

Public-Private Partnerships in United States Transportation System Development: Performance Evaluation and Data Disclosure

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Presentation Outline

- Background
 - Surface Transportation: Funding Models for Highways
 - Issues with the Traditional Highway Funding Model
- What are Public –Private Partnerships (P3s)?
- P3s: U.S. State of Affairs – market conditions
- Critical Policy Discussion: how are P3s actually doing?
- Guideline of P3 project information disclosure
- P3 project information disclosure practice: a review
- Databases of P3s
- Empirical studies of P3s performance to date
- Discussion

Surface Transportation: Funding Models for Highways

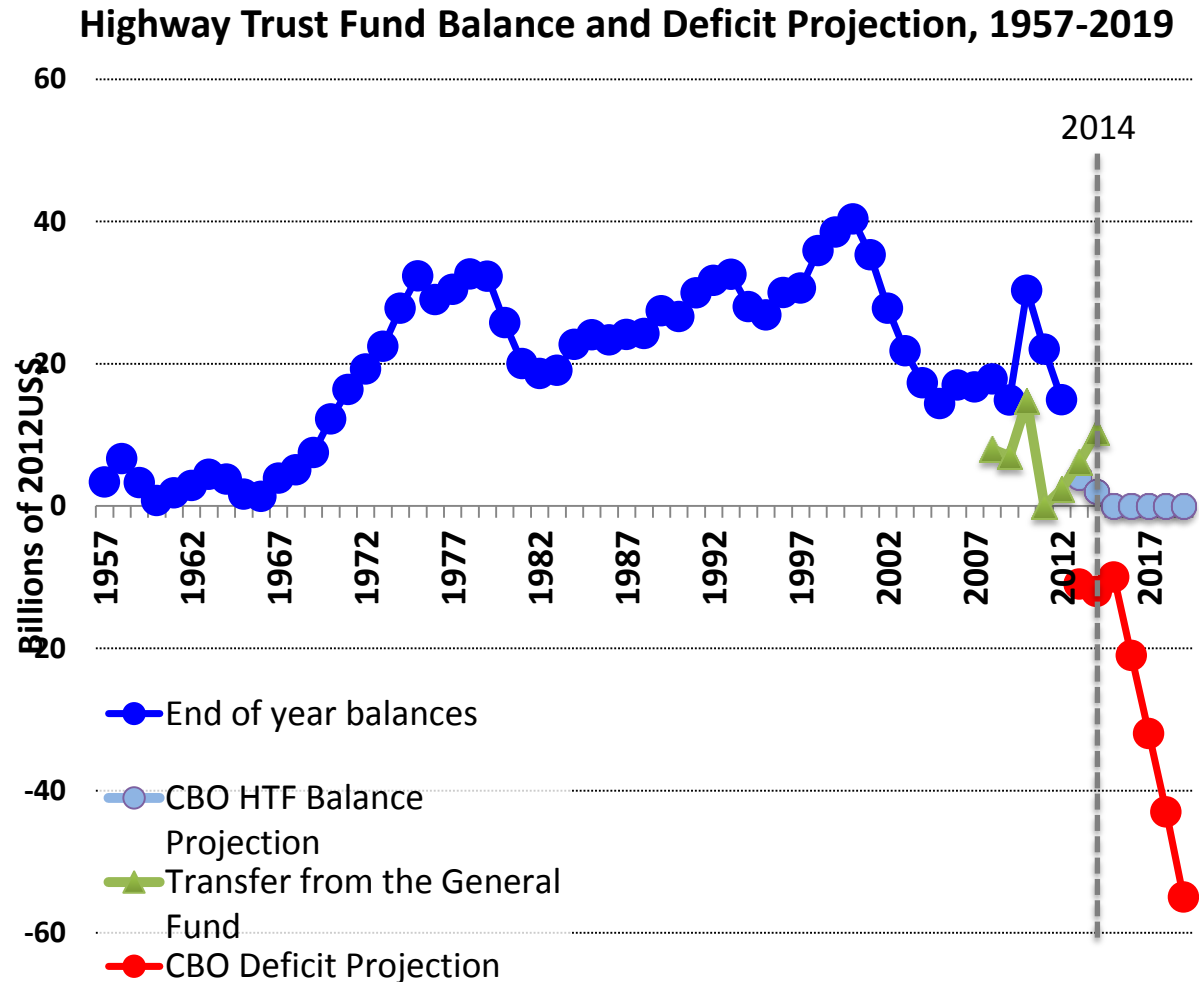
Revenue sources

- User fees
 - Excise tax on gasoline : Highway Trust Fund
 - Federal – US\$0.18/gallon (0.30 RMB/liter)
 - Some states have their own gasoline taxes
 - Car registration fee (state)
 - Tolls (state / project)
- Non-user fees
 - Sales tax, etc. (state)
- Debt-Financing: bond by state and local governments
 - Tax-exempt municipal bonds
 - Various bond products (Private Activity Bond, GARVEE, ARRA, etc.)
- Debt-Financing: loans for state and local governments
 - Transportation Infrastructure Finance and Innovation Act (TIFIA) Loan
 - State Infrastructure Bank Loans
 - Private Loans

Issues with the Traditional Highway Funding Model

Funding Crisis:

- Increasing costs of construction
- Aging infrastructure = increasing costs of maintenance / renewal
- Improving fuel efficiencies (e.g. electric vehicles do not pay a dime for the roads they use)
- Political inability to raise gas tax



Source: <http://www.fhwa.dot.gov/highwaytrustfund/>

Source:

http://www.cbo.gov/sites/default/files/cbofiles/attachments/43884-2014-04_Highway_Trust_Fund.pdf

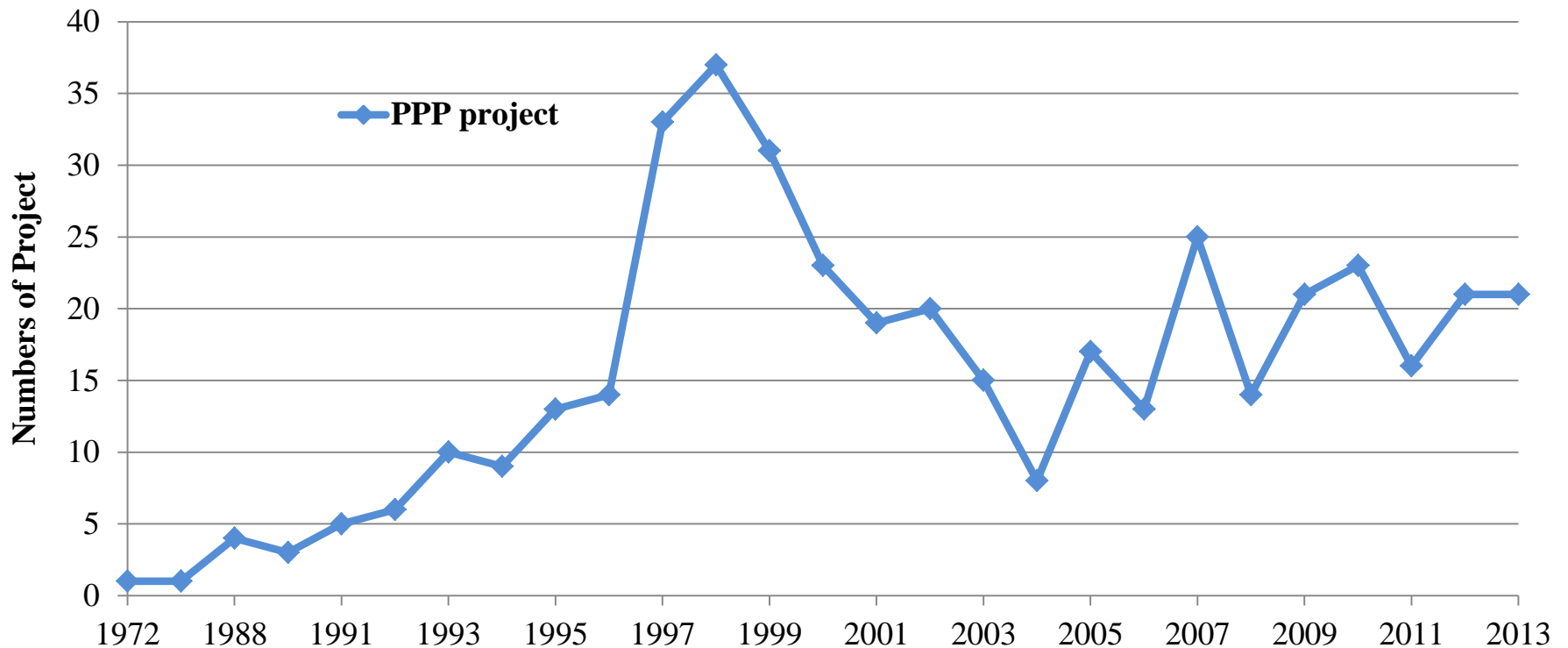
What are Public –Private Partnerships (P3s)?

An emerging procurement model to address issues of public provision model

- P3s: long-term contractual agreement between public and private partners to provide services traditionally done by the governments
- A wide range of P3 contract types have been used
 - Design-Build
 - Design-Build-Finance
 - Design-Build-Operate-Maintain
 - Design-Build-Finance-Operate-Maintain
 - Build-Operate-Transfer
 - Lease, etc.

P3s:US State of Affairs – Market Conditions (Cont)

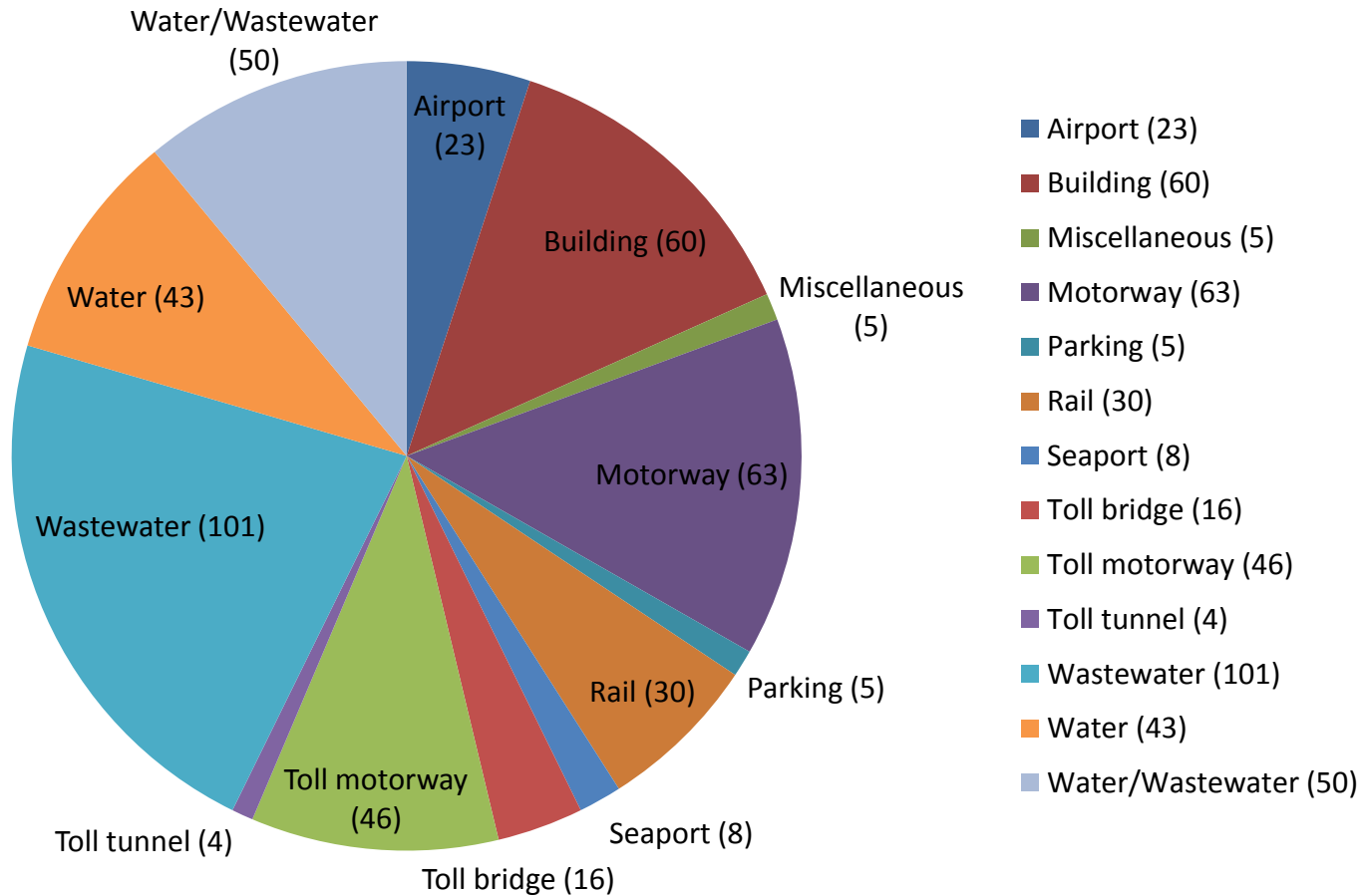
- U.S. Non-Military P3 Projects underway or Completed, 1986 -2013



Source: Public Works Financing

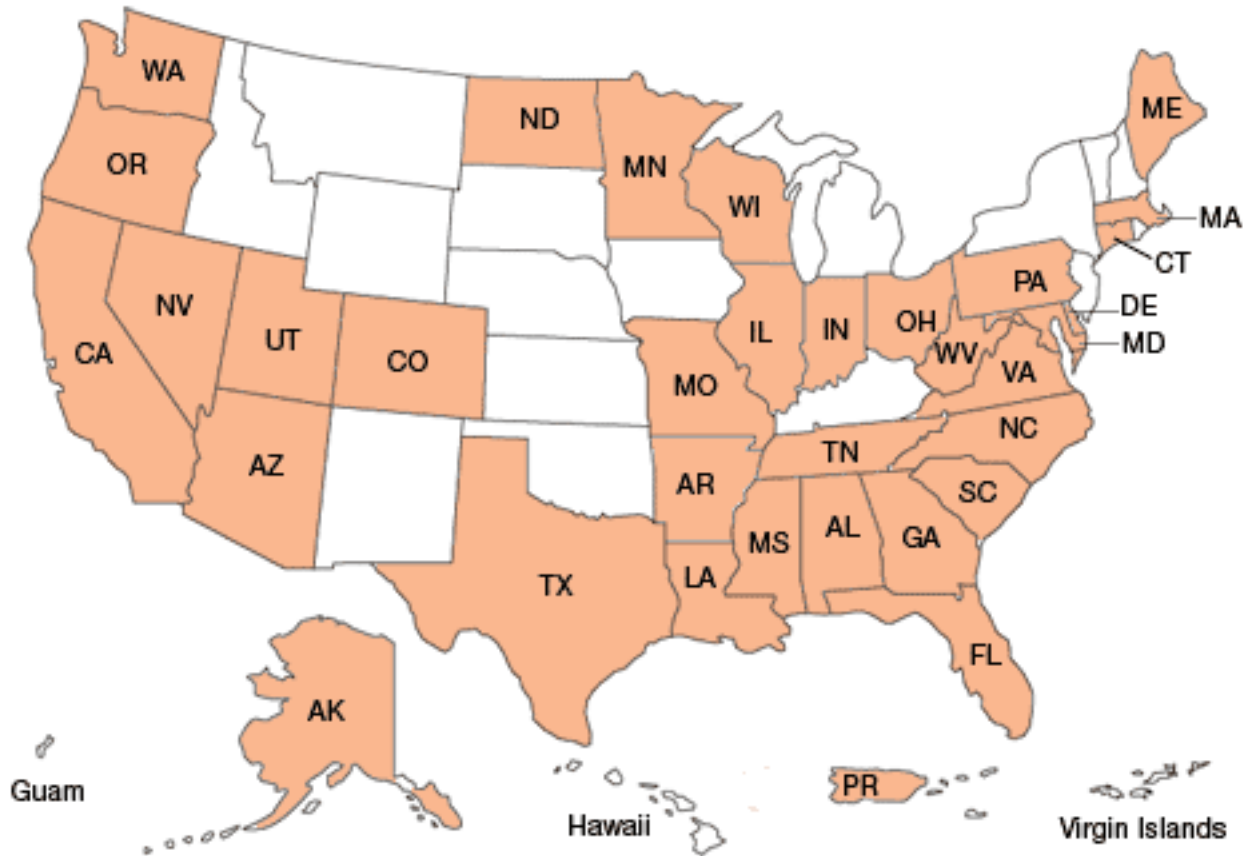
P3s:US State of Affairs – Market Conditions (Cont)

- Types of US P3 projects that reached financial close, 1986-2013



Source: Public Works Financing

P3s:US State of Affairs – Market Conditions (Cont)



*Source: Federal Highway Administration Office of Innovative Program Delivery (retrieved: June 2014)

P3 Example: I495 Capital Beltway Express Lanes Project

- Original HOV Lanes(1994) not approved
 - Excessive costs: \$3.25B
 - Displace 300 residences, 32 commercial properties and 8 public parks
- Fluor Corporation: unsolicited proposal for HOT lanes, less costly design features
 - DBFOM - 75 year concession (\$1.7B)
- Construction (on-time on-budget completion)
 - Construct Express Lanes
 - Rebuild existing 14-mile freeway, over 50 bridges and overpasses, and upgraded 12 key interchanges
- Began operation in November 2012
- Lower than projected demand
 - Traffic in the 1st year of operation remained below expected
 - 38K average workday trips Mar14 Quarter - 36.3% higher than Mar13 Quarter



<http://www.vamegaprojects.com>

P3s: Case Study II – VA SR895 Pocahontas Pkwy

- 8.8-mi highway with a 145'-high bridge
- Concept developed in 1980s but no funding
- An unsolicited proposal for DBOM (Fluor&Morrison Knudsen, 1995)
 - \$354M tax exempt bond
 - \$18M State Infrastructure Bank loan
 - \$9M Federal contribution for design
 - Opened in 2002, traffic and revenue was lower than projected
- Transurban submitted unsolicited proposal in 2004 for a 99-yr lease
 - \$420M Senior bank debt
 - \$55M Subordinated debt
 - \$141M Private equity contribution
 - \$150M TIFIA Loan
- In June 2012, Transurban wrote down the asset value to zero, after severe losses, transferred operation to local agency



Critical Policy Discussions: How are P3s Actually Doing?

Both successes and failures:

- Are they really achieving value for money?
- Failures (e.g. bankruptcy) are more visible than successful continuing operation
- Small number of US P3 concessions have reached maturity
- The baseline case to be compared against P3s not clear
 - Increasing use of Performance Based Contract, etc.
- Comprehensive analysis is difficult : US P3 market highly fragmented
 - Diverse legal & policy Institutions across 50 states

Readiness for Successful P3 Implementation

Factors for successful P3s (OECD Action Points)

- A credible pipeline of robust projects
- A legal and regulatory framework that commands confidence
- A capable public interface with the private operator
- Political will to use private sector operators
- Strong investor protection
- Project assessment and appraisal norms that focus on value for money
- Transparent budgeting practice to minimize sovereign fiscal risk

→ *Disclosure of project information is a critical component*

Disclosure of P3 Project Data

World Bank Practice Recommendation:

- Objective: to ensure that the public is informed regarding:
 - Scope and requirement for the service to be provided via P3
 - Procurement process
 - Government's financial commitment (subsidy, risk-bearing, etc.)
- Elements of proactive disclosure
 - P3 contract (original and any revisions)
 - Future government payment stream (availability payment etc.)
 - A plain language summary of P3 contract, disclosing:
 - *Compensation events
 - *Risk allocation
 - Regular reporting of project performance:
 - *Demand projection, actual revenues, etc.
 - A process by which information is validated (e.g., subject to audit)

Disclosure of P3 Project Information: Global Practices

United States – Virginia

Contract documents:

- All project related documents available on the P3 Office Website

Contract summary:

- Published online, with presentations and hand-outs at community outreach events

Reports:

- Private operator publishes performance reports for investors

Financial information:

- Available on the P3 Office Website
- Prospectus/trade record of project bonds available online

Disclosure of P3 Project Information: Global Practices

Brazil

Contract documents:

- Government's P3 unit website has full versions of P3 contracts

Contract summary:

- A web-based database on project basic info, description, rules of government payments, performance indicators

Reports:

- Expected and actual performance disclosed as reports

Financial information:

- Payments to private partner, risk analysis, and any government guarantees proactively disclosed on the website

Disclosure of P3 Project Information: Global Practices

South Africa

Contract documents:

- Contracts and their revisions are available upon request

Contract summary:

- No summaries are provided

Performance reports:

- A few case studies of healthcare P3s have been proactively disclosed
- Reports from P3 operators are available upon request.
- Audit reports must be made public.

Financial Information

- Contracted capital contributions contracts, which are available upon request
- Actual disbursements not actively reported
- Risk allocation matrix not disclosed

Selected List of Available Databases of P3 Projects

Name	Types	Scope	Observations	Sector
Public Works Financing Major Project Database	P3s and DB	Global	3,816	*1
Infra-Deals PPP Project Database	P3s	Global	7,000+	*2
World Bank Private Participation in Infrastructure Database	P3s (incl. concessions and leases)	150 Developing countries	3,800+	*3
United Kingdom HM Treasury	PFI	U.K.	718	*4
US Federal Highway Administration Project Profiles	Innovative Financing	U.S.	83	Transportation
European Investment Bank	EIB supported projects	E.U.	165	*5
U.S. Municipal Securities Rulemaking Board Electronic Municipal Market Access	Municipal bonds	U.S.	N/A/	*6

*1 transportation, buildings, water, wastewater, etc.

*2 environment, power, renewables, social, and transport

*3 transport, energy, telecommunications, water and waste water

*4 schools, IT, waste, police, library, hospital, service centers, social care, housing, and transport

*5 transport, education, water/sewage, health, energy, waste, and services

*6 Projects of any sectors for which municipal securities are issued

Empirical Analysis of P3s, A Selected Review

- Empirical performance measurement of P3s has not been substantive, due to data limitation (Hodge, 2010)
- Cost and Schedule Overruns
 - Comparison of 21 P3s and 33 traditionally procured infrastructure projects in Australia:
 - P3s demonstrated smaller overruns (Raisbeck et al., 2010)
 - Comparison of U.S. 12 completed P3 highway projects and equivalent figures of traditional projects in literature:
 - P3s - 0.81% cost and -0.3% schedule overruns
 - Traditionally procured projects – 1.49% cost and 11.04% schedule overruns (Chasey et al., 2013)

Empirical Analysis of P3s, A Global Review

- Construction cost differences (risk premiums, engineering specifications, etc.)
 - 57 P3 and 170 traditionally procured road projects in EU – P3s demonstrated 24% higher construction costs (Blanc-Brude, 2013)
 - Cost differences may also be due to the potential for changes in project scope, due to cost measurements at different points in project life (Makovšek, 2013)

Discussion

- Transportation infrastructure funding policy face structural issues
- Public-Private Partnerships seen as a way to overcome funding shortage and continue to invest in vitally needed infrastructure
- Transparency and project information disclosure are key to successful implementation of P3s and private investment
 - Program delivery and life cycle cost savings - less recognized
- States practice regarding information disclosure varies
- Data regarding P3 project performance limited:
 - Commercially sensitive information
 - P3 is new: project contract term not completed
- Performance evaluation literature is emerging
- Continuing research and education on the risks and benefits of P3s important

Center for Transportation Public-Private Partnership Policy at George Mason University School of Public Policy

- Conducting P3 Case Studies
- White Papers
 - Research & policy issues white paper
 - Best practices white paper
- Co-sponsoring National Conference on P3s
- On-going research projects
 - Data on Public Private Partnership Projects
 - Renegotiation of Transportation P3s
 - Regional and Multijurisdictional P3s
 - Parking P3s: A Case Study of WMATA Silver Line Parking Structure
 - Transit P3s: A Case Study of Purple Line, Maryland, USA
- Graduate level courses on P3s
- Conference Participation & Outreach Activities

Center for Transportation Public-Private Partnership Policy at George Mason University School of Public Policy

For more information:

Visit us at: p3policy.gmu.edu

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