mixed-use facilities

<sup>31</sup> U.S. Department of Transportation, Federal Highway Administration, Public-Private Partnerships Website, "PPP Legislation." [http://www.fhwa.dot.gov/PPP/legislation.htm].

<sup>&</sup>lt;sup>26</sup> U.S. Department of Transportation, Federal Highway Administration and Federal Transit Administration, 2007, chapter 6.

<sup>&</sup>lt;sup>27</sup> Ibid., exhibits 6-8 and 6-10.

<sup>&</sup>lt;sup>28</sup> Ibid., exhibits 6-21 and 6-22.

<sup>&</sup>lt;sup>29</sup> Perez, Benjamin G. and James W. March, "Public-Private Partnerships and the Development of Transport Infrastructure: Trends on Both Side of the Atlantic," Paper Presented at the First Conference on Funding Transport Infrastructure, Banff, Alberta, Canada, August 2-3, 2006. [http://www.fhwa.dot.gov/PPP/perez\_banff\_ppp\_final.pdf].

<sup>&</sup>lt;sup>30</sup> Ibid., p. 9.

<sup>&</sup>lt;sup>32</sup> U.S. Department of Transportation, *Report to Congress on Public-Private Partnerships* (Washington, DC, 2004), p. 36. [http://www.fhwa.dot.gov/reports/pppdec2004/pppdec2004. pdf].

(offices, retail, and a hotel) surrounding the Washington Metropolitan Area Transit Authority's (WMATA) Bethesda, MD station completed in 1985. The air-rights lease for this development generates \$1.6 million annually in rents for WMATA.<sup>33</sup>

#### **Highway Public-Private Partnerships**

With the growing interest in tolling and public-private partnerships, the federal government in the late 1980s began to explore the possibilities for their inclusion in federal surface transportation programs. The three main areas of legislative change to accommodate this in the highway program have been in the areas of highway tolling, innovative finance, and innovative contracting.

**Highway Tolling.** Since the passage of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA; P.L. 102-240), it has generally been permissible to use tolling to finance the construction or reconstruction of federally supported roads, tunnels, and bridges, except on the Interstate system, even when the facility is privately owned (23 U.S.C. §129(a)).<sup>34</sup> Moreover, over the years, and particularly since the late 1980s, Congress has created a number of exceptions to tolling restrictions on Interstates that permit the development of PPPs. In the Surface Transportation and Uniform Relocation Assistance Act of 1987 (P.L. 100-17), Congress established a pilot program allowing federal funds to be used, with a maximum federal share of 35%, in the construction or reconstruction of up to seven toll facilities. However, these new or reconstructed facilities had to be publicly owned and operated and Interstate highways were specifically excluded. In the next authorization bill, ISTEA, Congress removed the pilot program status, allowed states to convert non-tolled roads, bridges, and tunnels to tolled facilities, raised the federal share to 50%, and allowed for private ownership and operation. ISTEA also established the Congestion Pricing Pilot Program which allowed federal funds to be used in the implementation of congestion pricing (variable tolls) on up to 5 projects, of which a maximum of 3 could be Interstates.

The Congestion Pricing Pilot Program was continued in the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21; P.L. 105-178), enacted in 1998, but expanded to allow 15 projects and renamed the Value Pricing Pilot Project. Additionally, TEA-21 created another pilot program, the Interstate System Reconstruction and Rehabilitation Pilot Program, for up to 3 toll projects with the purpose of reconstruction on the Interstate Highway System. To date, a decade later, only two of the three slots have been filled, with I-70 in Missouri and I-81 in Virginia having been granted approval.

<sup>&</sup>lt;sup>33</sup> Transportation Research Board, Transit Cooperative Research Program, *Transit-Oriented Development in the United States: Experiences, Challenges, and Prospects*, TCRP Report 102 (Washington, DC, 2004). [http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp\_rpt\_102.pdf].

<sup>&</sup>lt;sup>34</sup> At the outset, a number of existing toll roads were included as part of the Interstate Highway System.

Most recently, in SAFETEA, Congress authorized three new ways to institute tolling on federally funded roads and modified another method.<sup>35</sup> Section 1121 of SAFETEA amended 23 U.S.C. §166 to allow conversion of High Occupancy Vehicle (HOV) lanes to High Occupancy Toll (HOT) lanes. SAFETEA also created two new programs, the Express Lane Demonstration program (Section 1604(b)) and the Interstate System Construction Toll Pilot program (Section 1604(c)). The Express Lane Demonstration program authorizes up to 15 new tolled facilities from the conversion of existing HOV facilities or where new lanes are constructed. The program explicitly provides for private investment. The Interstate System Construction Toll Pilot program authorizes tolling on the construction of three new Interstate highways. To date, one of the three slots has been reserved for construction of I-73 in South Carolina, although the slot applies to I-73 in other states as well if they want to construct their portion of it under this program. SAFETEA also extended and modified the Value Pricing Pilot Program by setting aside a portion of the authorized funding for congestion pricing pilot projects that do not involve highway tolls, such as parking pricing strategies and pay-as-you drive pricing involving innovative forms of car ownership and insurance.<sup>36</sup>

Although it is not entirely clear what effect the changes in federal law have had on the development of toll roads, a substantial number of projects have been initiated since the passage of ISTEA, and this activity appears to have accelerated. A recent survey sponsored by the Federal Highway Administration found that since the passage of ISTEA, a total of 168 toll road projects were initiated in 27 states and one U.S. territory.<sup>37</sup> These projects totaled 3,770 centerline miles and 14,560 lane miles of highway, although not all the projects involved new capacity. About one-third of the new toll lane-miles were on the Interstate system, and about one-half of the toll roads developed since ISTEA involved a public-private partnership. Of the 168 toll road projects, 50 were open at the time of the survey in 2005. The data also indicate that about 50 to 75 miles of toll roads were developed annually in the decade after the passage of ISTEA in 1991, and that more recently this has increased to about 150 miles annually.

**Innovative Finance.** Another way in which changes in federal law have encouraged PPPs is through developments in innovative financing, a term that covers a broad set of ways to finance infrastructure outside the usual methods involving payas-you-go (direct appropriations), intergovernmental grants, and government revenue

<sup>&</sup>lt;sup>35</sup>U.S. Department of Transportation, Federal Highway Administration, "Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA — LU); Opportunities for State and Other Qualifying Agencies To Gain Authority to Toll Facilities Constructed Using Federal Funds," 71 *Federal Register*, 965-969, January 6, 2006. [http://frwebgate.access.gpo.gov/cgi-bin/getpage.cgi?position=all&page=965&dbname= 2006\_register].

<sup>&</sup>lt;sup>36</sup> U.S. Department of Transportation, Federal Highway Administration, Tolling and Pricing Website, "Value Pricing Pilot Program." [http://www.ops.fhwa.dot.gov/tolling\_pricing/value\_pricing/index.htm].

<sup>&</sup>lt;sup>37</sup> U.S. Department of Transportation, Federal Highway Administration, *Current Toll Road Activity in the U.S.: A Survey and Analysis* (Washington, DC, 2006). [http://www.fhwa. dot.gov/ppp/toll\_survey\_0906.pdf].

bonds.<sup>38</sup> In ISTEA, Congress approved some new concepts in infrastructure financing particularly in the use of user fees. This led to the creation in 1994 of the Innovative Finance Test and Evaluation (TE-045) program that sought to implement and evaluate some new financing tools in the federal-aid highway program. Some of the ideas developed in this experimental program were subsequently enacted in The National Highway System Designation Act of 1995 (P.L. 104-59) including the State Infrastructure Bank (SIB) pilot program that permitted certain states to set up revolving funds with federal money, with the intent of leveraging other public and private resources for infrastructure projects.

Another major development came in the form of the Transportation Infrastructure Finance and Innovation Act (TIFIA) of 1998, a part of TEA-21 that created a program for federal credit assistance on major transportation projects. TIFIA funding is designed to leverage non-federal funding including investment from the private sector, and as originally conceived was for projects costing at least \$100 million (or at least \$30 million in the case of Intelligent Transportation Systems (ITS) projects). TIFIA financing authorized under TEA-21 was extended by SAFETEA and modified by permitting all public-private partnerships to apply directly, expanding eligibility to freight rail and intermodal facilities, and by lowering the eligibility threshold to \$50 million in general and to \$15 million in the case of ITS projects.<sup>39</sup>

SAFETEA also added to the federal tax code several private transportation activities as eligible for federally tax-exempt state and local bond financing. According to federal tax law, state and local bonds are classified as either governmental bonds or private activity bonds. Government bonds are those issued to finance public activities, such as building a school, and private activity bonds are those issued to finance activities that are less public in nature, such as an investor owned water utility. In general, the interest on government bonds is exempt from federal tax, whereas interest on private activity bonds is taxable. A tax-exempt bond can be issued at a lower interest rate and, therefore, provides cheaper financing for a project than a taxable bond. Over the years, some types of private activities for which state and local bonds are issued have been afforded tax-exempt status.<sup>40</sup> These private activities are known as "qualified private activities." Prior to SAFETEA, a number of transportation facilities were classified in the tax code as qualified private activities. These included airports, docks and wharves, mass commuting facilities, and high-speed intercity rail facilities. Title XI, Section 1143 of SAFETEA added qualified highway and surface freight transfer facilities.

In addition to limiting the type of private activities eligible for tax-exempt financing, Congress has also typically placed a limit on the amount of such bonds

<sup>&</sup>lt;sup>38</sup>U.S. Department of Transportation, Federal Highway Administration, *Innovative Finance Primer* (Washington, DC, 2002). [http://www.fhwa.dot.gov/innovativefinance/ifp/ifprimer. pdf].

<sup>&</sup>lt;sup>39</sup> Hedlund, K.J. and N.C. Smith, "SAFETEA-LU Promotes Private Investment in Transportation," report prepared for Nossaman, Guther, Knox, & Elliott, LLP, August 1, 2005. [http://www.fhwa.dot.gov/PPP/safetea\_lu\_hedlund.pdf].

<sup>&</sup>lt;sup>40</sup> CRS Report RL31457, *Private Activity Bonds: An Introduction*, by Steven Maguire.

that can be issued. Section 1143 of SAFETEA, therefore, also included a \$15 billion limit on the bonds that could be issued for qualified highway or surface freight transfer facilities, although bonds issued under this section are exempt from the state volume caps that exist for the general issuance of private activity bonds. Under the law, the Secretary of Transportation is charged with deciding on bond allocations.

Despite the general expansion of tax-exempt bond financing, some have questioned its cost effectiveness and have suggested that traditional federal grants or carefully designed tax-credit bonds would provide the same amount of federal subsidy at a lower overall cost to the U.S. Treasury.<sup>41</sup>

**Innovative Contracting.** Another area in which the federal government has increasingly encouraged private participation in highway infrastructure is in contracting and project delivery. FHWA began experimenting with innovative contracting under Special Experiment Project 14 (SEP-14) and Special Experiment Project 15 (SEP-15). SEP-14, begun in 1990, focused primarily on four methods of innovative contracting: cost-plus-time bidding, lane rental arrangements, warranties, and design-build contracts. SEP-15, begun in 2004, focuses on project delivery in the areas of contracting, compliance with environmental regulations, right-of-way acquisition, and project finance.<sup>42</sup>

With a number of successes, legislation followed to make several of these innovations mainstream methods for delivering infrastructure projects. One of the most important of these for public-private partnerships, design-build contracting, was made a permissible method of contracting in the federal-aid highway program in 1998 (by Section 1307 of TEA-21), albeit with certain conditions. These conditions included limiting design-build contracting to projects over \$50 million or over \$5 million on ITS projects, and restricting the commencement of final design until after meeting NEPA requirements. In 2005, Congress eliminated the \$50 million floor for design-build contracts and permitted agencies to enter into contracts with private sector firms before NEPA approval. This allows private sector involvement at an earlier stage than previously allowed. In 2005, Congress also enacted a 180-day limitation on the time for challenging federal approvals, including environmental approvals, aimed at reducing the risk for projects.<sup>43</sup>

<sup>&</sup>lt;sup>41</sup> Testimony of JayEtta Hecker, Director, Physical Infrastructure Issues, General Accounting Office (now the Government Accountability Office), in U.S. Congress, Senate Committee on Finance and Committee on Environment and Public Works, September 25, 2002. [http://www.gao.gov/new.items/d021126t.pdf]; and Testimony of Peter Orzag, Director, Congressional Budget Office, in U.S. Congress, House Committee on the Budget and Committee on Transportation and Infrastructure, May 8, 2008. [http://www.cbo.gov/ftpdocs/91xx/doc9136/05-07-Infrastructure\_Testimony.pdf].

<sup>&</sup>lt;sup>42</sup> U.S. Congress, House Subcommittee on Highways and Transit, Hearing on Public-Private Partnerships: Innovative Contracting, "Summary of Subject Matter," April 12, 2007. [http://transportation.house.gov/Media/File/Highways/20070417/SSM.pdf].

<sup>&</sup>lt;sup>43</sup> Hedlund and Smith, 2005.

#### **Transit Public-Private Partnerships**

In transit, the use of, and interest in, public-private partnerships has been somewhat more limited. Most likely this is because most transit projects are revenue negative, that is they require some kind of ongoing financial support in addition to passenger fares and other system-related revenues. Nevertheless, there have been a number of federal legislative and regulatory initiatives encouraging private sector involvement in transit, particularly in financing and contracting.

**Innovative Financing.** One of the earliest legislative initiatives in the realm of innovative financing with implications for private sector involvement in transit can be found in certain provisions of the National Urban Mass Transportation Act of 1974 (P.L. 93-503). The act permitted federal assistance for joint development projects, projects that typically involved the commercial or residential development of land on or near transit stations.<sup>44</sup> These types of projects, however, were discouraged by an administrative decision by the Urban Mass Transportation Administration (now know as the Federal Transit Administration or FTA) in the 1980s that federal subsidies could only be used to defray project costs after taking into account contributions from private partners, effectively substituting private dollars for federal dollars. But FTA's policy on joint development was revised again in 1997, as directed by Congress in ISTEA, to allow land acquired with federal funding to be used in joint development projects and income derived from such projects to be used for transit operation.<sup>45</sup> TEA-21 then made joint development eligible for reimbursement in federal transit grant programs by incorporating such activities into the definition of a transit capital project.<sup>46</sup> The law pertaining to joint development was last modified by SAFETEA, with regulations promulgated in 2007. Among other things, SAFETEA added intercity bus and rail terminals as permitted uses for joint development authority.<sup>47</sup>

**Innovative Contracting.** In the realm of innovative contracting, ISTEA furthered the use of PPPs in transit by initiating a demonstration program to explore the use of DB/DBOM in the New Starts program. FTA picked five projects to be a part of the demonstration program: Los Angeles Union Station Intermodal Terminal, Baltimore Light Rail Transit System Extensions, San Juan Tren Urbano, Bay Area Rapid Transit (BART) Airport Extension, and Northern New Jersey Hudson Bergen LRT. ISTEA also directed FTA to issue guidance on the use of DB/DBOM in the Federal New Starts program. More recently, Section 3011(c) of SAFETEA

<sup>&</sup>lt;sup>44</sup> U.S. Department of Transportation, 2004.

<sup>&</sup>lt;sup>45</sup> U.S. Department of Transportation, Federal Transit Administration, *Innovative Financing Techniques for America's Transit Systems* (Washington, DC, 1998). [http://www.fta.dot.gov/planning/metro/planning\_environment\_3530.html].

<sup>&</sup>lt;sup>46</sup> U.S. Department of Transportation, Federal Transit Administration, "Joint Development Guidance," 71 *Federal Register*, 5107-5109, January 31, 2006. [http://a257.g.akamaitech. net/7/257/2422/01jan20061800/edocket.access.gpo.gov/2006/pdf/06-871.pdf].

<sup>&</sup>lt;sup>47</sup> U.S. Department of Transportation, Federal Transit Administration, "Notice of Final Agency Guidance on the Eligibility of Joint Development Improvements Under Federal Transit Law," 72 *Federal Register*, 5788-5800, February 7, 2007. [http://a257.g.akamaitech. net/7/257/2422/01jan20071800/edocket.access.gpo.gov/2007/pdf/E7-1977.pdf].

authorized the Secretary of Transportation to establish a pilot program to explore the use of PPPs in new fixed-guideway capital projects (transit rail or BRT) involving federal funds. This new program is known as the Public-Private Partnership Pilot Program, or "Penta-P." To date, FTA has invited applications from interested state and local authorities for inclusion in the pilot program, and has selected two rail projects in Denver, CO and two BRT projects in Houston, TX.

# **Issues for Congress**

The two main issues for Congress with regard to public-private partnerships in surface transportation are: (1) the extent to which PPPs can be relied upon to meet the future resource needs of the surface transportation system; and (2) the effects of long-term highway concessions on the operation and planning of the surface transportation system. Some of the specific issues raised in transportation operations include the effects of PPPs on national uniformity in highway operation, interstate commerce, the mobility of low-income households, and traffic diversion. Issues raised in transportation planning include non-compete provisions in PPP lease agreements, unsolicited proposals, lease duration, and foreign control of transportation assets. Each of these is discussed below, as is the issue of identifying and protecting the public interest in general. This section begins with an evaluation of the place of PPPs in the funding of surface transportation infrastructure.

#### Additional Resources for Transportation Infrastructure

One of the main attractions of PPPs, according to advocates, is that they provide additional resources for the provision of transportation infrastructure. Some advocates of PPPs argue that without additional sources of investment the nation risks undermining the transportation system as a result of physical deterioration and congestion. Primarily these additional resources are associated with a project-related revenue stream such as vehicle tolls, container fees, or, in the case of transit station development, building rents. Private sector resources may come from an initial payment to lease an existing asset in exchange for future revenue, as with the Indiana Toll Road and Chicago Skyway, or it may involve developing an asset along with a new revenue stream. Either way, a facility user fee is often the key to unlocking private sector participation and resources.

Of course, the public sector can build toll roads, raise tolls on existing facilities, or, in some cases, even institute tolls on existing "free" roads, bridges, and tunnels when reconstructing or replacing the facility. Proponents of PPPs argue, however, that for two primary reasons the private sector can attract more capital to highway infrastructure than the public sector.<sup>48</sup> First, a privately operated toll road can be financed with both debt (bond) and equity financing, and that because equity investors have an opportunity to share in the profits, they tend to be less conservative than traditional municipal bond investors. In addition, private concessions are often for terms longer than traditional municipal bond maturities of 25, 30, or 40 years,

<sup>&</sup>lt;sup>48</sup> Samuel, Peter, "The Role of Tolls in Financing 21<sup>st</sup> Century Highways," Reason Foundation Policy Study 359, May 2007. [http://www.reason.org/ps359.pdf].

hence, with an income stream over a longer period the concessionaire can raise extra capital. Based on these principles, one estimate suggests that the \$1.83 billion raised in the 99-year concession of the Chicago Skyway, would only have raised \$800 billion in traditional bond financing.<sup>49</sup>

Second, PPP proponents argue that toll facilities are less successful when operated by the public sector because political forces typically make it difficult to raise tolls in line with costs. Not only does this create a potential further drag on public coffers in the future, it also affects the ability of government to borrow money to initiate construction. By contrast, it is sometimes argued, the private sector can generate the necessary funds because lenders are more sure that toll revenues will be stable when decisions are made primarily on a business rationale.<sup>50</sup> An exception to the difference between the public and private sector in setting toll rates is the use of dynamic tolling in congestion pricing schemes in which the toll is adjusted up and down to maintain "free-flowing" traffic. In such cases, traffic demand determines the private operator does not have complete freedom to choose when and by how much to raise the toll. Nevertheless, proponents of private sector involvement argue "long-term toll road concessions…are not simply a private-sector version of a public-sector toll agency. They are a new and important innovation in U.S. highway finance."<sup>51</sup>

The Secretary of Transportation Mary Peters has repeatedly stated that there is at least \$400 billion of private sector capital available for infrastructure investment.<sup>52</sup> One independent review of the evidence has suggested that this is a credible number, even taking into account the current problems in global credit markets, with funds available ranging from \$340 billion to \$600 billion.<sup>53</sup> However, this \$400 billion of private capital is available to be invested anywhere in the world and in any type of infrastructure,<sup>54</sup> casting some doubt on how much realistically might be available to be invested in highways and transit in the United States.<sup>55</sup> It is also unclear over what period of time the \$400 billion is available for investment, and how much more might be available once that amount is committed. Nevertheless, supporters say even a portion of this potential investment capital would provide a significant boost to U.S. highways and transit infrastructure. DOT's current estimate of capital spending by all levels of government to maintain current highway conditions and performance over the next 20 years is \$78.8 billion annually, \$8.5 billion more than is currently

<sup>&</sup>lt;sup>49</sup> Ibid., p. 29.

<sup>&</sup>lt;sup>50</sup> Poole, Robert W. "Tolling and Public-Private Partnerships in Texas: Separating Myth from Fact," Reason Foundation Working Paper, May 2007.

<sup>&</sup>lt;sup>51</sup> Ibid., p. 5.

<sup>&</sup>lt;sup>52</sup> U.S. Department of Transportation, "Over \$400 Billion Available Today for Road, Bridge and Transit Projects U.S. Secretary of Transportation Mary E. Peters Announces," Press Release, DOT 43-08, Wednesday, March 26, 2008.

 <sup>&</sup>lt;sup>53</sup> Orski, K., "A \$400 Billion Solution," *Innovation Briefs*, Vol. 19, No. 8, March 10, 2008.
<sup>54</sup> Ibid.

<sup>&</sup>lt;sup>55</sup> See McNally, Sean, "Investors Look to Banks for Help With Infrastructure Deals," *Transport Topics*, April 21, 2008, p. 14.

being spent. In transit, spending needs are estimated to be \$15.8 billion annually, \$3.2 billion more than is currently being spent.<sup>56</sup>

While most agree that PPPs will likely attract new private capital to transportation infrastructure provision, some argue that the scale of this capital is likely to be relatively modest when viewed in the context of total highway and transit infrastructure spending.<sup>57</sup> The American Association of State Highway and Transportation Officials (AASHTO) notes, for example, that highway tolling, either public or private, currently accounts for approximately 5% of highway revenues and optimistically will meet 7% to 9% of future national investment needs.<sup>58</sup> Because transit is revenue negative, it is likely that transit PPPs could never generate anywhere near this share of investment. This suggests that when considering the future needs of both highway and transit infrastructure nationally, PPPs are likely to generate somewhat less than this estimated level of 7% to 9%.

A related point, and one not fully considered in these estimates, however, is that the institution of a toll not only provides revenue to improve the supply of infrastructure, but also tends to suppress and/or divert travel demand. With limited toll road mileage, this effect may be relatively minor and may be more likely to result in traffic diversion (see below). Widespread tolling, on the other hand, may result not in route diversion, but in travelers switching to other modes, changing the time of a trip to avoid a charge, or foregoing travel altogether. DOT has made a preliminary attempt to estimate, theoretically, the effects of universal congestion pricing on infrastructure demand, and suggests they would be substantial. As noted earlier, DOT's current estimate of the annual cost to maintain highway and bridges over 20 years from 2005 through 2024 is \$78.8 billion a year (in 2004 dollars), \$8.5 billion more than the \$70.3 billion spent in 2004 by all levels of government. Under the universal congestion pricing scenario, DOT's preliminary estimate of capital spending needs over 20 years shrinks to \$57.2 billion, \$21.6 billion less than its estimate of capital needs, and \$13.1 billion less than is currently being spent.<sup>59</sup> Of course, there is little likelihood that such widespread highway pricing could be instituted anytime soon, nor do DOT's estimates include the administrative and startup costs that would be involved, or the technical difficulties of such as plan. DOT's analysis is also silent on the effects of universal congestion pricing on the

<sup>&</sup>lt;sup>56</sup> To improve systems conditions and performance, DOT estimates annual increases in capital spending by as much as \$61.4 billion for highways and \$9.2 billion for transit.

<sup>&</sup>lt;sup>57</sup> Transportation Research Board, 2006, p. 4-1; see also Organisation for Economic Cooperation and Development (OECD) and International Transport Forum, *Transport Infrastructure Investment: Options for Efficiency* (Paris, 2008); and General Accounting Office (now the Government Accountability Office), March 2004.

<sup>&</sup>lt;sup>58</sup> Testimony of Pete Rahn, Director of the Missouri Department of Transportation and President of the American Association of State Highway and Transportation Officials (AASHTO), in U.S. Congress, House Committee on Transportation and Infrastructure, *Hearing on State Perspectives on Transportation for Tomorrow: Recommendations of the National Surface Transportation Policy and Revenue Study Commission*, February 13, 2008. [http://transportation.house.gov/Media/File/Highways/20080213/Pete%20Rahn% 20Testimony.pdf].

<sup>&</sup>lt;sup>59</sup> U.S. Department of Transportation, Federal Highway Administration and Federal Transit Administration, 2007, chapter 10.

demand for other modes of passenger and freight travel, such as public transit and freight rail. Nevertheless, the research does indicate that direct user fees, such as congestion pricing, may reduce the demand for new highway infrastructure.

**Diversion of Resources From the Transportation Sector.** Another concern in the transportation sector is that the resources generated from transportation PPPs will not be used to finance transportation infrastructure needs. State and local governments have significant demands for funding in many different areas. Asset leases in particular provide a mechanism to generate large sums of money that could be used to fund a wide range of social services. That is why some have argued that unlike concessions in the provision of new toll roads that are "added value," the leasing of existing roads might be considered "revenue extraction."<sup>60</sup> This concern has been realized in the case of the Chicago Skyway, discussed earlier, as some of the lease payment has been used for non-transportation purposes. The City of Chicago, however, has noted that, among other things, it has created a reserve fund that generates in interest revenue what the road did in toll revenue, and that excess toll revenues from the Skyway were previously directed to the city's general fund.<sup>61</sup> The GAO has stated that the city's credit rating improved when it reduced its general obligation debt, thereby reducing the future cost of borrowing.<sup>62</sup> The possibility remains, nevertheless, that the money generated by asset leases may end up being used for current transportation and non-transportation needs and that future facility users, in some cases three or four generations from now, may end up paying higher tolls as a result.<sup>63</sup>

Diversion of resources may also be of more general concern in that new private resources attracted to transportation infrastructure may substitute for public resources in the sector, not add to them. With competing demands for public funds, it is possible that with increases in private funding, state and local governments will divert public resources to other deserving public programs with no net gain in transportation infrastructure. In a study of the effect of federal highway funding increases on state highway funding between 1982 and 2002, GAO observed a substitution effect, particularly between 1998 and 2002 when a 40% increase in federal capital spending was accompanied by a 4% drop in state and local capital spending.<sup>64</sup>

**Other Resource Benefits.** As well as the potential for additional capital, PPPs may also generate new resources for transportation infrastructure in at least two other ways. First, PPPs may improve resource efficiency through improved

<sup>&</sup>lt;sup>60</sup> Steckler, Steve A. "Squeezing Cash from Concrete: Navigating the Perils of Turnpike Privatization." Infrastructure Management Group. [http://www.imggroup.com/transport ation/documents/PennsylvaniaTollwayLeasing.pdf].

<sup>&</sup>lt;sup>61</sup> Schmidt, John, "The Pros and Cons of Toll Road Leasing," *Public Works Financing*, Vol. 2005, May 2006, p. 9.

<sup>&</sup>lt;sup>62</sup> Government Accountability Office, 2008, p. 21.

<sup>&</sup>lt;sup>63</sup> Ibid., p. 34.

<sup>&</sup>lt;sup>64</sup> Government Accountability Office, *Federal-Aid Highways: Trends, Effect on State Spending, and Options for Future Program Design*, GAO-04-802 (Washington, DC, 2004). [http://www.gao.gov/new.items/d04802.pdf].

management and innovation in construction, maintenance, and operation, in effect providing more infrastructure for the same price. PPP proponents argue that private companies are more able to examine the full life-cycle cost of investments, whereas public agency decisions are often tied to short-term budget cycles. In the case of the Hudson-Bergen Light Rail in New Jersey, procured under a DBOM contract, DOT estimates that the project saved 30% over the more traditional design-bid-build procurement method, a saving of about \$345 million.<sup>65</sup> Skeptics point out, however, that these savings may not materialize if the public sector has to spend a substantial amount of time on procurement, oversight, and disputes that may result in litigation. For example, the California DOT has had a number of costly disputes with its private partners.<sup>66</sup> Furthermore, GAO argues that most state governments do not have the necessary capacity to manage these contracts.<sup>67</sup>

Second, through PPPs the private sector may bear many of the financial risks that exist with building, maintaining, and operating infrastructure. Risks abound in the development and operation of infrastructure, including the risk that construction and maintenance will cost more and/or take longer than foreseen. Another risk with toll facilities is that once built there will be less demand than estimated. Transferring these risks to the private sector, according to proponents, will save public agencies significant amounts of money, particularly as cost and schedule overruns are common with transportation infrastructure projects. Detractors argue that in some cases this transfer of risk may prove illusory as major miscalculations may force the public sector to assume project ownership. Consequently, this line of reasoning goes, PPPs may in fact be false partnerships in that profits will be retained in the private sector, while major losses will be borne by the public sector.<sup>68</sup> Moreover, as the GAO points out, not all the risks can or should be shifted to the private sector. For instance, a major risk associated with transportation infrastructure projects that the private sector is unlikely to be able to accept is the delay and uncertainty associated with the environmental review process.<sup>69</sup>

<sup>&</sup>lt;sup>65</sup> U.S. Department of Transportation, 2004, pp. 38-39.

<sup>&</sup>lt;sup>66</sup> Testimony of Alan Lowenthal, Chair, California Senate Transportation and Housing Committee, in U.S. Congress, House Committee on Transportation and Infrastructure, Subcommittee on Highways and Transit, *Hearing on Public-Private Partnerships: State and User Perspectives*, May 24, 2007. [http://transportation.house.gov/Media/File/Highways/ 20070524/Cal% 20State% 20Senate% 20Lowenthal% 20testimony.pdf].

<sup>&</sup>lt;sup>67</sup> Government Accountability Office, *Federal-Aid Highways: Increased Reliance on Contractors Can Pose Oversight Challenges for Federal and State Officials*, GAO-08-198 (Washington, DC, 2008). [http://www.gao.gov/new.items/d08198.pdf].

<sup>&</sup>lt;sup>68</sup> Engel, E., R. Fischer, and A. Galetovic, "Privatizing Highways in the United States," *Review of Industrial Organization*, 2006, Vol. 29.

<sup>&</sup>lt;sup>69</sup> Government Accountability Office, 2008.

# Effects of Public-Private Partnerships on the Operation and Planning of the Surface Transportation System

The other main issue that may be of interest to Congress is the effects of PPPs on the planning and operation of surface transportation system, particularly the highway network. This has been expressed by some as identifying and protecting the "public interest" in transportation infrastructure.<sup>70</sup>

**Operation of the Highway Network.** One of the main concerns of the critics of public-private partnerships in highways is that it will create a patchwork of tolled and non-tolled roads, undermining national uniformity in highway operation, increasing travel costs (see below), and ultimately impeding passenger travel and interstate commerce.<sup>71</sup> Conceivably, this perceived "patchwork" will add a good deal of complexity to everyday routing decisions, and possibly longer term location decisions, that may mean the cheapest route is no longer the shortest, quickest route. The American Trucking Associations (ATA) has also expressed the concern that tolling and privatization will place an extra administrative burden on national and regional trucking companies because of having to do business with a multitude of public and private tolling entities.<sup>72</sup> Others are concerned that the first facilities to be candidates for leasing will be those that serve a high proportion of users from other states or local jurisdictions.<sup>73</sup>

In response, proponents of PPPs argue that the national highway system is already a complex network of tolled and non-tolled facilities owned and operated by a multitude of different public authorities and private companies, and that private highway operators have a financial incentive to ensure efficient operations. Moreover, as noted earlier, some PPP advocates argue that without additional sources of investment the nation risks undermining the network as a result of physical deterioration and congestion.<sup>74</sup>

<sup>&</sup>lt;sup>70</sup> U.S. Congress, House Subcommittee on Highways and Transit, *Hearing on Public-Private Partnerships: Innovative Financing and Protecting the Public Interest*, February 13, 2007. [http://www.house.gov/htbin/leave\_site?ln\_url=http://frwebgate.access.gpo.gov/cgi-bin/ getdoc.cgi?dbname=110\_house\_hearings&docid=f:34778.pdf]; Government Accountability Office, 2008.

<sup>&</sup>lt;sup>71</sup> Testimony of Gregory M. Cohen, President and CEO, American Highway Users Alliance, in U.S. Congress, House Subcommittee on Highways and Transit, *Hearing on Public-Private Partnerships: State and User Perspectives*, May 24, 2007. [http://transportation. house.gov/Media/File/Highways/20070524/Greg% 20Cohen% 20Testimony.pdf].

<sup>&</sup>lt;sup>72</sup> Testimony of Bill Graves, President and CEO of the American Trucking Associations, in U.S. Congress, House Subcommittee on Highways and Transit, *Public-Private Partnerships: State and User Perspectives*, May 24, 2007. [http://www.truckline.com/NR/rdonlyres/5E923973-9F4D-46A3-A599-71F47FC7C3BE/0/PPPMay24\_2007.pdf].

<sup>&</sup>lt;sup>73</sup> Steckler; Cohen, 2007.

<sup>&</sup>lt;sup>74</sup> Testimony of Tyler D. Duvall, Assistant Secretary of Transportation Policy, U.S. Department of Transportation, in U.S. Congress, House Subcommittee on Highways and Transit, *Public-Private Partnerships: Financing and the Public Interest*, February 13, 2007. [http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110\_house\_hearings&

**Highway Travel Costs.** Probably of greatest concern to many users of the highway system is that greater private sector involvement will lead to substantial increases in travel costs through the proliferation of tolled roads and toll rates that will rise more quickly than has typically been the case under public control. This is of particular concern where no new service is provided, such as a new facility or the addition of new lanes on an existing facility, and where there is no viable, non-tolled alternative. Proponents of PPPs agree that private sector participation will most likely lead to an increase in direct highway user costs, but note that this is the price to be paid for not providing highway infrastructure through taxation. Morever, proponents agree that tolls on privately operated toll roads are likely to increase more than those on publicly operated roads. Supporters of PPPs argue that is not because private operators charge too much, but that public operators tend to charge too little because increasing tolls in line with inflation and other costs is politically difficult.

Of particular concern to critics of privately operated toll roads is any situation where there is no viable travel alternative, or to put it another way, where the private road operator has significant monopoly power. In such a situation, these critics argue that, unless carefully regulated, toll rates can be set very high and the rate of return on investment will be unreasonably large. ATA has expressed such concerns about toll rates on the Indiana Toll Road, a part of the country where no alternative travel route exists. PPP proponents argue that concession agreements typically cap toll rates in line with growth factors in the broader economy. Moreover, they argue that a concessionaire is unlikely to set rates at a level that reduces traffic to a level that will cause its revenue to drop.<sup>75</sup>

**Traffic Diversion.** Another concern with the network effects of PPPs, and tolling in general, is that it has the potential for diverting traffic on to other routes, possibly increasing congestion, contributing to possible roadway deterioration, and reducing safety. Private control, it is argued, will lead to higher toll rates and, therefore, more diversion.<sup>76</sup> Diversion of truck traffic is seen as particularly problematic, although diversion of all types of vehicles may occur. A recent study suggests that the safety impacts and infrastructure damage resulting from diversion may be substantial, although the scale of effects will vary by route and the size of the toll.<sup>77</sup> For example, it has been noted that because there is no viable alternative, increased tolls on the Indiana Toll Road associated with its leasing are not likely to impose costs on the surrounding routes and jurisdictions. Proponents of PPPs argue that although some diversion may occur, it is in the private toll operator's interest to provide a service that will attract vehicles.

**Equity.** Critics of PPPs argue that new or higher highway tolls discriminate against low income drivers who will be forced to use alternative routes, other means

<sup>&</sup>lt;sup>74</sup> (...continued)

docid=f:34778.pdf].

<sup>&</sup>lt;sup>75</sup> Poole, May 2007.

<sup>&</sup>lt;sup>76</sup> Swan, Peter F. and Michael H. Belzer, "Empirical Evidence of Toll Road Traffic Diversion and Implications for Highway Infrastructure Privatization," Paper presented at the 87<sup>th</sup> Annual Meeting of the Transportation Research Board, Washington, DC, January 2008.

<sup>77</sup> Ibid.

of travel, or to forego travel altogether. The concern is that there will be one segment of the highway network providing a high quality of service for those able and willing to pay and another segment of the highway network with poor quality of service for those unable or unwilling to pay. Proponents of PPPs argue that many income groups stand to benefit from highways with a better level of service and point to surveys of users on toll roads such as SR-91 that show a significant level of usage by people from low income households.<sup>78</sup> Tolls, nevertheless, still place a greater burden on lower-income than higher-income households, but some argue that tolls may be less of a burden on lower-income households than extra fuel, sales, and property taxes.<sup>79</sup>

**Infrastructure Planning.** The network effects of some highway PPPs, as discussed above, are consequences that might ensue in the short to medium term. However, these same type of PPPs may also have a longer term effect on the network as a result of their influence on decisions about what to build and where, that is the infrastructure planning process. Proponents of PPPs argue that private sector investment not only will generate more resources for transportation, but will result in resources being committed to the most effective projects. It is frequently argued that because of the political process, government funding of transportation infrastructure is spread too widely, or worse, is spent on cost-ineffective projects. A number of studies have shown, for example, that geographic equity is often a basis for distributing transportation funding and selecting projects.<sup>80</sup> Private sector investments on the other hand, it is argued, would focus on projects that have the greatest potential economic returns. Foremost among these are congestion relief projects in places where demand is significantly greater than supply.

Skeptics, on the other hand, point out that one possible problem with relying on private investment to fund infrastructure development, maintenance, and operation is that large parts of the highway network carry relatively few vehicles and are unlikely to attract much interest from the private sector. These types of PPPs, therefore, are unlikely to address transportation issues in rural areas, issues that are often focused on connectivity, maintenance, and safety. The hope among proponents is that relieved of responsibility by the private sector for some parts of the heavily traveled network, the public sector can concentrate on other parts of the network. Conceivably, however, relying much more heavily on PPPs may eventually disrupt the transportation network by directing too few resources to links that carry relatively little traffic but provide important connections between the more heavily traveled segments.

<sup>&</sup>lt;sup>78</sup> U.S. Department of Transportation, "Low-Income Equity Concerns of U.S. Road Pricing Initiatives." [http://www.upa.dot.gov/resources/lwincequityrpi/index.htm].

<sup>&</sup>lt;sup>79</sup> Testimony of R. Syms, County Executive of King County, Washington, in U.S. Congress, House Subcommittee on Highways and Transit, *Hearing on Transportation Challenges of Metropolitan Areas*, April 9, 2008.

<sup>&</sup>lt;sup>80</sup> Edward Hill et al., "Slanted Pavement: How Ohio's Highway Spending Shortchanges Cities and Suburbs," in Bruce Katz and Robert Puentes, eds., *Taking the High Road: A Metropolitan Agenda for Transportation Reform* (Washington, DC: Brookings Institution Press, 2005); U.S. General Accounting Office (now the Government Accountability Office), *Surface Transportation: Many Factors Affect Investment Decisions*, GAO-04-744 (Washington, DC, June 2004), at [http://www.gao.gov/new.items/d04744.pdf].

**Unsolicited Proposals.** One of the ways in which concerns about the planning effects of PPPs have surfaced is over whether or not a state will accept unsolicited proposals. It is generally assumed that projects for which proposals are solicited from the private sector will have come through the public planning process. Unsolicited project proposals, on the other hand, are those initiated by the private sector and may or may not reflect the priorities of the state, region, or locality as contained in short and long-range plans. Consequently, some have suggested that state PPP enabling legislation should not permit unsolicited proposals. Proponents of PPPs argue that this would stifle innovative ideas, and that while a proposal may be unsolicited, to come to fruition it would have to pass through the public review process.

**Non-Compete Provisions.** Another possible effect on the transportation system is that some PPP contracts restrict what types of improvements can be made near a privately operated facility. In some cases, the private sector partner has insisted on a non-compete clause restricting nearby improvements with the potential for reducing traffic on the privately operated facility, or, if they are made, providing compensation. Some have argued that these non-compete clauses impede the ability of public agencies to increase capacity and their ability to devise coordinated congestion management policies.<sup>81</sup> Proponents of PPPs argue that there must be some protection from unlimited competition of "free-roads" provided by the taxpayer, otherwise it would be very difficult to secure private sector involvement. However, some proponents argue that agreements need to strike the right balance between protecting the private sector interest and the public interest in mobility and choice. Consequently, concession agreements "seldom, if ever, ban all 'free road' additions near the toll road. And they usually provide for compensation for reduced traffic, rather than forbidding public-sector roadway additions."<sup>82</sup>

**Lease Duration.** Another effect on the transportation network, some argue, may result from the very long-term nature of some lease agreements. Terms on recent leases include 90 years for the Chicago Skyway, 75 years for the Indiana Toll Road, and 80 years for the northern Virginia HOT lanes. PPP proponents argue that long time horizons are needed to generate the returns necessary to compensate for the risks. One concern is that this will tie the hands of policymakers for generations. Another concern with the leasing of existing facilities and the payment of an up-front concession fee is that future users may have to pay higher tolls to finance current spending. Consequently, some have suggested that agreements should be relatively short, and, as a general rule, should not extend beyond the design-life of a facility. PPP proponents, on the other hand, argue that concession agreements typically include provisions that allow for reasonable amendments and for third-party arbitration of disagreements.<sup>83</sup>

<sup>&</sup>lt;sup>81</sup> Testimony of John Foote, in U.S. Congress, House Subcommittee on Highways, Transit, and Pipelines, *Hearing on Understanding Contemporary Public Private Highway Transactions* — the Future of Infrastructure Finance, May 24, 2006.

<sup>&</sup>lt;sup>82</sup> Poole, May 2007, p. 8.

<sup>&</sup>lt;sup>83</sup> Ibid.; See also "The Chicago Skyway Sale," *Public Works Financing*, Vol. 205, May 2006, p. 4-11.

**Foreign Control.** Another concern of some opponents of PPPs is that they often result in a concession controlled by a foreign company. The predominant reason for this is that PPPs are more prevalent in other countries, particularly France, Spain, and Australia, hence, there are more companies from these countries that have experience with such transactions. Critics charge that this control might impede national security in an emergency and that the profits will go to foreign investors. Proponents of PPPs point out that there is no more risk to the United States from foreign-owned companies than domestic ones. After all, they argue, these foreign companies are willing to invest their money in an immovable asset. Proponents argue that this is a good thing because it shows foreign investors have confidence in the economic, political, and legal environment of the United States.

Protecting the Public Interest. In a study of PPPs in highway infrastructure provision, the Government Accountability Office (GAO) states that these institutional arrangements offer a number of benefits for states and localities but also present a number of trade-offs and potential problems. They identify a number of benefits such as the building of new facilities without using public funds and more efficient operations, among others. They also identify the trade-offs and problems with PPPs such as possible higher toll rates and lack of public control. As a result, the GAO argues that, as with any highway project, there is not one easily identifiable "public interest" but multiple stakeholders with overlapping interests that must be weighed against each other. They note, to date, that protecting the public interest in PPPs has been done on a project-by-project basis through the terms of concession agreements. They suggest that a more systematic approach to identifying and evaluating the public interest in PPPs be developed and employed, as has been done in other countries such as Australia. They suggest that the federal government needs to identify and evaluate the *national* public interest in highway projects that employ a PPP.84

# **Policy Options for Congress**

There are at least three broad policy options that Congress could consider in the formation and operation of PPPs in surface transportation infrastructure delivery: (1) to continue with the current policy of incremental changes and experimentation in program incentives and regulation; (2) to actively encourage PPPs with program incentives, but with relatively tight regulatory controls; and (3) to aggressively encourage the use of PPPs through program incentives and deregulation in the areas of tolling, contracting, and financing. It should be pointed out that at the level of detailed policy prescriptions these three options are not necessarily mutually exclusive, as Congress could decide to deregulate in one area while enhancing regulation in another, and may add funding to one program and cut funding to another. For example, Congress might decide to do away with regulations in the construction and operation of new highway capacity and at the same time develop

<sup>&</sup>lt;sup>84</sup> Government Accountability Office, 2008; see also Buxbaum, Jeffrey N. and Iris N. Oritz, "Protecting the Public Interest: The Role of Long-Term Concession Agreements for Providing Transportation Infrastructure," USC Keston Institute for Public Finance and Infrastructure Policy, Research Paper 07-02, June 2007.

tighter regulations in the leasing of existing highways. Nevertheless, these three broad policy options provide an overall framework for Congressional action on PPPs.

The first broad policy option is to essentially carry on the path that has been followed over the past few authorizations, one of incremental changes and experimentation. As part of such a policy, Congress may opt to generally reauthorize the existing programs and retain existing regulatory controls. This cautious approach might avoid the major pitfalls of private sector involvement, but would likely mean slower growth in toll revenue and private equity investment than more aggressive approaches to the development of PPPs. Consequently this approach would require substantial reliance on other funding mechanisms. Some minor changes to existing programs and regulations might include expanding the number of available slots in the Interstate System Construction Toll Pilot program from the three currently permitted, and continuing and expanding the Penta-P program in transit.

A second option for Congress would be to more aggressively promote the use of PPPs, particularly certain types, but with a set of new regulations designed to protect the public interest from their perceived problems. This option might be considered a federally directed program of PPP development, and is an approach broadly similar to the one advocated by the majority report of the NSTPRSC.

The NSTPRSC report argues that Congress should encourage the use of tolling, congestion pricing, and PPPs, but with a number of conditions and restrictions. The NSTPRSC proposes that states and their partners be given the authority to variably toll new capacity on the Interstate system as a way to fund construction and to better manage the new lanes. They also suggest that authority be given to implement congestion pricing on new and existing Interstates in metropolitan areas with a population of one million or more. The Commission argues that for proposals concerning tolling and pricing on the Interstates, Congress should set up an approval process with strict criteria that includes requirements that: revenue be used only for transportation improvements in the same corridor; rates be set to avoid discrimination against certain types of travelers such as interstate travelers or trucks; technology be used to collect tolls; and planning must consider the effects of diversion.

In encouraging PPPs more generally, the Commission suggests Congress require other criteria including a high level of transparency in the development of such agreements, full public participation, and full compliance with planning and environmental regulations. They also suggest that: PPP agreements should not contain non-compete clauses; toll rates should be capped; states should share in revenues over and above a certain set amount; concession agreements should not exceed a "reasonable" length; and an analysis be done to insure that private sector financing provides better value than public sector financing.

A minority of NSTPRSC commissioners issued a separate statement agreeing that Congress should encourage the use of PPPs, but argued that these new regulations would stifle their formation. As the minority statement in the report stated, the Commission

proposes new Federal regulations of State contracts with the private sector. The Commission Report includes recommendations to replace what would otherwise be specifically negotiated terms and conditions with a national regulatory scheme

for public-private partnerships that goes well beyond any regulations currently in place. In fact, despite finding substantial flaws with current programs and policies, the Commission Report strangely subjects innovative forms of project delivery to greater Federal scrutiny than traditional procurement approaches. The Commission Report would also subject private toll operators under contract with a State to greater Federal scrutiny than the scrutiny to which local public toll authorities are subject. There is no basis for this distinction.<sup>85</sup>

The Commission's minority view, therefore, suggests a third broad policy option for Congress to consider. This option would more aggressively encourage PPPs by providing program funding to encourage innovation and generally deregulating the use of tolling and private sector involvement, thereby letting states decide when and how to enter into agreements. This is also, in general terms, the position of the AASHTO officials. As they note in their policy report on revenue source in transportation:

AASHTO has taken the position that every state should be given all options possible for funding opportunities in the areas of tolling and public — private ventures so states can determine for themselves what is in the best interests of their citizens. AASHTO has also embraced a bold goal of increasing the percentage of toll revenues to 9 percent of the total for highway revenues nationally. AASHTO's position is that federal policy should enable and encourage innovative finance tools and innovative contracting tools as well.<sup>86</sup>

The federal role in such a scenario may be mostly limited to providing guidance about instituting good practices and avoiding common pitfalls. Some past legislative proposals have linked deregulation in the area of tolling and public-private partnerships with devolution of federal responsibilities in highways and transit back to the states.<sup>87</sup>

Other policy options may arise from work being done by many different groups on surface transportation reauthorization proposals and recommendations. One of the most important is the National Surface Transportation Infrastructure Finance Commission (NSTIFC), a second national commission established in SAFETEA, charged with developing recommendations for Congress on the future federal role in funding surface transportation infrastructure. An interim report was released February 1, 2008,<sup>88</sup> and a final report is expected in 2009. Among other things, NSTIFC is expected to examine and make recommendations on the role that PPPs might play in the future.

<sup>&</sup>lt;sup>85</sup> National Surface Transportation Policy and Revenue Study Commission, 2007, p. 66.

<sup>&</sup>lt;sup>86</sup> Association of State Highway and Transportation Officials, *Revenue Sources to Fund Transportation Needs* (Washington, DC, September 2007), p. 12. [http://www.transportation 1.org/tif4report/TIF4-1.pdf].

<sup>&</sup>lt;sup>87</sup> Utt, Ronald D. "Proposal to Turn the Federal Highway Program Back to States Would Relieve Traffic Congestion," *Heritage Foundation Backgrounder*, No. 1709, November 21, 2003. [http://www.heritage.org/Research/SmartGrowth/upload/52771\_1.pdf].

<sup>&</sup>lt;sup>88</sup> National Surface Transportation Infrastructure Finance Commission, *The Path Forward: Funding and Financing Our Surface Transportation System* (Washington, DC, 2008). [http://financecommission.dot.gov/Documents/Interim%20Report%20-%20The%20Path%20Forward.pdf].

In addition to policy decisions at the federal level, the future role of PPPs will also depend in large measure on decisions at the state and local level. States and localities rely on a wide variety of funding sources other than federal aid, including fuels taxes, other motor-vehicle taxes and fees, sales and property taxes, and general fund appropriations. The ability of states and localities to fund their systems with these revenue sources may determine how far and how fast PPPs are deployed. State and local innovation in PPPs, their successes and failures, and, ultimately, public acceptance also will be key determinants of deployment.

Federal influence on the prevalence and structure of PPPs, to some extent, will be related to the amount of federal funding flowing to state and local governments, an amount that is still largely dependent on the future financial health of the Highway Trust Fund. Declining inflation-adjusted revenues accruing to the trust fund, as a result of trends in fuel consumption and the level of prices in general, may result in a waning of federal influence on how highways and transit systems are built, maintained, and operated and the importance of PPPs. Declining inflation-adjusted revenues to the trust fund are not inevitable, however. The federal fuels tax is subject to change; it has been raised several times in the past. Alternatively, other federal funding mechanisms, such as national infrastructure bonds or even general fund appropriations, may emerge to fund a greater share of federal programs. Consequently, the federal role in shaping PPPs likely will be important for some time to come.