

# RENEGOTIATION OF TRANSPORTATION PUBLIC-PRIVATE PARTNERSHIPS: THE U.S. EXPERIENCE

Jonathan L. Gifford, Ph.D.  
[with Lisardo Bolaños and Nobuhiko Daito]  
George Mason University  
jgifford@gmu.edu / 703-993-2275

International Transport Forum  
Roundtable

Public Private Partnerships for Transport Infrastructure:  
Renegotiations, how to approach them and economic outcomes

George Mason University  
Arlington, Virginia  
27-28 October 2014

# Presentation Outline

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- Defining P3 renegotiations
- Theoretical perspectives
- U.S. P3 Market Overview
- Highway P3s and renegotiations in the U.S.
- Six case studies on highway P3 renegotiations in the U.S.
- Discussion
- Conclusions
- Q&A and general discussion

# Defining P3 Renegotiations

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## Concept

Modifications to P3 contractual agreements involving associated legal processes, including but not limited to:

- Changes in tariff arrangements, service requirements
- Buy-outs of the private consortium
- Bankruptcy filings

## Analysis

- Public concern about rent seeking and opportunism
- No clear test to evaluate motives (opportunism, external shocks, contract complexity, and winner's curse)

# Theoretical Perspectives (1)

## Opportunism and Exogenous Changes

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Renegotiation occurs as one of the parties aims to extract rents opportunistically, taking advantage of the incompleteness of the contract

Renegotiation occurs as one or both parties aim to adapt the original contract to current unexpected exogenous events

### Variables

Public:

- Change of leadership (“roving bandit,” political contestability)

Private:

- Experienced with renegotiations

### Variables

Macroeconomic variables

- Inflation (consumer, producer)
- Economic growth (stagnation)
- Unemployment
- Interest rates

# Theoretical Perspectives (2)

## Contract Complexity and Winner's Curse

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P3s are common for complex projects, which may exacerbate uncertainty, and trigger renegotiations

Renegotiation occurs when, in the presence of uncertainty, the winner is the bidder with the most optimistic expectations

### Variables

- Design (length, bridges/tunnels)
- Contract design (type, duration)
- Experience (novelty of the P3s)
- Political env. (ethnic fractionalization)
- Institutional env. (state management capacity and regulatory body)

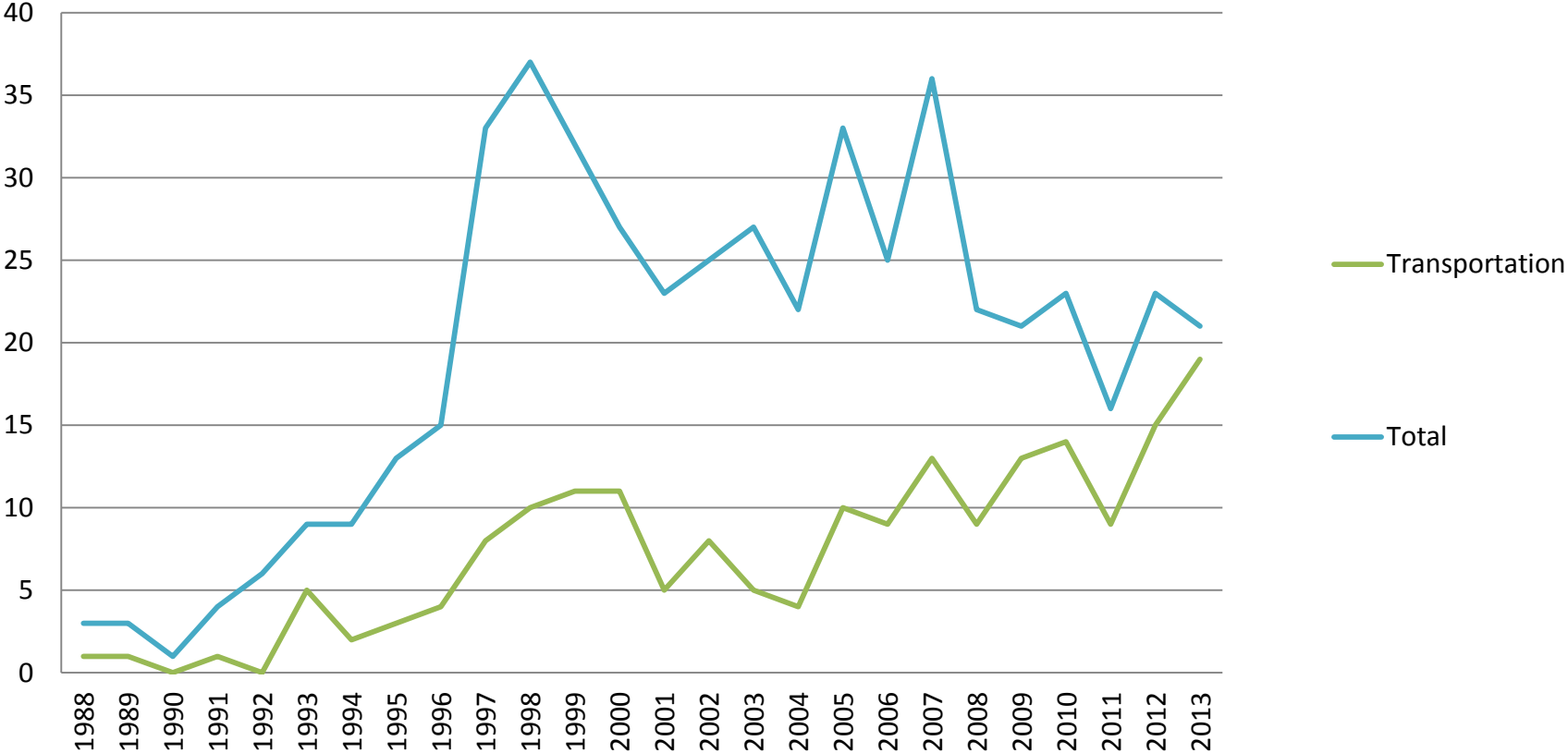
### Variables

- Process to award the P3
- Number of bidders
- Bids



# U.S. P3 Market Overview – Historical Number of Projects

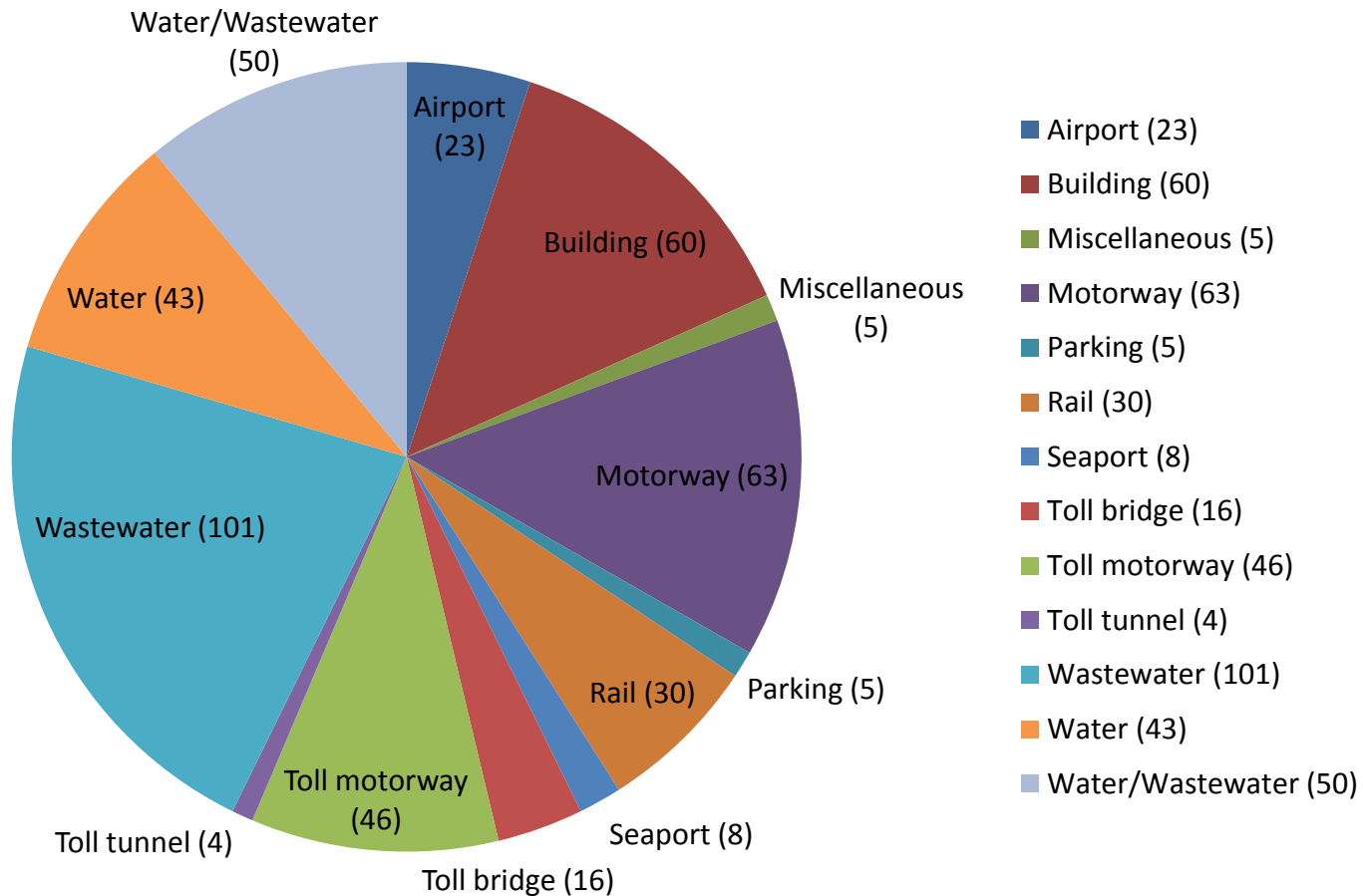
Number of P3 Financial Closes in the U.S. 1988-2013, Transport and All Sectors



Source: Public Works Financing

# U.S. P3 Market Overview – Sector Distribution

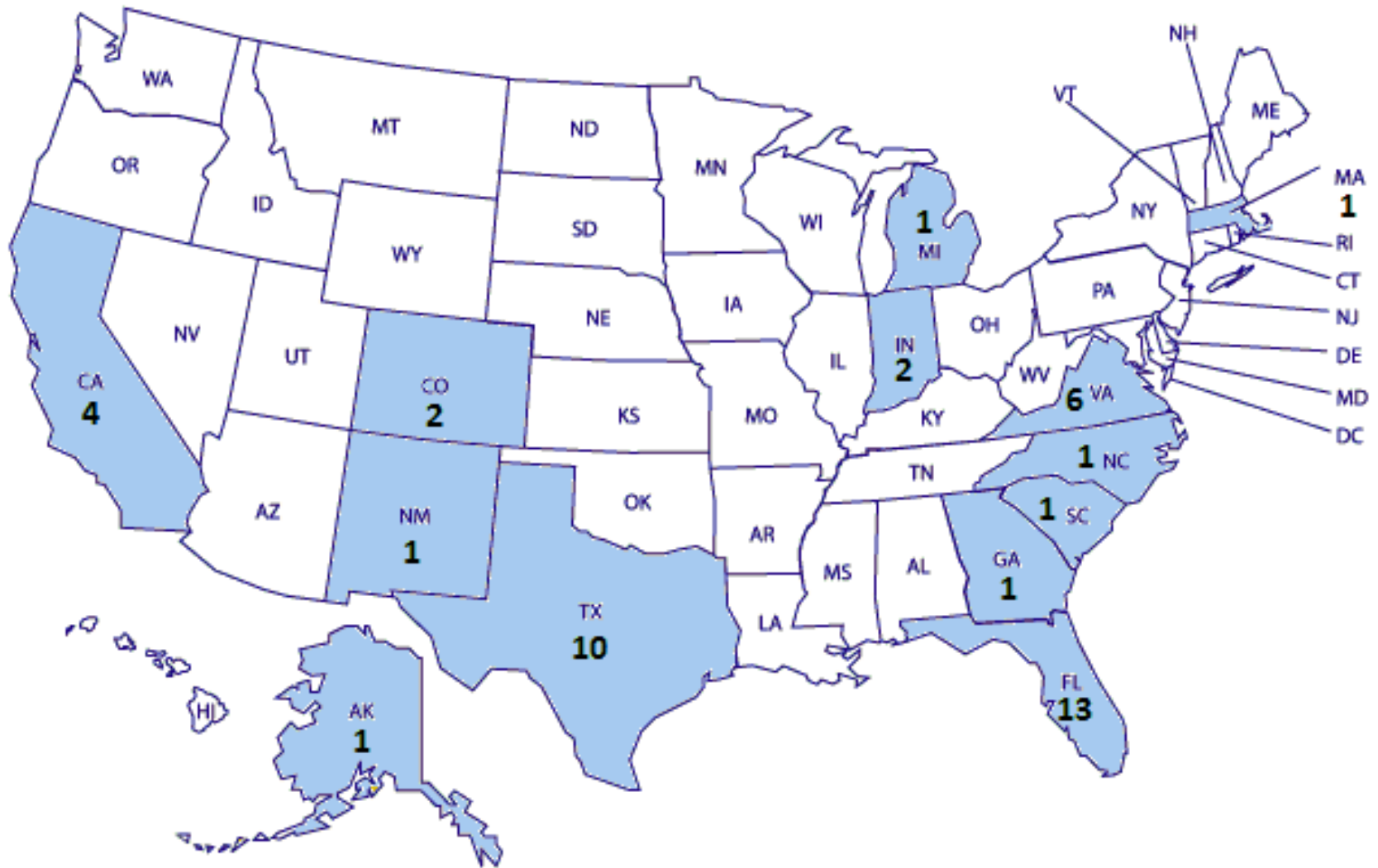
Sectors of U.S. P3 projects that reached financial close, 1986-2013



Source: Public Works Financing

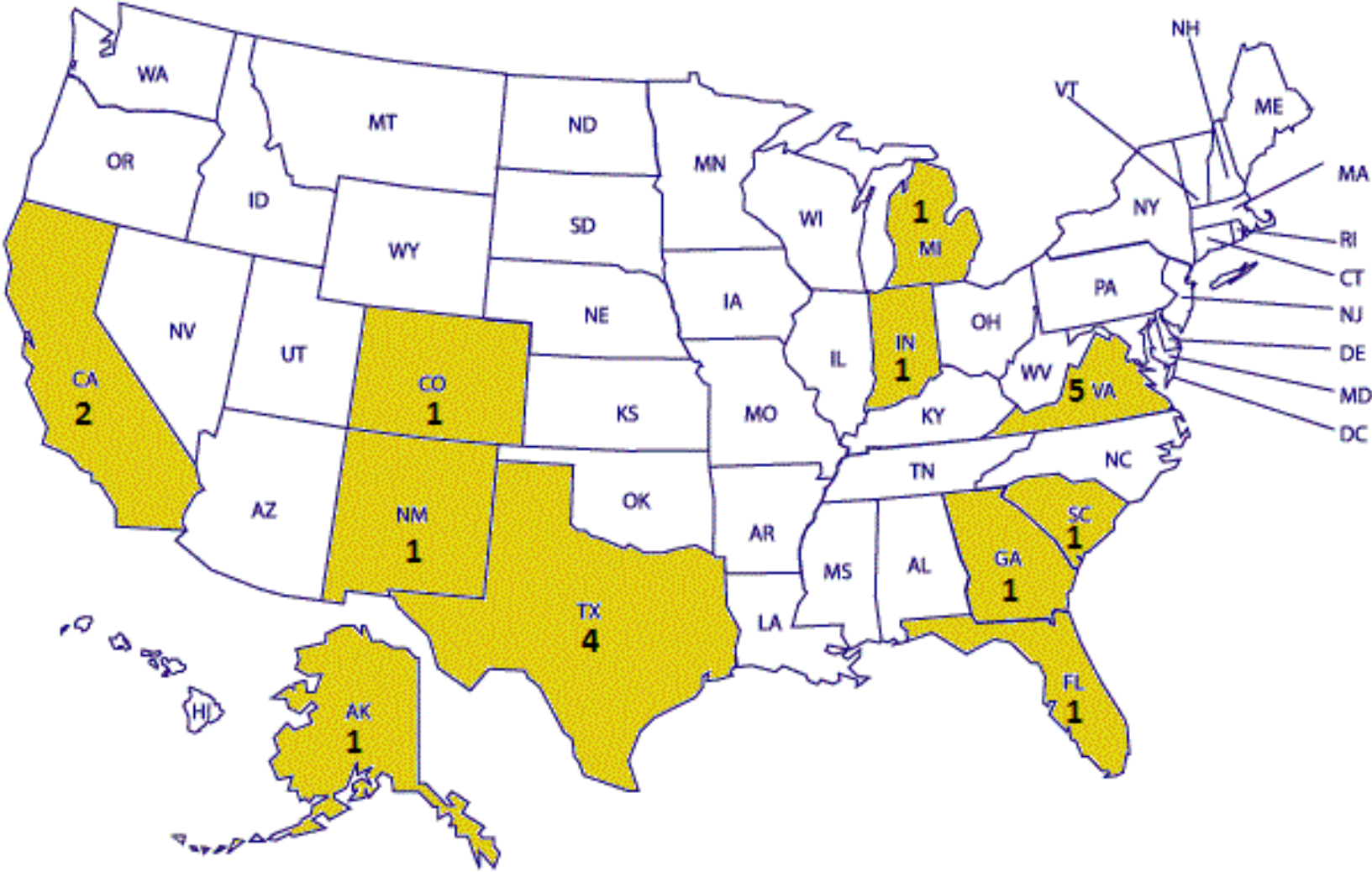


# Geographic Distribution of Highway P3s in the U.S.



PUERTO RICO NOT SHOWN. SOURCE: PUBLIC WORKS FINANCING AND INTRAVENALS

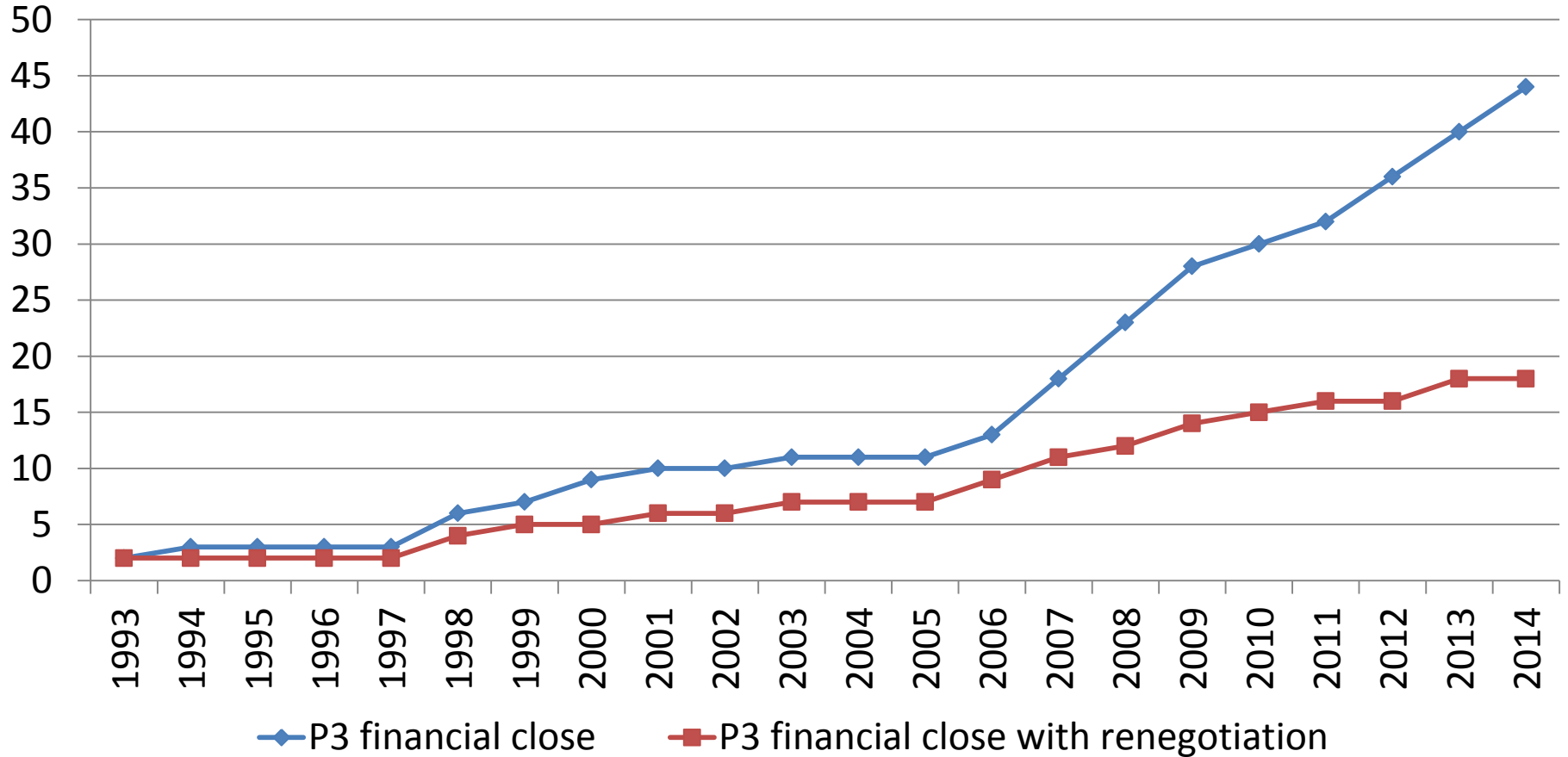
# Location of Highway P3 Renegotiations in the U.S.



Source: Public Works Financing and InfraDeals

# History of Highway P3 Renegotiations in the U.S.

Cumulative Highway P3 Projects (total and renegotiation) by financial close, 1993-2014



Source: Public Works Financing and InfraDeals

# The 6 Case Studies Under Analysis

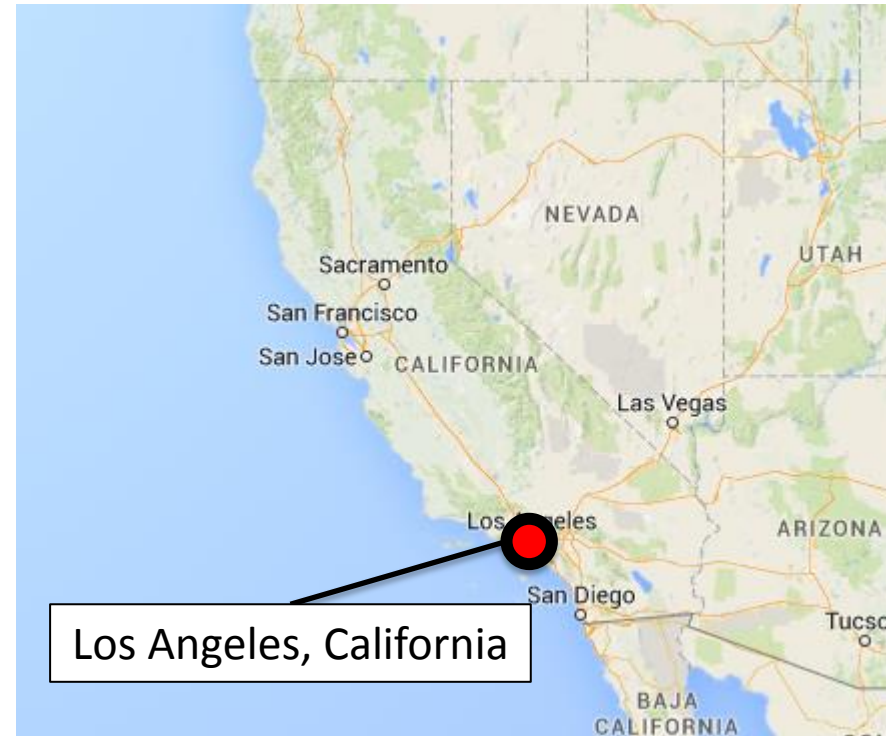
- California
  - SR 91 Express Lanes (SR19)
  - South Bay Expressway (SBX)
- Indiana
  - Indiana Toll Road (ITR)
- Virginia
  - Dulles Greenway (DG)
  - Pocahontas Parkway (PP)
  - Downtown Tunnel /  
Midtown Tunnel / MLK  
Extension or Elizabeth River  
Crossings (ERC)

State	P3 Highways	P3 Highways with renegotiations	Cases Under Analysis
Alaska	1	0	
California	4	2	2
Colorado	2	1	
Florida	13	1	
Georgia	1	1	
Indiana	2	1	1
Massachusetts	1	0	
Michigan	1	1	
New Mexico	1	1	
North Carolina	1	0	
South Carolina	1	1	
Texas	10	4	
Virginia	6	5	3
<b>TOTAL</b>	<b>45</b>	<b>18</b>	<b>6</b>

Source: Public Works Financing and InfraDeals

# Case Study 1 – SR 91 Express Lanes (SR91)

Concessionaire	Level 3 Communications, Vinci Autoroute, & Granite Construction
Financial close	1993
Facility Open	1995
Revenue source	Toll
Contract type	DBFOM
Original cost (US\$)	88.3 million (1990)
Constructed Length	10 miles (16.1km)
Bridge / Tunnels	No / No



## Renegotiations

- 2003: OCTA purchases the project for \$341.5M to eliminate non-compete clause, after attempts to breach the contract by the public sector

# Case Study 2 – South Bay Expressway (SBX)

<b>Concessionaire</b>	PB, Egis Projects, Fluor Daniel, Prudential Bache; then Macquarie
<b>Financial close</b>	2003
<b>Facility Open</b>	2007
<b>Revenue source</b>	Toll
<b>Contract type</b>	DBFOM
<b>Original cost (US\$)</b>	400 million (1990)
<b>Constructed Length</b>	12.7 miles (20.4 km)
<b>Bridge / Tunnels</b>	Yes / No



## Renegotiations

- 2010: SPV files for bankruptcy (Chapter 11)
- 2011: Exits bankruptcy. MIG equity to zero. Owners are lenders, incl. USDOT
- 2011: SANDAG purchases part of the equity share.

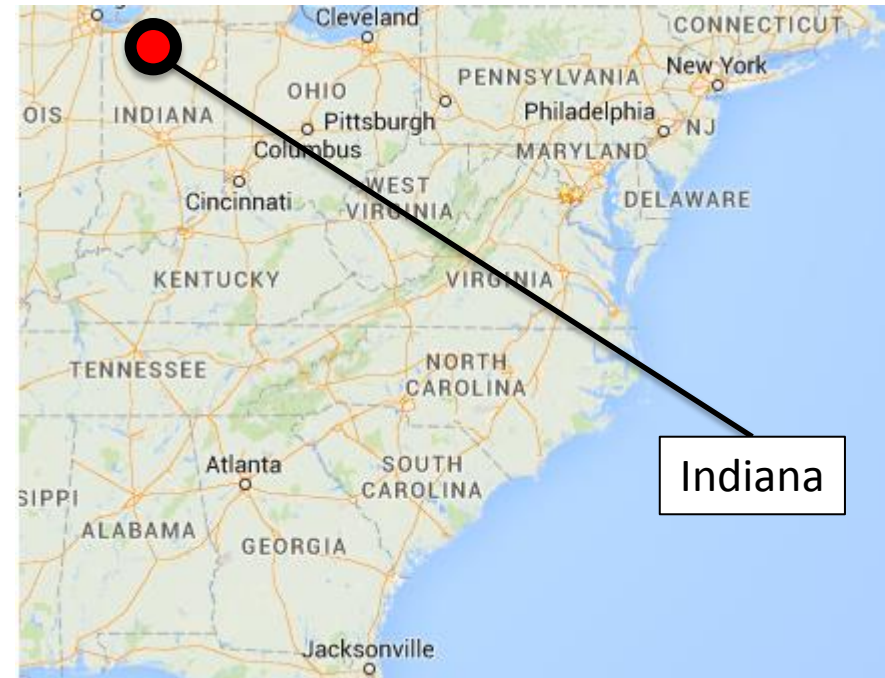
Changes in USDOT's stake in the project:

Pre2011: \$140M TIFIA debt & \$32M in capitalized interest

Post2011: \$6M equity & \$93M debt obligation from toll revenues, 32% ownership

# Case Study 3 – Indiana Toll Road (ITR)

<b>Concessionaire</b>	Cintra & Macquarie
<b>Financial close</b>	2006
<b>Operation began:</b>	2006
<b>Revenue source</b>	Toll
<b>Contract type</b>	DBFOM + OM
<b>Original cost (US\$)</b>	3,778 million (2006)
<b>Constructed Length</b>	10 miles (16 km) to build & 150 miles (240 km) to maintain
<b>Bridge / Tunnels</b>	No / No



## Renegotiations

- 2006: “Toll freeze” until electronic tolling in place in exchange for \$60 million. Reduction in investment obligations
- 2007: Reduction in investment obligations to build a toll plaza.
- 2008: Reimbursement of \$60 million due to electronic tolling
- 2010: Delays on investment obligations (1.5 miles – 3 years; 3.4 miles – 1 year)
- 2014: ITR filed for bankruptcy (Chapter 11)

# Case Study 4 – Dulles Greenway (DG)

<b>Concessionaire</b>	Shenandoah Group, Kellogg Brown & Root
<b>Financial close</b>	1993
<b>Facility Open</b>	1995
<b>Revenue source</b>	Toll
<b>Contract type</b>	DBFOM
<b>Original cost (US\$)</b>	350 million (1993)
<b>Constructed Length</b>	14 miles (22.5km)
<b>Bridge / Tunnels</b>	Yes / No



## Renegotiations

- 1995: Owners defaulted on debt.
- 1997: Tolls increased and speed limit increased
- 1999: Debt restructured. Project modified (from 2\*2 lanes to 3\*3 lanes)
- 2001: Extension of concession period (+20 years)
- 2004: Change in tolls (variable peak and discounted off-peak point-to-point rates)
- 2005: Macquarie Infrastructure Group (MIG) buys it
- 2013: Mechanism to define tolls is changed (highest: CPI+1%, real GDP, or 2.8%.)



# Case Study 5 – VA SR895 Pocahontas Pkwy (PP)

Concessionaire	Fluor Daniel & Morrison Knudsen
Financial close	1998
Facility Open	2002
Revenue source	Toll
Contract type	DBFOM
Original cost (US\$)	381 million (1998)
Constructed Length	8.8 miles (14km)
Bridge / Tunnels	Yes / No



## Renegotiations

- 2006: Transurban USA buys it, concession period is extended to 99 years and investment increases: 1.6 mile, four-lane road and electronic tolling
- 2012: Transurban USA writes off equity but operation continues
- 2014: Transurban USA transfers operations to DBi Services

# Case Study 6 – Downtown Tunnel/Midtown Tunnel/MLK Extension or Elizabeth River Crossings (ERC)

<b>Concessionaire</b>	Skanska & Macquiere
<b>Financial close</b>	2012
<b>Facility Open</b>	Expected 2017
<b>Revenue source</b>	Toll
<b>Contract type</b>	DBFOM
<b>Original cost (US\$)</b>	2,089 million (2012)
<b>Constructed Length</b>	2.2 miles (3.5km)
<b>Bridge / Tunnels</b>	Yes / Yes



## Renegotiations

- 2012: toll delayed in exchange for \$100 million (2012)
- 2014: toll decrease in exchange for \$82.5 million (2014)

# Discussion

## Opportunism

### Evidence

#### Public:

- CA: SR91 – govt attempted to breach non-compete clause
- CA: Professional Engineers in California Governments' alleged influence on SBX?
- VA: high contestability; possible source

#### Private:

- Concessionaires experienced with renegotiations

#### Problem:

- Evidence of opportunism limited
- Additional analysis is needed to evaluate the relationship between the variables and opportunism

## Exogenous Changes

### Evidence

- Economic growth and unemployment may have affected: DG, SBX, PP, partly ITR
- SBX may have been affected by sudden price increases in construction machinery manufacturing and iron and steel mills
- Interest rate changes affected DG and ITR

# Discussion

## Contract Complexity

### Evidence

- Technical complexity: high in SBX, considerable in other projects
- Novelty of the P3 model: SR91, ITR, DG, SBX, and PP
- Political viability (e.g., fiscal/tolling, environmental, civil rights concerns)
- VA strongest institutional environment
- Technical complexity, duration, and complicated political environment a potential problem for ERC

## Winner's Curse

### Evidence

- ITR appears to have been subject to some degree of winner's curse:
- Bidding process
  - Four bidders
    - Cintra & Macquarie: \$3.8 billion
    - Indiana Road Co LLC: \$2.8 billion
    - Itinere I S.A.: \$2.5 billion
    - Indiana TRP LLC: \$1.8 billion

# Conclusions

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- Factors associated with renegotiations in the U.S. P3 market:
  - External shocks: e.g., economic growth, inflationary pressures, and interest rate hikes (Dulles Greenway, South Bay Expressway, Pocahontas Pkwy, and Indiana Toll Road)
  - Contract complexity, due to the novelty of these type of projects
  - Political environment: e.g., resistance to private provision of public goods
  - Complex projects, with high uncertainty, difficult to account for in contracts
- No definitive evidence of opportunism.
- Winner's curse effect may have been present in Indiana, given the gap between the winner's bid and what others submitted.
- Government losses to date: South Bay Expressway may bring losses to TIFIA; Dulles Greenway 20-year term extension
- Further research needed

# Center for Transportation Public-Private Partnership Policy George Mason University

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Jonathan L. Gifford, Ph.D.

George Mason University

School of Policy, Government, and International Affairs

3351 Fairfax Drive, Arlington, VA 22201 USA

[jgifford@gmu.edu](mailto:jgifford@gmu.edu) / +1(703)993-2275