

# Transportation Public-Private Partnership Policy

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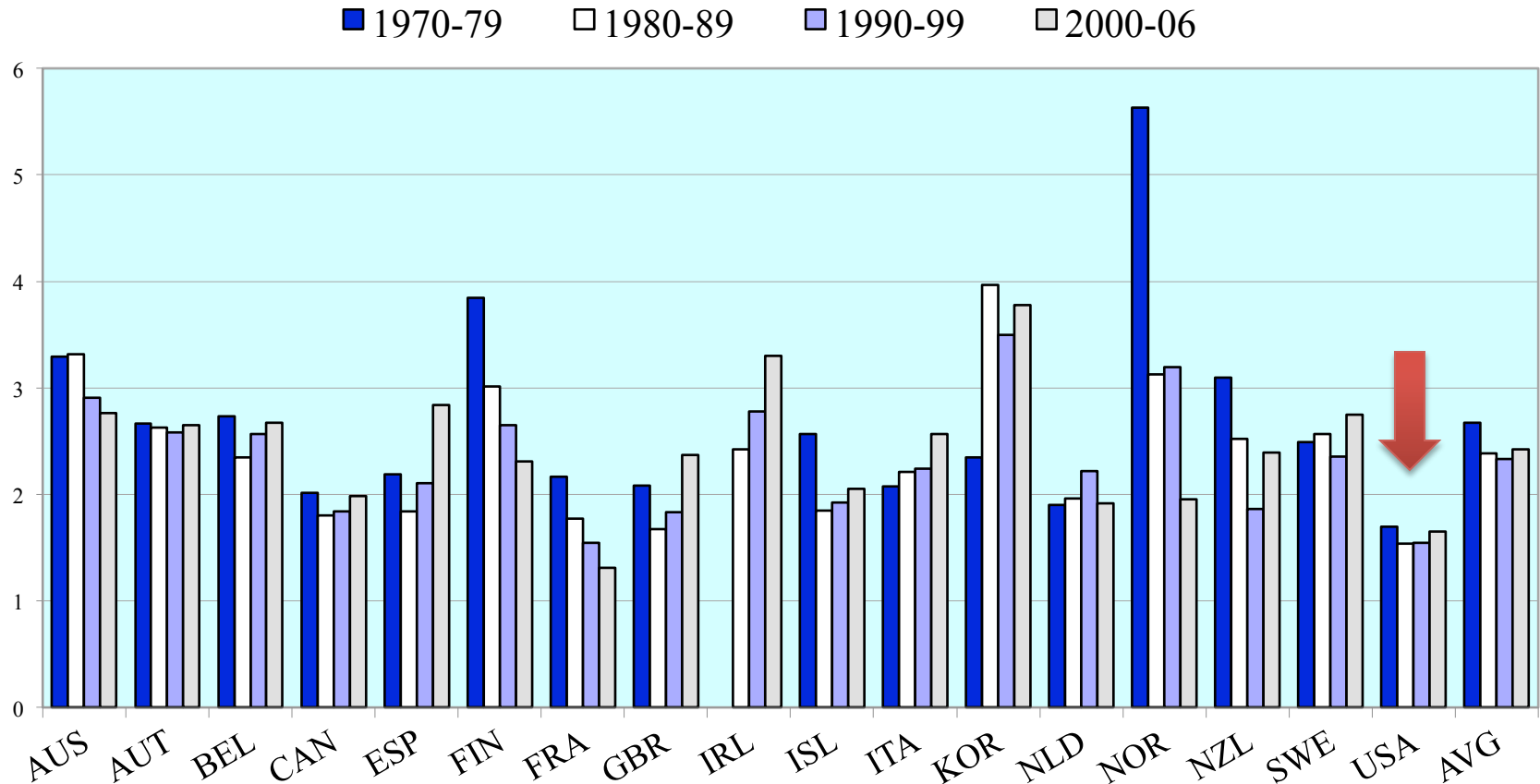
# Outline

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- Background on U.S. Transportation Finance
  - U.S. transportation finance
  - Limitation of traditional approaches
  - Description of P3s in the U.S.
- State of P3s in Virginia
  - VA PPTA
  - OTP3
  - Project showcase
- Research Activities on P3 Policy at GMU
  - Case Studies
  - White Papers
- Direction for the Future
  - Executive / Staff Training Program
  - On-going research

# Background: U.S. Transportation Finance

Transport and communications investment as a percentage of GDP, OECD nations



Organisation for Economic Co-operation and Development. (2009). *Economic Policy Reforms 2009: Going for Growth*. Paris. Retrieved from <http://public.eblib.com/EBLPublic/PublicView.do?ptID=432534>

# Background: Funding Models for Highways

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## - User fees

- Excise tax on gasoline : Highway Trust Fund
- Federal – 18.3 cents/gallon
- Some states have their own gasoline taxes
  - Georgia: 29.1 cents/gal (increase of 0.6 cents)
  - Virginia (May 2013) gas tax reform: 3.5% sales tax on the wholesale price of gasoline, 6% on diesel fuel; \$64 alternative fuel vehicle fee, and locality specific additional 0.7% local sales tax, etc.
- Car registration fee (state)
- Tolls (state / project)

## - Non-user fees

- Sales tax, etc. (state, local)

## - Debt-Financing: Bond by state and local governments

- Tax-exempt municipal bonds
- Various bond products (Private Activity Bond, GARVEE, etc.)

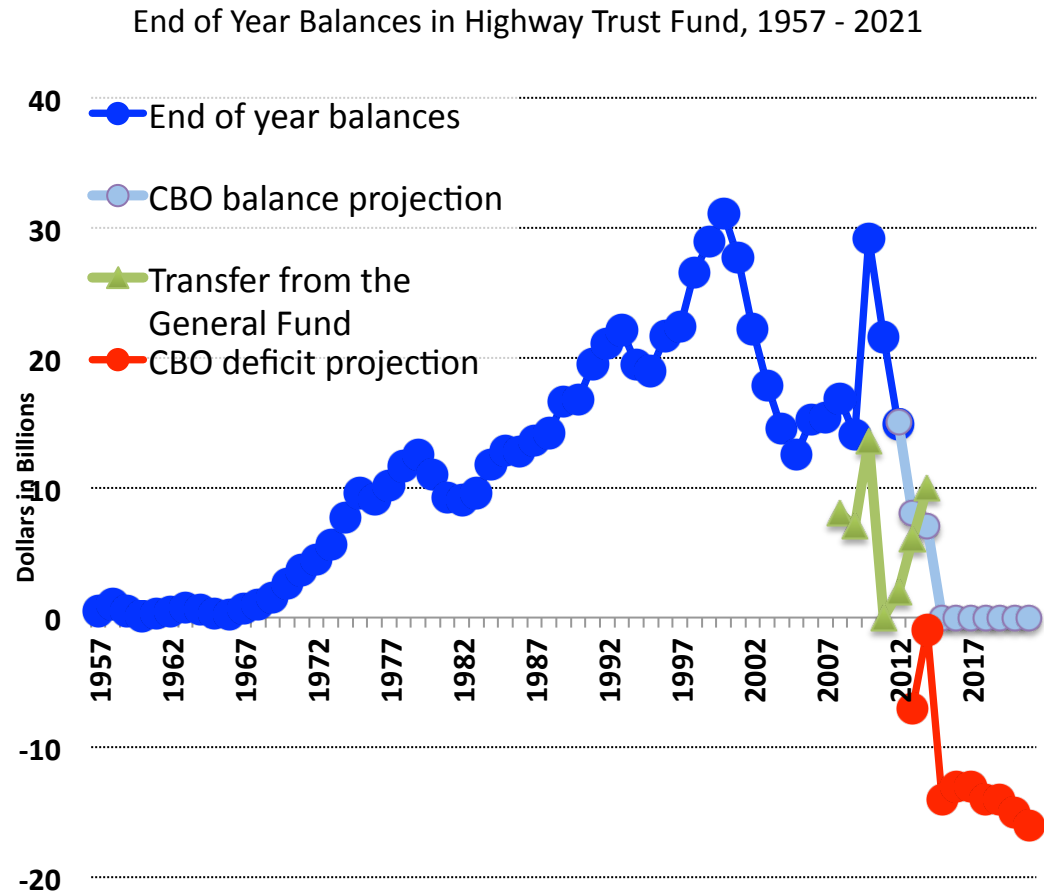
## - Debt-Financing: Loans for state and local governments

- Transportation Infrastructure Finance and Innovation Act (TIFIA) loan
- State Infrastructure Bank loans
- Private loans

Source: Tax Foundation (Jan 2013). Institute on Taxation and Economic Policy (June 2013)

# Background: Issues with the Traditional Funding Model

- Funding Crisis:
  - Increasing costs of construction
  - Declining purchasing power of 18.3 cents/gal federal gas tax
  - Aging infrastructure = increasing costs of maintenance / renewal
  - Improving fuel efficiency (e.g. electric vehicles do not pay fuel tax)
  - Political inability to raise gas tax



Note: CBO projections published in 2013

# Background: Public-Private Partnerships (P3s or PPPs)

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## **An emerging procurement mechanism 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
  - Bundling of project delivery stages
  - Allocation of some project risks to the private partner
- A wide range of P3 contract types have been used
  - Design-Build
  - Design-Build-Operate-Maintain
  - Design-Build-Finance-Operate-Maintain
  - Lease, etc.

# Background: P3s Advantages & Disadvantages

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## - Advantages

- **Utilization of private financial resources**
- **Explicit incentives** to be on-budget, on-time delivery
- Cost saving through innovative practices of the private sector

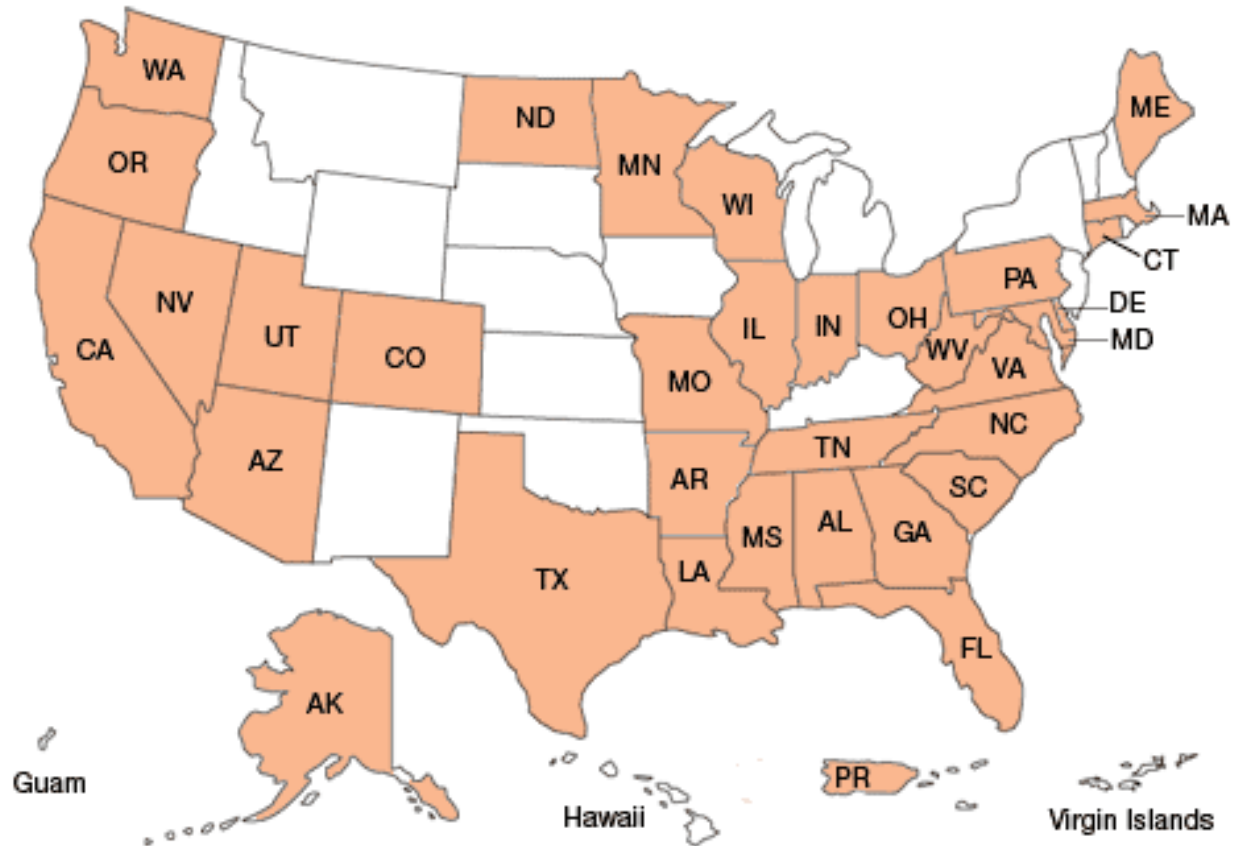
Midtown Tunnel Lawsuit ?

## - Disadvantages

- Substantial transaction costs (e.g. legal, financial and technical consulting service fee, higher interest costs in cases of private debt-financing)
- **Potential stakeholder opposition to private sector involvement**
- Complexity makes the projects more prone to risks

# P3s: State Initiatives

## States with P3 Legislation (March 2013)



Source: Federal Highway Administration Office of Innovative Project Delivery (March 2013)



## P3s: State Initiatives

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### **Some states have aggressively used P3 arrangements for key infrastructure**

- Leading states with established institutions and experiences:
  - Virginia
  - Florida
  - Texas

### **Other states are emerging in the U.S. P3 markets**

- States that recently passed P3 enabling legislation
  - Maryland
  - Pennsylvania

# P3s: State Initiatives

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## Georgia's experience with P3s

- P3 legislation (2003):
  - Unsolicited proposals for Public Private Initiative (PPI) allowed
  - Submitted unsolicited proposals: GA-316, GA-400, I-285, I-75/I-575
  - Only I-75/I-575 (Northwest Corridor) advanced, then the program was terminated
- P3 legislation (2009):
  - Public Private Partnership Program established within GDOT
  - Only solicited proposals allowed to maintain control of project identification, selection, procurement and construction
- On-going P3 projects in GA:
  - I-75 Northwest Corridor Managed Lanes (best values proposer selected, financial negotiations underway)
  - Multimodal Passenger Terminal in metro-Atlanta (being solicited)
  - Rest Area (beginning stage)

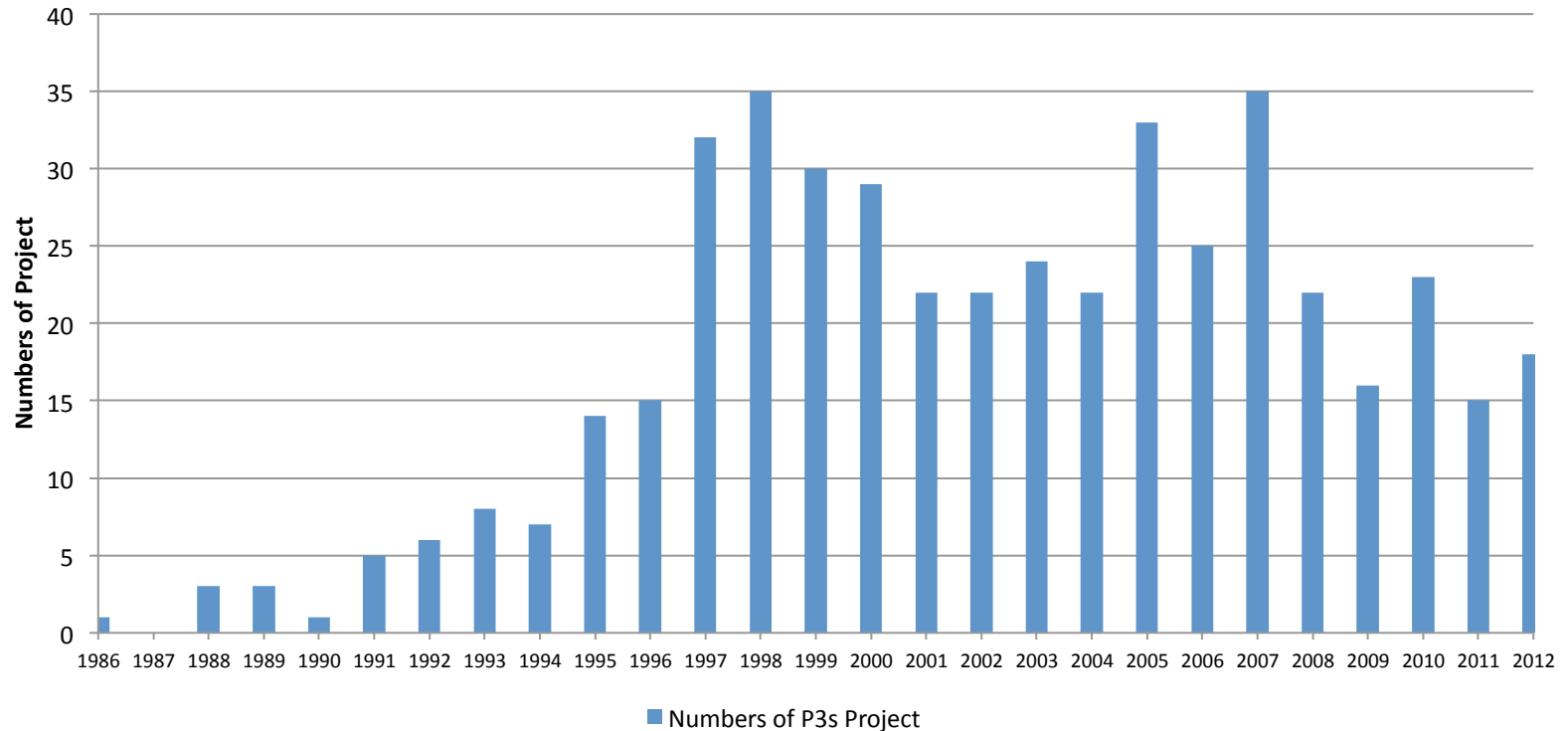
# P3s: State of U.S. P3s Market

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- Early deals: up-front payment with revenue risk
  - Chicago Skyway
  - Indiana Toll Road
- Some (big) failures
  - South Bay Expressway (California)
  - Pocahontas Parkway (Virginia)
- Emerging appeal of availability payment model
  - For roads without tolls or when revenues are expected to be inadequate
  - Public agency pays private sector after achieving certain milestones
  - It takes away the benefits and costs of private sector financing

# P3s: State and Local Initiatives

## Number of P3 Projects Reaching Financial Close in the U.S., 1986 -2012

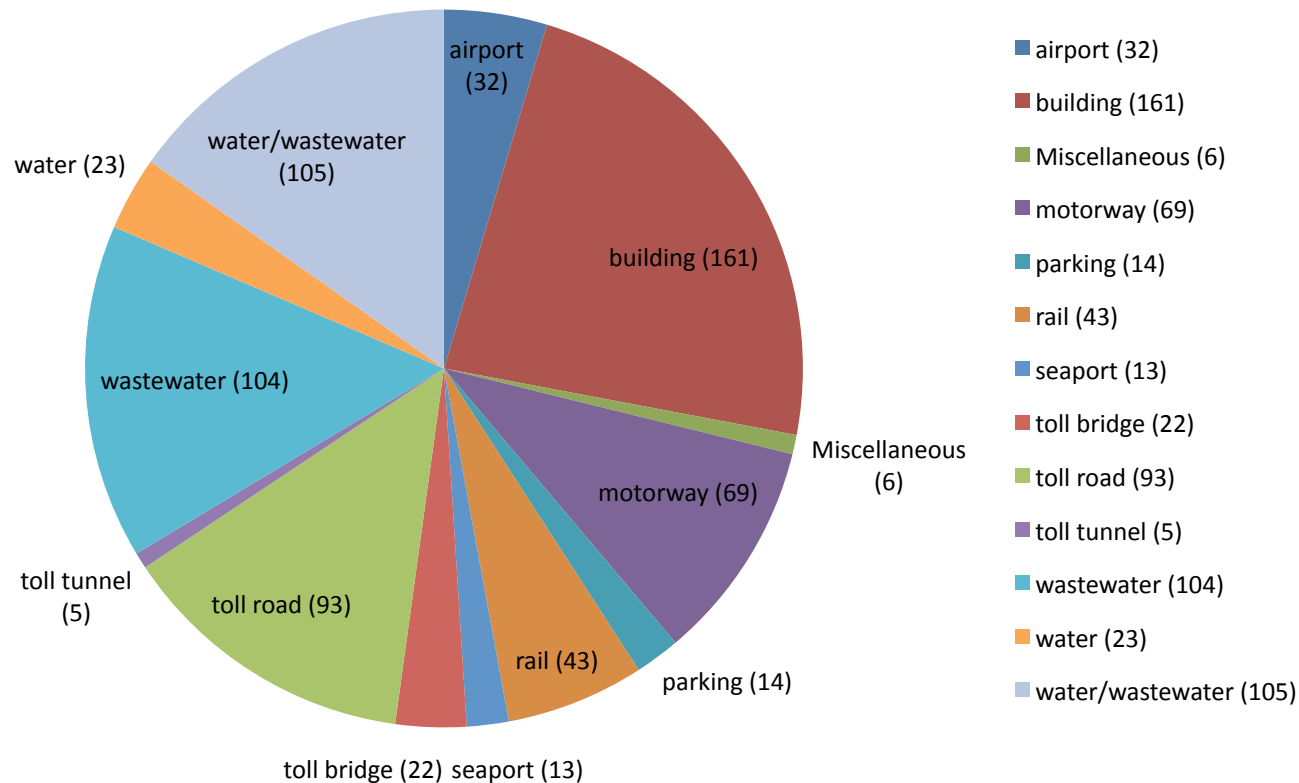


Note: includes transportation, water and sewer, school, prison and other non-military buildings.

Source: Public Works Financing and U.S. Department of Treasury, Bureau of Public Debt

# P3s: State Initiatives

- P3 arrangements are used for various types of infrastructure systems
- Types of US P3 projects that reached financial closure, 1986-2012



Note: including both proposed P3s , completed P3s and P3s under construction.

Source: Public Works Financing

# Virginia & P3s: VA PPTA

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- VA legislation on P3s (1995)
  - Authorizes private sector to BMO qualifying transportation facilities
  - Agreement with State and Local Govs
- Important financial impact
  - Around 20% of the funding comes from the State for: the 495 Express Lanes (northern Virginia), the Midtown Tunnel-Downtown Tunnel-MLK Expressway (Norfolk), and the I-95 Express Lanes (northern Virginia)

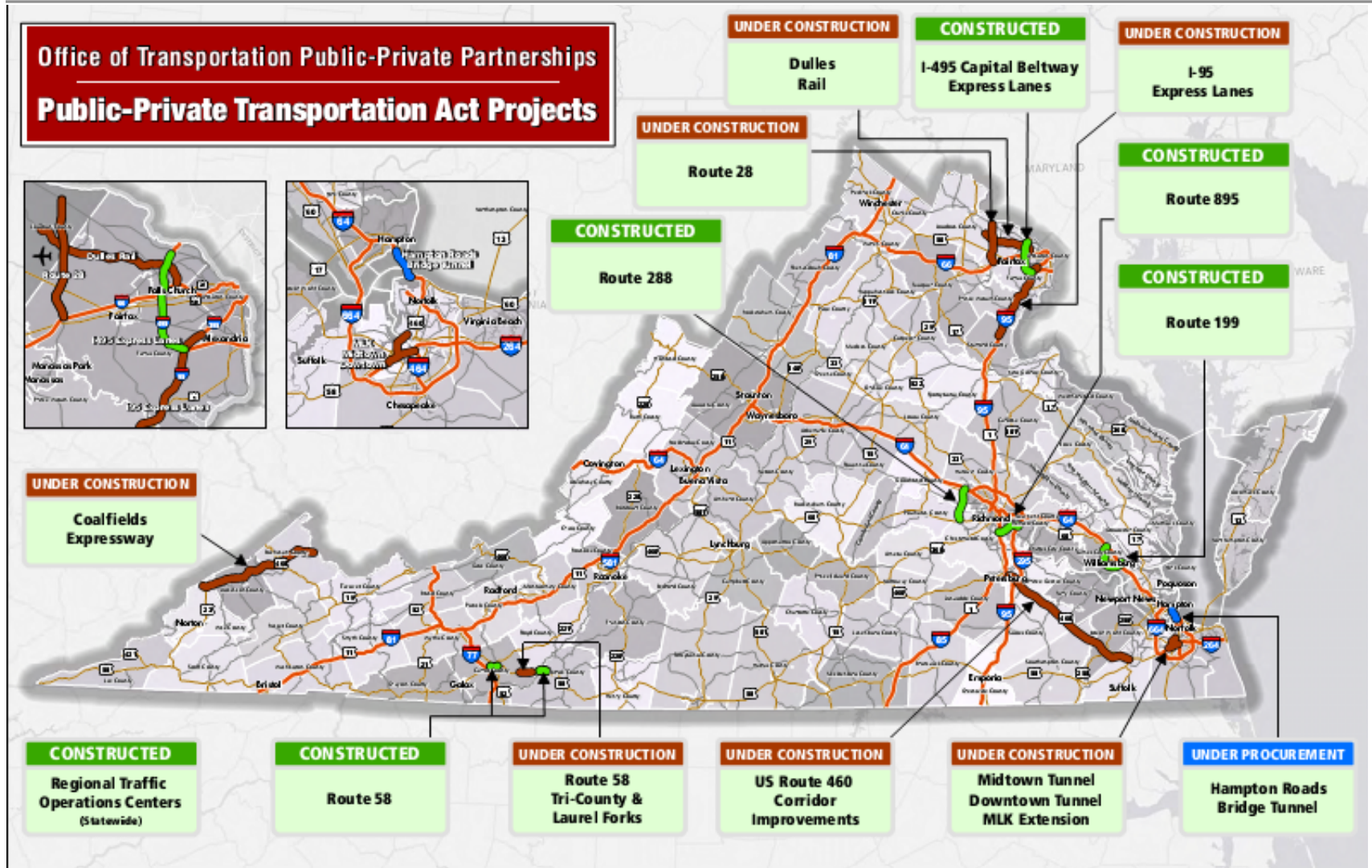
# Virginia & P3s: VA OTP3

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- Virginia Office of Transportation Public-Private Partnerships (OTP3)
  - Facilitate timely delivery of PPTA projects, within established laws and regulations
  - Develop multimodal and intermodal solutions consistent with state, regional and local transportation policies, plans and programs
  - Encourage competition for innovation and private sector investment creating value-for-money for the commonwealth
  - Promote transparency, accountability, informed and timely decision making
  - Achieve lifecycle cost efficiencies through appropriate risk transfer
- Independent office – reports directly to the Secretary
- \$6 billion in last 2 years

Source: OTP3

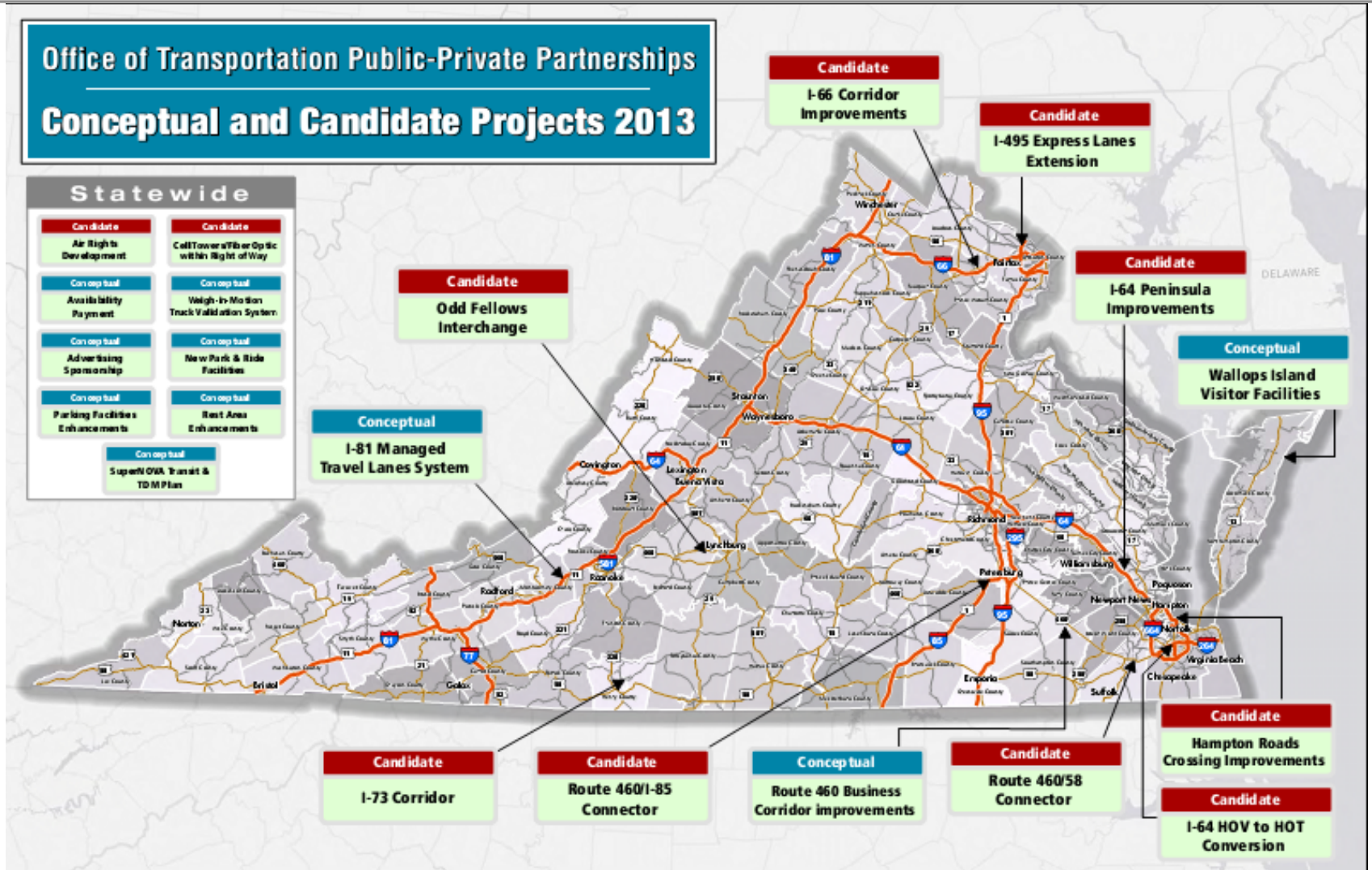
# Virginia & P3s: OTP3 Projects



Source: OTP3



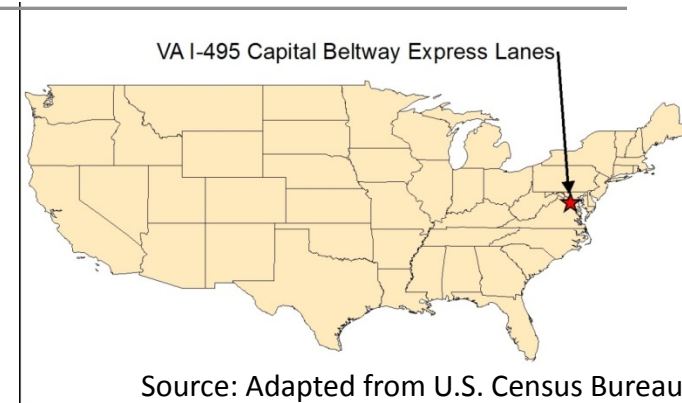
# Virginia & P3s: VA OTP3 Portfolio



Source: OTP3

# Virginia P3s: 495 Express Lanes Project

- Original concept not approved (1994)
  - Excessive Costs: \$2.68-3.25B
  - 170 acres (70 hectares) of right of way
  - 300 homes displaced
  - 32 commercial properties displaced
  - 8 public parks disturbed
- Unsolicited proposal by Fluor Corp. (2002)
- Design-Build-Finance-Operate-Maintain
- HOT lanes, less costly design features (no homes displaced)
- 14 mile (22.5km) stretch of Express Lanes for \$1.7B total cost, 75-year concession
- Construction
  - Construct 14 miles (22.5km) of express lanes
  - Rebuild existing 14-mile (22.5km) freeway, rebuild +50 bridges, upgraded 12 key interchanges
- Completed on-time, on-budget, and began operation in November 2012
- Currently an extension, I-95 Express Lanes, is under construction

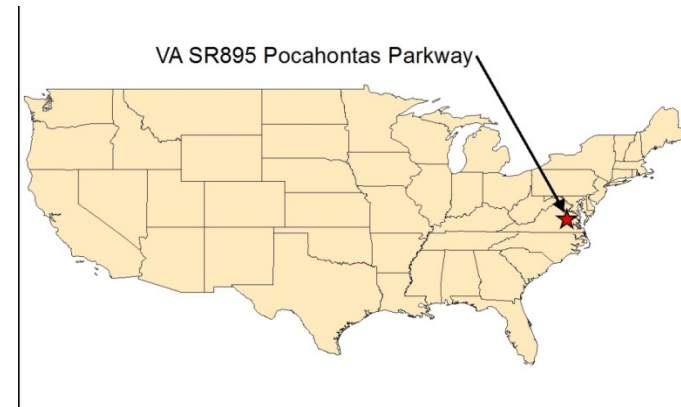


495 Express Lanes	2013 1 <sup>st</sup> Quarter	Note
Ave. Daily Toll Revenue	\$27,499	Grew from \$18,408 in Dec.2012
Ave. Daily Trips	21,008	Grew 13% from Dec.2012
Ave. Workday Trips	26,294	

Source: [222.495expresslanes.com/feature/1083](http://222.495expresslanes.com/feature/1083)

# Virginia P3s: VA SR895 Pocahontas Pkwy

- Concept developed in 1980s but no funding
- Pocahontas Parkway Association, a 63-20 (non-profit) project company in 1998
  - 8.8-mile (14km) highway
  - A bridge with 145' (44m) clearance
- Original project funding sources:
  - \$18M State Infrastructure Bank loan
  - \$354M tax exempt bond issued by PPA
  - \$9M Federal funds for design
- Opened in 2002, but traffic and revenue lower than projected
- Transurban acquired the right of a 99-year lease, in 2006
  - Total funding of \$611M:
    - \$420M Bank debt
    - \$55M Subordinated debt
    - \$141M Equity contribution
    - \$140M TIFIA loan
- In June 2012, Transurban wrote down the asset value to zero
  - Transfer is expected to go to the lenders, a consortium of European banks, fall 2013
  - Richmond Metropolitan Authority considering bid to operate



Source: Adapted from U.S. Census Bureau

# Virginia P3s: I66 Air-rights

- Interstate 66 right of way
- RFI closed last September
  - Most attractive site
  - Cost of platform
  - Public subsidy
  - Key risks
- 70,000 sq ft to develop, but additional area available depending on private sector interest



Pink – Study site identified by OTP3    Green – other potential Air Rights over I-66 held by VDOT

Source: OTP3

# Virginia P3s: Port of Virginia PPP Proposal

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- Public Owner:
  - Virginia Port Authority
- Private Operator:
  - Virginia International Terminals, Inc. (VIT)
- An unsolicited proposal of PPP submitted (May 2012)
  - Initial bid: APM Terminals Americas
  - Competitive bids: Carlyle (later withdrew); RREEF/JPMorgan, and; VIT (Incumbent)
- Rule: VPA Board would decide (October 2012)
- The VPA Board rejected the P3 proposal, and to reform the incumbent operator(March 26, 2013)





# Virginia P3s: Midtown Tunnel Lawsuit

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- Citizens Against Unfair Tolls vs VDOT
  - Circuit Court Judge agreed in May with main argument: tolls are taxes
  - A \$2.1 billion P3 was declared unconstitutional
  - Stops tolls in Downtown and Midtown tunnels
  - Stops MLK Jr Expressway in Portsmouth
- Supreme Court of Virginia took the case this past September
  - Ruling is expected by the end of this year
- This case can jeopardize other P3s and tolls in VA and potentially across the US
  - \$3.5 billion needed for existing projects will need to come from other sources
  - Credit ratings – due to existing projects
  - New infrastructure – due to lack of funds

# CTP3P: Center for Transportation Public-Private Partnership Policy

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- Goal: to advance objective consideration of public-private partnerships in transportation system renewal and development through research, education and public service
- Activities
  - Documenting case studies of PPP projects across various transportation modes
  - Developing best practice guides for assessing the appropriateness of PPPs for a state or local government
  - Developing analytical tools and frameworks for assessing the financial viability of PPPs
  - Conducting comparative studies
  - Conducting policy analyses of transportation PPPs to identify key ingredients for successful PPPs
  - Providing graduate and executive education on transportation PPPs
  - Sponsoring workshops and conferences to convene experts, decision makers and practitioners to share knowledge on PPPs and to articulate research and policy agendas.

# CTP3P: Research

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- Case Studies of US P3 Projects
  - 495 Express Lanes
  - South Bay Expressway
  - Miami Port Tunnel
  - Las Vegas Monorail
- White Papers
  - Research Needs
  - Best Practices
- Manuscripts for peer-reviewed journals
  - P3s from the view of existing economic theories
  - Financial involvement of the private sector in P3 projects



# CTP3P: Conferences

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- Co-sponsoring National Research Conference on P3s
  - In partnership with the 25th Annual American Road & Transportation Builders P3 Conference, July 24-26, Washington, D.C.
- Conference Presentations
  - November 2012 North American Regional Science Association Conference(Spatial Analysis of P3)
  - January 2013 Transportation Research Board Conference (Research Needs)
  - May 2013 – International Transport Forum (Leipzig)
  - June 2013 Innovative Public Finance Conference (Milan)
  - July 2013 World Conference on Transport Research (Rio)
  - November 2013 Global Challenges in P3s (Antwerp) [US States' Use of P3s]
  - November 2013 Association for Public Policy Analysis & Management Conference (panel discussion)

# Future: Training Program & Future Research

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- **Training Program:**
  - Provide state and local agency staff with tools to adequately assess P3 convenience for transportation projects and move forward
  - Preparing a draft proposal based on supply assessment and a demand assessment via the Multimodal Group – VA
- **Air-Rights P3s**
  - VDOT and OTP3 evaluating using air rights in Rosslyn and East Falls Church
  - Identify policy lessons based on experience from other states
- **Multi-jurisdictional P3s**
  - Identify potential mechanisms by which multiple jurisdictions engage in P3 infrastructure project.
- **Municipal Bond Policy and Asset Management for P3s**
  - How does access to municipal bond market affect asset owners' propensity to adhere to lowest life cycle cost asset management strategies

# Research Key Challenges

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- Access to data
  - During construction and implementation
  - Private data from contractors
  - Standardized information
- System vs. project planning
  - Integration with state transportation plans
  - Unsolicited P3 proposals
  - Equity
  - “Beggar thy neighbor” tolling practices
- Institutional structure
  - State wide office vs. projected specific
  - Transportation vs. all functions model

# Transportation Public-Private Partnership Policy Program at George Mason University School of Public Policy

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For more information:

Visit us at: [p3policy.gmu.edu](http://p3policy.gmu.edu)

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