Testimony of Samara Barend, Senior Vice President, AECOM Capital
Before the U.S. Senate Committee on Finance
Hearing on "New Routes for Funding and Financing Highways and Transit"
May 6, 2014

Chairman Wyden, Ranking Member Hatch, and Members of the Committee, it is a pleasure to be with you today. Thank you affording me the opportunity to speak with the Committee.

My name is Sam Barend, and I serve as Senior Vice President and Development Director for AECOM Capital, the investment arm of AECOM, a global engineering and construction firm with 45,000 employees and an investor and leader in public-private partnerships (PPPs). AECOM has participated in over 60% of the U.S. PPP projects delivered to date, such as the Port of Miami Tunnel, the Texas North Tarrant Expressway, and California's (George Deukmejian) Long Beach Courthouse.

Mr. Chairman, the topic you have selected for this hearing is pivotal as Congress considers an upcoming transportation reauthorization bill. I would like to recognize the leadership of your state, Oregon, in spearheading the creation of the West Coast Infrastructure Exchange, an innovative non-profit organization that brings together leaders from California, Oregon, Washington State, and the province of British Colombia to connect private capital from pension funds and other institutional investors with much-needed public infrastructure projects.

I have practically lived and breathed PPPs nonstop for the past 7 years, in roles with both the public and private sectors, so I come before you with considerable passion for this topic and understanding of the significant role the federal government can play in spurring private investment in public infrastructure.

With that said, my goal today is to convey three key messages:

First, we must expand performance-based infrastructure delivery opportunities– such as PPPs. It is essential that we stretch the limited federal and state funds we have to deliver projects faster, cheaper, and with greater long-term accountability. Second, I want to highlight the essential role federal and state funding has played and must continue playing in advancing such PPP projects. And, finally, but perhaps most importantly, we must find a way to level the investment landscape between historically low-cost tax-exempt financing and the higher-cost taxable debt and equity capital to facilitate private sector innovation in PPP projects.

Importance of Performance-Based Infrastructure

Over the past 6 years, the use of performance based PPPs has fast tracked the delivery of 16 projects, worth $18 billion, across seven States[1]. PPPs have played a crucial role in accelerating projects by eliminating the need for full, upfront public funding, leveraging future revenue streams, and eliminating multiple procurements and mobilizations. PPPs also include financial incentives and strong lender oversight to ensure projects are delivered on schedule and under budget. As an example, the Florida I-4 Managed Lanes project will be delivered 20 years sooner than if the state had utilized traditional design-bid-build delivery and tax-exempt financing[2].

In addition to accelerating delivery, PPPs have been particularly important in delivering challenging, complex projects that entail a significant degree of risk and where the potential for cost overruns and schedule delays is high. Unlike a traditional delivery approach, which includes 100% tax exempt debt financing, a PPP requires the private sector to take on substantial risks, such as fixed price and schedule certainty along with guaranteed operations and maintenance performance throughout the project lifecycle. Consequently, by shifting such key

[1] *U.S. Transportation DBFOM Concessions, 1993-2013, Public Works Financing Newsletter, January, 2014.*
[2] *Florida Department of Transportation, Office of the Comptroller.*

risks to the private sector for the duration of the asset's performance life, states are realizing tremendous savings. For instance, the State of Florida saved approximately 50% of its expected costs, or $750 million, by delivering the Port of Miami Tunnel project under a PPP model rather than a traditionally financed and delivered approach[3].

Such savings are largely attributable to the alignment of goals that this performance-based approach achieves between the private developer and investor, and the public owner. In a PPP approach, the private sector is given greater freedom to deliver technical innovations which reduce costs. Additionally, the financial incentives inherent in a PPP project agreement provide the public owner with assurance that the next enormously over budget project will not occur on their watch. And, if a project does exceed budget or incurs schedule delays, the costs of those events are borne by the private sector. Such financial incentives are spelled out through strict performance specifications, are bid upfront, and are locked in place by a developer with its own investment capital at risk. In each of the 16 projects referenced earlier, those performance commitments included a set completion date, guaranteed price, and long-term asset condition benchmarks. If any of these standards are not met, the payments due to the private developer by the public owner is either reduced or not paid.

This sort of public sector hammer, which ensures long-term accountability, is a direct result of private risk-taking and private financing essential to PPP projects. Without the inclusion of such private finance, the ability of the public sector to incentivize long-term performance would be greatly reduced.

Role of Federal/State Funding in PPPs

Private finance can never replace the need for federal and state funding. Rather, it serves as a means of stretching very limited, but essential, public funding into results-oriented projects that achieve earlier completion coupled with enhanced accountability and performance. Each of the 16 projects referred to earlier has included an essential investment of public sector "seed capital" in order to attract private investment. In fact, the most successful projects have combined numerous sources of public and private capital such as – state highway funds, federal TEA-21 dollars, low-cost TIFIA loans, tax-advantaged Private Activity Bonds and private debt and equity. This funding and financing combination creates truly balanced PPPs that yield attractive "value for money" to the public sector.

The combination of such federal funding and financing has been utilized for high-profile new-toll-revenue projects such as Texas' North Tarrant Expressway and Virginia's I-495 Managed Lanes projects, where public investment has been effective in capping required tolls and future toll increases. In addition, there is a new wave of essential projects that have no ability to raise incremental revenue, such as Pennsylvania's new Rapid Bridge Replacement Program where a PPP is being used to replace nearly 600 short span bridges across the Commonwealth. In that case the Pennsylvania Department of Transportation is replacing existing bridges with an average age of over 80 years, with new modern bridges that will be designed and constructed within 42 months. To attract the private investment community, PennDOT is offering a series of "Availability Payments," delivered over the life of the PPP concession, and subject to reductions for insufficient performance by the private sector. Absent an appropriate balance of state and federal funding, many such projects otherwise attractive to both public and private participants, will never leave the drawing board. Clearly, the market has proven its appetite for such performance risk transfer, and daily commuters, commercial interests and state taxpayers are all enjoying the benefits of these projects.

Impact of Tax Exempt Financing on Private Investment

The role of Congress, however, does not end with just providing essential funding for highways and transit networks. Some of you may be among those questioning how the nation might access the deep pools of private capital – upwards of $250 billion according to recent reports – that is "sitting on the sidelines.[4]" Fortunately, this

[3] *Port of Miami Tunnel Availability Pay, New Ground for PPPs, Jeffrey A. Parker Associates, November 2009.*
[4] *The Benefits of Private Investment in Infrastructure, Sphere Consulting, July 2011.*

Committee can make its single greatest impact in moving this money off the sidelines by addressing the current effect of tax exempt financing in crowding out private investment in public infrastructure.

For instance, prior to the initiation of the Private Activity Bond program under SAFETEA-LU , public sponsors considering a PPP were forced to address the inequity of 100% private capital – raised in the taxable debt and equity markets – versus the traditional low-cost tax-exempt financing available for traditionally delivered design-bid-build projects. Despite the value for money and performance advantages of the PPP methods described earlier (cost and schedule certainty, along with long-term risk transfer and life cycle cost benefits), most public officials felt compelled to choose the traditionally delivered, tax-exempt financed, project approach for fear of public backlash. This was the case even in the face of evidence that the significant cost and schedule benefits of PPPs, when weighed over the project lifecycle, can often outstrip the near-term cost of capital advantage of tax-exempt finance.

By authorizing qualified Private Activity Bonds for transportation projects through the Safe, Accountable, Efficient Transportation Equity Act: A Legacy for Users (SAFTEA-LU) legislation in 2005, Congress negated the traditional cost of capital advantage and aligned the incentives of states to undertake an innovative PPP approach for all public transportation projects. A new category of Transportation Exempt Facility Bonds was created which allowed public transportation projects to combine tax exempt financing with private financing, thereby lowering the overall cost of financing for PPP projects.

Unlike other categories of Exempt Facility Bonds, those authorized for surface transportation are for projects used by the public, and are government owned. By enabling the combination of tax-exempt financing with private financing, Exempt Facility Bonds have lowered the overall cost of projects for states and cities in advancing public-private partnership projects. For the federal government, Exempt Facility Bonds for PPP infrastructure projects are appealing because these projects are generally financed with 10-40% private financing, thereby reducing the total amount of tax exempt debt issued, and new revenue is generated from PPP projects from taxes paid by the private sector participants.

Furthermore, evidence has proven that the "multiplier effects" of delivering such projects years earlier than under traditional methods, will provide states with enhanced budget flexibility down the road as regional economic activity increases.

Since 2008, tax-exempt facility bonds have facilitated more than $16 billion in innovative transportation PPP projects in the country. And of note, every U.S. PPP transportation project that has been undertaken has utilized either TIFIA or Exempt Facility Bonds, or a combination of both[5]. Clearly these federal financing tools are key drivers of successful PPPs.

The impact of Exempt Facility Bonds is highlighted by the fact that at least 34 states have PPP enabling legislation for transportation. In comparison, the public building sector (which includes K-12 schools, hospitals and justice facilities, among other areas of "vertical construction") has no ability to utilize Exempt Facility Bonds, and has seen only one project move forward – the (George Deukmejian) Long Beach Courthouse. Many other attempts to advance PPPs for facility projects, such as a $700m state laboratory project in New York and a $400m justice complex in Austin, Texas, have been sidelined, largely due to this cost of financing issue.

The $15-billion pilot surface transportation infrastructure Exempt Facility Bond authorization will soon be exhausted, proving the value of this essential tool in spurring attractive PPPs. If this program expires, the pipeline of PPP transportation projects (currently estimated at nearly $30 billion)[6] will likely not move forward or, if they are advanced, would likely do so through a traditional, but less cost-effective, approach. The

[5] *PPP Project Financing Leverages State Funds, Public Works Financing, April, 2014.*
[6] *Nossaman LLP Projects Database, Public Works Financing, February 2014.*

traditional approach would cost the nation much more in total cost than overall issuance of tax exempt bonds and expose public sector project sponsors to a far greater degree of cost and schedule delay risk. The Senate Finance Committee should propose that this pilot program be expanded by no less than $5 billion per year.

Conclusion

In closing, performance based PPPs have played a critical role in advancing major U.S. transportation projects. Since 2008, eight projects alone have saved over $3.2 billion[7] while generating billions more in economic activity. Time and time again this has proven true across the country in projects such as: the Denver FasTracks project which is stimulating 2,500 jobs and more than $3 billion in economic activity, the Port of Miami Tunnel project which has generated 176,000 jobs and $17 billion in economic output, and the Ohio River Bridges project which is producing 15,000 jobs annually and $87 billion in regional economic impact.

This Committee can continue this trend by ensuring the Exempt Facility Bond authorization for transportation is expanded in the upcoming transportation reauthorization. As part of this legislation, the Committee can also use this this opportunity to enable the creation of a new category of Exempt Facility Bonds for Public Buildings.

Thank you for holding this important hearing and allowing me to testify before you today.

[7] *RTD FasTracks Eagle P3 Project Lessons Learned, August 31, 2011.*
Concession Agreement for I-595 Corridor Roadway Improvement Project between FDOT and I-595 Express, LLC, March 3, 2009.
Port of Miami Tunnel Availability Pay, New Ground for PPPs, Jeffrey A. Parker Associates, November 2009.
Further details on East End Crossing FC, Infrastructure Journal, April 2, 2013 (http://www.ijonline.com/Articles/83849).
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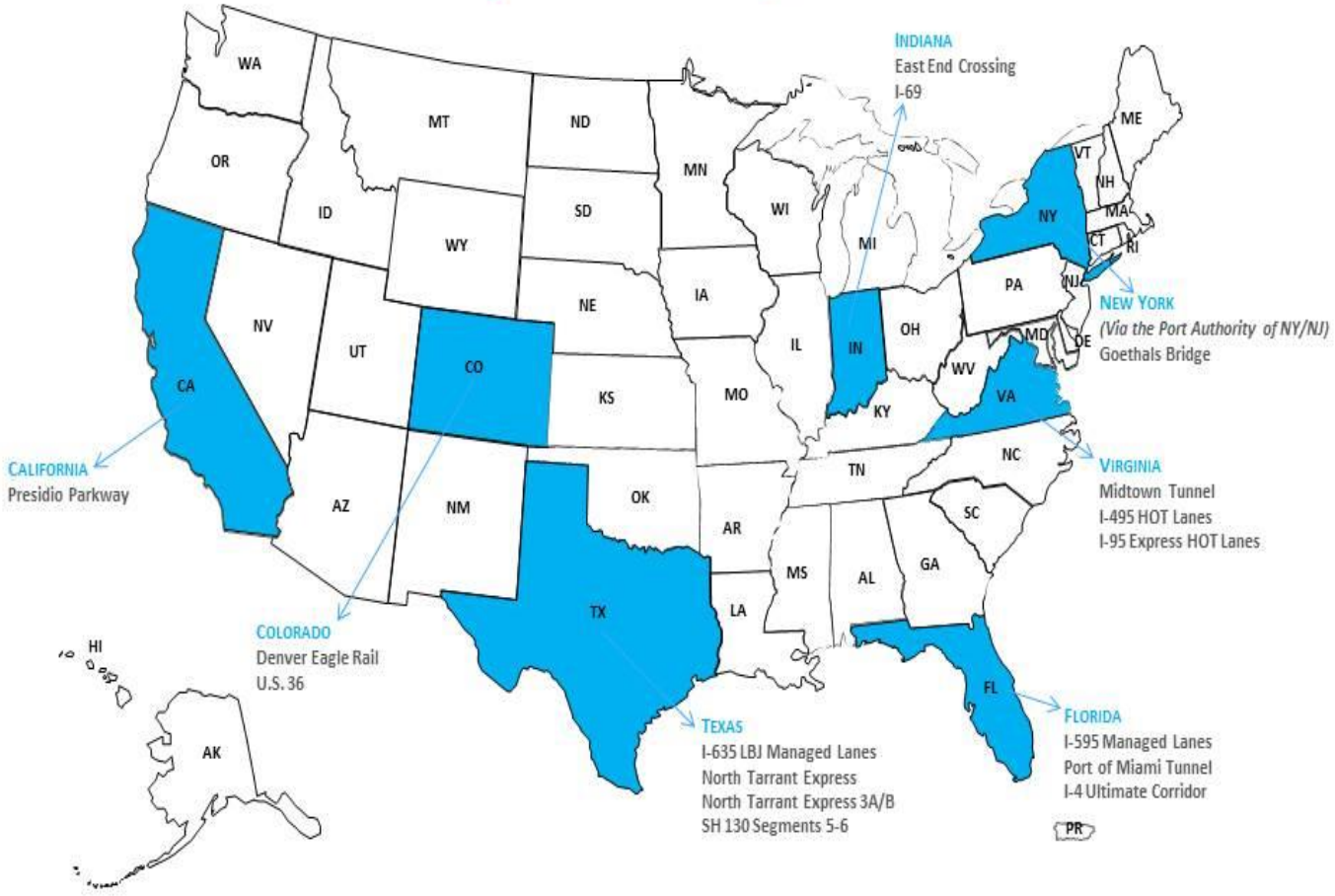
Analysis of Delivery Options for the Presidio Parkway Project, CTC Project Proposal Report Submission, February 2010.
Press Release Article, Port Authority of New York & New Jersey, April 24, 2013 (http://www.panynj.gov/press-room/press-item.cfm?headLine_id=1774).
Financial Analysis and Modeling Overview, Washington Joint Transportation Committee, September 29, 2011 (http://www.leg.wa.gov/JTC/Documents/Studies/P3/Sept29_PWG/WA%20JTC%20-%20PWG%20Workshop%20-%20Financial%20Slides.pdf).

Addendum

The Advantages of PPP Project Delivery vs Traditional Methods

Project	Accelerated Delivery	Cost Savings	Job Creation/Economic Impact	Project Status
Denver FasTracks EAGLE, Colorado	Expected completion date ***11 months earlier*** than under traditional procurement methods.	***$300 million*** (14% below Owner's original estimate)	**More than *1,000 direct jobs and 1,500 indirect jobs*** created during construction, more ***than 300 permanent jobs***, and ***2,573 yearly O&M jobs***. More than ***$3 billion*** will be added into the economy over the next decade.	Commercial & Financial close reached August 2010; ***scheduled to open in 2016***.
I-595, Florida	Provided capacity improvements ***15 years earlier*** than traditional pay-as-you-go funding approach.	***$500 million*** (46% below Owner's original estimate)	Over ***275 local companies*** employed on the project and averaged over ***2,000 employees per month*** working directly on the project. Averaged over ***$17 million*** in monthly construction expenditures"	Commercial & Financial close reached March 2009; ***opened to traffic March 2014***, *and accepted final acceptance by summer 2014.*
Port of Miami Tunnel, Florida	Undetermined – likely would not have moved forward without a PPP approach.	***$750 million*** (50% below Owner's original estimate)	***968 direct employees*** have been hired since the beginning of the tunnel project, ***80% are Miami-Dade County residents***. 6,728 people have worked on the tunnel project indirectly. ***831 companies*** (subs, vendors, suppliers) have done business with the tunnel, ***442 companies are Miami-Dade County*** businesses that have shared in over ***$300 million in local contracts.***	Commercial/Financial close October 2009; expected final ***acceptance by August 2014***.
Ohio River Bridges (East End Crossing), Indiana/ Kentucky	Expected completion ***242 days*** earlier than under traditional procurement methods.	Approximately ***$228 million*** (22.7% below Owner's original estimate)	More than ***15,000 jobs over a 30-year period***. Economic impact of ***$87 billion***.	Commercial close reached December 2012; ***substantial completion expected by October 2016***.
Long Beach Courthouse, California	Completed ***30 months earlier*** than under traditional procurement methods.	***$52 million*** (15% below Owner's original estimate)	***450 construction jobs*** and between ***50 and 100 management positions*** created. Over ***6.1 million*** construction man-hours employed.	Commercial & Financial close reached December 2010; ***occupancy readiness achieved August 2013***.
Goethals Bridge, New York	Expected completion ***6 months earlier*** than under traditional procurement methods.	***$150 million*** (10% below Owner's original estimate)	More than ***2,250 direct construction jobs*** ($224 million in wages). ***$872 million*** in economic activity.	Financial close reached November 2013; ***substantial completion expected in 2018***.

U. S. Transportation Performance Based PPPs Projects From 2008 – 2014 16 Projects worth $18 billion



PPP Project Financing Leverages State Funds (4/14)

	Public Financing ($ millions)		*PPP Project Financing* ($ millions)				
	State/Local*	**TIFIA ****	**PABs**	**Bank Sr. Debt**	**Equity**	**Total**	**Close**
91 Express Lanes, CA (TR)	0	0	0	100	30	130	7/93
Dulles Greenway, VA	0	0	0	298	80	378	9/93
So. Bay Express, CA (TR)	0	140	0	400	160	700	5/03
I-495 Express, VA (TR)	409	589	589	0	350	1,937	7/08
SH 130 seg. 5+6, TX (TR)	0	430	0	686	210	1,326	3/08
I-595, FL (AP)	0	603	0	781	208	1,592	2/09
Port of Miami Tunnel, FL (AP)	100	341	0	342	80	863	10/09
No. Tarrant Express, TX (TR)	573	650	400	0	426	2,049	12/09
LBJ Expressway, TX (TR)	490	850	615	0	672	2,627	6/11
Denver Eagle rail, CO (TR)	1,312!	280	396	0	54	2,042	8/10
Jordan Bridge, VA (TR)	0	0	0	0	120	120	1/12
Midtown Tunnel, VA (TR)	731	422	675	0	272	2,100!!	4/12
Presidio Parkway, CA (AP)	0	60+90º	0	167	45	362	6/12
I-95 HOT Lanes, VA (TR)	83	300	253	0	280	916	12/12
East End Bridge, IN (AP)	392	0	677	0	82	1,151	3/13
No. Tarrant Exp. 3A/B, TX (TR)	0	531	274	0	430	1,235	9/13
Goethals Bridge, NY (TR)	456	474	457	0	113	1,500	11/13
US 36 Managed Lanes, CO (TR)	26	60	20	0	20.6	208	2/14
Total	**$4,572**	**$7,055**	**$4,356**	**$2,774**	**3,632**	**$21,233**	

(TR) Toll revenue risk financing
(AP) Availability payment financing

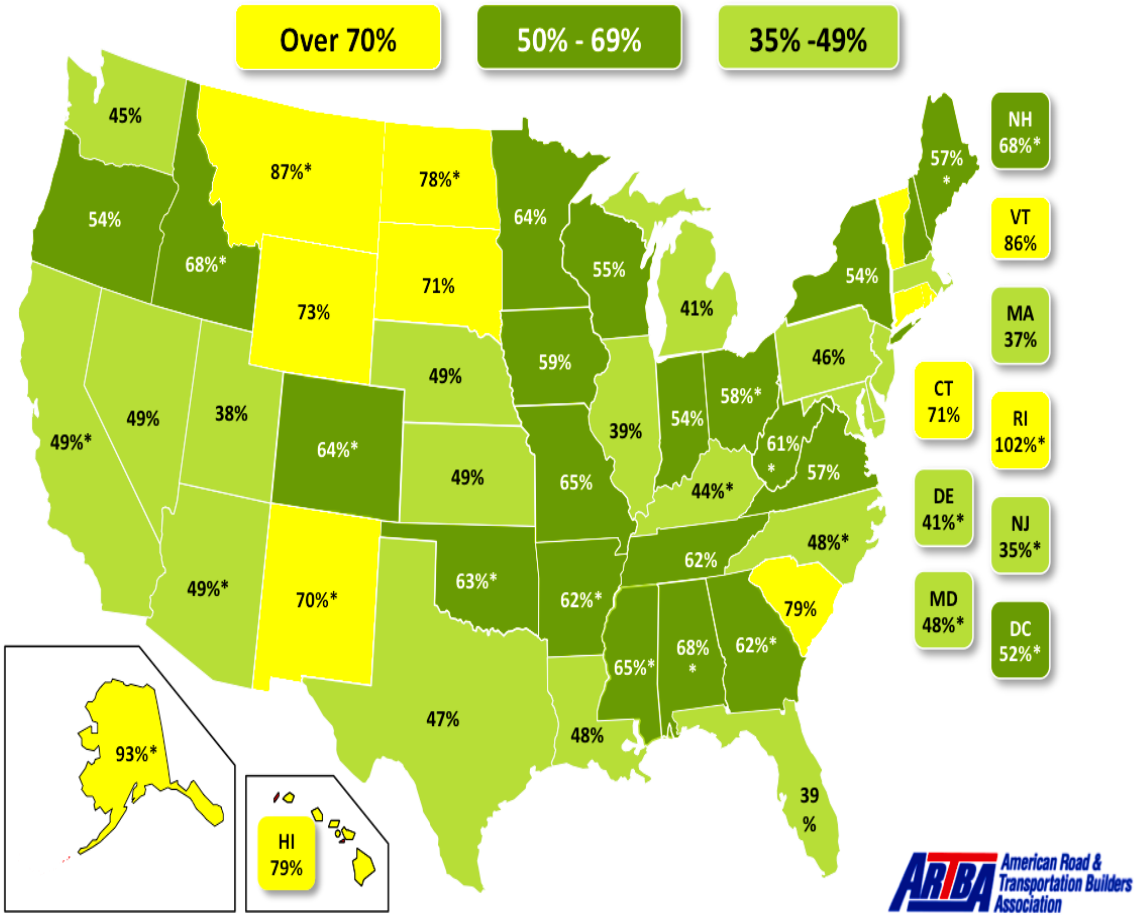
* excludes public development costs

** excludes capitalized interest

! Federal grant (FTA FFGA), sales tax revenue, revenue bond proceeds

Source: *Public Works Financing (*4/14)

Federal fund, on average, provide 52% of annual State DOT capital outlays for highway & bridge projects

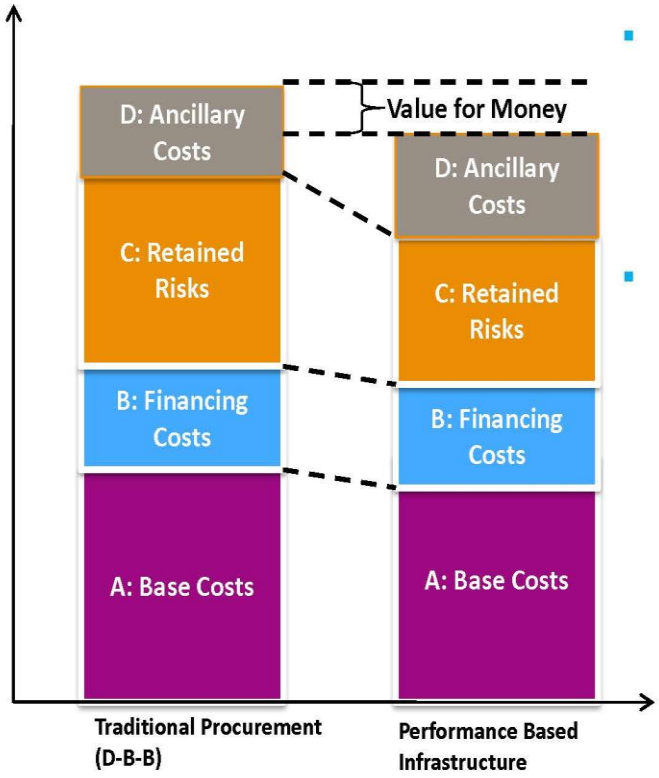


Source: ARTBA analysis of "FHWA Highway Statistics" data, total 10-year average 2001-2011 from Tables SF-1 and SF-2. The percent is the ratio of federal-aid reimbursements to the state and total state capital outlays and is indicative of the importance of the federal-aid program to state capital spending for highways and bridges. Does not include local capital spending. Federal highway reimbursements are primarily used for capital outlays, including construction, right-of-way acquisition and engineering, but are also used for debt service for GARVEE bonds.

* States that have issued GARVEE bonds before 2011.

What is Value for Money?

- An analytical tool to compare project delivery by traditional construction vs. P3 approach
- Includes total project costs including risk of a facility over the contract period
- Normally conducted by an independent firm



- Base Project costs include; construction, operations & life cycle costs
  - Competitive P3 procurement creates a driving force for innovation in construction techniques and operating efficiencies
- Retained Risk costs include additional costs incurred related to omissions in the original delivery strategy

Where is Value for Money Generated?

Drivers of savings:

- Optimal allocation of risks
- Design and construction efficiencies
- Focus on whole life cycle costs
- Integrated planning and design
- Private sector management and control