

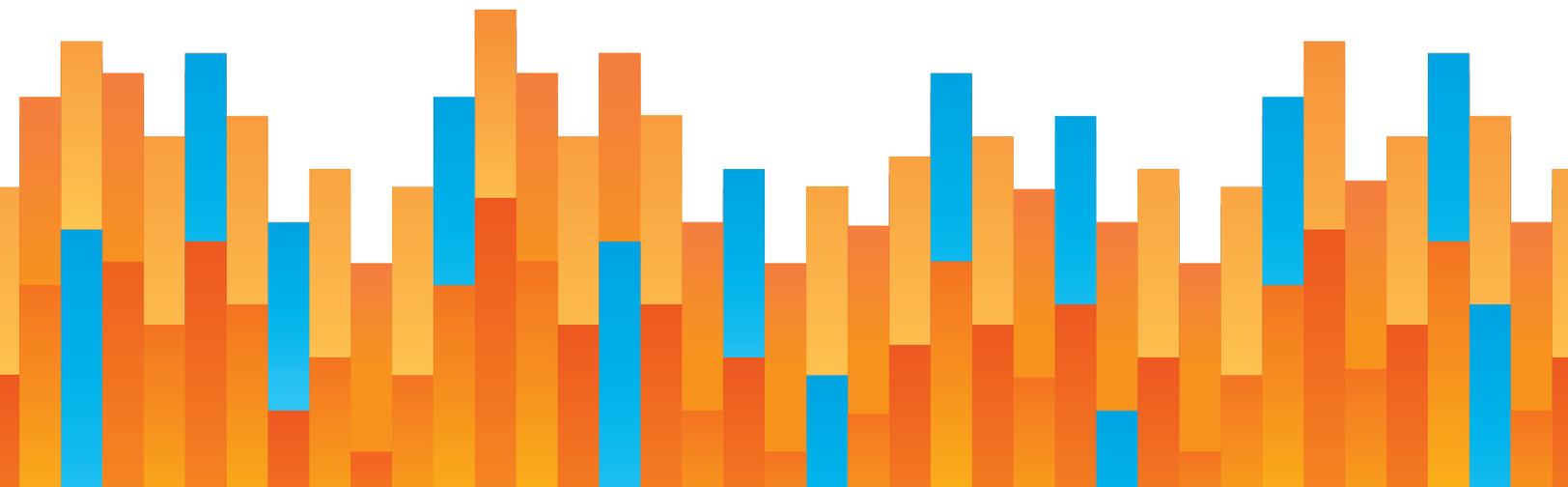


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USING TOLLING AND PUBLIC-PRIVATE PARTNERSHIPS TO FUND/FINANCE LOUISIANA'S ROADWAYS

by Baruch Feigenbaum and Austill Stuart
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PART 1

LOUISIANA'S HIGHWAY CONDITION AND FUNDING CHALLENGES

Building and maintaining a quality roadway network is critical to the movement of people, goods and services. Overall, Louisiana highways are in poor shape. The state ranks 14th worst in the nation in performance and cost effectiveness.¹ Of the 11 categories in the ranking, the state is in the bottom 10 in three: urban Interstate pavement condition (2nd worst), fatality rate (7th worst), and rural Interstate pavement condition (9th worst). The state ranks in the bottom 20 in three other categories: poor arterial pavement condition (11th worst), percentage of deficient bridges (12th worst) and urban area congestion (20th worst). While individual numbers vary slightly from year to year, the state's overall ranking has remained in the bottom 20 every year since 2012 (between 11th and 17th worst in the country each year).

¹ Fields, M. Gregory, Baruch Feigenbaum and Spence Purnell. "Ranking the Best, Worst, Safest and Most Expensive Highway Systems—The 23rd Annual Highway Report." 19. <https://reason.org/topics/transportation/annual-highway-report/>

TABLE 1: LOUISIANA'S HIGHWAY CONDITIONS IN U.S. STATE RANKINGS**Overall Ranking:**

- Overall Rank in 2015: #37 (14th worst)
- Overall Rank in 2013: #34 (17th worst)
- Overall Rank in 2012: #40 (11th worst)

Performance by Category in 2015:

- Urban Interstate Percent Poor Condition: #49 (2nd worst)
- Rural Interstate Percent Poor Condition: #42 (9th worst)
- Rural Other Principal Arterial Percent Poor Condition: #40 (11th worst)
- Urbanized Area Congestion, Peak Hours Spent in Congestion per Auto Commuter:* #31 (20th worst)
- Bridges Percent Deficient: #39 (12th worst)
- Fatality Rate per 100 Million Vehicle-Miles of Travel: #44 (7th worst)

*2016 data

Similar to other states, Louisiana's roadway congestion continues to increase. Segments of I-10 and I-610 experience chronic congestion up to eight hours per day.² I-10 in Baton Rouge between I-12 and I-610 is one of the most congested freeway segments of any midsized region anywhere in the country. Lafayette, Lake Charles and Shreveport also experience daily congestion. Clearly, the state needs to improve roadway quality and safety while decreasing congestion.

² "2018 Global Traffic Scorecard." INRIX. 2019. Web. www.inrix.com/scorecard/, 22 February 2019.

PART 2

CURRENT FUNDING AND FINANCING OF LOUISIANA'S ROADWAYS

Determining the preferred method to fund and finance roadway improvements has become increasingly challenging for both policy and political reasons. In many ways Louisiana's approach to funding and financing its roadways is stuck in the 20th century.

The de facto roadway funding mechanism in Louisiana is the gas tax. LaDOTD has a \$1.76 billion budget; as of 2016 the gas tax provided 90% of the funding, split 50/50 between the federal and state gas taxes.³ Vehicle registration fees, truck fees and tolling provide the rest.⁴

³ Ibid. 231.

⁴ "Transportation Governance and Finance." American Association of State Highway and Transportation Officials. 2016. www.financingtransportation.org/pdf/50_state_review_nov16.pdf 234. Web. 22 Feb. 2019.

Stretching the Gas Tax in Louisiana

The Louisiana Department of Transportation and Development (LaDOTD) could make several additional changes to stretch gas tax revenue further:

#1 Devolving Local Roads: *In most states the state transportation agency has jurisdiction over highways (arterials and major collectors), while local parishes and cities have jurisdiction over local roads (minor collectors and local streets). State highways prioritize travel speed while local roadways tend to prioritize access to business and residences. Yet LaDOTD maintains many local roads. Despite being the 18th smallest state in the country in area (square miles), the state has the 11th largest roadway network.⁵ As a result, LaDOTD has started the Road Transfer Program to devolve approximately 5,000 miles of local roads to local governments.⁶ We recommend the state work with local governments to devolve as many of these local roads as feasible over the next five years.*

#2 Using General Fund Revenue for Staff Salaries and Benefits: *There is a legal debate as to whether the gas tax revenue that supports the transportation trust fund can be used for current and retired employee salaries and benefits. While two attorney general rulings found personnel costs a legitimate use of gas tax revenue, some legal experts disagree.⁷ In addition to satisfying legal concerns, funding salary and benefits from the general funds would free up an additional \$133 million in gas tax revenues for building and maintaining roadways. For best practices, the legislature should study funding personnel expenses out of the general fund.*

#3 Rightsizing Staffing: *According to the most recent American Association of State Highway and Transportation Officials (AASHTO)/National Conference of State Legislators report, LaDOTD's 4,194 full-time employees⁸ are more staff than other peer states with bigger highway networks, such as Georgia. Many DOTs are moving to*

⁵ "Road Transfer Program." Louisiana Department of Transportation and Development. 2018. Web. wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Multimodal/Road_Transfer/Pages/default.aspx, 22 February 2019.

⁶ Based on Louisiana Legislature interpretation of transportation trust fund revenue.

⁷ Ibid.

⁸ "Transportation Governance and Finance."

outsource many duties including maintenance and construction. These DOTs have fewer overall employees, but pay them somewhat more to ensure that they attract the most talented employees. Devolving local roads to local governments will allow LaDOTD to reduce staff further. The state should examine ways to reduce staff while creating incentives to attract top talent.

While the gas tax has been an adequate funding mechanism for the last 80 years, increasing vehicle fuel economy and a growing number of electric vehicles result in less gas tax revenue being collected each year. Moreover, there is significant fuel tax evasion and exceptions for certain vehicle types that reduces revenue.⁹ The gas tax has been compared to a rock star on his farewell tour. Relying on the current gas tax as a long-term funding mechanism is not realistic.

Additionally, gas taxes are increasingly unfair to motorists. Due to the increased number of hybrid and fully-electric vehicles, the amount of gas tax paid depends on the type of car driven, not on the number of miles driven, even though all vehicle use degrades road quality. This is unfair, particularly to rural residents who are likely to have pickup trucks, and low-income residents who are more likely to have an older vehicle. In this way, some motorists are subsidizing roadway maintenance for others. Raising the gas tax would only exacerbate this unfairness, removing it as an option for funding road maintenance and increased capacity.

Finally, the gas tax fails to differentiate between roadway type. Interstates cost more to build and maintain than local roads, and urban highways are more expensive than rural highways. A better funding mechanism would account for these differences.

Adjusting the gas tax to account for all of these factors would lead to a funding mechanism so complex, that it eliminates the gas tax's one advantage: low cost of collection. Such a system would need to index the gas tax to fuel efficiency standards, add an electric vehicle fee, add a hybrid vehicle fee, eliminate fuel tax exemptions, and add a truck weight fee at a minimum. And after all those changes the gas tax would still need to be increased from time to time due to inflation. Louisiana needs a simpler, more equitable and more robust funding mechanism.

⁹ Weimar, Mark et al. "Identifying and Quantifying the Rates of State Motor Fuel Tax Evasion." National Academy of Sciences, 2008. Web, www.nap.edu/download/23069, 22 February 2019.

In light of future declines in gas tax revenue, there is little political consensus on the best way to fund and finance highway improvements. Policymakers agree that the Louisiana Department of Transportation and Development (LaDOTD) needs to improve roadway quality and reduce congestion. However, paying for these improvements is costly.

Across the country tolling is becoming a popular option to pay for such maintenance and new roadway capacity. Although Louisiana has several toll bridges, it has no tolled roadways or priced toll lanes, leaving most highways without a reliable and targeted means to fund maintenance. Likewise, for financing, Louisiana makes limited use of public-private partnerships (P3s) and related tools such as the Transportation Infrastructure Finance and Innovation Act (TIFIA) loans and Private Activity Bonds (PABs). As discussed in the next section, these financing tools allow projects to be paid for over the life of the infrastructure asset, similar to taking out a mortgage to pay off a home. They use private sector resources to stretch limited public funds further, and should be considered by Pelican State policymakers as a means to improve transportation infrastructure.

PART 3

FUNDING, FINANCING AND PUBLIC PRIVATE PARTNERSHIPS

Building and maintaining roadways requires both funding and financing. While the two terms are often used interchangeably, they have different meanings. Funding is the actual revenue required to pay for transportation projects, while financing is the tool used to acquire the revenue. Potential funding sources include tolls, road user charges, gas taxes, and sales taxes. Public private partnerships are a delivery tool that uses a funding source, a financing method and the private sector to deliver higher-quality infrastructure at a lower overall price. P3 projects have used TIFIA federal loans and private activity bonds as financing tools.¹⁰

¹⁰ “Project Finance.” U.S. Department of Transportation Federal Highway Administration. 2019. Web. www.fhwa.dot.gov/ipd/finance/ 22 February 2019.

3.1

TRADITIONAL FUNDING OPTIONS: GAS TAXES AND SALES TAXES

Historically, the gas tax has been considered a worthwhile user fee, but as discussed in the previous section it is not a long-term funding solution. Sales taxes have also been used as a funding source for highways, but this is even further removed from roadways because there is no link between the amount of products that somebody buys and the number of miles that they drive. Plus, sales taxes are a partisan issue. Sales taxes are also regressive, putting a higher burden on those who can least afford it.

From an efficiency perspective, a users-pay/users-benefit funding source is the most equitable choice. There are five major advantages of the users-pay model:

- **Fairness:** Those who pay the user fees are the ones who receive most of the benefits, and those who benefit are the ones who pay. This is the same general principle America uses for other network utilities, including electricity and telecommunications.
- **Proportionality:** Those who use more highway services pay more, while those who use less pay less. And cost allocation studies can determine which users are responsible for which portion of costs, so that rates can be set accordingly.
- **Self-limiting:** The imposition of a user tax whose proceeds may only be used for the specified purpose imposes a limit on the tax: only enough to fund agreed-upon investments.
- **Predictability:** A user fee produces a revenue stream that can and should be independent of the vagaries of government budgets.
- **Investment Signal:** The user-pays mechanism provides a way to answer the question of how much infrastructure to build, assuming that the customers have some degree of say.

3.2

TOLLING: THE USERS-PAY FUNDING OPTION

For transportation infrastructure investment, tolling is the best user fee as it directly links the toll with the specific roadway's financial need. Collection cost was one of the biggest reasons tolling has not been more widely used in the U.S. In fact, tolling was proposed as the original funding mechanism for constructing the Interstate System, but the combination of the high costs of collection, largely due to having to use tollbooths, and low traffic in

sparsely populated regions in western states, led to policymakers choosing the gas tax instead.

But the tolling that state DOTs are increasingly using is not your grandfather's approach to tolls. First, most or all tollbooths are eliminated. Instead tolls are collected electronically when a vehicle with a transponder (sticker or tag placed on the interior windshield) passes under a toll gantry with an electronic sensor. Customers can prepay with a credit card or cash. The lack of tollbooths reduces collection costs (no tollbooth operators), congestion and traffic crashes (due to weaving and stopping to pay tolls). As a result, collection costs have been reduced from 25% to as little as 5% of total revenue.¹¹ While cost to collect the gas tax is considered to be 2% or less of total revenue, combining the collection costs with gas tax evasion and exemptions equates to a revenue loss of up to 5%.¹²

When tolling is electronic, it's easy to link specific tolls to vehicle weight. This further ensures not only that road users pay for the roads they use, but users pay proportional rates according to their weight—and hence commensurate with how much wear their vehicle exerts on the roadway. In this way, tolls are a true user-pays solution.

Not only can tolling fund highway maintenance and increased capacity, it also can be varied to minimize congestion by encouraging non-essential trips to move to times of lower congestion. Roadway space on an urban freeway such as I-10 or I-12 is more valuable during rush hour than during middays. And the space is more valuable middays than overnights. Even during rush hour up to 75% of trips are not work- or school-related.¹³ Many of these trips could be made outside of rush hour. Pricing helps move such trips outside of peak hours. Enacting lower tolls during nights may encourage trucking activity to decrease during the day and increase at night. Not only do variable toll rates manage

¹¹ Fleming, Daryl. "Dispelling the Myths: Tolling and Fuel Collection Costs in the 21st Century." Reason Foundation, 2012. Web www.reason.org/wp-content/uploads/files/dispelling_toll_and_gas_tax_collection_myths.pdf, 6 March 2019.

¹² Ibid.

¹³ "Traffic Congestion and Reliability: Trends and Advanced Strategies for Congestion Mitigation." U.S. Department of Transportation. Federal Highway Administration, 2017. Web. www.ops.fhwa.dot.gov/congestion_report/chapter3.htm, 22 February 2019.

congestion, they also do so at a lower price than toll rates on legacy turnpike systems, which typically cost 1.5 to 10 cents or more per mile.¹⁴

Enacting tolling as a funding mechanism is only part of the solution. Financing provides the mechanism for stretching funding further. As a result less new revenue is needed. The following section details the most promising financing options for Louisiana.

3.3

FINANCING OPTIONS

Following the users-pay principle, new or rebuilt infrastructure can and should be financed (i.e., the construction cost raised up-front from the capital markets) and paid for over time, as the users of that infrastructure derive benefits from it.¹⁵ This is similar to the way most people acquire their homes: not by saving until they can afford to pay cash, or building the home a room at a time as cash flow permits, but by taking out a long-term mortgage and paying it off over time, so as to obtain the benefits of home-ownership much sooner. Financing tools are a critical element for building and maintaining Louisiana's highways.

3.4

PUBLIC PRIVATE PARTNERSHIPS

Public private partnerships (P3s) are contracts between public and private entities for the provision of tolling facilities.¹⁶ Well-written P3 agreements specify the allocation of risk, which creates incentives for the private provider to deliver more efficiently and in a timelier manner than would be the case if the project were undertaken by a state-controlled entity. P3 agreements specify detailed performance standards, such as pavement smoothness, that the private party must deliver. Failure to deliver these standards can result in contract cancellation. In P3s the government and private sector take on the tasks in which they have the competitive advantage. For example, the government is best suited

¹⁴ "2019 Toll Schedule." Pennsylvania Turnpike, 6 January 2019. Web. <https://www.paturnpike.com/toll/tollmileage.aspx>, 4 March 2019, "Toll Rates," New Jersey Turnpike Authority, 1 January 2019. Web. <https://www.njta.com/toll-calculator>, 4 March 2019.

¹⁵ Poole, Robert and Adrian Moore. "Restoring Trust in the Highway Trust Fund." Reason Foundation, 2010. Web. www.reason.org/policy-study/highway-trust-fund-reform/, 22, February 2019.

¹⁶ Feigenbaum, Baruch. "Risks and Rewards of Public Private Partnerships for Highways." Reason Foundation, 2011. Web. www.reason.org/policy-brief/public-private-partnerships-highway/, 22 February 2019.

to handle the environmental review process while the private sector handles project financing.

Historically, the United States' robust gas-tax-based funding system has not necessitated taking advantage of innovative P3 financing. Other countries that have lacked a robust funding source have made better use of P3s. States in need of increased transportation investment can use P3s to engage the private sector and stretch funds further. Indeed, U.S. states are increasingly using P3s to deliver new transportation capacity, thereby improving road access without unduly increasing the burden on taxpayers. P3s use tolling and financing to limit taxpayer funding and provide better constructed and maintained highways.

One of the greatest advantages of P3s is that they can raise greater amounts in upfront financing through the use of equity money. Since private concessionaires are able to offer investors a share of profits earned by the business through tolls, investors are more willing to provide the initial capital necessary to build the infrastructure with the hope that they will benefit from future returns.

P3s have many advantages. The five most substantial are:¹⁷

- **Delivers needed transportation infrastructure sooner:** P3s offer a way to finance the construction of highways that otherwise would not be built for many years. Many states are facing a “perfect storm” of growing demand for road transportation and declining funding from conventional sources. As a result, maintenance and renovation of existing systems are using up available resources and congestion is getting worse. With long-term P3s, the private sector takes on much or all of the responsibility for financing new highways, enabling governments to use their existing gas-tax revenues to invest in the maintenance of existing roads.
- **Raises large, new sources of capital for toll projects:** Rebuilding and modernizing freeways and Interstates will be very costly. The long-term concession model can raise significant investment capital for new and reconstructed transportation infrastructure because it attracts many different types of investors, including equity providers (infrastructure investment funds and pension funds and providers of debt financing, such as banks and bond-buyers).

¹⁷ Feigenbaum. “Risks and Rewards of Public Private Partnerships for Highways.”

- **Shifts risk from taxpayers to investors:** P3s parcel out duties and risks to the parties best able to handle them. The state remains responsible for public rights-of-way and environmental permitting. Private companies typically assume the risks associated with construction cost overruns and possible traffic and revenue shortfalls. Shifting these risks to parties that have strong financial incentives to contain costs increases the likelihood that the project will be completed on time and on budget.
- **Provides a more business-like approach:** Compared with government-run toll agencies, private toll road companies are less susceptible to pressure from narrow political interests and tend to be more customer-service oriented. Pavement conditions are smoother with fewer potholes. Private operators are quicker to adopt cost-saving and customer service-oriented technology, products and services.
- **Fosters major innovations:** Another important advantage is the motivation to innovate to solve difficult problems or improve service. Today, we know that variable pricing (also known as value pricing) works very well to eliminate traffic congestion during peak periods, maximizing throughput while maintaining high speeds. But it was a private toll company that took the initiative to introduce and perfect value pricing in California, and the latest generation of P3 projects is using this approach in Florida, Texas and Virginia.

Full P3s include five components: design, build, finance, operate, and maintain (DBFOM). Full P3s mobilize private capital, generally based on toll revenue—a net new source of transportation revenue. DBFOM P3s use one of two types of payment structures: toll concessions or availability payments.

3.4.1 SAMPLE P3 PROJECTS

Each P3 project has a slightly different mix of funding and financing. The North Tarrant Express Lanes (Segments 1 and 2A) project in Texas and the I-66 Outside the Beltway project in Virginia are two examples. Public funds include taxpayer revenue. Equity contribution is the funds provided by the private sector partner.

North Tarrant Expressway

Private Activity Bonds: \$398 million

TIFIA Loan: \$650 million

Public Funds: \$594 million

Equity Contribution: \$426 million

TIFIA Interest: \$54 million

Total Cost: \$2.12 billion¹⁸

Transform 66 Outside the Beltway

Private Activity Bonds: \$737 million

TIFIA Loan: \$1.23 billion

Public Funds: \$0

Infrastructure Bank Loan: \$39 million

Equity Contribution: \$1.53 billion

Total Cost: \$3.7 billion¹⁹

3.4.2 TOLL CONCESSIONS AND AVAILABILITY PAYMENTS

In toll concessions, tolls pay for the capital and operating costs of the tolled facility.²⁰ The tolls are paid directly to the private concession company that develops and operates the project, and it bears the risk of insufficient traffic and revenue (which would otherwise fall on taxpayers). With availability payment (AP) concessions, the government entity pays the concession company periodic payments from a revenue source (general fund, gas tax, or sales tax) based on the project being available for use and in good condition.

Some P3s involve both tolling and availability payments, whereby the agency collects the toll revenue (and accepts traffic and revenue risk) and makes availability payments to the private operator. Fort Lauderdale's I-595 express toll lanes and the replacement Goethals Bridge connecting Elizabeth, NJ to New York City provide two examples.

Toll concessions have several advantages over availability payments. The obvious advantage is that the tolling provides the revenue needed to build the project. But availability payments involving tolling have two weaknesses. First, there is no relationship between the customer and the company building/maintaining the roadway. As a result, project selection and design may not be targeted to the toll-paying customer. Second, AP

¹⁸ Federal Highway Administration, United States Department of Transportation. "Project Profile: North Tarrant Express I-820 and SH 121/183 (Segments 1 and 2A)." *fhwa.dot.gov*. Web. <https://goo.gl/cLtlKd> 8 Feb. 2019.

¹⁹ Federal Highway Administration, United States Department of Transportation. "Project Profile: Transform 66—Outside the Beltway." *fhwa.dot.gov*. Web. <https://goo.gl/Q7aKB7> 8 Feb. 2019.

²⁰ Feigenbaum. "Risks and Rewards of Public Private Partnerships for Highways."

concessions create new liabilities, as they are long-term funding commitments. Many states cannot afford to take on these additional commitments.

3.4.3 P3 TOOLS

Two critical federal tools, TIFIA loans and Private Activity Bonds (PABs), can help enable P3 projects:

Transportation Infrastructure Finance and Innovation Act (TIFIA) Loans: The TIFIA program provides federal credit assistance in the form of direct loans, loan guarantees, and standby lines of credit to finance transportation projects of national and regional significance.²¹ TIFIA credit assistance provides improved access to capital markets and flexible repayment terms to help advance qualified, large-scale projects that otherwise might be delayed or deferred because of size, complexity, or uncertainty over the timing of revenues. Each dollar of federal funds can provide up to \$10 in TIFIA credit assistance and leverage \$30 in transportation infrastructure investment. TIFIA loans often provide 20%-30% of a total project's support.

Private Activity Bonds (PABs): Transportation PABs encourage the private sector to invest in critical infrastructure projects by providing the same tax-exemption on interest payments to bondholders as those that are available to buyers of tax-exempt government bonds. Without PABs, private infrastructure companies would either invest in other countries or not invest in transportation projects.²² Currently, no more than \$15 billion worth of PABs may be authorized; this cap will need to be increased or eliminated in order for PABs to be available for future projects. PABs can provide approximately 20%-30% of total project support.

²¹ "Transportation Infrastructure Finance and Innovation Act (TIFIA)." U.S. Department of Transportation. Federal Highway Administration, 2019. Web. www.fhwa.dot.gov/ipd/finance/tools_programs/federal_credit_assistance/tifia/, 22 February 2019.

²² "Private Activity Bonds (PABs). U.S. Department of Transportation. Federal Highway Administration, 2019. Web. https://www.fhwa.dot.gov/ipd/finance/tools_programs/federal_debt_financing/private_activity_bonds/, 22 February 2019.

PART 4

P3 AND MANAGED TOLL NETWORKS EXAMPLES FROM OTHER STATES AND LOUISIANA

4.1

P3S AND MANAGED TOLL LANES IN SOUTHEASTERN STATES

While not all states in the southeastern U.S. have constructed highway P3s or include managed lane networks, most do have some sort of P3 enabling legislation. Toll roads and bridges can be built in all areas of the states while variably-priced managed lane systems are clustered in metro areas and along congested corridors. This section details P3 activity by state.

ALABAMA

In 2009 Alabama created its toll road authority. In 2018, the state passed legislation granting Alabama DOT permission to enter into a wide range of P3s.²³ Alabama allows full-scale DBFOM projects, sales and leases of assets to private entities, and express tolling.²⁴

The state's first highway P3 is scheduled to reach financial close in 2019 or 2020, with construction starting in late 2020. The \$1.8 billion project calls for expanding (from four total lanes to eight) and raising (to better handle storm surges) the existing Interstate-10 bridge across Mobile Bay in the southwestern portion of the state, while also adding a new six-lane suspension bridge with express toll lanes.²⁵ The new bridge will add capacity and provide an additional crossing of Mobile Bay to help reduce the impact of accidents on the existing crossing (called the Bayway).

The above-ground design will also allow quicker, safer and more-direct routes for transporting hazardous wastes out of Mobile.²⁶ More than 75,000 vehicles use the existing Interstate-10 tunnel on an average day, for a tunnel designed in 1973 to accommodate 35,000 vehicles per day.²⁷

FLORIDA

Florida's Department of Transportation (FDOT) operates or has entered into P3 concessions involving several managed lane networks in the state, with one in south Florida. I-595, which runs east-west between I-75 and US 1, maintains three reversible managed lanes inside of its four non-tolled lanes in each direction. I-595 is operated by a private concessionaire made up of ACS Group and pension fund TIAA-CREF.²⁸ The original \$1.8

²³ Code of the State of Alabama. Section 23-1-40. 22 Nov. 2018. <https://goo.gl/zVdvxd> 4 Feb. 2019.

²⁴ Ibid.

²⁵ Alabama Section, American Society of Civil Engineers. "ASCE Alabama Section, Winter Meeting: Mobile River Bridge and Bayway." 1 March 2018. Web. <https://goo.gl/p8CNYv> 4 Feb. 2019.

²⁶ "Homepage." Mobile River Bridge. Web. <https://goo.gl/25XA69> 4 Feb. 2019.

²⁷ "Project." Mobile River Bridge. Web. <https://goo.gl/BxCm8y> 4 Feb. 2019.

²⁸ *Concession Agreement for I-595 Corridor Roadway Improvements Project Between Florida Department of Transportation and I-595 Express, Inc. Contract #E4J69 Financial Management #420809-3-52-01*. March 9, 2009. Print; Teachers Insurance and Annuity Association. *Building Roads to the Future*. December 2017. Print. p. 10.

billion availability payment concession dates to 2009 and received an \$827 million refinancing in 2015.²⁹

Florida has several managed lanes projects that are not P3s. I-75 has 15 miles of express toll lanes in Broward and Miami-Dade counties—a \$485 million project that opened in 2018.³⁰ I-95 has 21 miles of HOT lanes in Broward and Miami-Dade counties that were converted from HOV lanes beginning in 2014. Since conversion of the I-95 lanes, traffic flows have improved dramatically compared to the previous HOV lane setup, from below 20 miles per hour on average to 40 miles per hour in general purpose lanes and over 50 miles per hour in the HOT lanes. While tolls are variable based on demand, they are capped at \$10.50. The state has plans to extend both the I-75 and I-95 managed lane projects and add managed lanes to Florida's Turnpike.³¹

Also in South Florida, The Port of Miami Tunnel (POMT) has proven to be a successful availability payment P3. FDOT had planned to build a tunnel to relieve congestion on local streets, however, the state lacked the expertise to build the tunnel and the \$1 billion cost was unaffordable. As a result the state entered into an \$863 million DBFOM availability payment concession between POMT, FDOT and concessionaire Miami Access Tunnel with the deal reaching financial close in October 2009. A 4,200-foot bored tunnel that passes under the main harbor channel in Miami, POMT allows large trucks to avoid downtown, making streets safer, quieter, and less congested.³² In addition to having operations and maintenance covered by the private partner for the next three decades, the project was completed early, and at 60% of internal cost estimates.³³

²⁹ Davies, Daniel. "Senior notes price for I-595 refi." *Inframation News*. 6 Oct. 2015. Web. <https://goo.gl/7xcruZ> 4 Feb. 2019.

³⁰ Roustan, Wayne K. "I-75 express lanes open, FHP looking for lane divers." *South Florida Sun-Sentinel*. 24 Mar. 2018. Web. <https://goo.gl/YDehA1> 4 Feb. 2019.

³¹ "Southeast Florida." Florida Department of Transportation. Florida Express Lanes. Web. <https://goo.gl/sKqoTU> 4 Feb. 2019.

³² "Project Overview." Port of Miami Tunnel. Web. <https://goo.gl/ohiNrV> 4 Feb. 2019.

³³ Parker, Jeffrey A. "Port of Miami Tunnel – a Turning Point in U.S. Infrastructure Development." *Public Works Financing*. May 2014. Print. 9.

In Orlando, the \$2.57 billion I-4 Ultimate project is rebuilding a 20-mile stretch of the Interstate.³⁴ The DBFOM availability payment concession includes four express toll lanes in the middle of the highway. The project is estimated to be complete and open to traffic in 2021.

GEORGIA

The state is developing a system of tolled managed lanes in the greater Atlanta area. While Georgia's P3 law allows concessions and private financing, all existing managed lanes are design-build or design-build-finance projects operated by the State Road and Tollway Authority.³⁵ Currently, managed lanes run on I-85 from Shallowford Road in Dekalb County to Hamilton Mill Road in Gwinnet County, on I-75 (the Northwest Corridor) in Cobb County between I-285 and Wade Green Road and on I-75 (the Southeast Corridor) between SR 20 in Henry County and SR 138 in Clayton County.³⁶ I-85 includes one HOT lane in each direction while the Northwest Corridor and Southeast Corridor are two reversible (changes direction of traffic on a fixed schedule due to peak traffic flows) express toll lanes.

The state plans to add managed lanes to the half-loop of I-285 north of I-20, SR 400 north of I-285, I-20 outside of I-285 as well as expanding the I-75 managed lanes in the Southeast Corridor, with the I-285 and SR 400 projects lanes as a toll concession.

TEXAS

Texas' P3 enabling legislation dates to 2003. Several express tollroads were built using the DBFOM P3 process.³⁷ In the Dallas-Fort Worth (DFW) Metroplex, the \$2.7 billion LBJ Express project provides 4-6 express toll lanes through Dallas' northern suburbs in a 52-year lease

³⁴ "I-4 Ultimate Improvement Project." Florida Department of Transportation, 2019. Web. <https://i4ultimate.com/project-info/faqs/>, 6 March 2019.

³⁵ Georgia State Road & Tollway Authority. "About SRTA." Web. <https://goo.gl/QEbGyk> 4 Feb. 2019.

³⁶ Georgia Department of Transportation. "Georgia Express Lanes." Web. <https://goo.gl/GYedDC> 4 Feb. 2019;

Georgia Department of Transportation. "Frequently Asked Questions: Northwest Corridor Express Lanes." 24 Sept. 2018. Print. 4 Feb. 2019.

³⁷ Texas State Transportation Code. "Regional Tollway Authorities Act." 1 Sept. 1997. <https://goo.gl/mS7MY3> 4 Feb. 2019.

with a private consortium.³⁸ The variably priced lanes are designed to operate at an average speed of at least 50 mph, and at most times allow traffic to travel at the 75 mph speed limit.³⁹ The \$3.7 billion combined North Tarrant Express lane project (sections A and 2A noted above as well as sections 3A and 3B) adds 13 miles of express toll lanes on I-35, I-820, state highway (SH) 121, and state highway 183.⁴⁰ The I-35 W section, which reached final completion in fall 2018, adds one to two express toll lanes in each direction.⁴¹ The 23-mile I-820 Ft. Worth loop bypass project provides two express toll lanes in each direction, and was completed in 2014.⁴² The DBFOM agreement includes private partners Cintra, Ferrovial, and Meridiam.⁴³

In Houston, a 52-year, \$1 billion DBFOM concession lease of a 10.3-mile portion of State Highway 288 will add two managed lanes in each direction to the highway, south of downtown in Harris County.⁴⁴ The state reached financial close with concessionaires Blueridge Transportation Group and Alameda-Genoa in May 2016. Construction is expected to be completed by April 2019.⁴⁵

4.2

LOUISIANA'S EARLY P3 EXPERIENCES

Louisiana may be new to transportation P3s, but its history of enabling legislation goes back much further. In 1997, The Louisiana Transportation Act was added to the state's

³⁸ "Partners and Investors." *LBJ TEXpress*. Web. <https://goo.gl/UDSU3V> 4 Feb. 2019.

³⁹ "LBJ TEXpress." *LBITEXpress.com*. 11 Jan. 2018. Print. <https://goo.gl/V2xC16> 4 Feb. 2019.

⁴⁰ United States Department of Transportation, Federal Highway Administration. "Project Profile: North Tarrant Express 35W (Segments 3A and 3B)." Web. <https://goo.gl/58KMeP> 4 Feb. 2019;

United States Department of Transportation, Federal Highway Administration. "Project Profile: North Tarrant Express I-820 and SH 121/183 (Segments 1 and 2A)." Web <https://goo.gl/smCSZW> 4 Feb. 2019.

⁴¹ Texas Department of Transportation. "TxDOT Project Tracker: Interstate 35W." Winter 2015. Print. <https://goo.gl/q5ssoV> 4 Feb. 2019.

⁴² "NTE Project Timeline." *NTE TEXpress*. Web. <https://goo.gl/aHHphi> 4 Feb. 2019.

⁴³ "Partners and Investors." *NTE TEXpress*. Web. <https://goo.gl/YGMLPM> 4 Feb. 2019.

⁴⁴ United States Department of Transportation, Federal Highway Administration. "Project Profile: SH 288 Toll Lanes Project." Web. <https://goo.gl/YuhEEW> 4 Feb. 2019.

⁴⁵ *Ibid.*

Revised Statutes, which enables parishes and municipalities to pursue P3 agreements.⁴⁶ In 2001, Act 1209 created the Louisiana Transportation Authority (LTA) within the state's Department of Transportation and Development (DOTD).⁴⁷ In 2006, HB 1294 became Act 304, authorizing the LTA to enter into P3s, including tolled roads if "such road or system of roads, bridge, tunnel, or overpass is improved or expanded."⁴⁸

In the same year, the state established a "Transportation Mobility Fund" to help pay for projects and relieve some of the state's transportation project backlog—currently around \$13 billion—while also allowing private partners to use the Mobility Fund's proceeds for approved projects.⁴⁹ P3 enabling legislation for the entire Department of Transportation and Development (DOTD) followed in 2015 with Act 519, eliminating the need for approval from LTA before DOTD can pursue P3s.⁵⁰ In 2017 enabling legislation was established for the (New Orleans) Regional Transit Authority in Act 216.⁵¹

Lawmakers and local leaders are starting to see P3s as the best way to build and maintain new infrastructure in the state. In a press release from early last year, DOTD Secretary Shawn D. Wilson said of the Belle Chasse project:

There has been an outcry from the public for long overdue projects like this and we are working to find innovative means to deliver...Recognizing that not moving forward is unacceptable, innovative funding mechanisms such as Public Private Partnerships using

⁴⁶ State of Louisiana. "Revised Statutes: Chapter 25. The Louisiana Transportation Development Act." <https://goo.gl/C1QVdT> 4 Feb. 2019.

⁴⁷ State of Louisiana. "Act No. 1209." *Louisiana State Legislature, Regular Session 2001*. 15 Aug. 2001. <https://goo.gl/9SCv9Y> 4 Feb. 2019.

⁴⁸ State of Louisiana. "Act No. 304." *Louisiana State Legislature, Regular Session 2006*. 15 Aug. 2006. <https://goo.gl/Ggo3iw> 4 Feb. 2019.

⁴⁹ State of Louisiana. "Act No. 685." *Louisiana State Legislature, Regular Session 2006*. 15 June 2006. <https://goo.gl/CN4smJ> 4 Feb. 2019.

⁵⁰ State of Louisiana. "Act No. 519." *Louisiana State Legislature, Regular Session 2016*. 13 June 2016. <https://goo.gl/9beXnb> 4 Feb. 2019.

⁵¹ State of Louisiana. "Act No. 216." *Louisiana State Legislature, Regular Session 2017*. 14 June 2017. <https://goo.gl/MPmM8v> 4 Feb. 2019.

*tolls as match and federal discretionary funding opportunities will play a role in our future development.*⁵²

Later in the year, Secretary Wilson noted, “We need innovative funding such as P3s if we are going to modernize our system.”⁵³

Currently, the state is actively pursuing one transportation P3 project, a replacement for the Belle Chasse Bridge and Tunnel near New Orleans. The new four-lane bridge, partially funded by tolls, is a DBFOM project estimated at \$122 million that will replace the functionally obsolete two-lane bridge and its adjacent tunnel, known as a “car wash” because of frequent leaks.⁵⁴

The P3 proposal was met with substantial interest from the private sector. Six different private consortiums responded to the request for qualifications (RFQ). DOTD Secretary Wilson called the response, “Validation that Louisiana is ripe for innovative methods to deliver an infrastructure system and projects our citizens deserve.”⁵⁵

Another P3 project, on Interstate-10 in Lafayette, could potentially be a second transportation P3 for the state. In early 2019, a coalition of business groups in southwestern Louisiana announced they would urge DOTD to pursue a DBFOM project that provides a tolled replacement for the Calcasieu River Bridge, which is outdated and overused.⁵⁶ The current bridge opened in 1952 and was built to withstand 50 years of

⁵² “DOTD announces Notice of Intent to pursue solicitation of its first Public Private Partnership for Belle Chasse Bridge & Tunnel replacement project.” *Louisiana Department of Transportation and Development*. February 20, 2018. Web, <https://goo.gl/Ghu4fF> 4 Feb. 2019.

⁵³ “DOTD Invites Potential Partners for Project to Replace Belle Chasse Bridge and Tunnel.” *Louisiana Department of Transportation and Development*. 26 June 2018. Web. <https://goo.gl/HbLtCs> 11 Feb. 2019.

⁵⁴ Sentell, Will. “DOTD wins authority to pursue unique plan to replace Belle Chasse tunnel.” *Baton Rouge Advocate*. December 14, 2017. Web. <https://goo.gl/zYUhyy> 4 Feb. 2019.

⁵⁵ “DOTD receives significant interest in first solicited public private partnership.” Louisiana Department of Transportation and Development. May 31, 2018. Web. <https://goo.gl/LygpH1> 11 Feb. 2019.

⁵⁶ “Chamber SWLA Releases I-10 Bridge Task Force Recommendations For The Replacement of the Interstate 10/Calcasieu River Bridge.” *SWLA Economic Development Alliance*. 25 Jan. 2019. Web. <https://goo.gl/Wc8km6> 11 Feb. 2019.

37,000 cars per day; 64 years later, in 2016, the bridge received an average of 80,000 vehicles per day.⁵⁷

Adding managed lanes to I-10 from West Baton Rouge to the I-12 split could help improve mobility. The Mississippi River crossing averages 180,000 vehicles every day.⁵⁸ A Request for Information (RFI) was sent out in 2017, but the project appears to be on hold. Gov. John Bel Edwards has announced a \$350 million transportation plan that includes adding a single lane in each direction on the section from West Baton Rouge to I-12. Adding one non-priced lane per direction is not a long-term solution to reduce congestion. In addition, new managed lanes will provide an alternative to the general purpose lanes in the event of an accident or special event.⁵⁹

New Orleans could benefit from a managed lane network as well. Both I-10 and I-610 are congested up to 10 hours per day, including weekends. Managed lanes can be more challenging to add in dense, urban environments. However, the added congestion leads to more commuters choosing the variably priced toll lanes, making the projects more enticing to private partners.

⁵⁷ Ibid.

⁵⁸ Sentell, Will. "I-10 widening in Baton Rouge will take at least 5 years as part of \$600 million transportation overhaul." *Baton Rouge Advocate*. 12 Jan. 2018. Web. <https://goo.gl/dscSCG> 4 Feb. 2019.

⁵⁹ Will Sentell. "Gov. John Bel Edwards' \$600M transportation plan clears another hurdle with key panel's endorsement." *Baton Rouge Advocate*. 2 Apr. 2018. Web. <https://goo.gl/M1P9Nb> 11 Feb. 2019.

PART 5

CONCLUSION AND POLICY RECOMMENDATIONS

Louisiana's current use of gas taxes fails to sustain its highways, let alone fund more capacity. The Pelican State needs new funding and financing sources to improve its highways.

Louisiana can use tolling and P3s to create a 21st century highway network. Tolling is the most ideal user fee as there is a direct link between the toll and the specific road infrastructure used. Tolls can be varied based on road type, congestion level or time of day. Historically, the gas tax has provided adequate funding, but the increasing number of electric vehicles and hybrids as well as fuel tax evasion makes the gas tax an increasingly inefficient funding mechanism.

Infrastructure can and should be financed (i.e., capital should be raised up-front from the capital markets) and paid for over time, as the users of that infrastructure derive benefits from it. P3s are a vital financing tool that helps stretch funding further. P3s help deliver needed infrastructure, raise new sources of capital, shift risk from taxpayers to investors,

provide a business-like approach and enable innovation. Other states are using this approach successfully.

Given that different state and regional agencies can toll improved roads and use P3s to deliver needed infrastructure, the following steps are recommended:

- **LATD study of tolling for Interstate widening and modernization:** Many Louisiana Interstate sections are reaching the end of their designated lifespan and suffer from heavy congestion. These include almost the entire 287 miles of I-10 and the 87-mile long I-12 as well as more than 100 miles of I-20 in the state. The Department should examine using tolling as the funding source to widen these critical highways. Tolling existing Interstate capacity is not allowed under current federal law. However, states can use one of several exemptions to existing law that Congress has enacted. Rhode Island has implemented tolls on some of its Interstates while Connecticut, Indiana, Oregon and Wisconsin are considering tolling.
- **LATD study of replacing all structurally deficient bridges on the Interstate System with replacement bridges funded by tolling.** According to the FHWA, the state has 12 structurally deficient bridges on its Interstate system.
- **LATD and the Regional Planning Commission (RPC) of New Orleans managed lane study** determining the location and feasibility of express toll lanes. Using P3s to build the lanes will stretch limited funding further.
- **State support and promotion of public private partnerships:** While the state has enabling legislation, it is pursuing only one P3. P3s would be effective in modernizing Interstate highways and building a managed lanes network in the New Orleans area.
- **State congressional delegation support for expanding TIFIA loans and PABs:** The TIFIA loan process has devolved into a discretionary grant process rather than a check the box loan application. PABs will soon reach their lifetime cap of \$15 billion. Issuing new caps will require raising the cap. Senator Cornyn of Texas has proposed legislation to streamline TIFIA and increase the PAB cap.

ABOUT THE AUTHORS

Baruch Feigenbaum is assistant director of transportation policy at Reason Foundation, a non-profit think tank advancing free minds and free markets. Feigenbaum has a diverse background researching and implementing transportation issues, including revenue and finance, public-private partnerships, highways, transit, high-speed rail, ports, intelligent transportation systems, land use and local policymaking.

Feigenbaum is involved with various transportation organizations. He is a member of the Transportation Research Board Bus Transit Systems and Intelligent Transportation Systems Committees. He is vice president of Programming for the Transportation and Research Forum Washington Chapter, a reviewer for the *Journal of the American Planning Association (JAPA)* and a contributor to *Planetizen*. He has appeared on NBC Nightly News and CNBC. His work has been featured in the *Washington Post* and *The Wall Street Journal*.

Prior to joining Reason, Feigenbaum handled transportation issues on Capitol Hill for Representative Lynn Westmoreland. He earned his master's degree in transportation from the Georgia Institute of Technology.

Austill Stuart, a policy analyst at Reason Foundation, serves as editor and co-author of Reason's *Annual Privatization Report* and its Privatization Newsletter. Since joining Reason, Austill has written extensively on matters related to infrastructure, privatization, and government reform, including public-private partnerships, state and local government

budgeting, outsourcing of government services, and competitive sourcing in the federal government.

Prior to joining Reason, Austill worked with policy in a variety of settings—nonprofits, on Capitol Hill, and in fundraising—where areas of focus included small business regulation, privatization, health care, and labor. Before moving to the D.C. area in early 2009, he worked for five years in the financial services industry, mostly in wealth management.

