

Report on Highway P3 Concessions in the U.S.

Webinar Presentation

February 16, 2017

Presenter

- Benjamin Perez
- Principal Consultant
- WSP | Parsons Brinckerhoff



Presenter

Mark Sullivan

Director

Center for Innovative Finance
Support

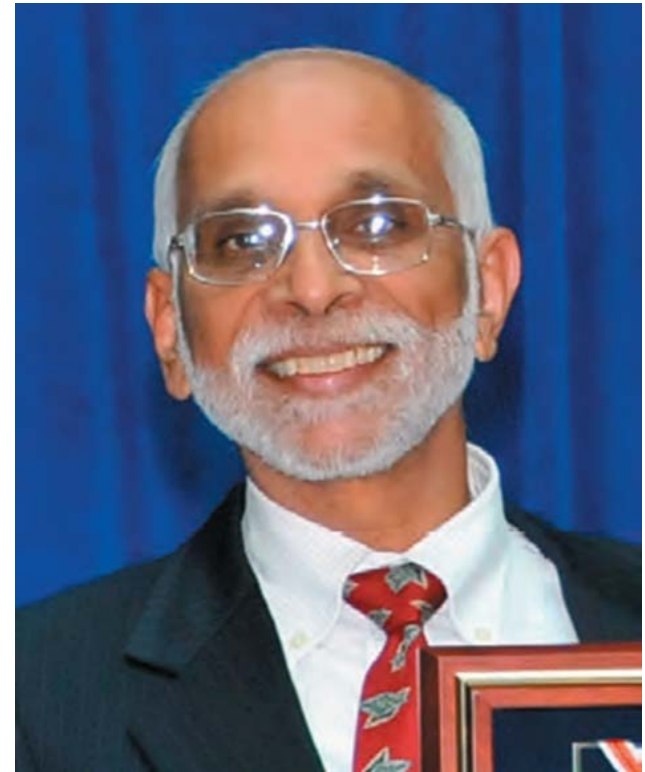
Federal Highway Administration



Presenter

Patrick DeCorla -Souza

P3 Program Manager,
Build America Bureau &
Federal Highway Administration



Presentation Overview

- Introduction and Definitions (Chapters 1 & 2)
- Federal Role (Chapter 3)
- Evolution of the U.S. P3 Market (Chapter 4)
- P3 Stories (Appendix)

This presentation will introduce Chapters 1- 4.



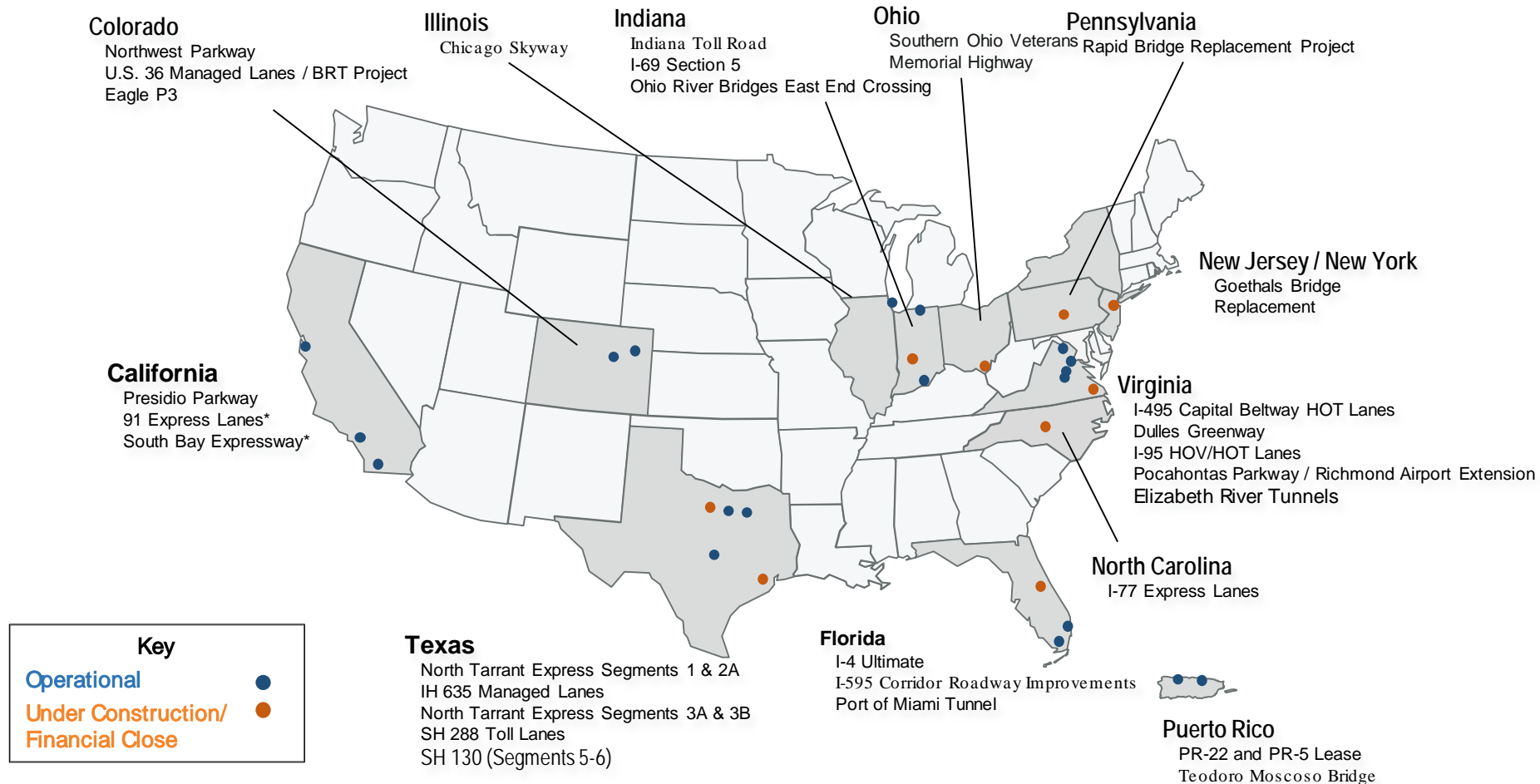
Introduction and Definitions (Chapters 1 and 2)



Purpose

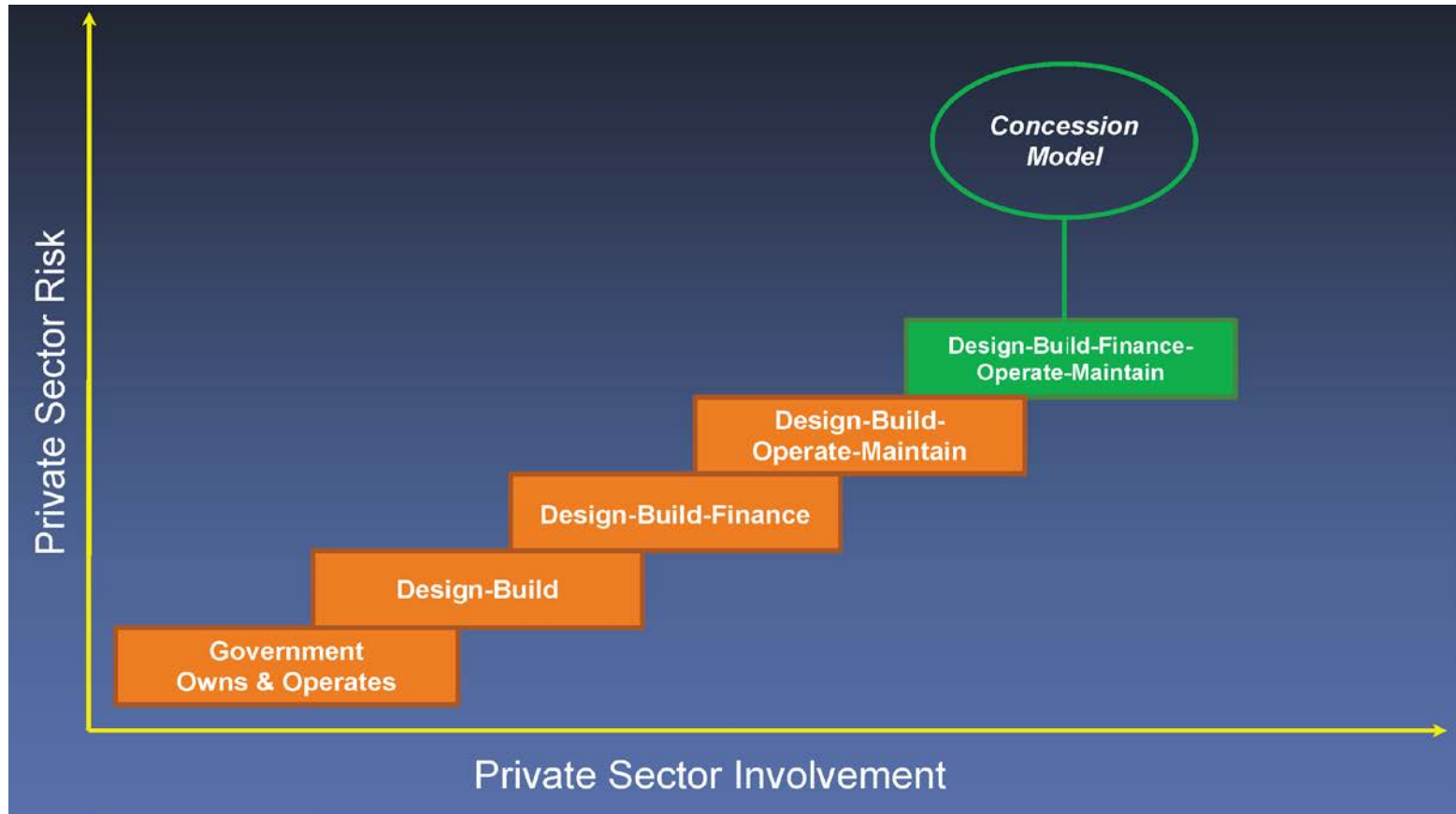
- Provide U.S. highway experience with highway public-private partnership (P3) concessions since 1992, including:
 - Evolution of the federal role
 - Trends and market developments
 - Case studies of all 28 U.S. P3 highway concession projects that have achieved financial close

U.S. P3 Concessions by Status



*Facility now under public management and operation

Spectrum of Project Delivery Options





DBFOM Concession Types

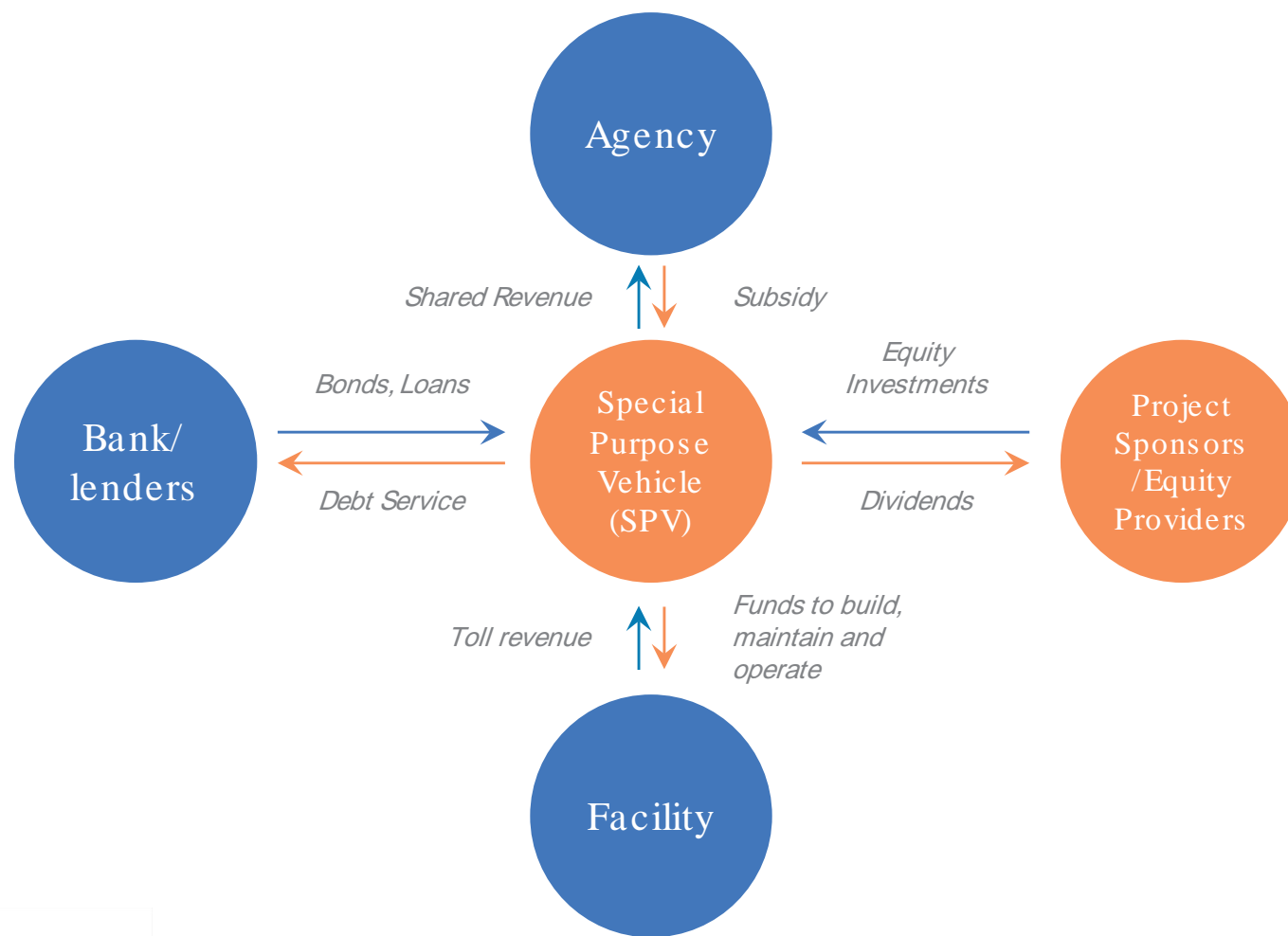
New Build Projects

- Real Toll Concessions
 - Greenfield Toll Roads
 - Fixed Crossings
 - Priced Managed Lanes
- Availability Payment Concessions

Existing Toll Roads

- Long-term Lease Concessions

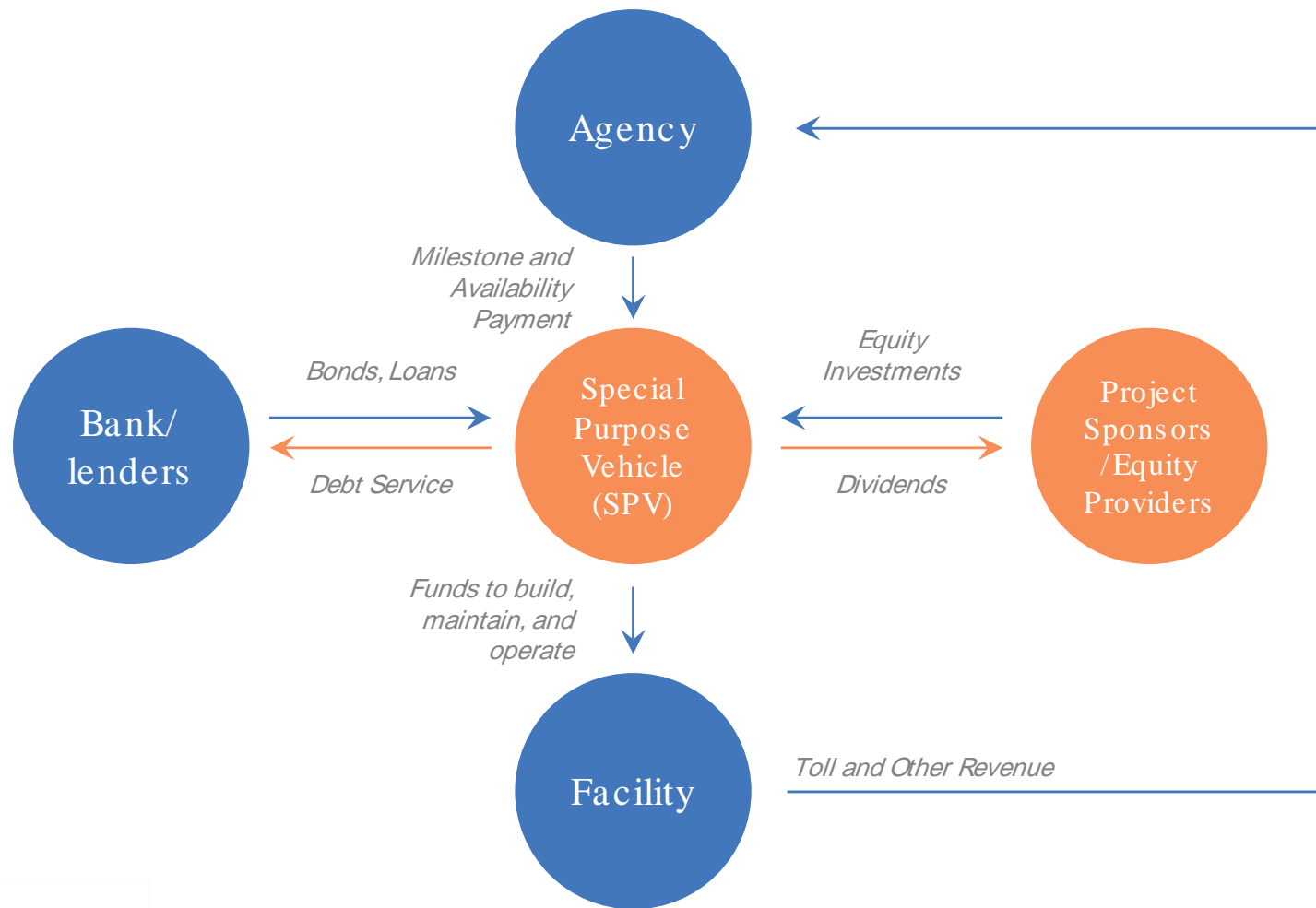
Typical Toll Concession P3 Structure



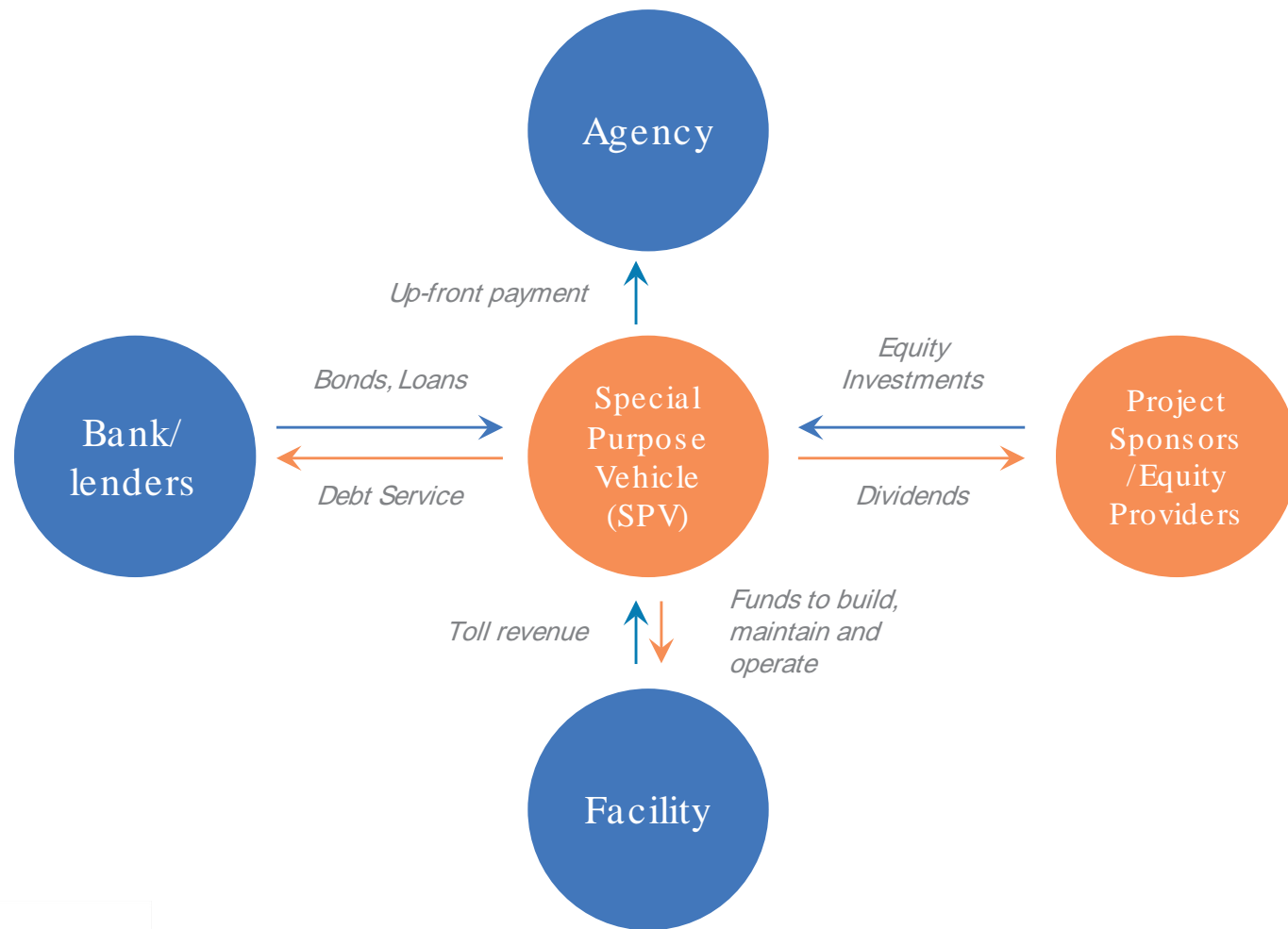
Real Toll Concessions

- Used to develop three types of projects:
 - Greenfield toll roads
 - Fixed crossings
 - Priced managed lanes

Typical Availability P3 Structure



Typical Long-term Lease Concession P3 Structure



Federal Role (Chapter 3)



TE-045

- 1994: TE-045 – initiative to test and evaluate ideas from states on new financial strategies
 - Matching
 - Toll Credits
 - Advance Construction

GARVEE Bonds

- 1995: Grant Anticipation Revenue Vehicle (GARVEE bond)
 - Allows states to leverage future Federal Aid Highway Program receipts in the municipal credit market

TIFIA

- 1998: Transportation Infrastructure Finance and Innovation Act (TIFIA)
 - Provides loans, guarantees and lines of credit for qualified revenue-generating projects
 - Covers up to one third of eligible costs
 - Attractive low interest rates tied to U.S. Treasury bonds

Private Activity Bonds

- 2005: Private Activity Bonds (PABs)
 - Allows private developers of highways and freight transfer facilities to borrow funds in the tax-exempt municipal credit market
 - Total volume of PABs limited to \$15 billion

SEP-15

- Special Experimental Program 15 (SEP-15)
 - An experimental process for FHWA to identify and test new P3 approaches
 - Provides states with the opportunity to gain exceptions from or changes to federal policies or procedures

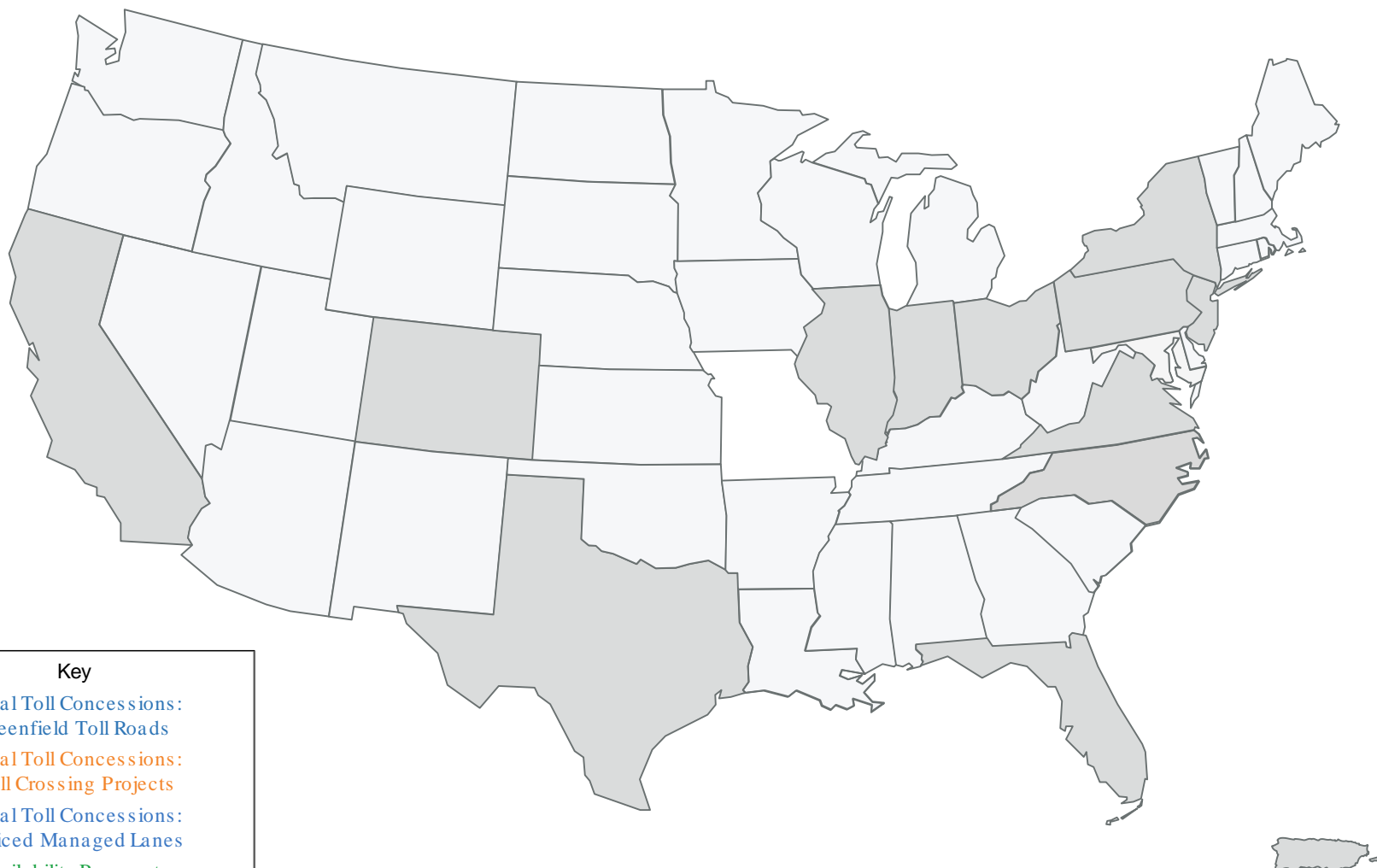
Other USDOT Support

- Build America Bureau and FHWA Center for Innovative Finance Support
 - Analytical Tools
 - Educational Materials
 - Research
 - Peer Exchanges
 - Capacity Building
 - Technical Assistance
 - Environmental Streamlining



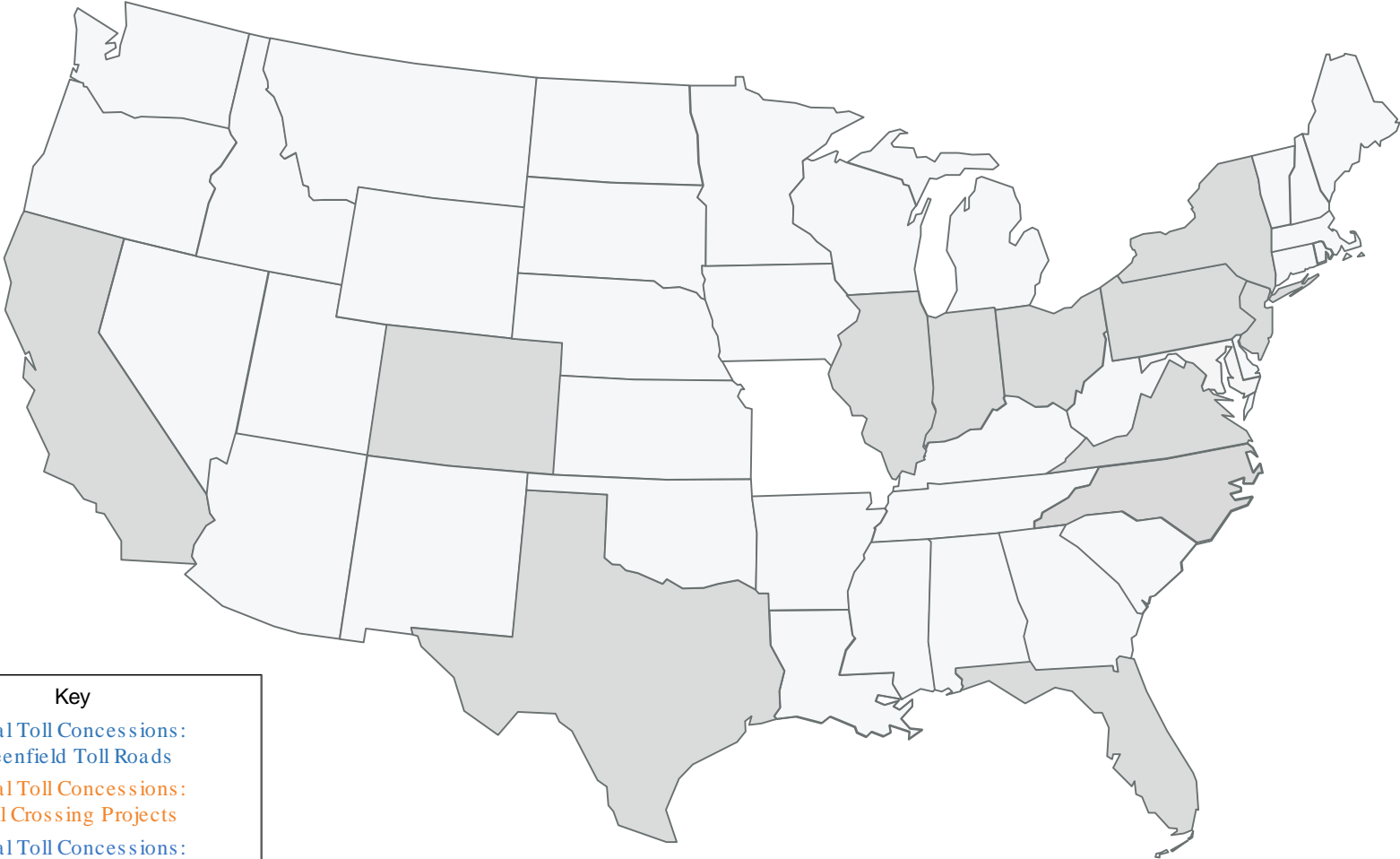
Evolution of the P3 Market (Chapter 4)





Key

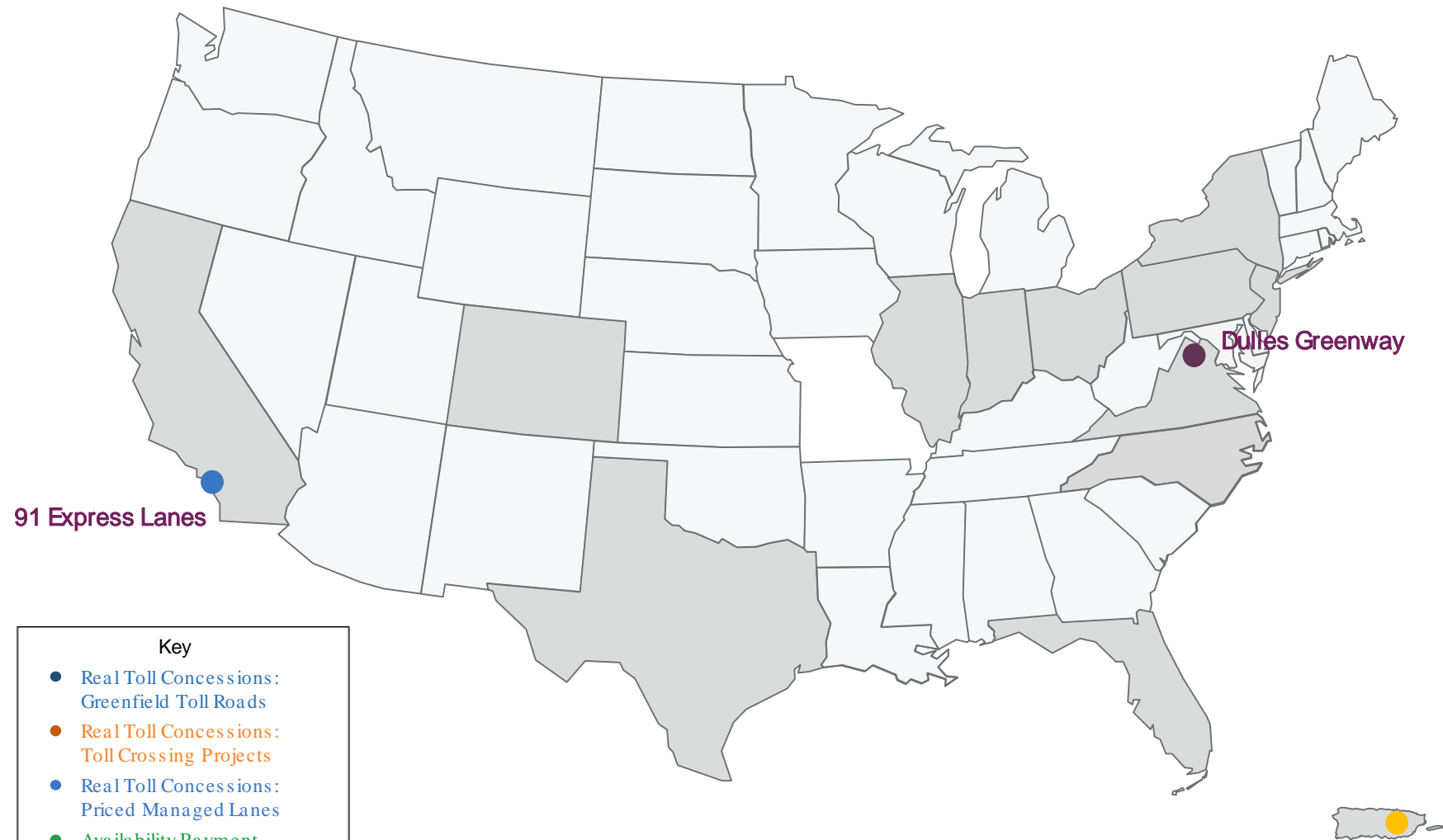
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Greenfield Toll Roads
- Real Toll Concessions:
Toll Crossing Projects
- Real Toll Concessions:
Priced Managed Lanes
- Availability Payment
Concessions
- Long-Term Lease
Concessions



Teodoro Moscoso Bridge

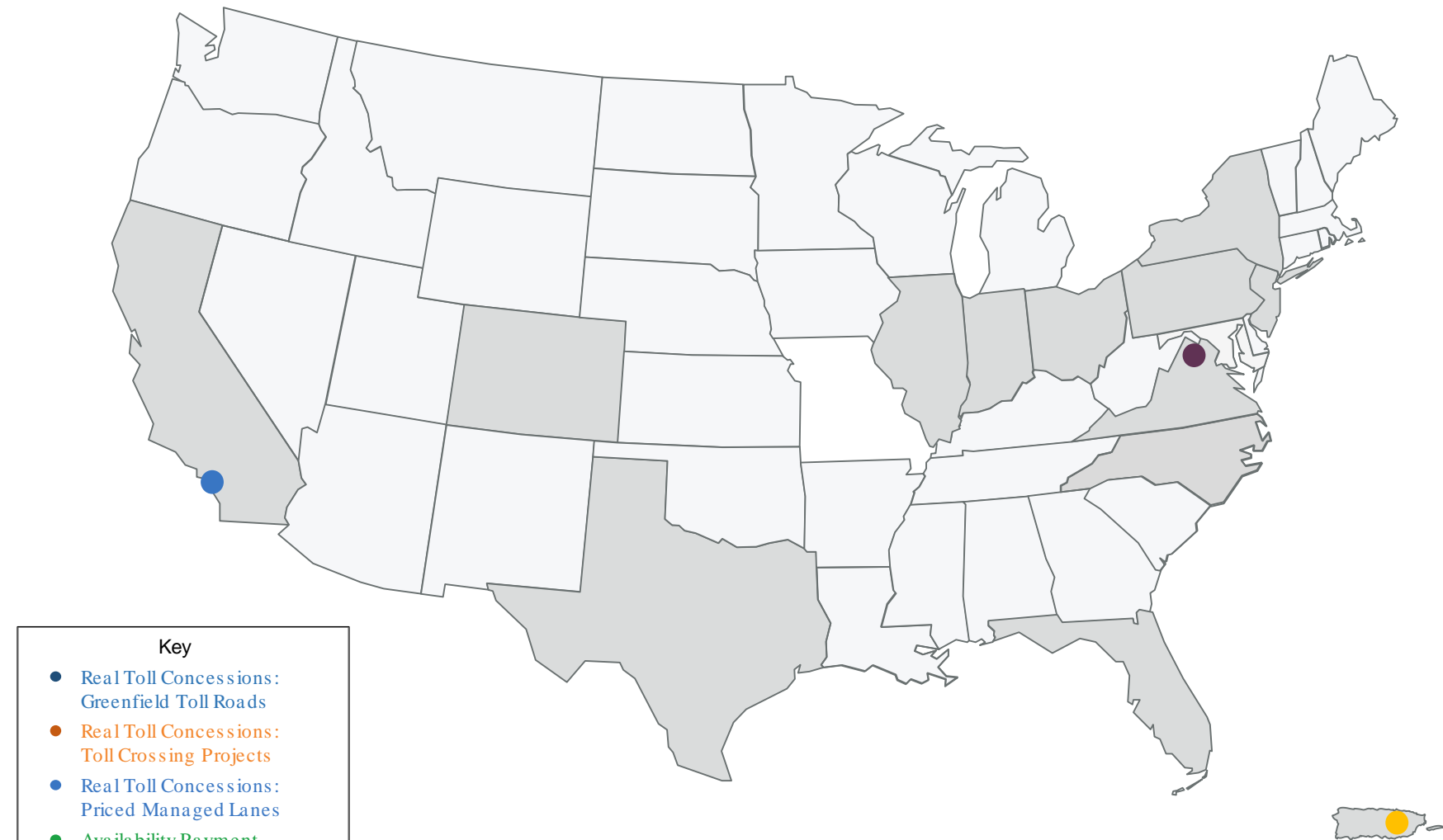
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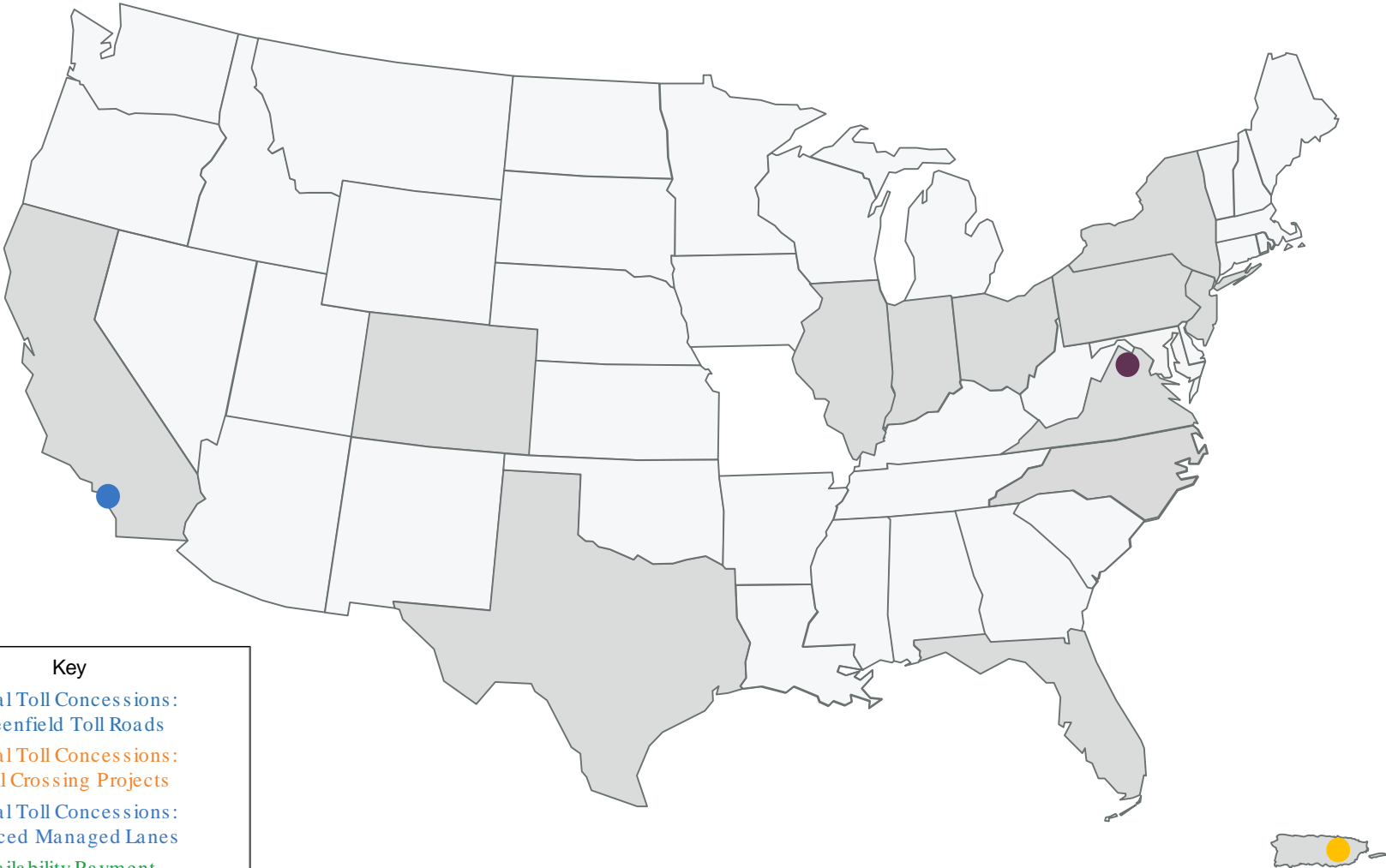
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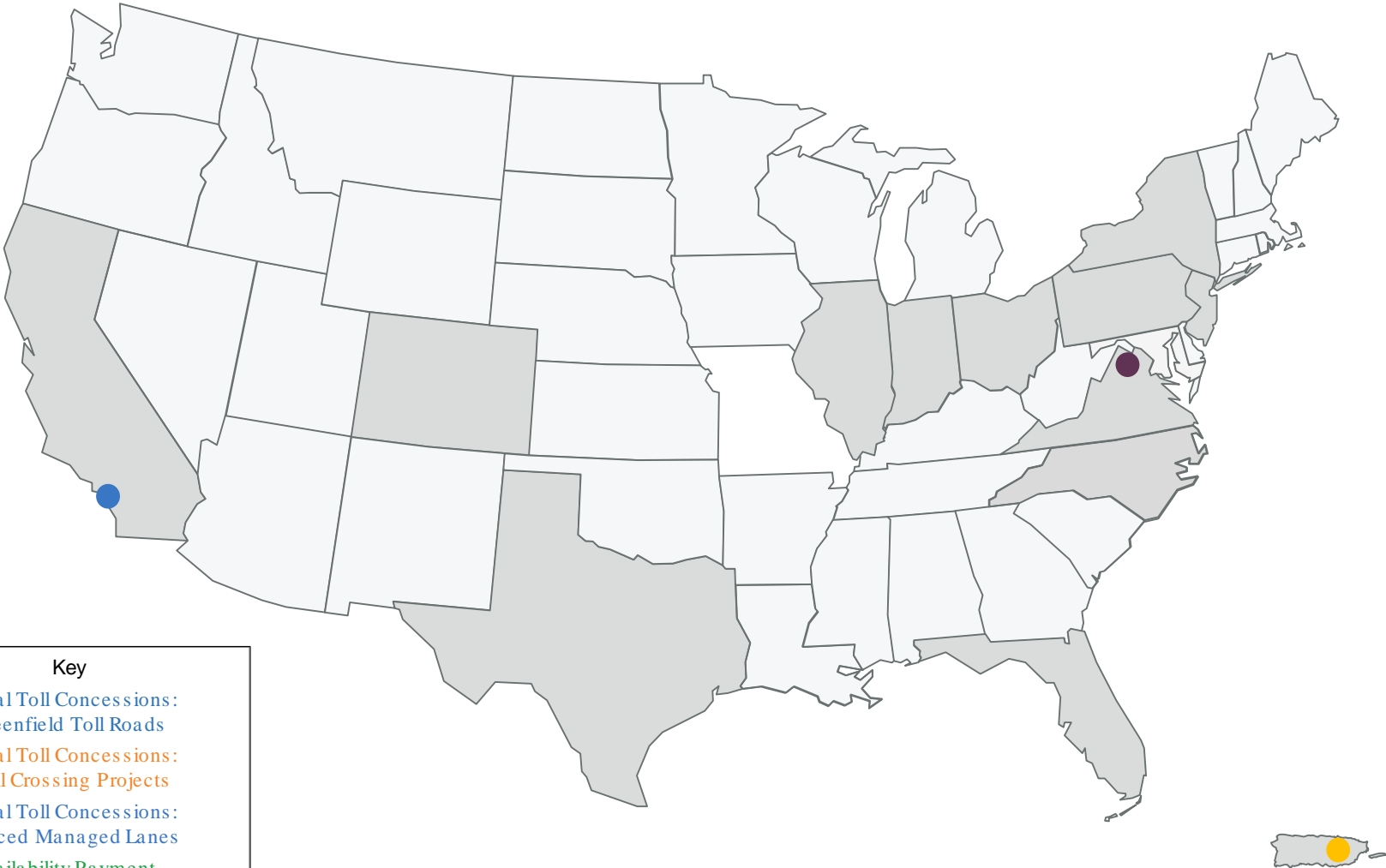
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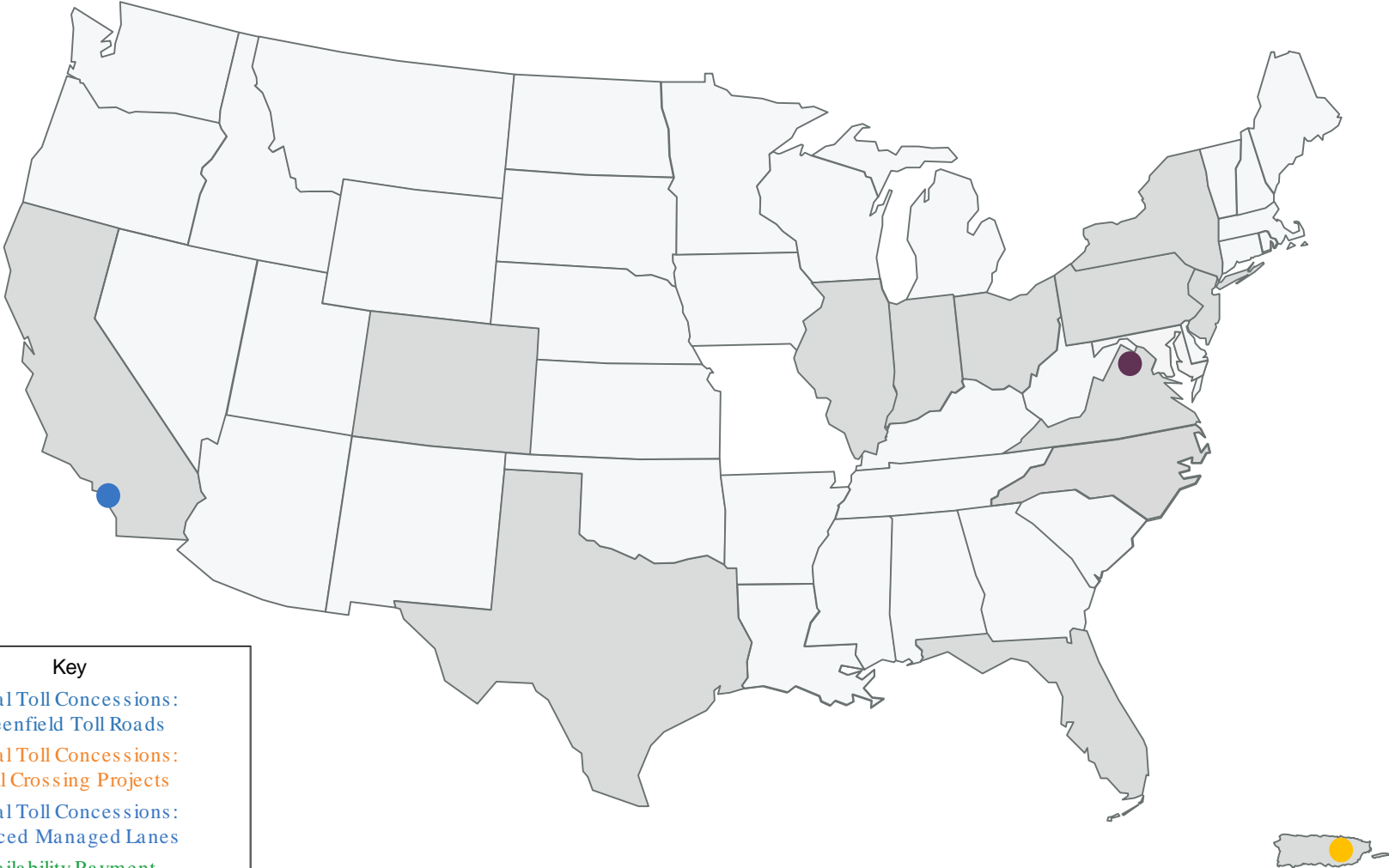
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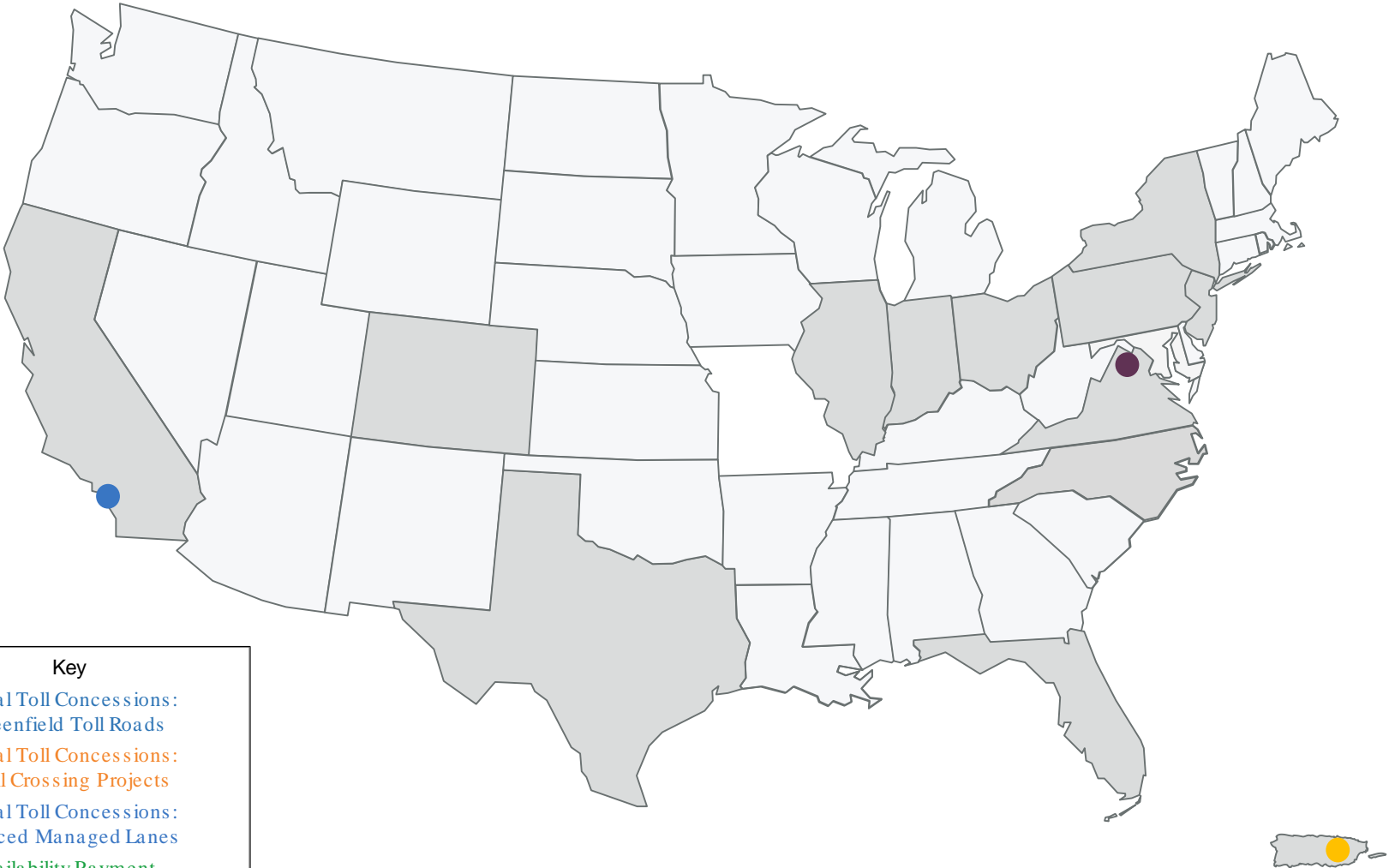
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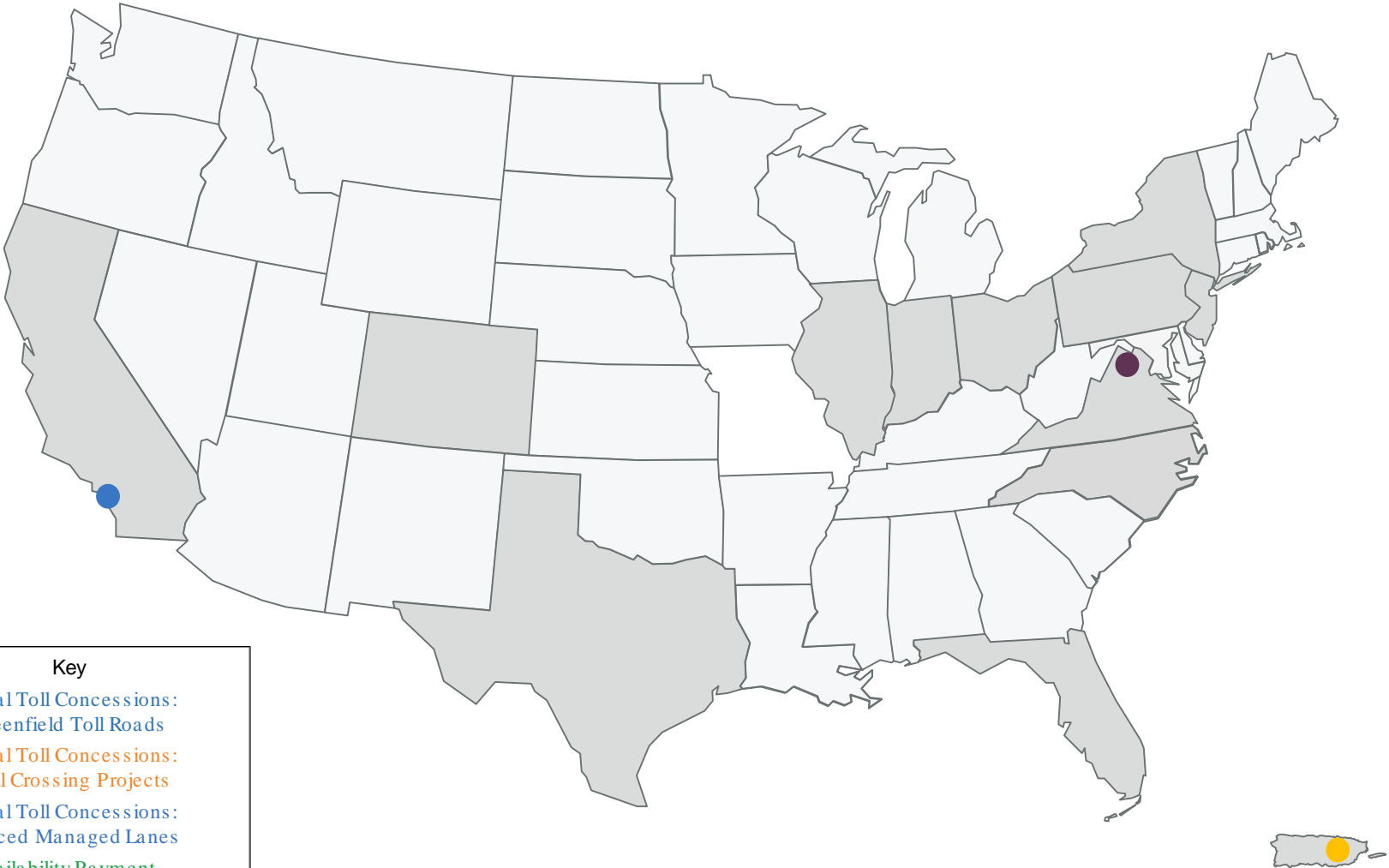
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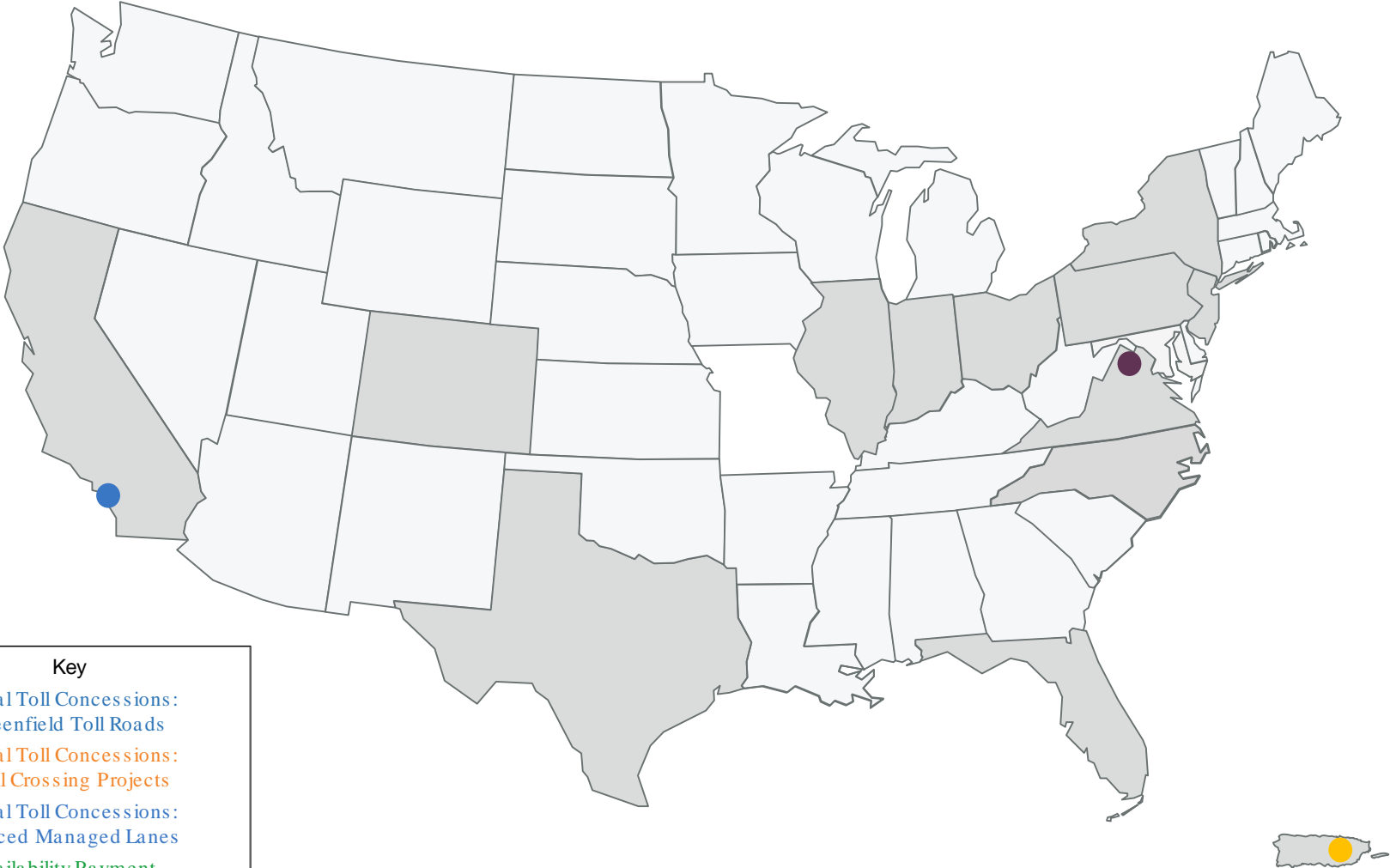
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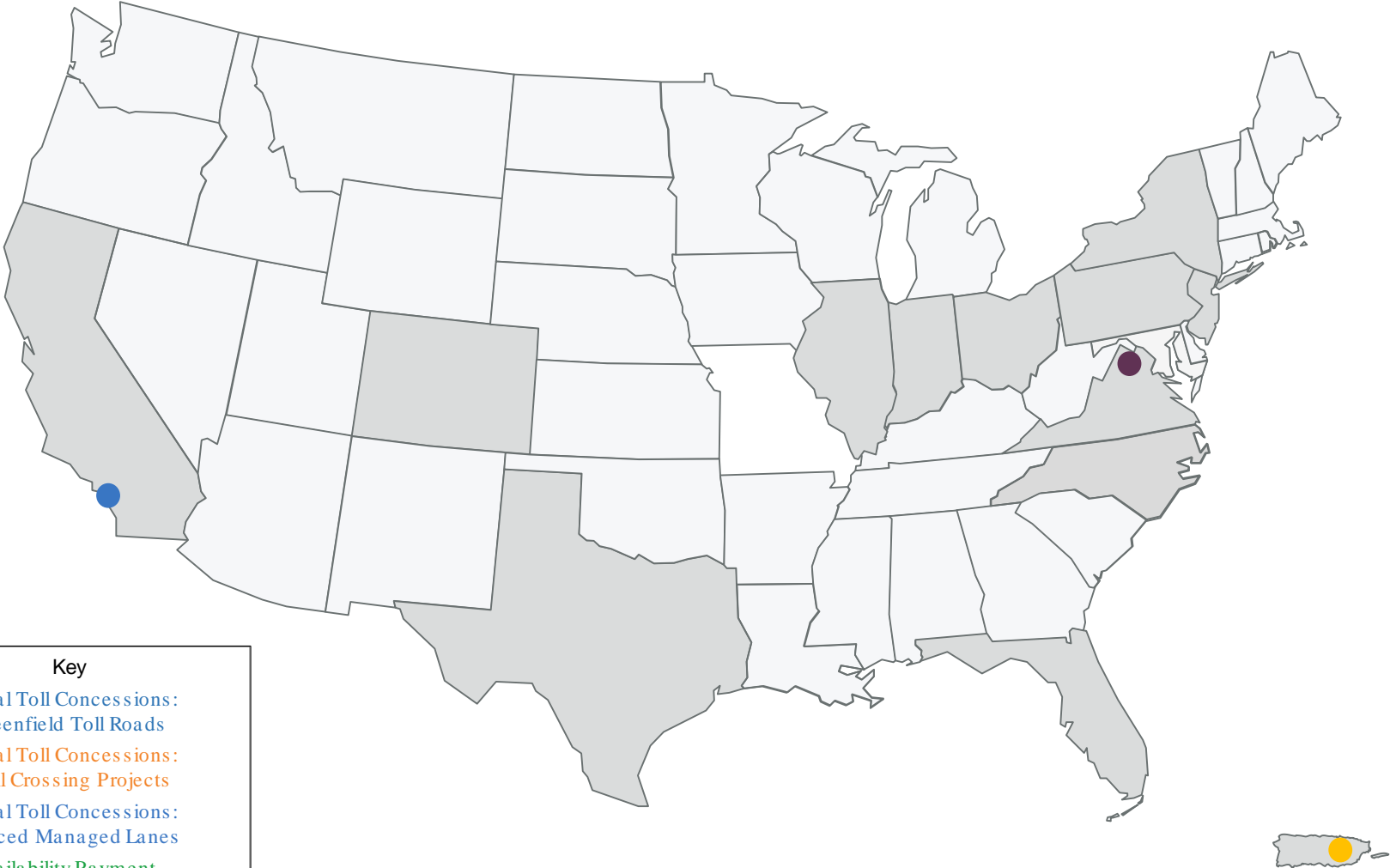
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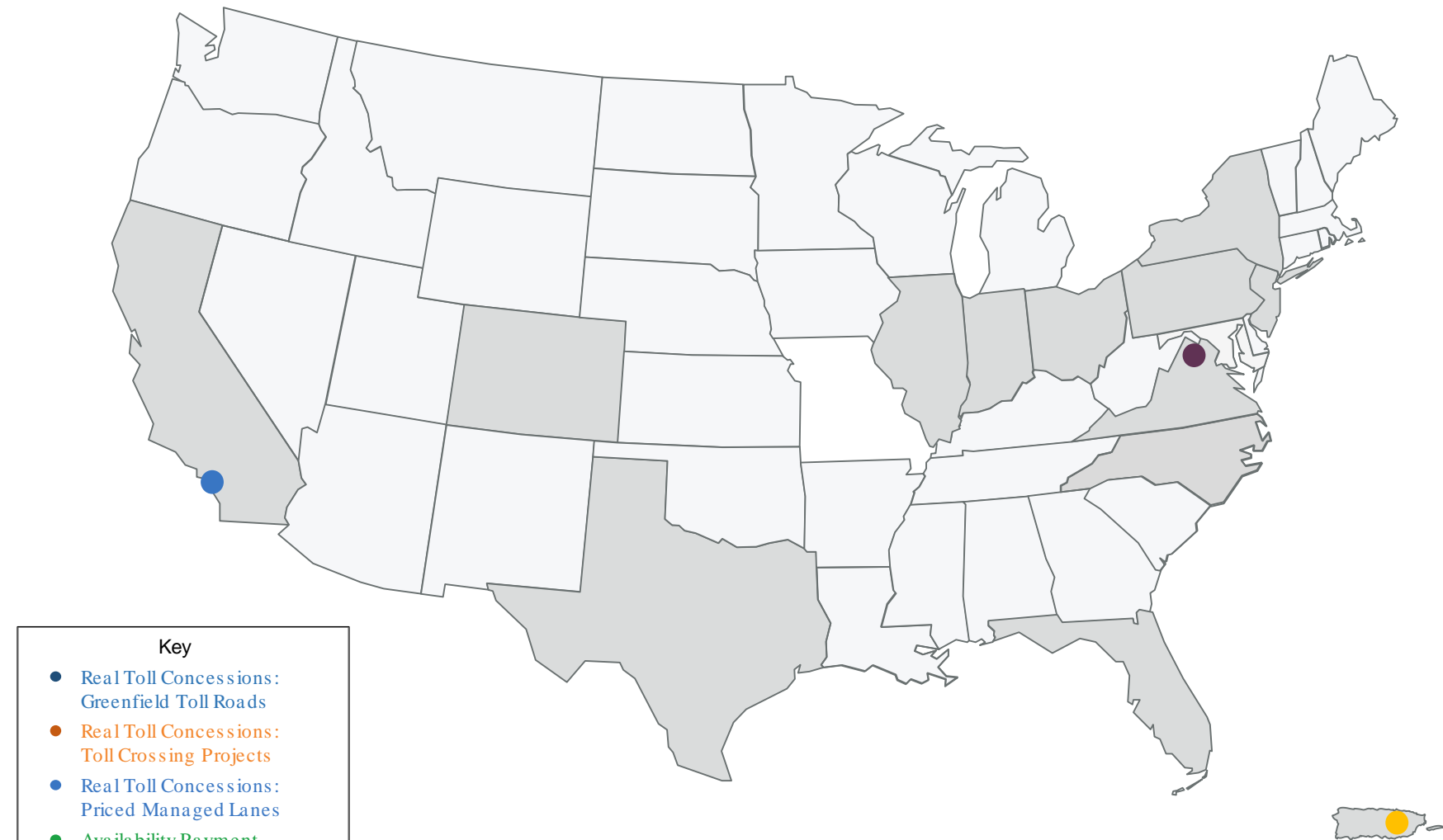
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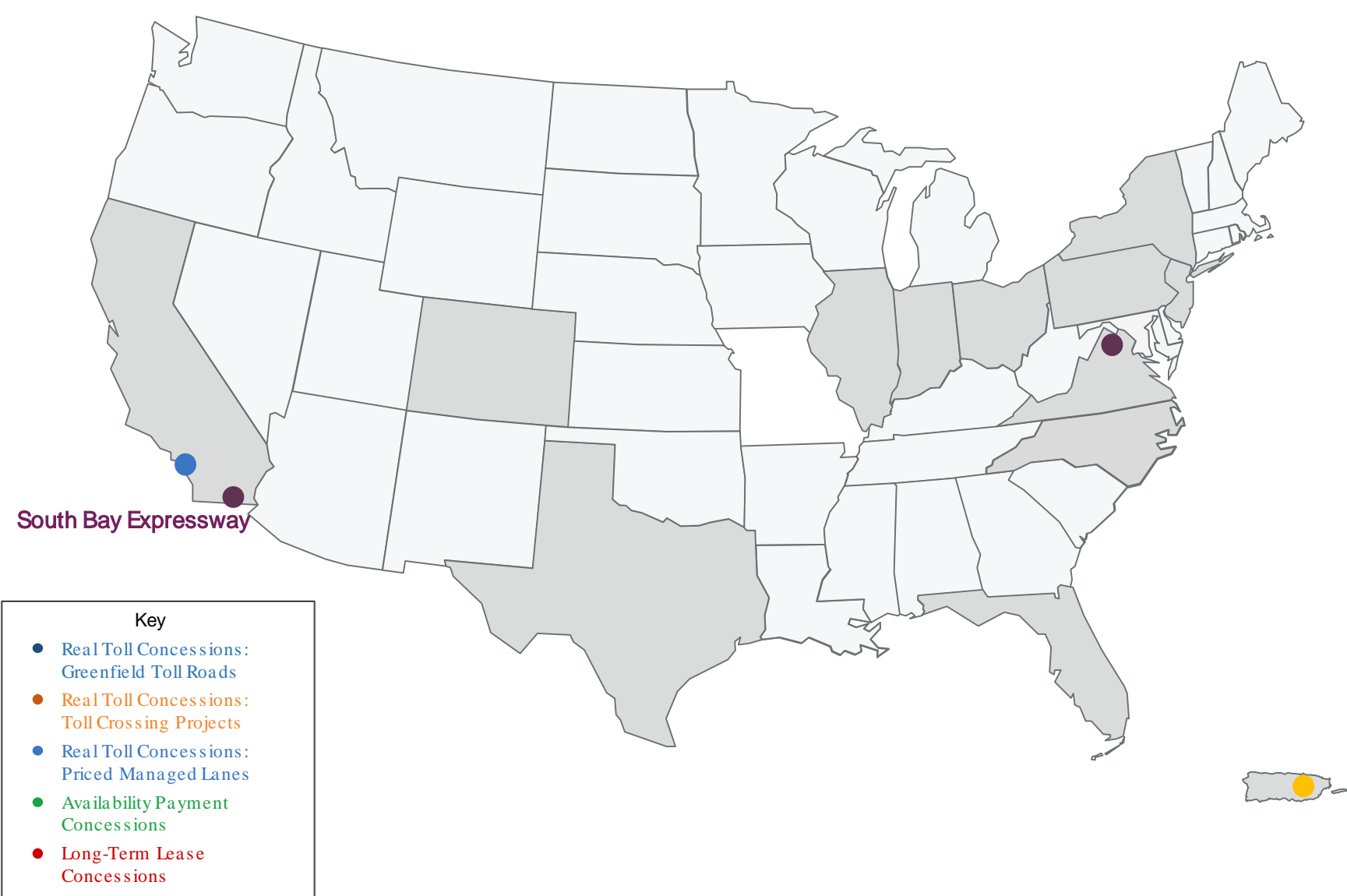
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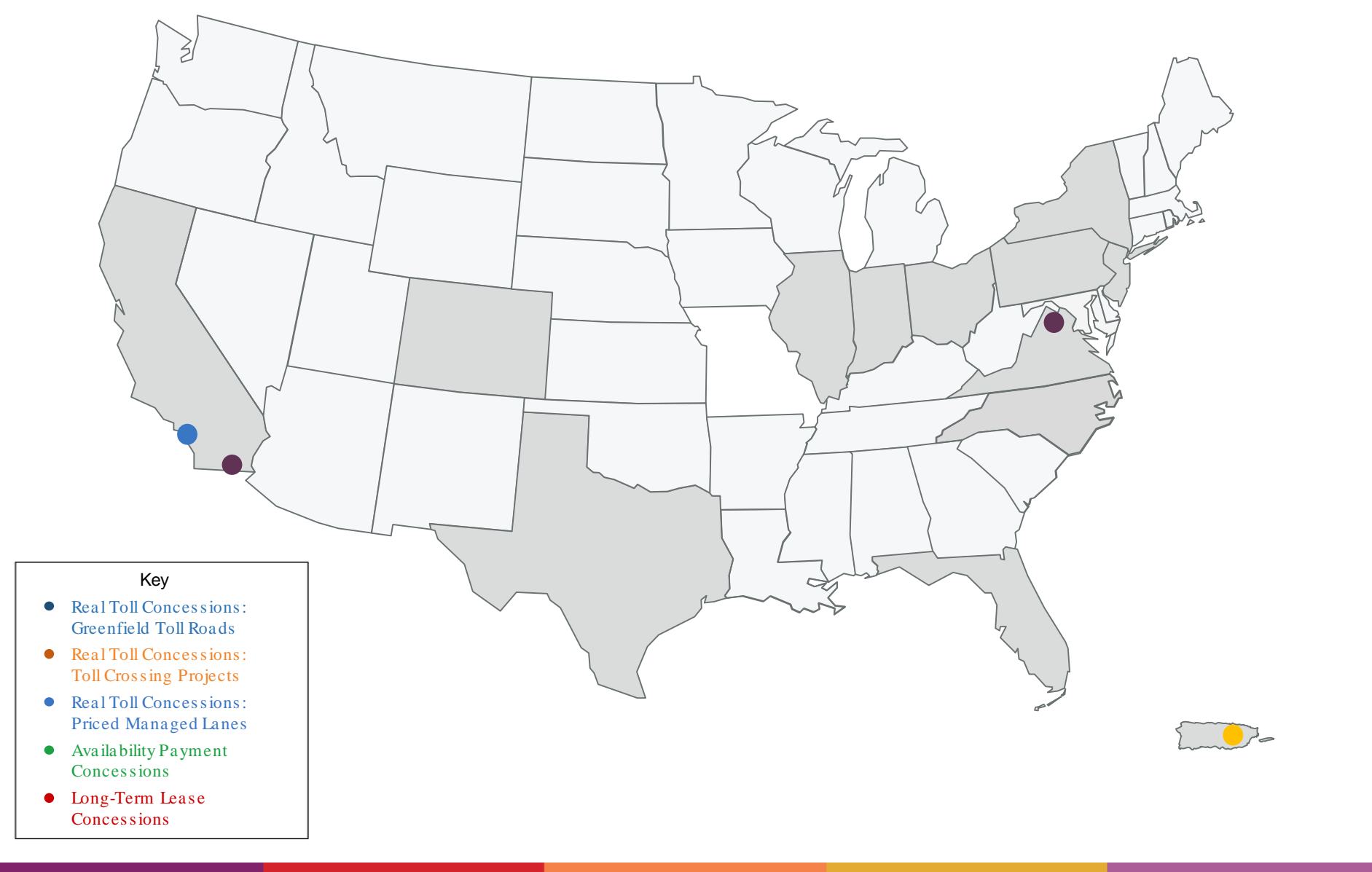
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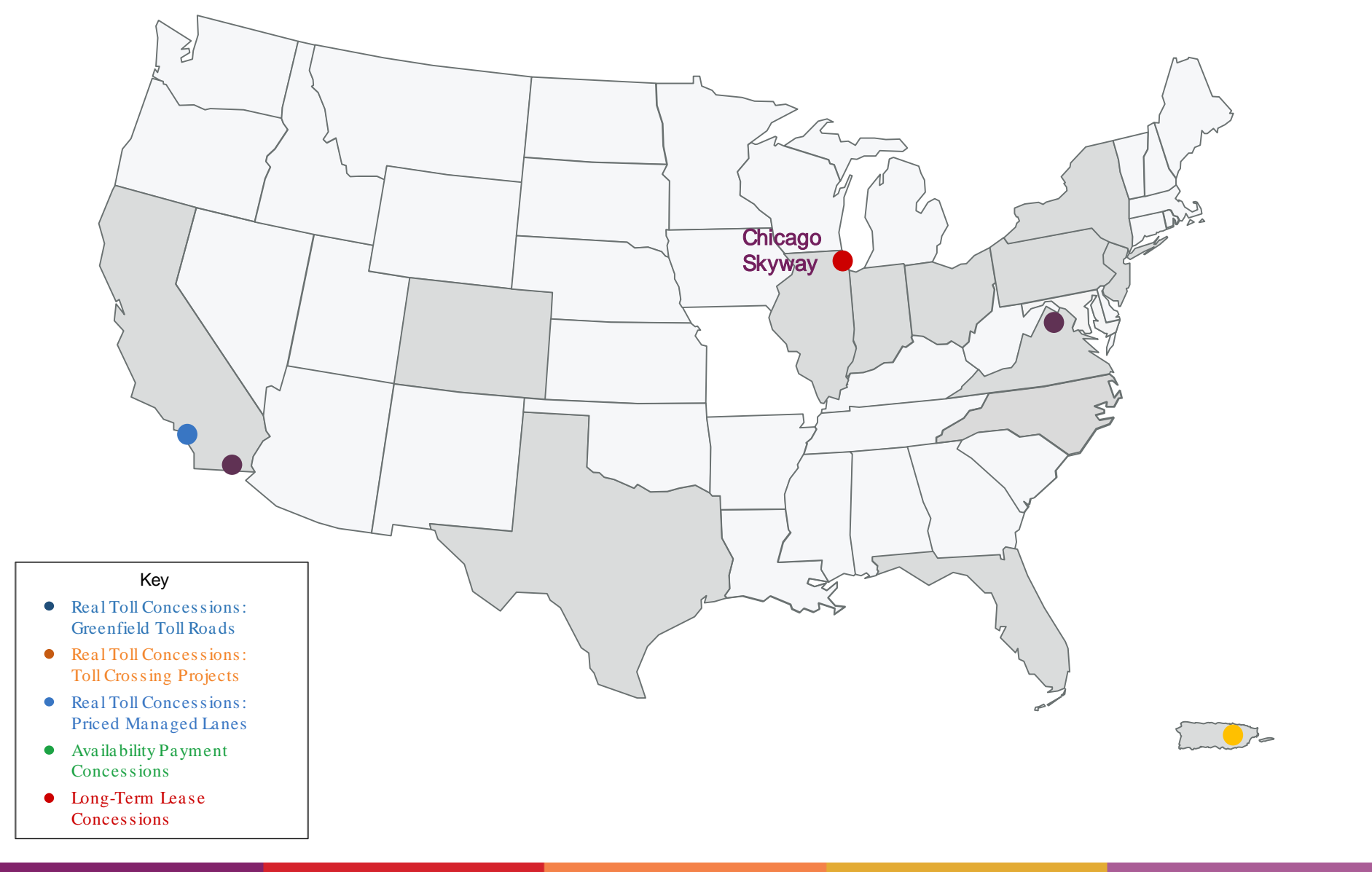
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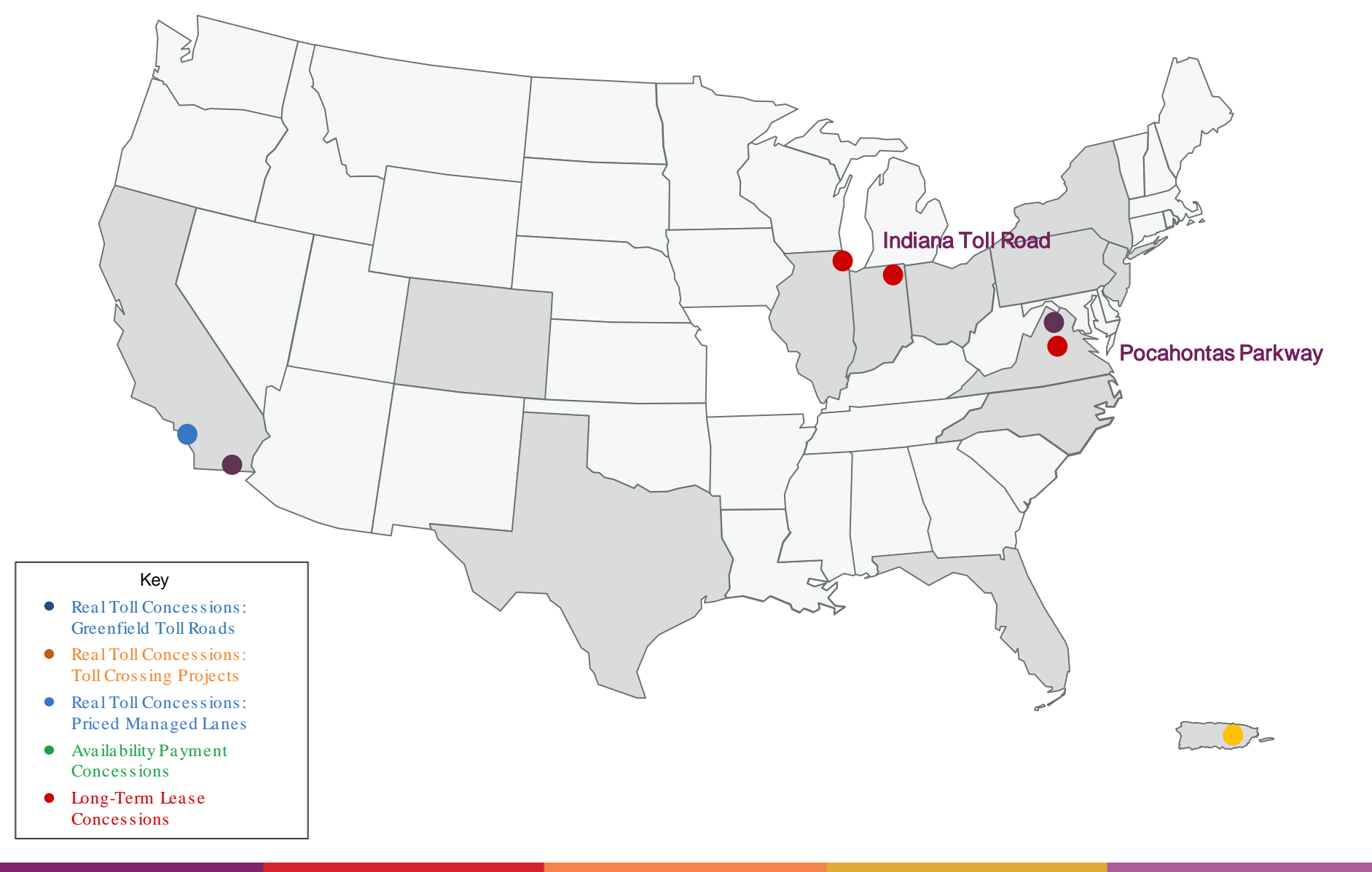


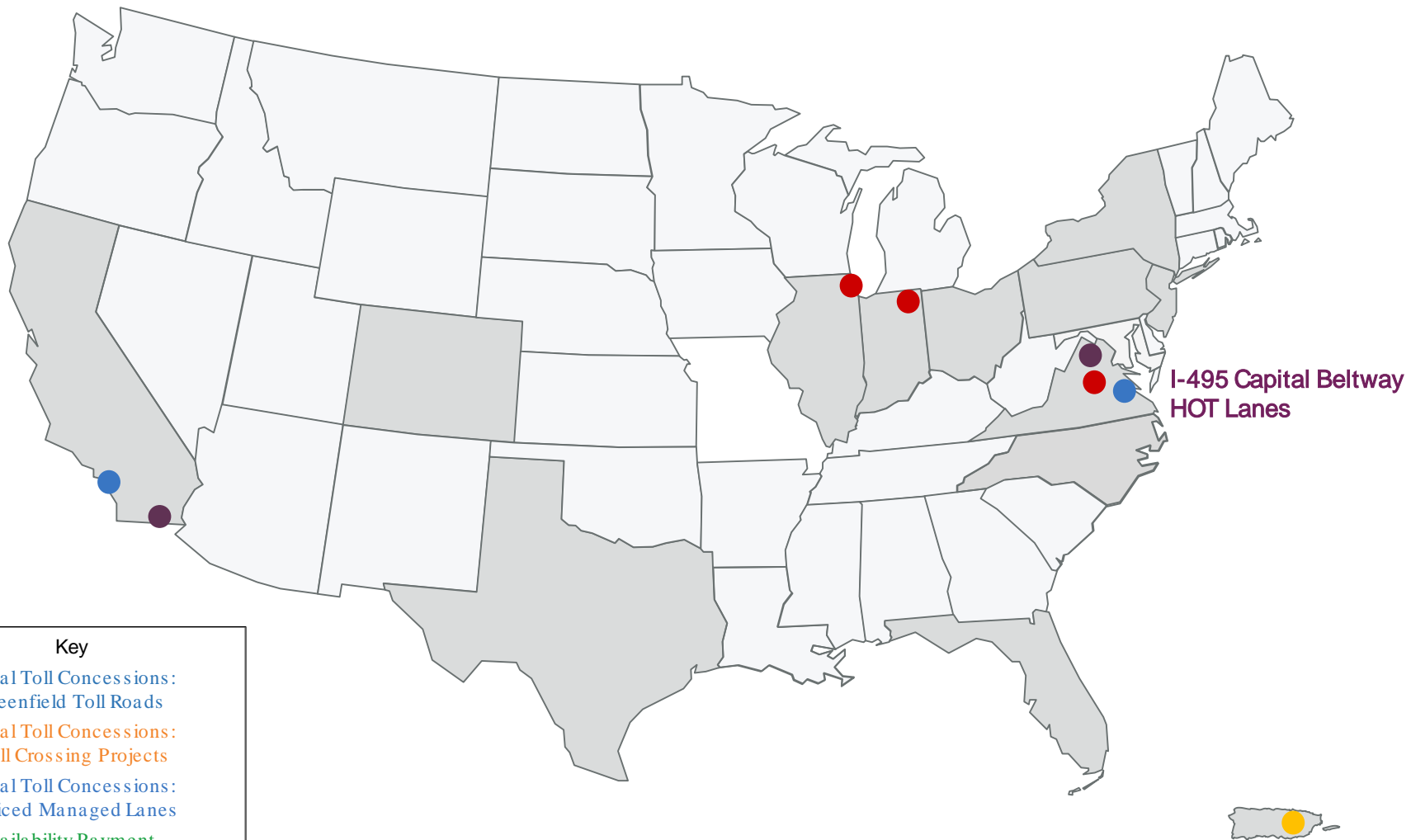


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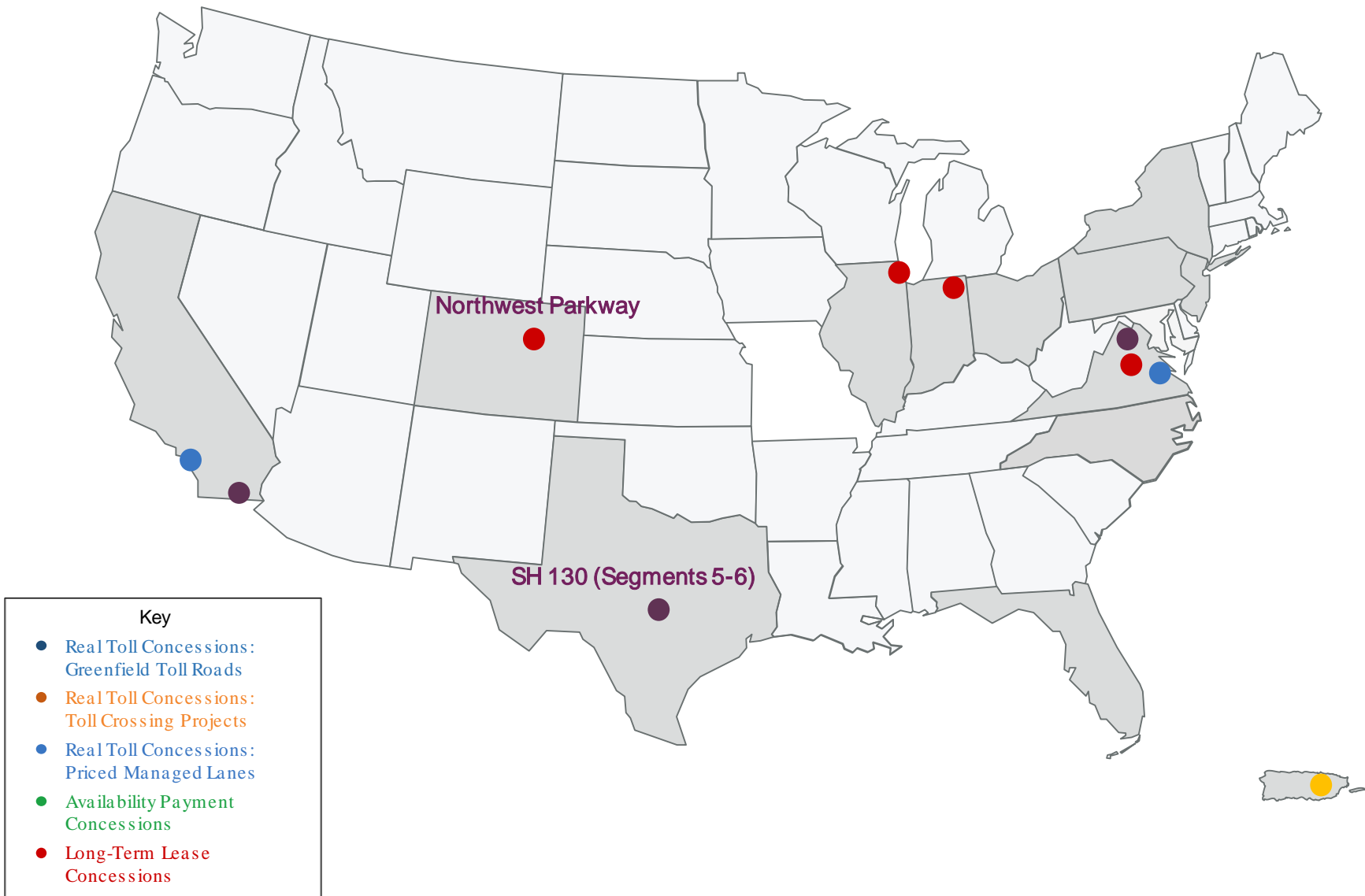


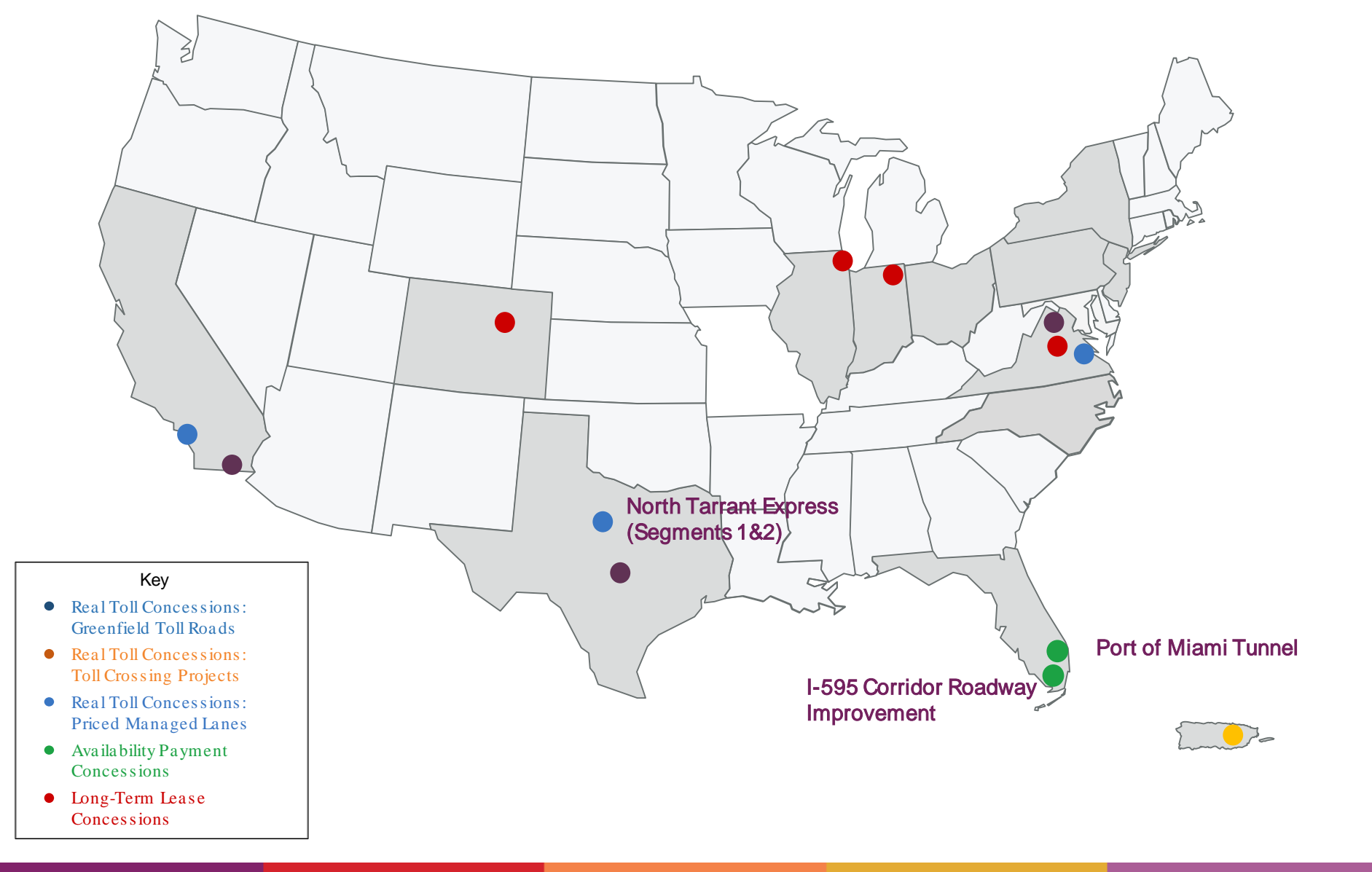


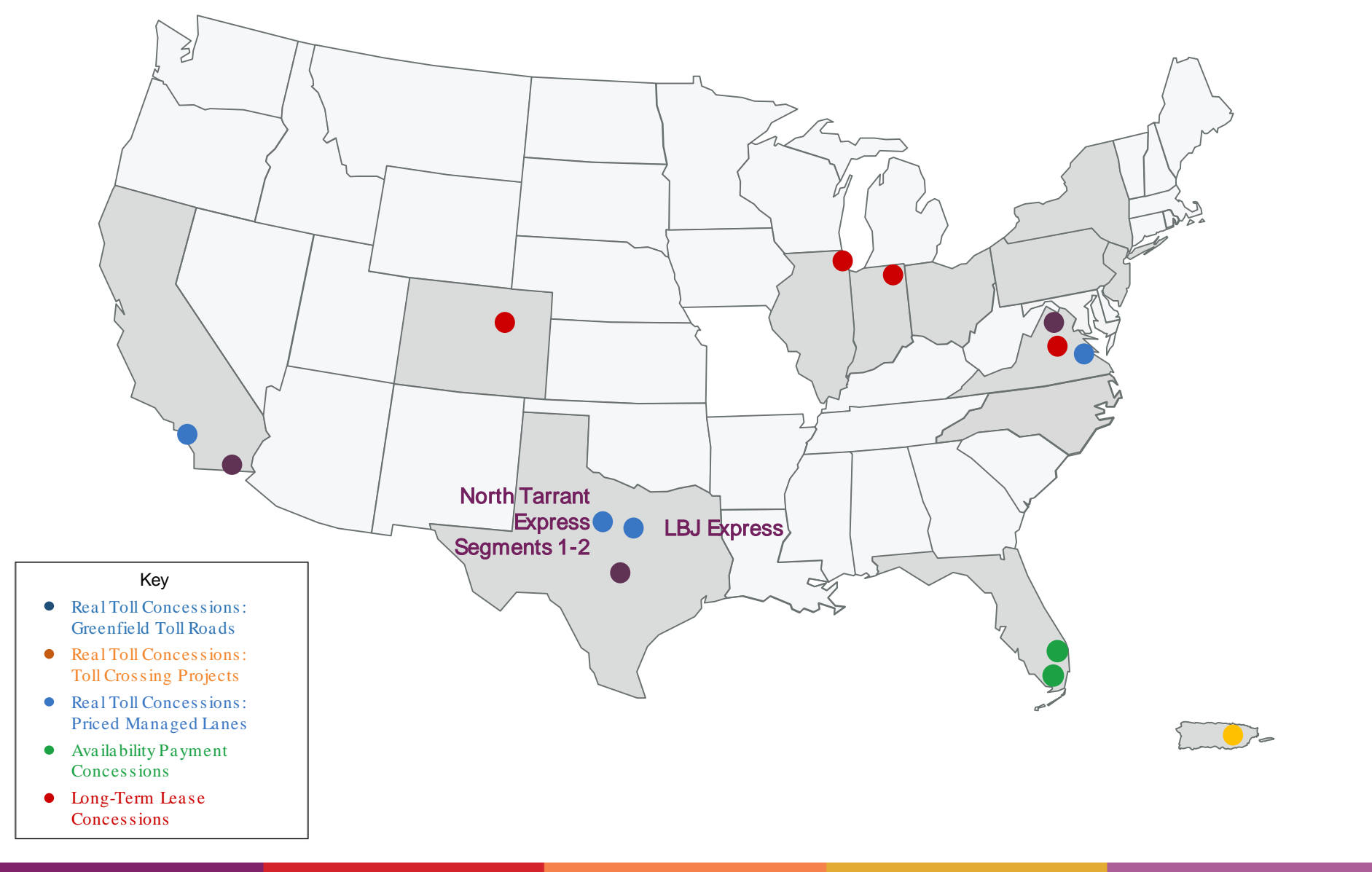


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1992 1993

2003

2005 2006

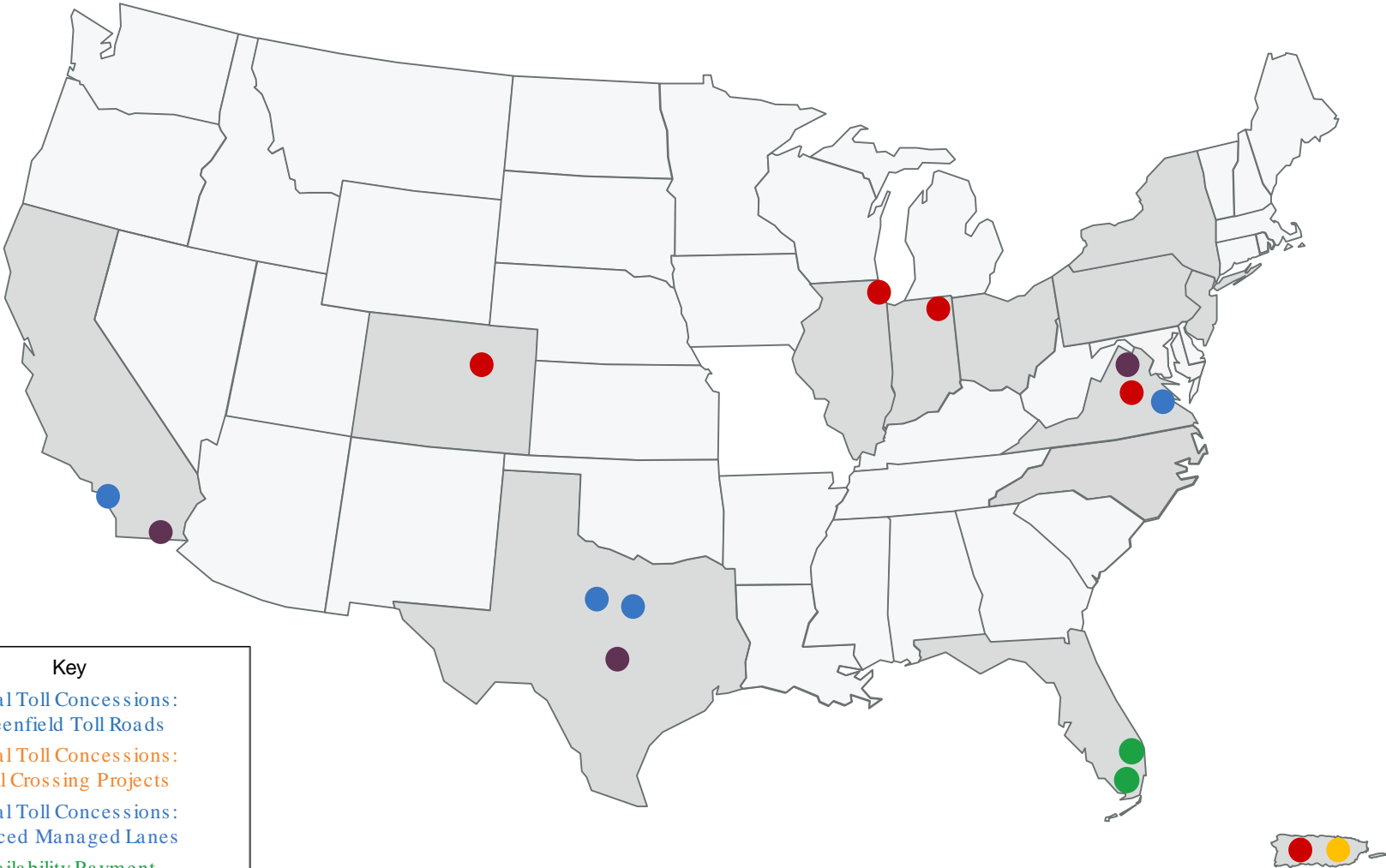
2007

2008

2009

2010

2011



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PR 22 and PR5 Lease



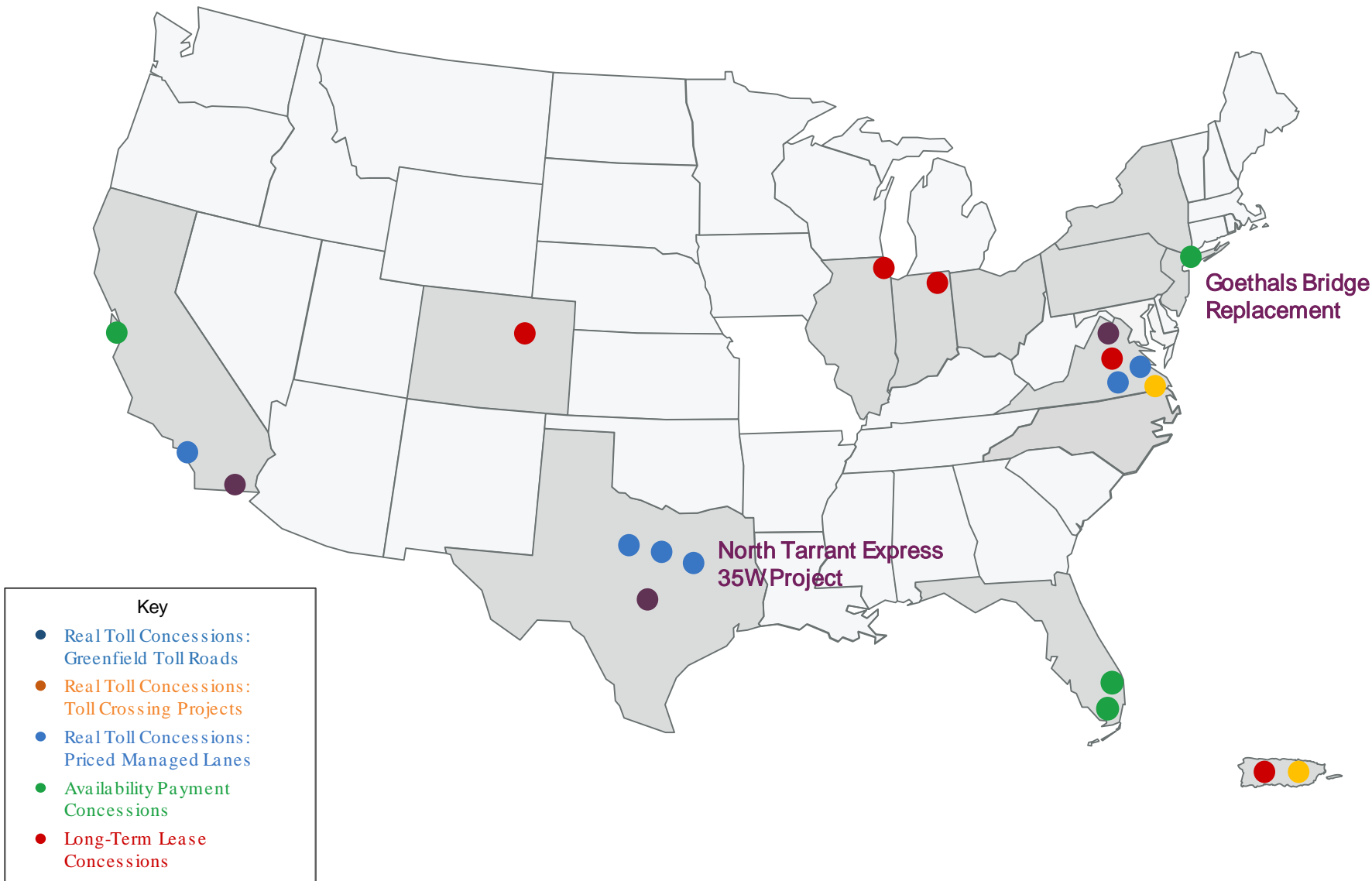
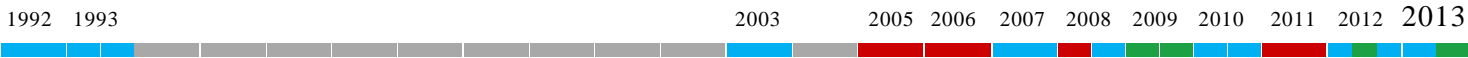
Presidio Parkway

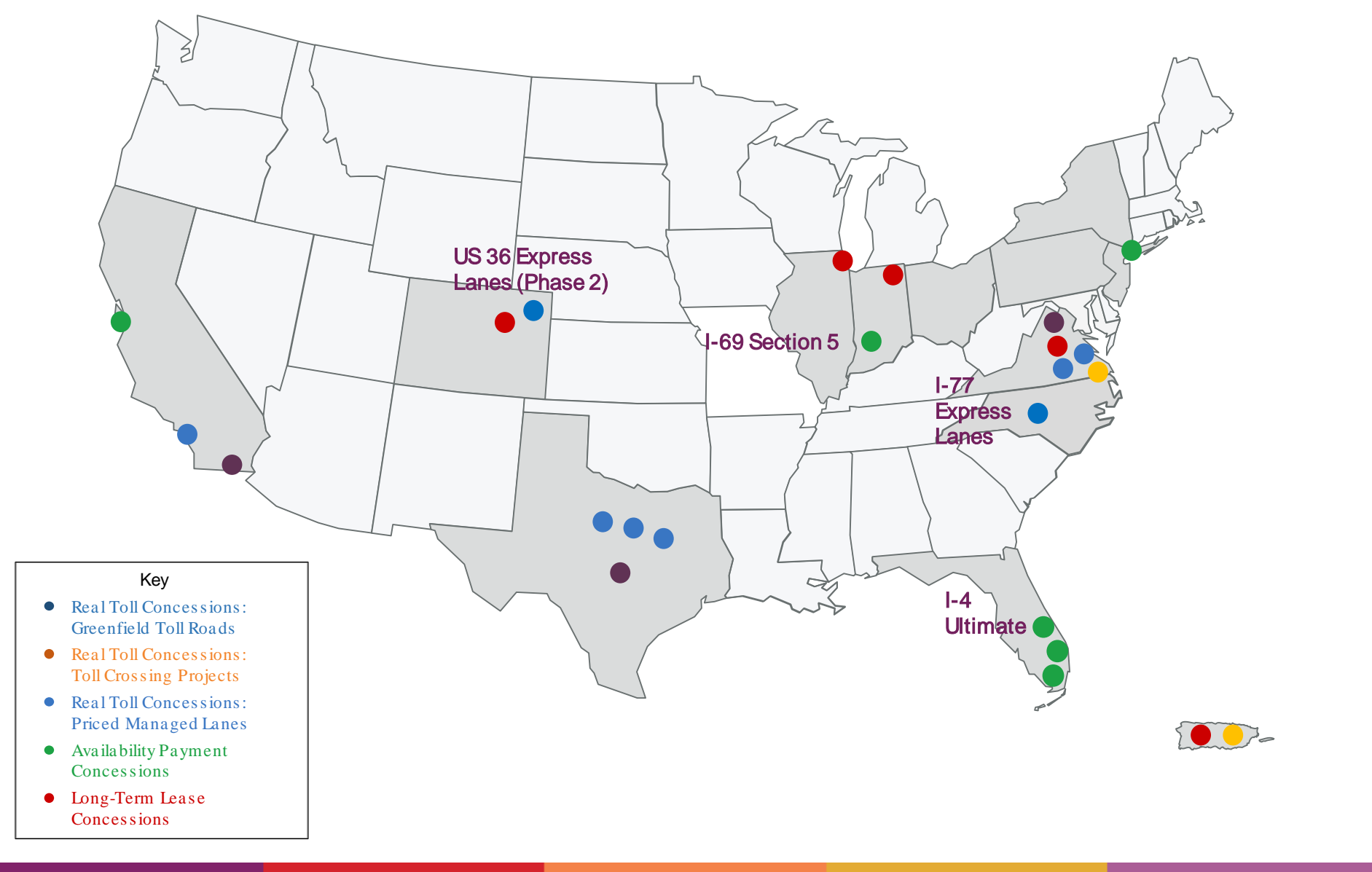
I-95 HOV/HOT Lanes

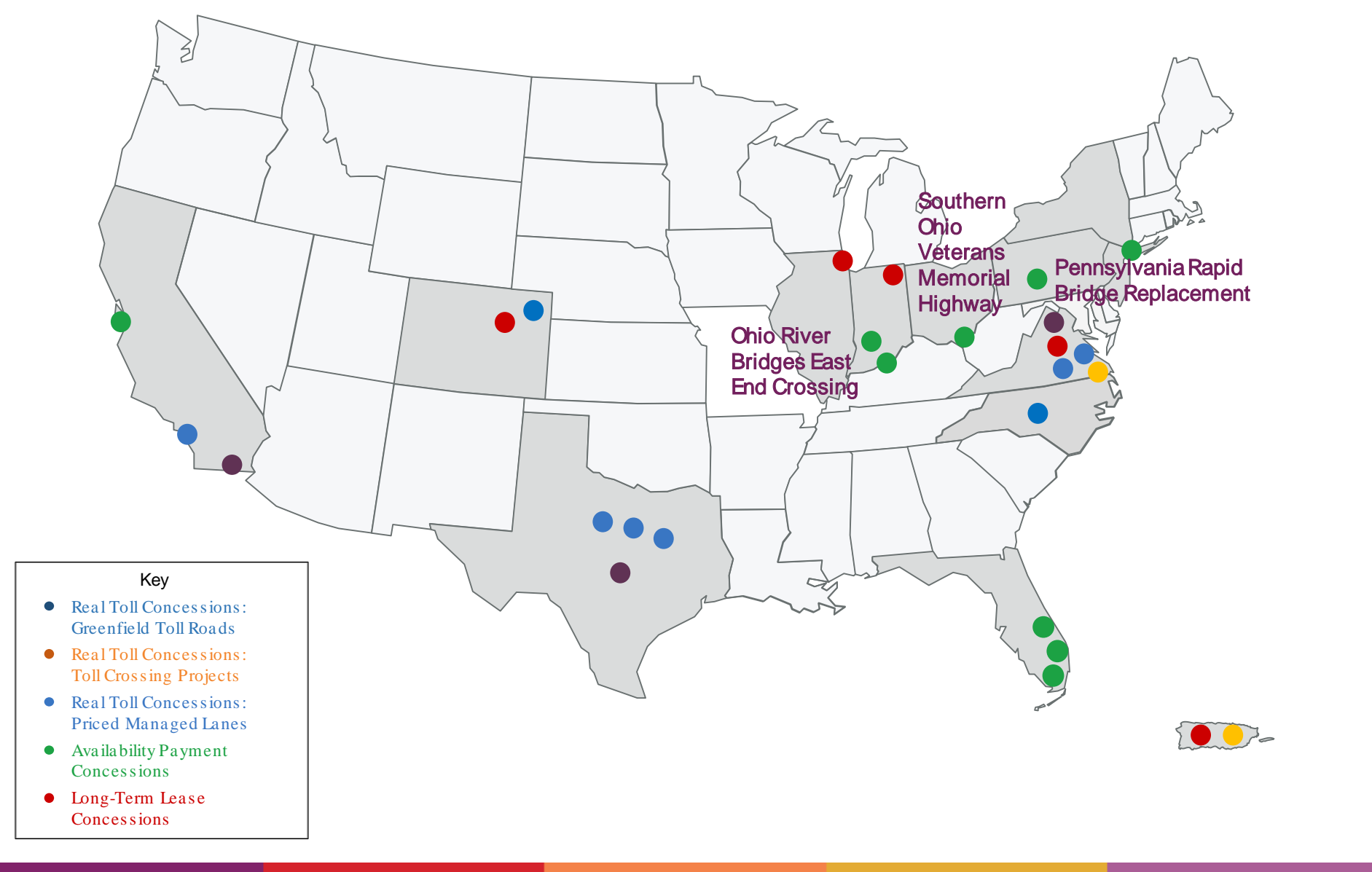
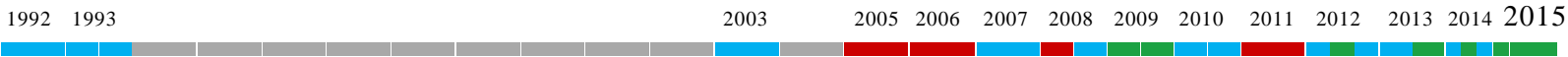
Elizabeth River Tunnels

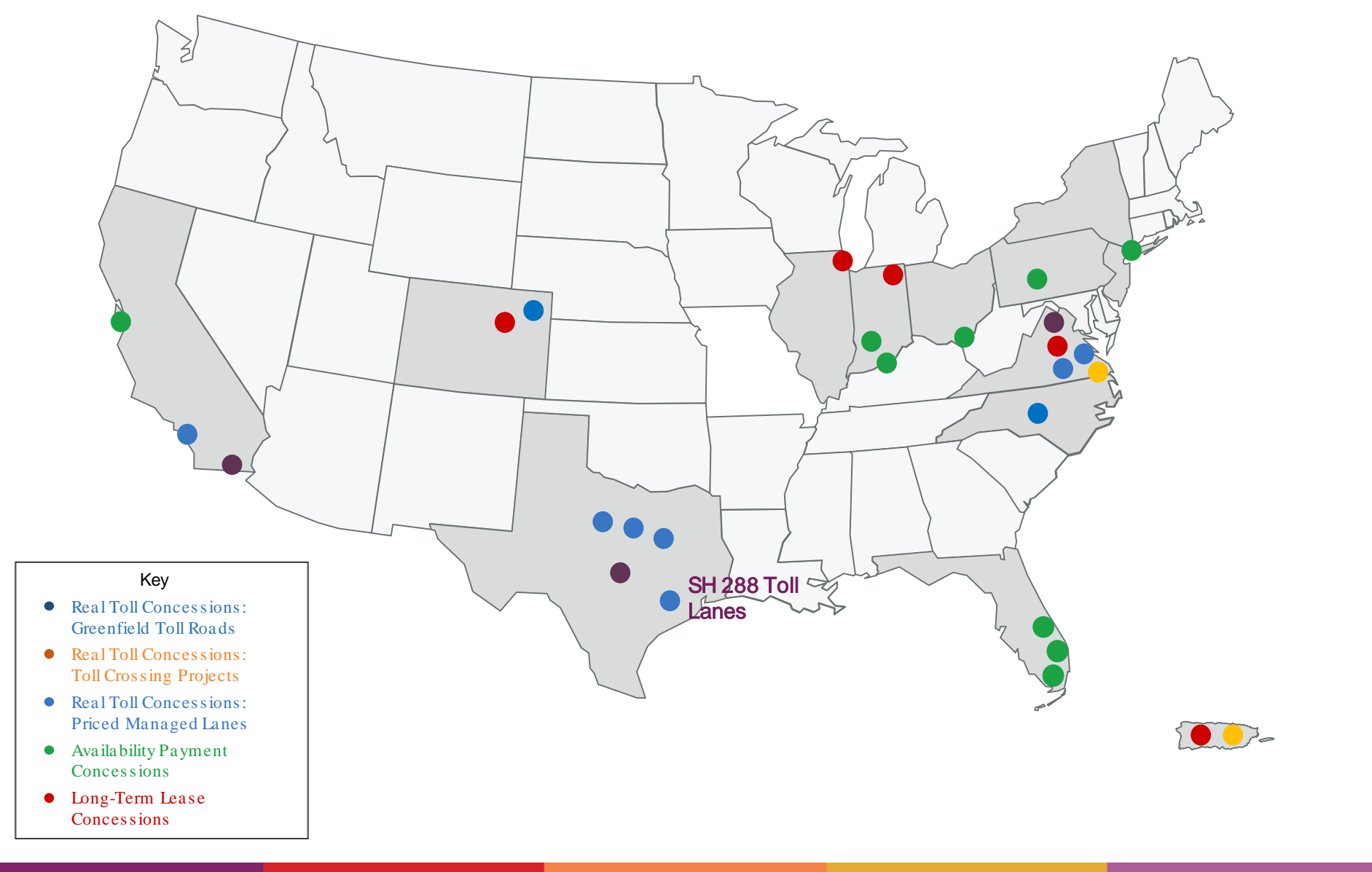
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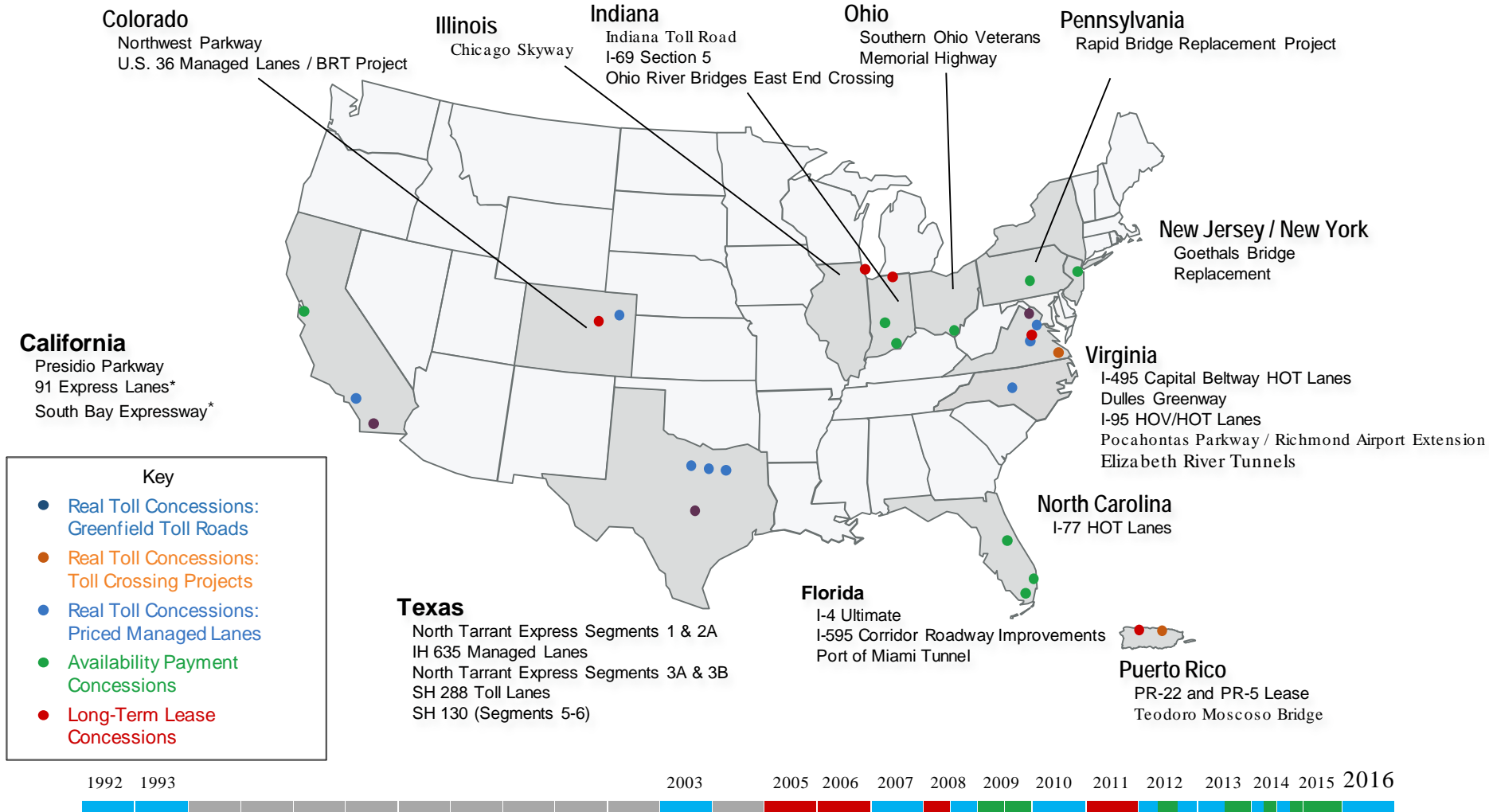


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SH 288 Toll
Lanes

P3 Concessions in the U.S. by Type



*Facility now under public management and operation

Questions?

Submit a question using the chat box



U.S. P3 Highway Concessions

- 14 Real Toll Concessions
 - 3 Greenfield Toll Roads
 - 2 Fixed Crossings
 - 9 Priced Managed Lanes
- 9 Availability Payment Concessions
- 5 Long-term Lease Concessions

Real Toll Concessions in the U.S.

Colorado

U.S. 36 Managed Lanes / BRT Project

California

91 Express Lanes*
South Bay Expressway*

Texas

North Tarrant Express Segments 1 & 2A
IH 635 Managed Lanes
North Tarrant Express Segments 3A & 3B
SH 288 Toll Lanes
SH 130 (Segments 5-6)

Virginia

I-495 Capital Beltway HOT Lanes
Dulles Greenway
I-95 HOV/HOT Lanes
Elizabeth River Tunnels

North Carolina

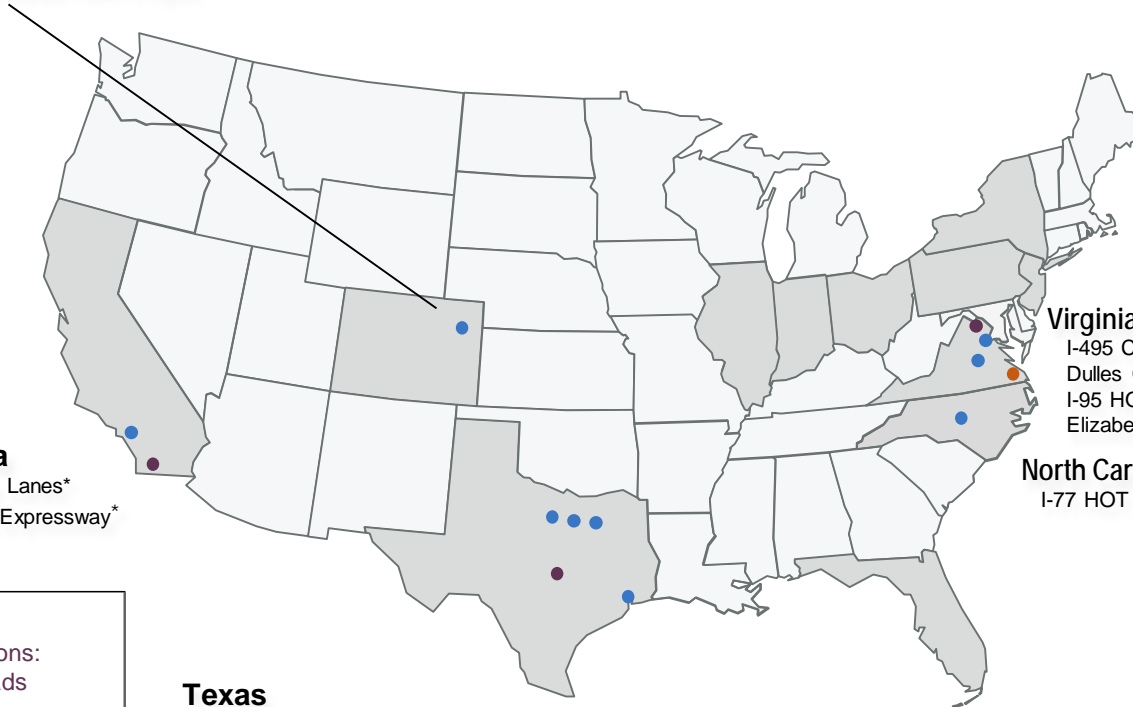
I-77 HOT Lanes

Puerto Rico

Teodoro Moscoso Bridge
\$127 million

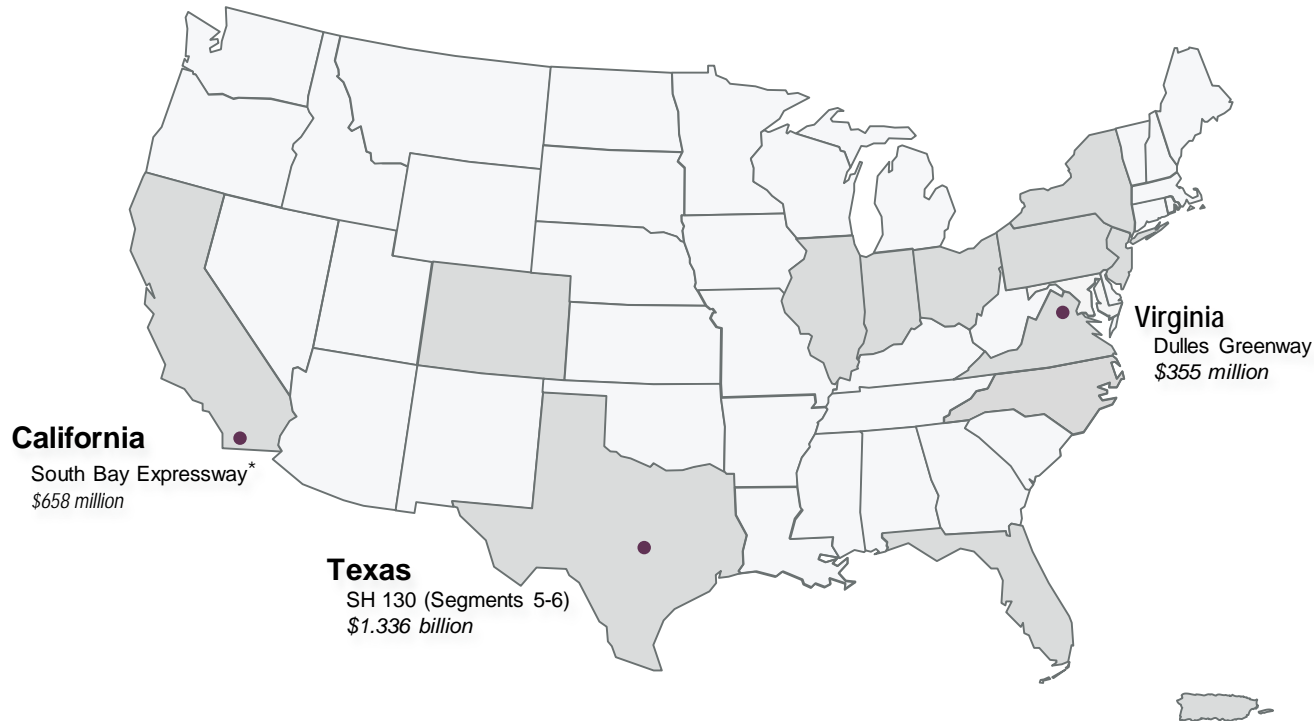
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Priced Managed Lanes



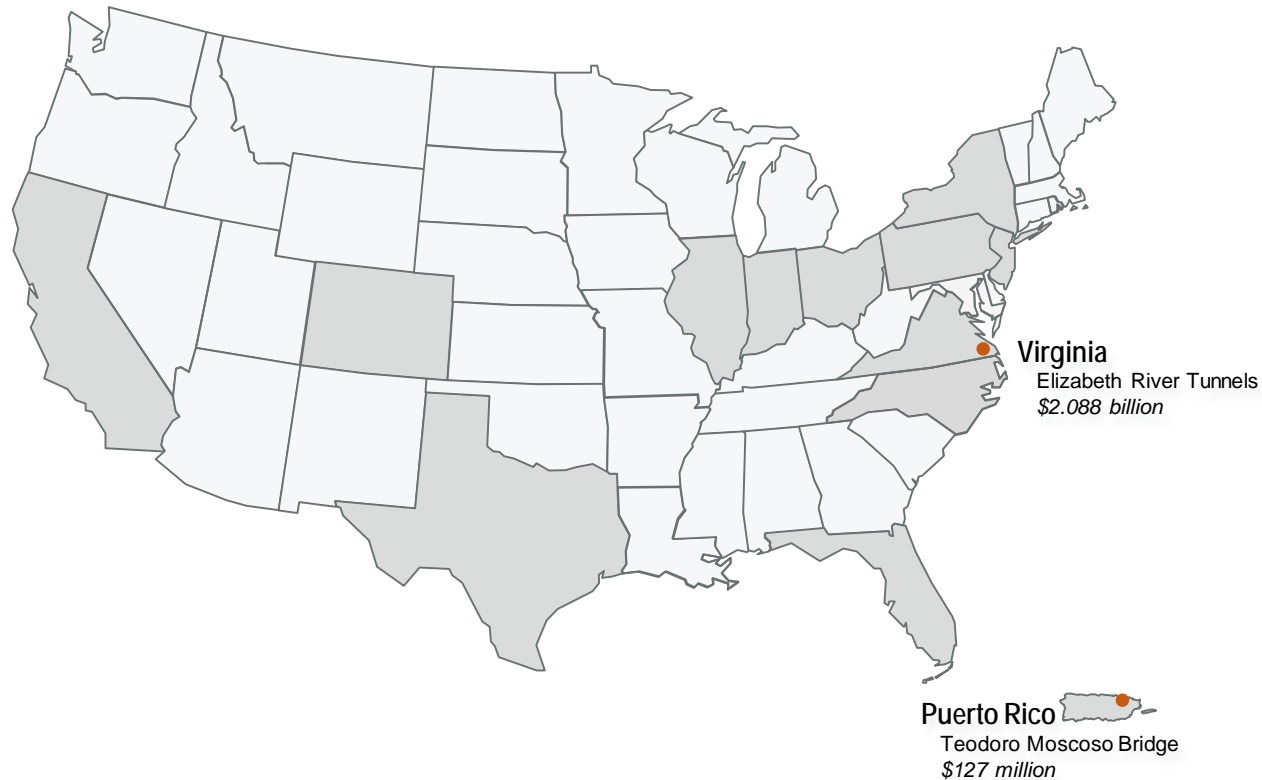
*Facility now under public management and operation

Greenfield Toll Road Concessions



**Facility now under public management and operation*

Fixed Crossing Real Toll Concessions



**Facility now under public management and operation*

Managed Lane Toll Concessions

Colorado

U.S. 36 Managed Lanes / BRT Project
\$209 million

California

91 Express Lanes*
\$119 million

Texas

North Tarrant Express Segments 1 & 2A
\$2.122 billion

IH 635 Managed Lanes
\$2.645 billion

North Tarrant Express Segments 3A & 3B
\$1.641 billion

SH 288 Toll Lanes
\$1.063 billion

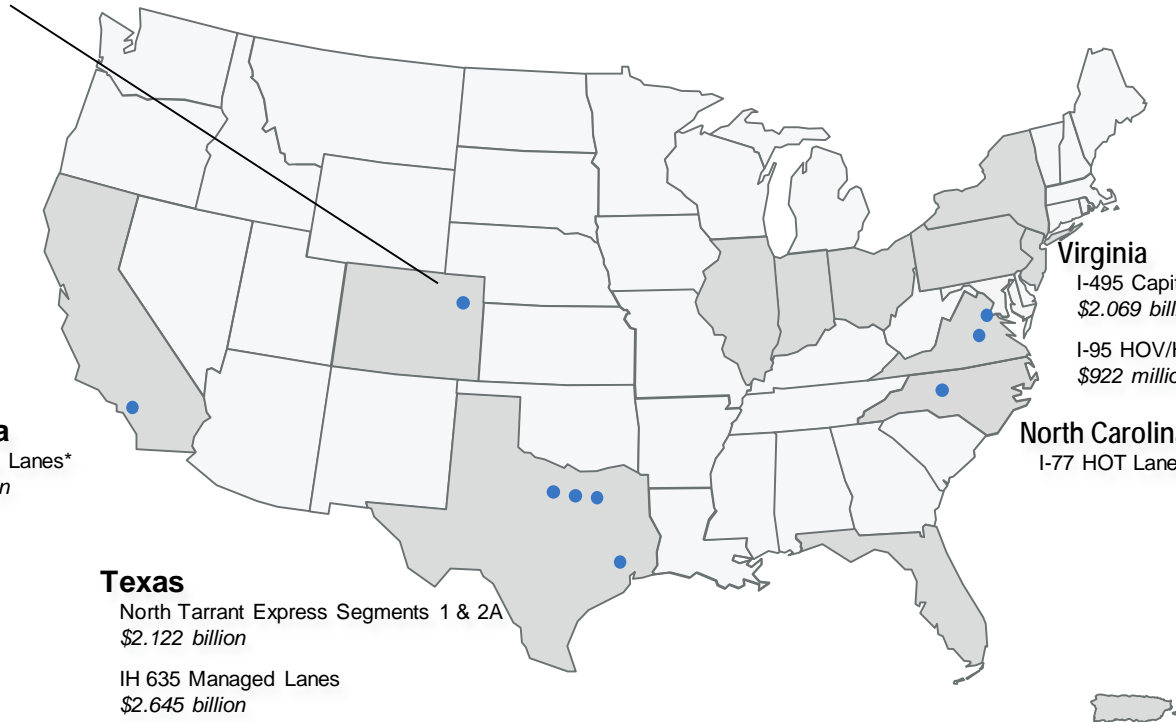
Virginia

I-495 Capital Beltway HOT Lanes
\$2.069 billion

I-95 HOV/HOT Lanes
\$922 million

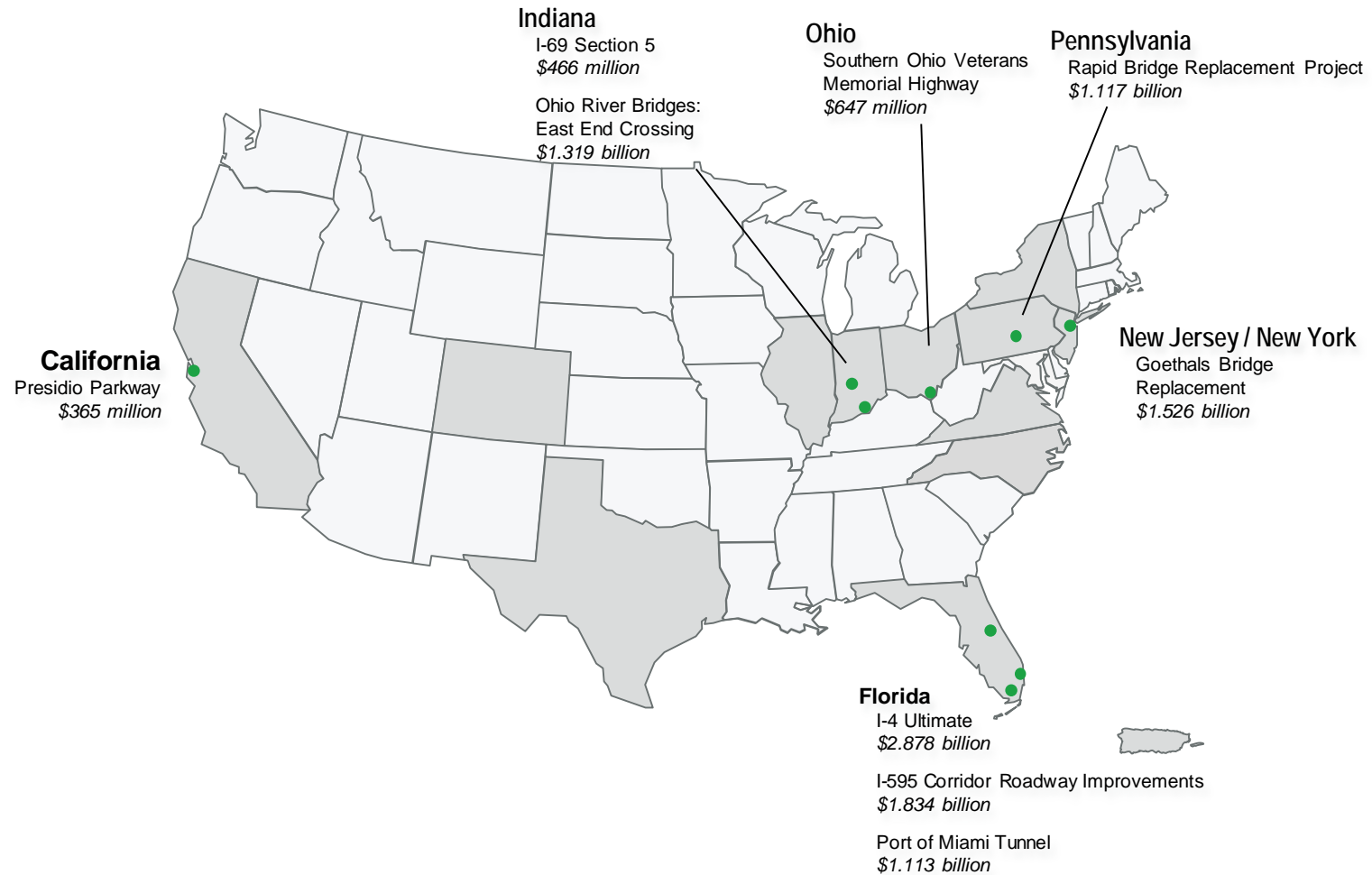
North Carolina

I-77 HOT Lanes

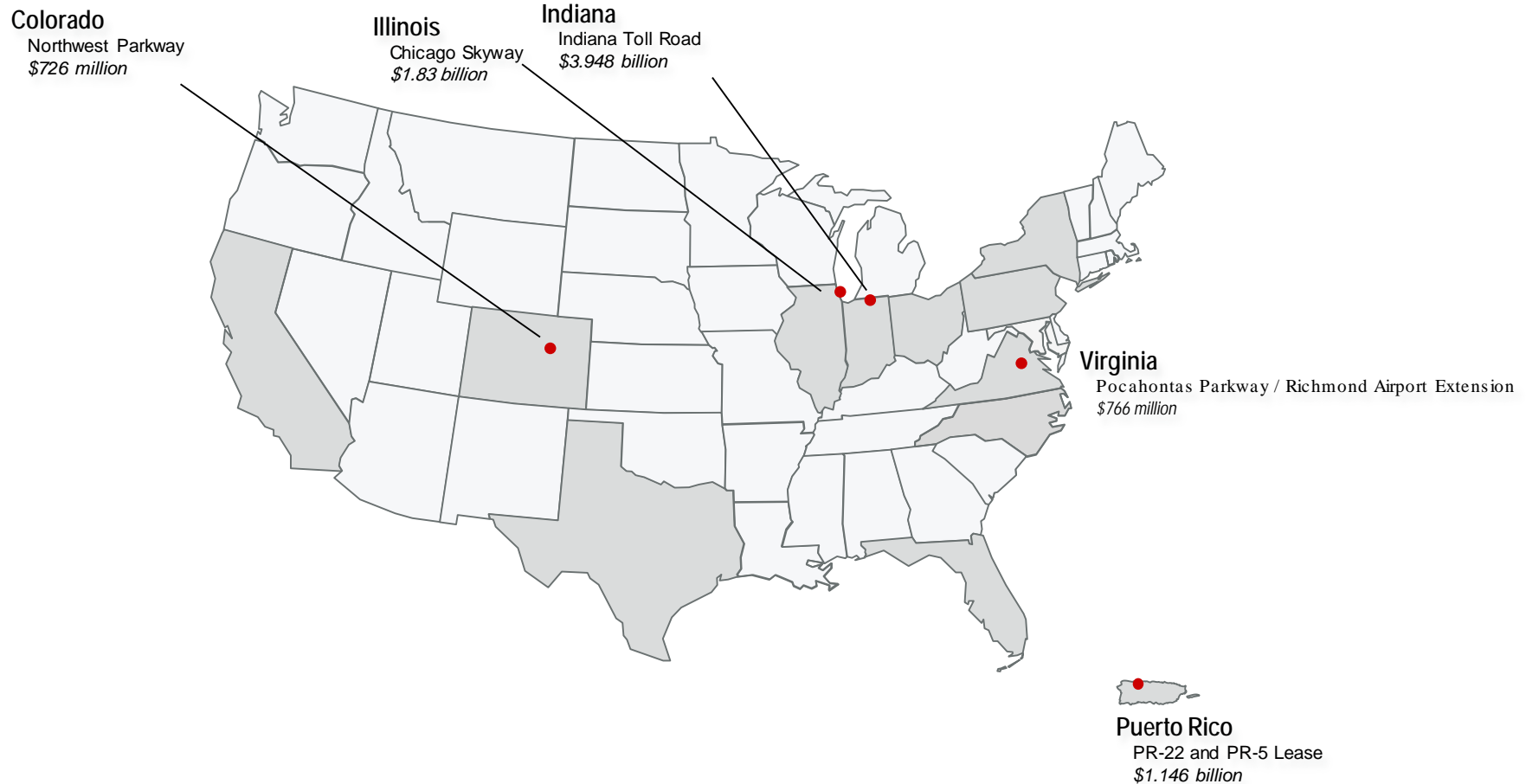


*Facility now under public management and operation

Availability Payment Concessions




Long-term Lease Concessions



Questions?

Submit a question using the chat box





Financing P3 Concessions (Chapter 4 contd.)

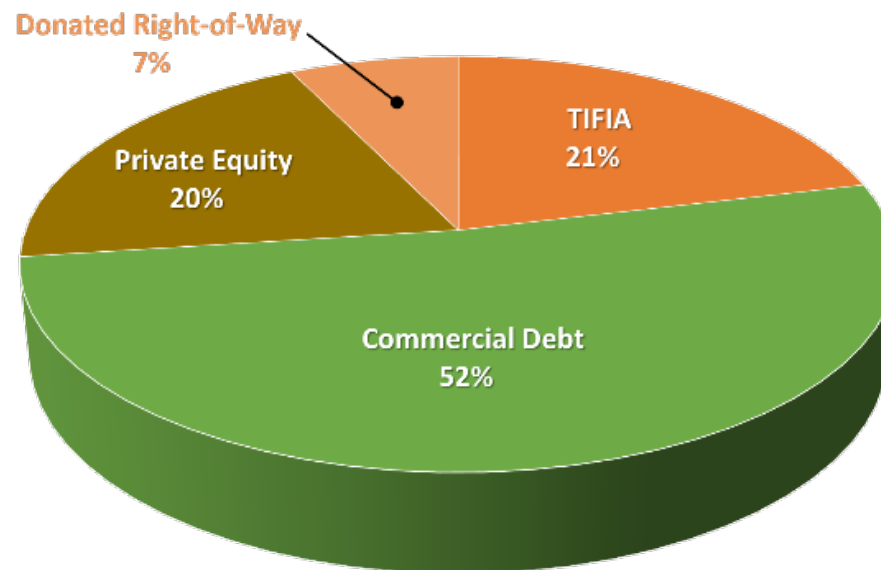


Financing P3 Concessions

- Debt
 - Commercial bank debt
 - TIFIA credit program introduced in 1998
 - PABs introduced in 2005
- Equity
 - Private partner equity
- Public sector grants

Financing Real Toll Concessions

South Bay Expressway, 2003 *\$658 million*

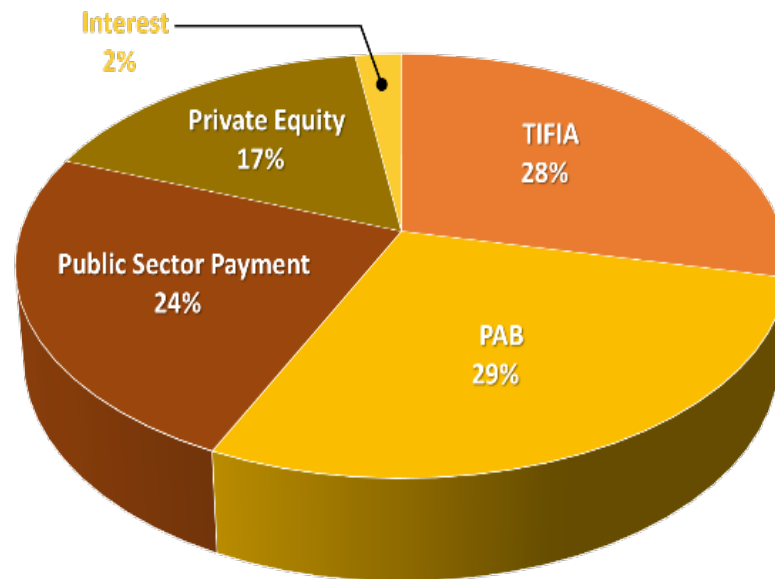


First TIFA loan to a P3 project



Financing Real Toll Concessions

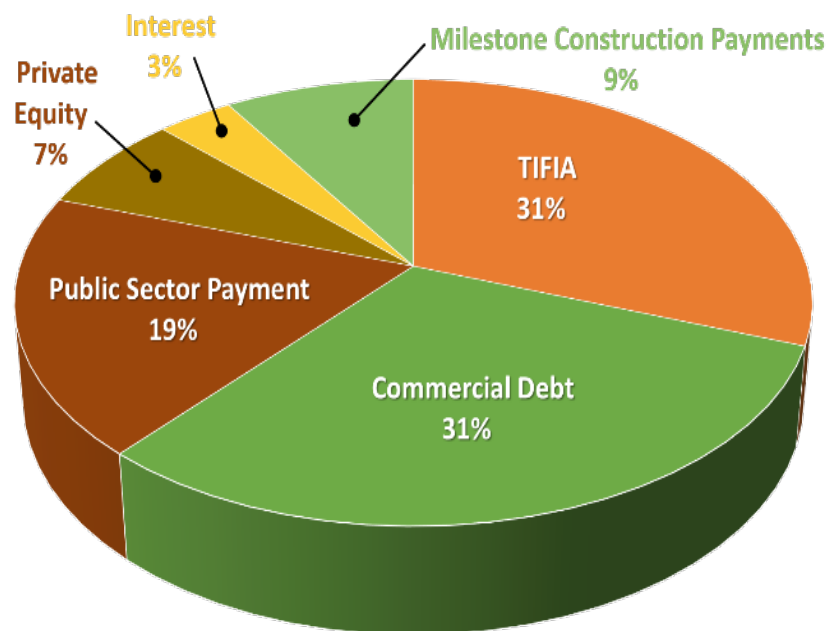
I-495 Capital Beltway HOT Lanes, 2007 *\$2.069 billion*



First P3 project to use PABs

Financing Availability Payment Concessions

Port of Miami Tunnel, 2009 *\$1.113 billion*

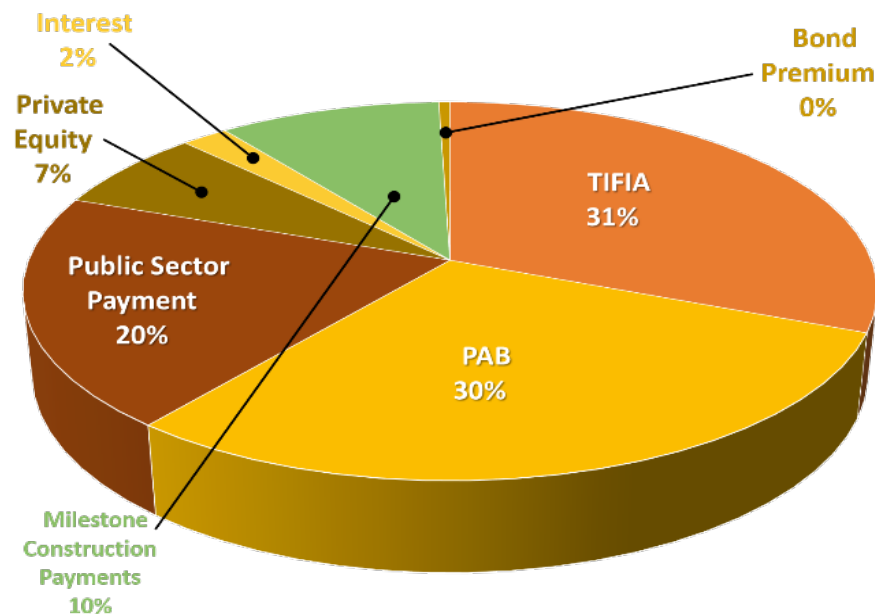


Project was “federalized” in order to use TIFIA financing



Financing Availability Payment Concessions

Goethals Bridge Replacement, 2013 *\$1.526 billion*

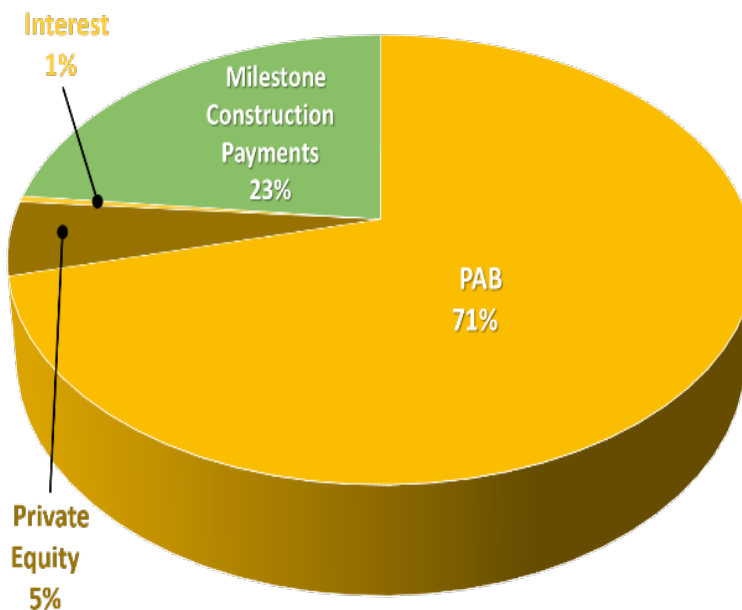


First availability payment financing to use TIFIA and PABs



Financing Availability Payment Concessions

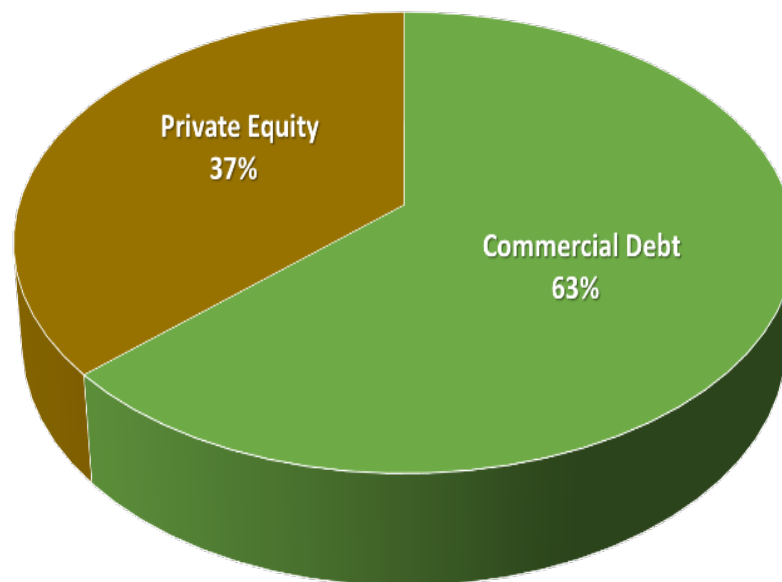
PA Rapid Bridge Replacement Program, 2015 *\$1.117 billion*



\$721 million PAB – the largest PAB issue to date in the U.S.

Financing Long-Term Lease Concessions

Northwest Parkway, 2008
\$726 million



Typical long-term lease financing package



Questions?

Submit a question using the chat box



Closing

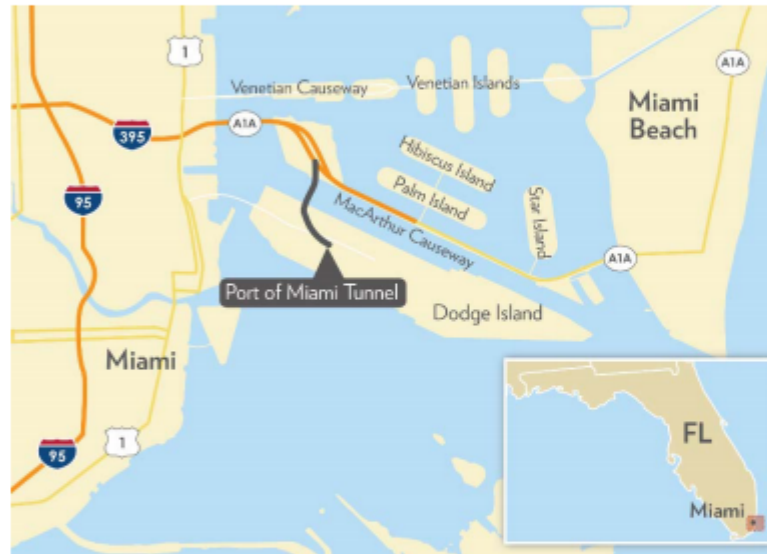


Port of Miami Tunnel

MIAMI, FLORIDA

Project Overview

The Port of Miami Tunnel (POMT) has improved access to and from the Port of Miami, serving as a dedicated roadway connector linking the Port with the MacArthur Causeway and I-395. Previously the Port (located on an island in Biscayne Bay) was linked to the mainland only by the Port Bridge. The tunnel has improved access to the Port and traffic safety in downtown Miami by removing cargo trucks and cruise line buses from congested city streets, thereby facilitating ongoing and future development plans in and around downtown



Miami. The project includes a tunnel under the Main Channel and related roadway work, including the widening of the MacArthur Causeway Bridge. Twin tubes, each 3,900 feet long and 41 feet in diameter, reach a depth of 120 feet below the water. The total capital cost of the project is \$1,113 million.

The Port of Miami Tunnel was developed as a public-private partnership (P3) between the Florida Department of Transportation (FDOT) and Miami Access Tunnel, LLC (MAT). Following a five-year construction period, MAT will operate the tunnel for 30 years in exchange for an annual availability payment. The POMT was the second availability payment P3 project to reach financial close in the United States.

Project History

Highway P3 Project Pipeline

- Transform 66 – Outside the Beltway, VA – *\$2.5 to 4.0 billion real toll*
- I-55 Managed Lanes, IL – *\$424 million real toll*
- I-70 East Viaduct, CO – *\$1 billion availability payment*
- Hampton Roads Bridge Tunnel Crossing, VA – *\$6 billion possible P3*

Related P3 Project Information

- Center for Innovative Finance Support Project Profiles
https://www.fhwa.dot.gov/ipd/project_profiles/
- Build America Bureau P3 Highlights
<https://www.transportation.gov/buildamerica/projects/project-highlights>

FHWA P3 Toolkit: <https://www.fhwa.dot.gov/ipd/p3/toolkit/>

FACT SHEETS

- Ten concise single-sheet discussions of key P3 concepts for a non-technical audience

PRIMERS

- P3 Concessions for Highway Projects
- Risk Assessment
- Value for Money
- Financial Structuring and Assessment
- Establishing a P3 Program

GUIDES

- How FHWA Reviews P3s
- Model Toll Concession Contracts
- Model Availability Payment Contracts
- P3 Project Financing
- Risk Assessment
- Value for Money
- Benefit–Cost Analysis

DISCUSSION PAPERS

- Revenue Risk Sharing
- Performance Requirements for Design and Construction in P3s

ANALYTICAL TOOLS

- P3-SCREEN
- P3-VALUE

INFORMATIONAL REPORTS

- Successful Practices for P3s
- Highway P3 Projects in the U.S



FHWA P3 Training

INTRODUCTORY

Introduction to P3s

- Overview
- Project Development
- Procurement
- Risk Assessment
- Value for Money
- Project Financing

Successful P3 Practices and Model Contracts

- Successful Practices Over Project Life Cycle
- Model Toll Concession Contracts
- Model Availability Payment Contracts

ADVANCED ANALYSIS

P3 Project Financing

- P3 Structuring
- Financial Viability
- Financial Models

Risk Assessments

- Risk Identification
- Risk Analysis and Valuation
- Risk Allocation

Value for Money

- Public Sector Comparator (PSC)
- P3 Option
- Evaluation

P3 Benefit-Cost Evaluation

- Estimating P3 Efficiency Impacts
- Estimating Public Benefits



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