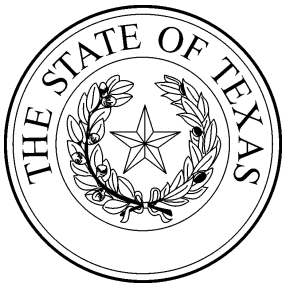

Report of the Legislative Study Committee on Private Participation in Toll Projects

Final Report

December 2008

LEGISLATIVE STUDY COMMITTEE ON PRIVATE PARTICIPATION IN TOLL PROJECTS

December 1, 2008

The Honorable Rick Perry, Governor
The Honorable David Dewhurst, Lieutenant Governor
The Honorable Tom Craddick, Speaker of the House
State Capitol
Austin, Texas 78701

Gentlemen:

The Legislative Study Committee on Private Participation in Toll Projects is pleased to submit its final report with recommendations for consideration by the 81st Texas Legislature.

Respectfully submitted,

Senator John Carona, Chair

Senator Robert Nichols

Senator Tommy Williams

Representative Aaron Peña

Representative Larry Phillips

Representative Wayne Smith

John W. Johnson

Robert Poole, Jr.

Grady Smithey, Jr.

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TOMMY WILLIAMS
TEXAS STATE SENATOR
DISTRICT 4

COMMITTEES:
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SUBCOMMITTEE ON HIGHER EDUCATION
TRANSPORTATION AND HOMELAND SECURITY
STATE AFFAIRS, VICE CHAIR

December 9, 2008

The Honorable John Carona, State Senator
State Capitol
Austin, Texas 78701

Re: Legislative Study Committee on Private Participation in Toll Projects (the "Committee")

Chairman Carona:

As the Author and Sponsor of SB792 which created the Legislative Study Committee on Private Participation in Toll Projects we would like to submit for inclusion in the report a few of our observations and comments.

We would like to express our appreciation to the Committee and staff for their hard work and diligence over the last several months. We have studied and analyzed the very complex issue of public-private partnerships and comprehensive development agreements in the financing and development of toll roads in Texas and heard many hours of testimony from expert witnesses on various aspects of project development.

The Committee was able to reach a general consensus on many topics, however, there was irreconcilable disagreement on some matters. We believe the debate was healthy, and everyone's hard work and diligence is greatly appreciated. This debate will need to be continued and the consequences of any actions fully considered as legislation is developed to create a long term sustainable transportation funding solution for the state during the 81st Legislative Session.

The Report does a good job of conveying the fundamental funding issues associated with improving and expanding our transportation infrastructure, as well as the problems associated with the State's existing market valuation process. We agree that conventional alternatives will not fully satisfy projected funding shortfalls and that private capital, together with the elimination of diversions, the possible indexing or raising of the motor fuels tax, transportation reinvestment zones, and various other alternatives are all important issues for the Legislature to evaluate and consider in the upcoming session.

The Report as submitted raises several areas of concern.

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- The Report has an underlying tone that, because adjustments to the traditional system of transportation finance will not fully meet funding needs, they should be deemphasized. The only solution that is presented is that the state must embrace private finance to close the funding shortfall. We need to approach this problem from every angle, and these adjustments to the traditional methods should be considered seriously. If implemented correctly, they can be leveraged to secure additional funding. Private finance, appropriately designed for Texas, is only one financing tool and will not solve all the problems facing us in the decades to come.

- In certain instances the Report seems to include unsubstantiated criticisms and cites examples from outside Texas that are less relevant to the Texas P3 debate than recent experiences of our local toll agencies. In this respect, the Report has a broad criticism of public sector finance and contracting experiences that does not comport with the very successful experiences of established local toll entities. Local toll entities in Texas have a long track record of innovation, projects being completed on time and under budget, and the introduction of best practices to Texas. Recognition and appreciation of such experiences are instrumental to weighing the public benefits and viability of comprehensive development agreements as an alternative to established practices. Additionally, these successes should help us guide and structure emerging local toll entities so they too can build sustainable systems elsewhere in the state.

- In some instances the Report appears to overstate the advantages of private finance. The potential for over-leverage is not adequately described and assumptions about the possible benefits of private equity are not challenged, particularly where there may be overpayments.

- Risk shifting is a very complex issue, and the use of private capital in transportation finance may not necessarily result in an actual shifting of risk that truly benefits the public.

- Experience in Texas suggests that it is unfair to assume that public toll agencies are unduly influenced by political pressures to set toll rates too low. To the contrary, rates in many cases are adjusted to meet the challenges of an expanding toll system and are subject to an automatic increase mechanism indexed to cost of living increases. Additionally, had the Market Valuation process been implemented as the legislation describes as a way to set initial toll rates and increases over time rather than using a private concession model this would have further reduced these concerns.

- Moreover, we don't see private finance as necessarily creating "new" money. Whether in a public or private transaction, the feasibility of a toll project is fundamentally determined by net revenues, and the ultimate funding source is the users of the toll road system. Overly aggressive assumptions in P3 transactions and over-leveraged private projects that fail can result in the public sector being burdened by ill-conceived private financing.

- We express strong concerns and reservations with the statement in the Report that there is "broad agreement" that local primacy is unsatisfactory. The Report seems to confuse market valuation and primacy. We are all in agreement that market valuation as implemented has been unsatisfactory. However, primacy is a separate and distinct

concept not necessarily related to how and when private finance should be used to best benefit the citizens of the state. We firmly believe primacy and the full range of tools granted to local toll authorities are important concepts that must be preserved and are outside the scope of the P3 debate.

- Finally, as to the recommendations in the Report, we note that the concept of the "Public Sector Comparator" is not adequately described or developed for a worthwhile assessment. Testimony about this issue was never evaluated during the hearing process and while it may be a potential solution, simplistic comments about its universal acceptability are inappropriate until more is known about this concept.

In closing, we would like to again thank the Committee and staff for their hard work. We believe the draft report is largely comprehensive and detailed. The wealth of information provided will be useful as we develop solutions that work for Texas. We offer up our concerns and comments included above in an effort to further the dialogue about the appropriate use of public-private partnerships as a tool for transportation development in Texas.

Respectfully Yours,

Tommy Williams
State Senator

Wayne Smith
State Representative

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Subcommittee on Flooding & Evacuations
Health & Human Services
Nominations
Transportation & Homeland Security

ROBERT L. NICHOLS
STATE SENATOR

December 4, 2008

The Honorable John Carona
Chairman
Senate Committee on Transportation and Homeland Security
P.O. Box 12068
Austin, TX 78711

Dear Chairman Carona:

Thank you for your leadership of the Study Committee on Public Private Partnerships. You have lead this committee tirelessly with well attended hearings. This report gives a good overview of the challenges facing our current transportation financing system, and I think it offers a great deal of beneficial information. However I cannot agree with all of the recommendations in this report. Below are some areas of concern I wish to address.

Local control

While I could find no committee recommendation to allow or not allow primacy for local toll authorities, the report implies local primacy is a bad thing. (pg 76,77) I disagree, and believe local control builds local support and therefore a greater likelihood of a successful project.

Long-term maintenance by public entities

Parts of the report seem to work from an assumption that Public-Private Partnership (PPP) models are more advantageous than government-owned and operated facilities. (pgs 6,46,47) For example, the analysis on page 48 states that public agencies suffer from a "ribbon vs. the broom" problem, meaning public entities focus on new projects for publicity, but private entities focus more on maintenance and overall cost control. This is not what I believe, nor do I think it reflects the general feeling of the committee. The State of Texas has a tradition of taking pride in maintaining our roads, yet this report neglects that.

I believe while private entities must answer to share holders, public entities must answer to affected citizens. Starting new projects while neglecting old roads is a public relations crisis for which no ribbon cutting ceremony can compensate. Public entities have as much incentive, if not more, to maintain the long-term condition of a project.

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Projects for possible Texas Transportation Finance Corporation

On page 46, there is an opinion expressed that not authorizing PPPs would result in few transportation projects for the Texas Transportation Finance Corporation, should the Legislature create it. I do not believe there was enough information introduced, or testimony heard by the committee to support this conclusion.

Independent appraisers

In section 5.6 (pgs 63,68) the report calls for local toll authorities to contract for binding arbitration with independent appraisers to establish a fair market valuation. While the use of independent appraisers seems ideal, it may not be the best policy in practice. Finding experienced and qualified companies without pre-existing business relationships with PPP companies and toll authorities would be very difficult, if not impossible. Additionally, testimony to the committee indicated valuations could differ dramatically from one evaluator to the other as there are few similar sales for comparison. The difference in the appraisals could differ by billions of dollars.

Public Sector Comparator model

I agree with the reports finding to replace the Market Valuation Process (pg 90). However, I am reluctant to support replacing it with the "public sector comparator model". This concept was not presented during any of the committee hearings, and we have had no debate on this issue. This model is being introduced for the first time in this report, and I think we should have some information and deliberation on this model before recommending it.

Defined buyback clauses

This report recommends against requiring defined buyback (or cost of termination for convenience) prices from being included in a PPP contract. This committee heard testimony to the contrary. We heard from witnesses who claimed private companies would be willing to do business in Texas if they were required to include defined buyback prices in their contracts.

I believe that without requiring refined buyback prices, we will be putting taxpayers at risk for millions of dollars.

Dynamic toll pricing

I suggest caution regarding dynamic toll pricing on HOT lanes (pg 71) until use history in Texas is established and reviewed. For example, we should wait and see if HOT lanes on I-635 in Dallas and the I-10 Katy Freeway in Houston are successful.

Additionally, I feel there were several opinions which were left out or marginalized in this report. I would have liked to see mention of the testimony which recommended shorter time periods for CDA's, an analysis of the contract terms of successful PPPs, or an expansion of Mr. Enright's testimony.

Ultimately I think private equity does have a role to play in transportation financing. However, I would like to see a system which encourages and allows local authorities the first right of refusal to develop a project, followed by TXDOT. I think the private equity model should be an option, but only after all publicly owned options have been exhausted.

Thank you again for your leadership on this committee, and thank you again for allowing me to give my input on these issues.

Sincerely,

Robert L. Nichols
State Senator

RLN/SJA/wg

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December 4, 2008

The Honorable John Carona, Chairman
Legislative Study Committee on Private Participation in Toll Projects
c/o Committee on Transportation and Homeland Security
P.O. Box 12068
Capitol Station
Austin, Texas 78711

Dear Chairman Carona:

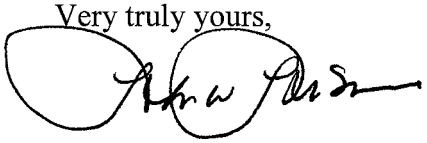
I have reviewed the draft report received last week and find it to be both well written and logically presented. I was disappointed that the Committee did not find the opportunity to meet near the end of our assignment so that each member might discuss their perspective about testimony presented throughout the process.

When this report serves as the basis for legislative deliberations I would simply caution considerations based on "value." There were several instances in testimony or filed statements that the concept of "value" was put forth. It also appears in the final report. My point is that "value," like "beauty," is in the eyes of the beholder. Without clear definition, value becomes a vague concept instead of a specific one.

Both as a user of our State's infrastructure and as a former member of the Texas Transportation Commission, I support wholeheartedly the primary conclusion presented; that being if Texas is to remain the great place it is to live, work, and raise a family, more resources and emphasis needs to be placed on surface transportation.

As a matter of personal privilege, I would like to thank you for the gracious and experienced leadership that you provided and to the other members for their willingness to participate, listen and contribute to the process.

Very truly yours,



John W. Johnson

JWJ:dw

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December 5, 2008

The Hon. Rick Perry, Governor
The Hon. David Dewhurst, Lt. Governor
The Hon. Tom Craddick, Speaker of the House

Gentlemen:

As a Member of the Legislative Study Committee on Private Participation in Toll Projects, I have signed the committee's Nov. 25, 2008 report. For the record, I am submitting this letter as additional information which I believe should have been included in that report.

One of the important advantages of the long-term toll concession (referred to as CDA in Texas) model is that it can often raise larger sums for a new toll road than the traditional tax-exempt debt model. This can sometimes make the difference between a project being able to be financed entirely via toll revenues rather than having to be partly supported by state tax revenues.

A case in point is the only CDA project to be financed thus far in Texas: SH 130 Segments 5 and 6. As a start-up ("greenfield") toll road, it is typical of many of the projects Texas hopes to finance via tolling. As Texas DOT official Phil Russell testified before our Committee on July 22, 2008:

> "Concurrent with procurement for Segments 5 & 6, TxDOT created a tool to determine whether to undertake a CDA or to pursue a traditional toll revenue bond financing method. The results showed that a traditional tax-exempt municipal bond financing method would require approximately $700 million from Fund 6 to build, operate, and maintain the project for 50 years. . . . However, a public-private partnership through a CDA could offer multiple benefits. It would mean all private financing, with no public funds subsidy of capital, operations, and maintenance costs."

In other words, for this $1.3 billion project, the conventional tax-exempt all-debt model could finance only $600 million, while the CDA model using debt and equity over a longer time period could generate the entire $1.3 billion.

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These results were so powerful that they led the Public Private Ventures division of the American Road & Transportation Builders Association to select the SH 130, Segments 5 & 6, as its 2006 Project of the Year, "showcasing the value that public private partnerships can bring to innovative transportation projects."

The general point that the CDA model can often generate more total funding for a start-up toll project than the conventional tax-exempt debt model is alluded to in the Committee's report, but is presented as a possible or hypothetical advantage. In fact, this advantage has been demonstrated already in Texas, via this landmark project.

Sincerely,

Robert W. Poole, Jr.
Director of Transportation Studies
Member, Legislative Study Committee on Private Participation in Toll Projects

Grady Smithey, Jr.
Member, Legislative Study Committee
On Private Participation in Toll Projects
1806 Cedar Hill Road
Duncanville, Texas 75137

The Honorable John Carona
Chairman, Legislative Study Committee
On Private Participation in Toll Projects
P.O. Box 12068
Capitol Station
Austin, Texas 78711

September 9, 2008

Dear Mr. Chairman:

It has been an honor and a privilege to have been appointed to serve on the Legislative Study Committee on Private Participation in Toll Projects with some of the most talented and dedicated transportation experts in the state. It has been a learning opportunity for me, and I have garnered a great deal of information, both from those who chose to provide testimony, as well as from my fellow committee members. Thank you, Chairman, for your leadership and statesmanship in conducting our meetings and public hearings.

After reviewing and evaluating the testimony and information provided to the committee, I respectfully submit the attached list of recommendations. I request that these recommendations be included in the committee's final report.

Sincerely,

Grady Smithey

Grady Smithey, Jr.

cc:
The Honorable Robert Nichols
The Honorable Tommy Williams
The Honorable Aaron Pena
The Honorable Larry Phillips
The Honorable Wayne Smith
Mr. John W. Johnson
Mr. Robert W. Poole, Jr.

Attachments

Recommendations to the Legislative Study Committee on Private Participation in Toll Projects

Respectfully submitted by Grady W. Smithey, Jr. September 2008

After reviewing the testimony that has been provided to the members of the Legislative Study Committee on Private Participation in Toll Projects, I respectfully submit the following recommendations for consideration:

1.) **Remove the provisions in SB 792 that unnecessarily pits one public agency against another public agency.**
   - **Remove any provision that offers either TxDOT or a tolling agency "primacy" or the "right-of-first-refusal" for project delivery.**
   - **Remove any provisions that allow an entity to block any toll project from advancing simply by failing to meet or agree.**

   Collaborative, integrated partnerships between the Metropolitan Planning Organization (MPO), TxDOT and the local toll provider provides the most effective framework for maximizing the strengths of each agency, and ensures the efficient delivery of transportation projects throughout the state. SB 792 included a "one size fits all" solution for Houston and North Texas. The best transportation delivery model for the North Texas area may not be the same one that will be crafted for the Houston area. "Primacy" for one agency leads to unnecessary project delays, and unbalanced and inefficient methods of project delivery. Primacy is the death of competition.

2.) **Repeal the provision in SB 792 that restricts the amount of revenue that a tolling authority can expend on non-tolled projects. All excess revenues from both privately and publicly financed toll projects should be sent to directly to the Metropolitan Planning Organization.**

   Excess revenue received by a toll project over contracted amounts should be required to be used for non-toll projects approved by the MPO.

3.) **Repeal the sunset provisions affecting Comprehensive Development Agreements (CDAs) and allow private-sector CDAs with upfront payments. Replace the market valuation process described in SB 792 with the public sector comparator model described in Attachment A, Description of the Public Comparator Model For Market Valuation, to determine a true market value, rather than a negotiated price.**

Allow market competition to determine the value of toll facilities. The negotiated market valuation process provided for in SB 792 hinders the project delivery process and pits one public agency against another. Free market competition, not monopoly, offers the best result for the public.

Through competition, TxDOT received a proposal to construct, finance and operate SH 121 from Cintra, which was then topped by NTTA. Fund 6 now has an additional $3.2 billion to be used for projects (non-toll, rail and managed lanes) in this district as selected by the RTC.

4.) **If the MPO decides in favor of a revenue sharing solution for a project rather than requiring an upfront payment, allow the MPO, TxDOT and the tolling entity to waive the market valuation process and enter into a revenue sharing agreement. Revenue should be sent directly to the MPO.**

Collaboration and cooperation between the RTC, TxDOT and NTTA resulted in a revenue sharing agreement for the Eastern Extension of the PGBT. TxDOT provided a Toll Equity Grant to NTTA in the amount of $160 million for right of way costs and utility adjustments. TxDOT will fund and construct the $175 million PGBT EE/I-30 interchange and Lake Ray Hubbard crossing. NTTA will fund and construct the remainder of the project. TxDOT is funding 30-35% of this $1 billion project. In return NTTA will share 20% of gross toll revenues to be used for transportation projects as selected by the RTC. Collaborative partnerships provide for the most efficient project delivery solutions.

5.) **Prohibit a project from being conveyed to another entity in perpetuity. All toll projects, after the term of agreement, should become the property of the state.**

6.) **To assure transparency and accountability, require full management audits, as well as project specific audits, annually of the entity that constructs or operates the toll facility.**

Attachment A

Description of the Public Comparator Model

For Market Valuation

SB 792, Primacy, and Market Valuation

SB 792, while advancing new concepts and attempting to balance competing interests, also had the unintended consequence of pitting two public agencies against each other in North Texas. Rather than aligning the interests and maximizing the strengths of each agency, the market valuation process proved adversarial and cumbersome. If left unchecked, SB 792's primacy and market valuation provisions will continue to delay development of the region's priority transportation projects, increasing project costs, stalling air quality and congestion improvements, and further jeopardizing the region's economic growth and prosperity.

Public Sector Comparator Model

A public sector comparator model would provide for a true market-driven value to be determined for a toll project. Although Federal rules do not allow public and private competition (*CFR 635.112(e): "(e) No public agency shall be permitted to bid in competition or to enter into subcontracts with private contractors"*), the Federal Highway Administration (FHWA) does have the authority to approve a waiver to the Federal rules under the SEP-15 process.

SEP-15 (Special Experimental Project) is a new experimental process that allows the FHWA to identify, for trial evaluation, new public-private partnership approaches to project delivery. It is anticipated that these new approaches will allow the efficient delivery of transportation projects without impairing FHWA's ability to carry out its stewardship responsibilities to protect both the environment and American taxpayers. An approved SEP-15 could allow for the public sector entity to submit a comparator at the same time as the private sector proposal provided a procurement process is pre-determined, approved by the FHWA, and followed by all parties allowing for fair and meaningful competition.

This process was pre-approved for use in the original SH 121 procurement process when, in February of 2006, the NTTA expressed their interest in submitting a Public Sector Comparator to the private sectors' CDA bid for the project. Prior to submitting a formal request for SEP-15 approval from the FHWA, however, NTTA rescinded their decision to propose on SH 121 as part of a comprehensive Regional Protocol Agreement between NTTA and TxDOT.

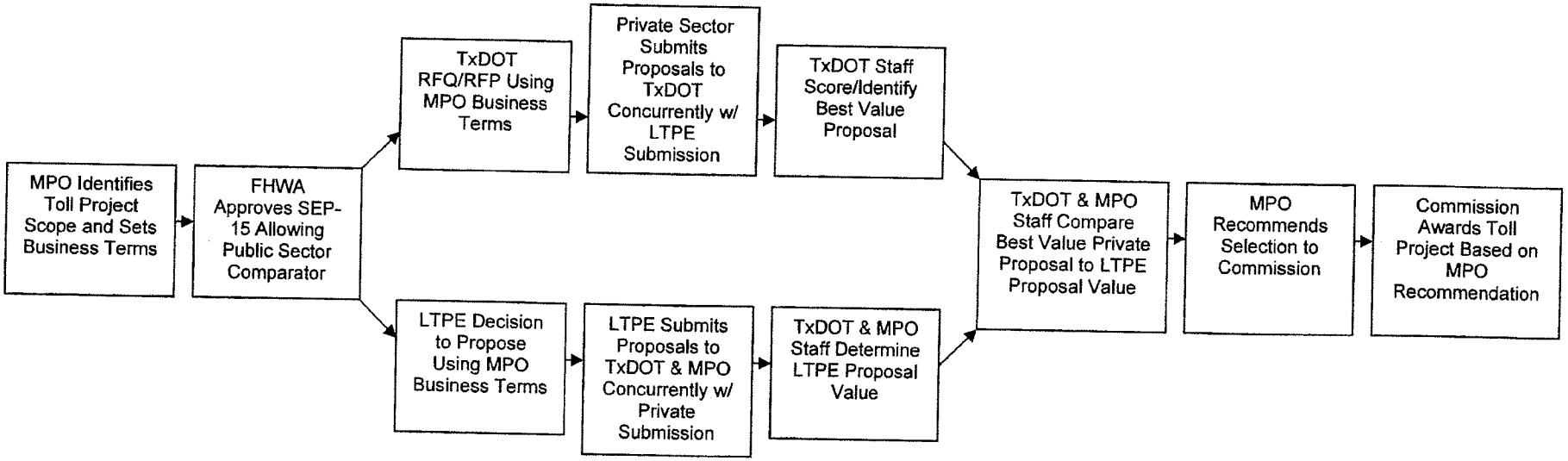
If the procurement process had continued as originally initiated, both the private sector and public sector bids would have been submitted concurrently. Then TxDOT would have scored the private sector proposals and determined the best value proposal, and the RTC and TxDOT would have compared that proposal to NTTA's submittal. The Regional Transportation Council would have then selected the best value proposal and recommended their selection to the TxDOT

Commission. Exhibit A, **Flow Chart of Responsible Agency/Developer Determination – Public Sector Comparator Process,** demonstrates this process.

It is important to note that for this process to be fair and ethical, it would be imperative for both the private sector proposers and the public agency to utilize the same costs for toll collection and that the MPO and Commission decisions would be considered final.

EXHIBIT A

FLOW CHART OF RESPONSIBLE AGENCY/DEVELOPER DETERMINATION
PUBLIC SECTOR COMPARATOR PROCESS



Report of the Legislative Study Committee on Private Participation in Toll Projects

In compliance with Senate Bill 792, 80th Texas Legislature

Acknowledgements

The Legislative Study Committee on Private Participation in Toll Projects wishes to thank the Center for Finance Strategy Innovation at the University of Texas at Dallas for their extensive *pro bono* research in support of the Committee's work.

In addition, the Committee specifically wishes to recognize the report's primary authors for their valuable contributions: Elizabeth F. Jones and David M. Epperson. The Committee would also like to thank Dr. David Springate for his ongoing support, contribution, and counsel.[1]

Legislative Study Committee on Private Participation in Toll Contracts

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December 2008

[1] Dr. David Springate is the Director of the Center for Finance Strategy Innovation. Elizabeth Jones serves as the Center's Associate Director, and David Epperson serves as a Resident Fellow.

Report of the Legislative Study Committee on Private Participation in Toll Projects

EXECUTIVE SUMMARY: REPORT HIGHLIGHTS

Highway Funding Crunch

- Current fuel taxes do not cover the cost of Texas roadways, nor will they cover future investment requirements.
- None of the conventional alternatives will close the funding gap.
    - Stopping diversions and recovering Texas' full share of federal funds will be helpful, but the amounts are far too small to cover the funding gap
    - Indexing and raising the state motor fuel tax could close a significant portion of the gap, but only in the short term
    - Higher taxation of fuel is not a reliable longer-term source for highway funding due to technological advances, changes in driving habits and other policy considerations mandating lower fuel consumption (environmental, national security).

Additional Highway Funding Options

- There are serious limits on relying solely on traditional public-sector financing, even for toll roads - public authorities will need new tools and broader sources of capital.
- A relatively small number of projects (located primarily in congested urban areas) are 100% toll-viable; toll roads and PPPs will not take over the state.
- Private capital investment can take many forms – one size does not fit all. But, all models under consideration retain public ownership and policy control.

Using Highway Public-Private Partnerships to their Best Advantage

- Private capital is necessary and available for toll road investment
- Partnerships must have common interests between the public and private to succeed
- Start-up toll roads are inherently high-risk projects; PPP toll roads carry the advantage of shifting much of this risk to the private sector.
- PPP projects are more likely to be done on time and on budget, and set important design innovation, project performance and procurement standards
- Private operators bring discipline and expertise to maintaining and managing infrastructure. Properly incentivized, private partners will look to improve efficiencies and customer service
- Private operators convey ideas, technologies, and best practices to the public domain and provide an important benchmark for public sector performance.

Protecting the Public Interest

- Key needs are transparency, expertise in process and transactions, and setting controls over toll rates and/or windfall profits.
- Competition provisions: most toll roads—public or private—need some degree of protection from unlimited competition in order to be able to sell their bonds, but this needs to be structured as narrowly as possible to maintain maximum public flexibility.
- Termination for convenience:
    - Important to distinguish between termination due to performance issues (addressed in Termination for Cause provisions) and the objective of preventing windfall profits.
    - When the underlying aim is to prevent windfall profits, stringent buyback provisions add an additional level of risk to a private party. While this can be calculated, the price tag may be so high as to risk making Texas unattractive compared to other states. A better approach is revenue-sharing to align incentives, so both parties gain from unexpected windfalls.

- Upfront payments may not be in the public's interest
    - Ever-present temptation for officials to grab a big headline generating number today at the expense of long-term value
    - High up-front payments can over-leverage a project and set it up for failure or renegotiation later.
    - Revenue sharing mitigates these problems and is a more financially sound option

Policy Choices

- Cross-subsidization (system finance) vs. stand-alone project finance; no one best way, but not optimal to follow both at once within a system.
- Maximizing toll revenue vs. maximizing mobility; again, a policy choice.
- Local primacy: difficult to define, given overlapping jurisdictions and widespread levels of financial and project development capability.
- "Market valuation" vs. Public Sector Comparator; the latter is a more accurate and correct way to measure value.

Additional Valuation Issues

- Net present value of cash flow is the basic metric, but decision should not be based solely on this, as in current market valuation process.
- Better model is Public Sector Comparator, which estimates value for money, including value of risk transfer.

Conclusions and Recommendations

- Public-Private Partnerships are a significant tool to help address the state's large and growing highway funding gaps. It is extremely important to keep the PPP option open to both TxDOT and local toll agencies alike.
- Texas can draw on the wealth of experience gained by other jurisdictions, and should create a centralized entity (examples such as Partnerships Victoria or Partnerships BC) to provide technical and process expertise to TxDOT, MPOs and RMAs/Toll Authorities.
- Texas should replace the current Market Valuation process of SB792 with the Public Sector Comparator model and process – with the focus on establishing the threshold level of value for private participants to meet or exceed.
- Revenue sharing is the best way to limit a private company's potential windfall profits, and should replace upfront concession payments.

Report of the Legislative Study Committee on Private Participation in Toll Projects

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Report of the Legislative Study Committee on Private Participation in Toll Projects

1.0 Introduction and the SB 792 Charge

Senate Bill 792 of the 80th Texas Legislature charged this Committee, the Legislative Study Committee on Private Participation in Toll Projects, with the task of examining the following issues:

- *What are the public policy implications of entering into Comprehensive Development Agreements (CDAs) with private parties to develop new toll project infrastructure ("greenfield" projects)?*

- *What are the public policy implications of selling an existing and operating toll project ("brownfield project") to a private entity?*

The fundamental basis for the Committee's purpose – in fact for the entire public-private partnership (PPP) debate – is the recognition by a broad consensus of transportation policy officials that the current funding methods are inadequate to build the transportation network Texas will need to maintain its leading economic position in the 21st century.

Moreover, a number of the measures proposed to fill the highway funding gap will either be too small to address the problem in a meaningful way, or else will serve primarily as short term solutions whose long range viability remains open to question. This is especially true when less traditional considerations – such as meeting tightening environmental standards – become more pressing concerns.

This report is specifically concerned with the role that private capital and private sector investment in infrastructure should have in meeting public needs. It is also concerned with how PPPs can best play a role in achieving the public sector's goal of stable financial investment in its infrastructure assets.

We believe that advancing projects in the most well-planned, cost-effective manner is paramount, and projects should be funded (whether with public or private capital) if value can be created and realized.

In addition to capital, however, the private sector is in a position to bring to a project innovative designs and specialized project management expertise. As competition sharpens all parties involved in a particular line of endeavor, private sector involvement will have spill-over benefits going far beyond any financial resources provided.

While laying out the advantages the PPP model offers, this report will also address the critical factors necessary to protect the public interest when negotiating PPP transactions, as well as some of the practical steps that other jurisdictions have worked out in managing the overall private procurement process.

In addition, this report will address some of the fundamental policy choices facing public officials confronted with funding our Texas highways. For instance, to what degree should motorists of the few heavily traveled, profitable highways subsidize the remainder? Should one region of the state subsidize others? Should officials focus on a system finance approach versus a one-off approach? How should toll project revenues be allocated within a region – and even more fundamentally, what constitutes a region for highway financing purposes?

We note that one fundamental lesson to arise from our work is that no single solution exists for every highway or every part of the state. Instead, we emphasize that the state and local entities need to retain all the tools available for maximum flexibility in a changing world.

Finally, though this report will not specifically address the need for emergency evacuation, other forms of transportation investment (such as rail or airports) or the enhancement of regional or statewide trade and economic growth corridors – all of these factors must be weighed in the decision process as it relates to the need for and the timing of road projects.

Given that a widespread consensus exists – both among Texas policy makers and the voting public – opposing the idea of transferring an existing and operating project to a private entity, this report will focus on greenfield toll infrastructure.[2]

[2] Note, however, that for the purposes of this report, we include projects such as HOT lanes or other projects whereby *new lanes* are added to an existing highway under the general "greenfield" heading.

2.0 Transportation Infrastructure Investments Are Not Keeping Up with Growing Highway Demand

Since 1900, the population of Texas has increased approximately 20 percent every ten years. Demographic projections indicate that Texas will add between 12.5 and 16 million new residents between now and 2030.[3] Since 1990, the vast majority of the state's population growth has occurred in the major metropolitan areas, with especially high rates of growth occurring in the suburban counties surrounding the state's largest cities. Demographers expect this trend to continue.[4]

These new residents have meant more vehicles on Texas highways. For the past decade, the ratio of registered vehicles to the state's population has hovered around 0.85 vehicles per person (up from 0.75 in 1980).[5] Unfortunately, the number of lane-miles has not kept up with the increases in population and vehicles. Since 1980, the number of vehicles per lane-mile has increased by 57 percent.[6] The increased congestion is apparent even to casual users of our highways.

Compounding this problem, Texas suffers from a growing backlog of deferred maintenance for both roads and bridges. TxDOT has estimated that 14 percent of the "on system" bridges and 39 percent of the "off system" bridges are in substandard condition.[7] Correcting these deficiencies will require an investment of $17.2 billion over the next ten years.[8] The situation for roads is little better. For the last ten years, roughly one in seven road miles in Texas has fallen short of "good" or "better" condition, and preliminary estimates are that an amount at least equal to that required for bridge repair will be needed to bring our deficient roads up to an acceptable standard.[9]

Failure to act will carry significant economic consequences. In 2006, the Governor's Business Council estimated that alleviating traffic congestion in the state's eight largest

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[3] The US Census Bureau projects 12.4 million new residents, while the Texas State Data Center predicts 16 million new residents by 2030.

[4] The top ten fastest growing counties since 1990: Rockwall, Collin, Williamson, Montgomery, Fort Bend, Denton, Hays, Kendall, Comal and Burnet.

[5] US Census (population data). Texas Comptroller's Office (registered vehicles).

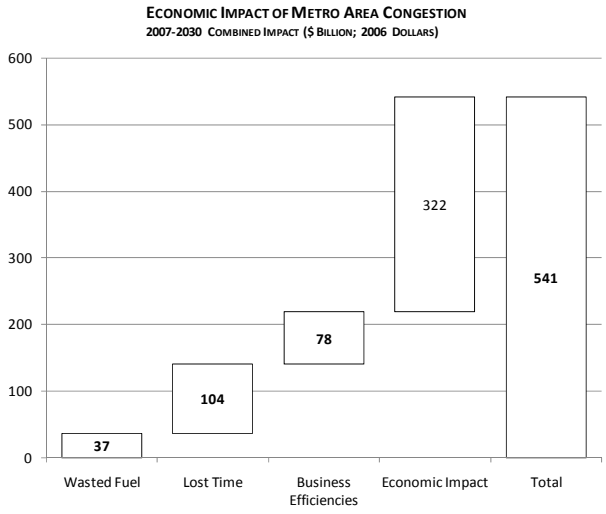
[6] Texas Comptroller (Texas motor vehicle registrations 1996-2005); Federal Highway Administration Tables MV201 (Texas motor vehicle registrations to 1995); FHWA Table HM60 (lane-miles)

[7] TxDOT Sunset Advisory Commission Staff Report, p. 100.

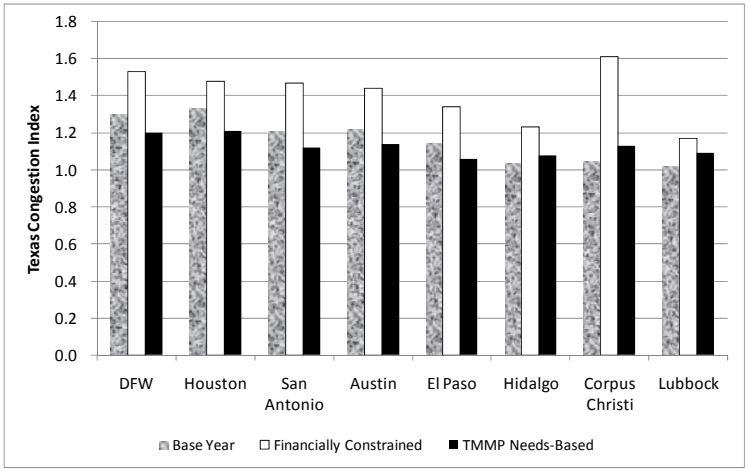
[8] Source: TxDOT.

[9] Note that the 2030 Committee has been charged with refining the estimates for the dollars required to correct the existing road and bridge maintenance deficiencies and is expected to issue its report by the end of 2008.

metropolitan areas would, between 2007 and 2030 save Texans $37 billion in wasted fuel, along with $104 billion in lost time. [10] On an annual basis, Texans waste over $1.5 billion in fuel and suffer $4.3 billion in lost time due to current traffic congestion,[11] and this does not take into account the business efficiencies and economic impact of additional road construction.



The GBCs savings estimates were based on moving from a "financially constrained" scenario – based on existing sources of revenue – to a "needs based" system, which is focused on eliminating all locations of serious congestion. The target is to reduce the Congestion Index to a level of about 1.15.[12]



[10] Governor's Business Council, *Shaping the Competitiveness of Texas Metropolitan Regions*, (the "GBC Report"). The regions studied were Dallas-Fort Worth, Houston, San Antonio, Austin, El Paso, Hidalgo County, Corpus Christi and Lubbock.

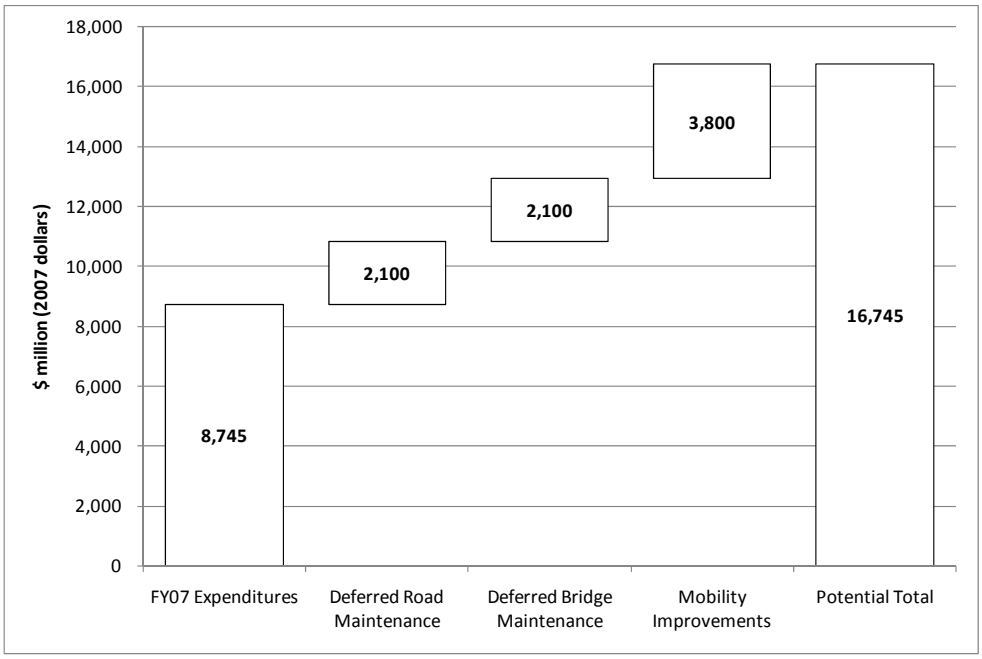
[11] The GBC calculated wasted fuel at $2.80 per gallon, and lost time at $13.75 per hour.

[12] The Texas Congestion Index is the ratio of the time required to travel a given distance during peak traffic vs. free flowing conditions. An index of 1.5 means that a given trip would take 50% longer in peak traffic.

Closing this funding gap will require a significant increase in the amounts that Texas now spends on our highway system. The GBC estimated that the total investment required to achieve the needs-based objectives will total approximately $44 billion between 2006 and 2030, and this figure did not include the roughly one-third share borne by local governments (an additional $22 billion), nor did it include rural areas or metro areas outside of the eight noted above.[13]

The point, for the purposes of this report, is not to derive an exact number, but to make the Legislature aware that whatever the final financial capacity amount proves to be, it will likely be much higher than TxDOT's current level of expenditures (the 2030 Committee is working to pinpoint more exact figures).

ESTIMATED ANNUAL NEEDS-BASED FUNDING REQUIREMENTS (2007 DOLLARS)



Given the need for additional funding, the question becomes from where will these dollars come? During the various public hearings, the Committee heard testimony regarding the existing sources of funding, as well as other possibilities to increase the revenue of the State Highway Fund (Fund 6). Among these were:

- Eliminate the current diversions from the State Highway Fund
- Recover Texas' full contribution to the Federal Highway Trust Fund

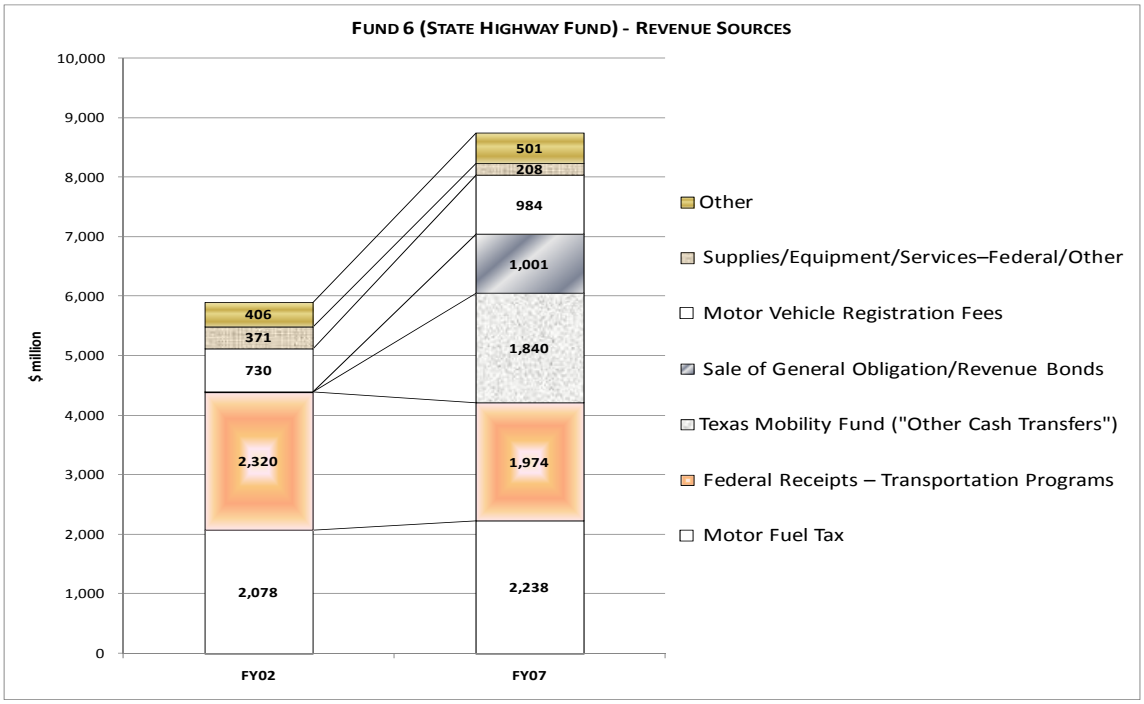
[13] Estimates do vary for the rural and other metro areas. For the purposes of this report, we note only that estimates were roughly $9 billion for the other metro areas (combined), and that they ranged from $3 billion to $9 billion for the rural areas of Texas.

- Index and/or raise the state motor fuels tax.

Each of these options carries its own set of issues and practical limitations. As this report will show, none will fully solve Texas' transportation funding challenges.

Traditionally, Texas has funded its roads from a combination of the state motor fuels tax and allocations from the Federal Highway Trust Fund, which is itself funded via the federal motor fuels tax.

STATE HIGHWAY FUND (FUND 6) REVENUE SOURCES – FY02 AND FY07[14]

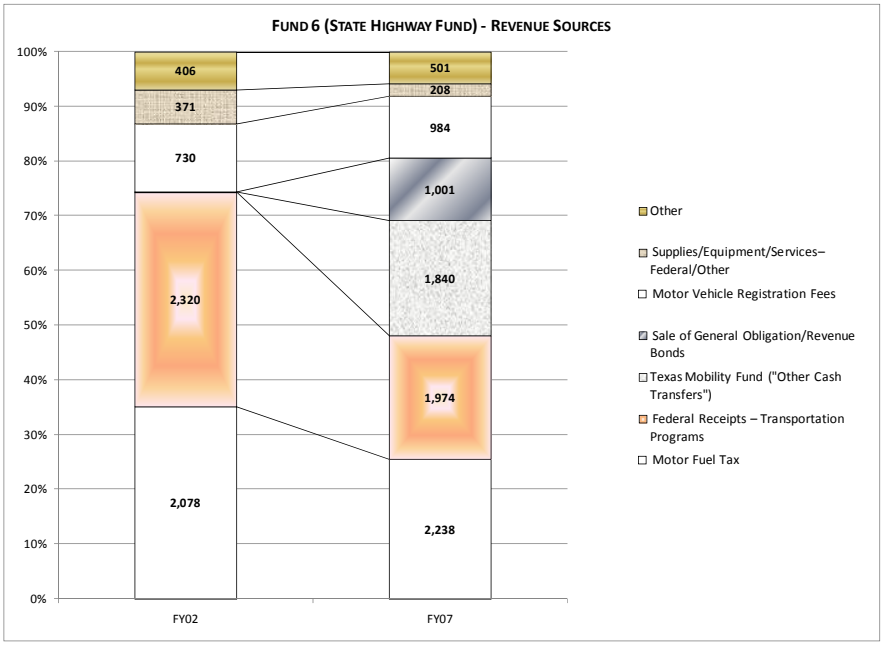


The total amount of Fund 6 revenue has increased substantially within the past five years. However, the relative proportion of the traditional sources has declined from 75 percent in FY02 to less than half in FY07. Since FY02, almost all of the Fund 6 revenue increases have derived from bond proceeds.[15]

[14] Source: Texas Annual Cash Report 2002 and 2007

[15] This report will address the specifics of these bond revenues on subsequent pages. We note, too, that bond proceeds, unlike other sources of revenue, must eventually be paid back – a fact that many seem to have ignored in the run-up to the latest credit crisis.

STATE HIGHWAY FUND (FUND 6) REVENUE SOURCES – FY02 AND FY07 – PERCENTAGE BASIS



2.1. Eliminate the Diversions from the Motor Fuels Tax.

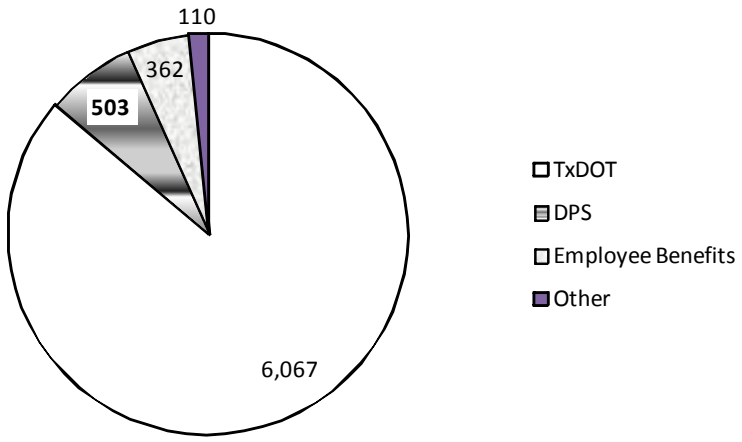
One suggestion for increasing Texas highway funds is to eliminate the diversions from the motor fuel tax. According to a constitutional amendment passed by Texas voters in 1946, one quarter of the motor fuels tax is allocated to Fund 7, the Available School Fund.[16] In FY07, the motor fuels tax brought in a total of approximately $3 billion ($2.3 billion from the gasoline tax, $750 million from the diesel tax); thus, $750 million passed to Fund 7.

The Committee does not believe that either the Legislature or the voters would approve the elimination of this diversion in today's contentious environment for school finance. Moreover, diversions are ultimately a zero sum game – any money saved for Fund 6 would have to be made up from other state funds. No new money would enter the state's funding system.

The same reasoning would apply to eliminating the current diversions from Fund 6 itself, though the Committee believes that these proposals may carry more Legislative support. For FY 08-09, these diversions account for approximately 14 percent of the State Highway Fund, or roughly one billion dollars per annum.

[16] The gasoline and diesel taxes are allocated in slightly different ways. In both cases, the Comptroller takes one percent off the top for collections and enforcement, and 25 percent goes to public education. The remainder from the diesel tax is allocated entirely to Fund 6. Of the remaining gasoline tax revenues, the Tax Code §162.503 allocates $7.3 million to County and Road Districts. The remainder goes to Fund 6, with the provision that a quarter of the gasoline tax revenues be used for the Farm to Market road network.

STATE HIGHWAY FUND APPROPRIATED AMOUNTS FY08-09[17] ($ MILLION, ANNUALIZED)



While the accounting may be cleaner if the funding for the Department of Public Safety, Employee Benefits and miscellaneous other expenditures come out of General Revenue rather than Fund 6, the Committee heard no suggestions that these expenses could be dispensed with entirely. Thus, as with the portion of motor fuel tax revenues diverted to education, elimination of the Fund 6 diversions ultimately become more of a zero-sum accounting exercise rather than a source of new money for highway funding.

2.2. Recover Texas' Full Contribution to the Federal Highway Trust Fund

The Federal Highway Trust Fund was formed in 1956 as part of the legislation creating the interstate highway system. In FY 2006, revenues nationwide amounted to $38.6 billion. The FHTF derives 85 percent of its revenues from federal gasoline and diesel taxes, currently 18.4 cents and 24.4 cents per gallon respectively. Another 10 percent comes from truck, bus and trailer taxes, with the remainder derived from a tire tax, heavy vehicle usage fees and taxes on alternative fuels.[18] Federal motor fuel taxes were last raised in 1993, and are not adjusted for inflation.[19]

Texas' representatives in Congress have long argued that the state receives less than it contributes to the FHTF. They are correct. Since the Fund's inception, Texas has ranked dead last in receipts vs. contributions.[20]

[17] Source: Legislative Budget Board, *Overview of State Highway Fund 0006, Revenues and Allocations, the Texas Mobility Fund, and the Texas Rail Relocation and Improvement Fund*, April 2008, p. 14.
[18] FHWA Table FE-210, Status of the Federal Highway Trust Fund, Fiscal Years 1957-2006.
[19] Congress reinstated a 0.1 cent/gallon motor fuel tax in 1997 to fund the Underground Storage Tank Trust Fund.
[20] FHWA, Table FE-221.

FEDERAL HIGHWAY TRUST FUND CUMULATIVE (SINCE 1956) DONOR-RECIPIENT POSITION BY STATE
$ IN '000S

Top 10

State	Recepits/Contributions
Alaska	6.43
Dist. of Col.	4.15
Hawaii	3.11
Montana	2.38
Rhode Island	2.32
Vermont	2.13
South Dakota	2.12
North Dakota	2.12
West Virginia	1.95
Wyoming	1.73

State	Net $
New York	7,167,455
Alaska	7,058,675
Pennsylvania	5,228,706
Massachusetts	5,182,277
Connecticut	4,539,045
West Virginia	4,401,432
Montana	3,929,686
Washington	3,768,500
Hawaii	3,243,828
Maryland	2,832,902

Bottom 10

State	Recepits/Contributions
California	0.97
Florida	0.94
Ohio	0.94
Georgia	0.93
Oklahoma	0.93
Michigan	0.93
South Carolina	0.92
North Carolina	0.91
Indiana	0.90
Texas	0.89

State	Net $
Oklahoma	(728,039)
South Carolina	(819,446)
Georgia	(1,492,712)
Michigan	(1,558,835)
Ohio	(1,588,417)
North Carolina	(1,659,728)
California	(1,666,640)
Indiana	(1,691,555)
Florida	(1,746,624)
Texas	(5,632,043)

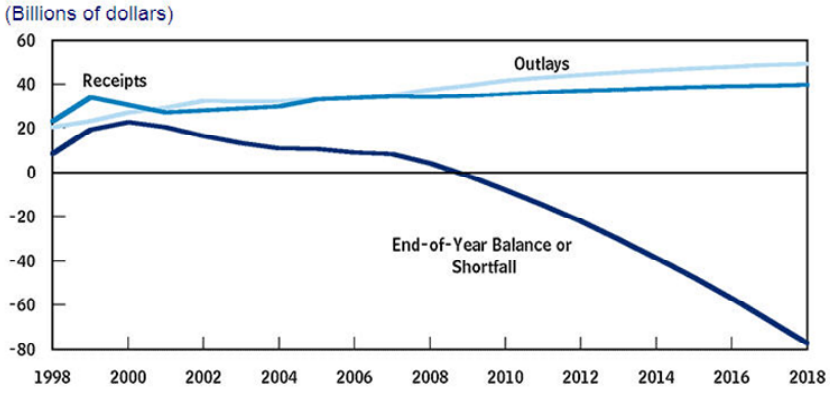
Unfortunately, correcting this unfairness would add little new revenue to Fund 6. The amounts involved are simply too small. For instance, recovering Texas' full FHTF contribution in FY07 would have added only $131 million to the state's coffers, a tiny percentage of the overall highway funding gap. The ratio of receipts to contributions to the FHTF also varies between years. For instance, in FY02, Texas actually received $15.6 million more than it contributed.

In addition, both the Federal Highway Trust Fund and the federal government itself suffer from their own well-publicized financial problems. But for an emergency $8 billion allocation, the FHTF would have run out of money in this year,[21] and the Congressional Budget Office has projected that outlays will exceed revenues every year during the upcoming decade, unless federal fuel taxes are raised.

While the scale of the federal government's budgetary difficulties are outside the scope of this report, we do note that annual projected federal on-budget deficits have run in the $400-500 billion range since FY03 and that the ratio of U.S. debt to GDP is now at a post-World War II high.[22] Projections for the next several years do not provide much hope for improvement, and the as-yet undetermined cost of preserving the solvency of the U.S. banking and financial system will only add to this burden.

[21] HR 6532, signed by the President on 15 September 2008.
[22] US Treasury, Bureau of Economic Analysis

Actual and Projected Highway Account Receipts, Outlays, and Balances or Shortfalls, 1998 to 2018

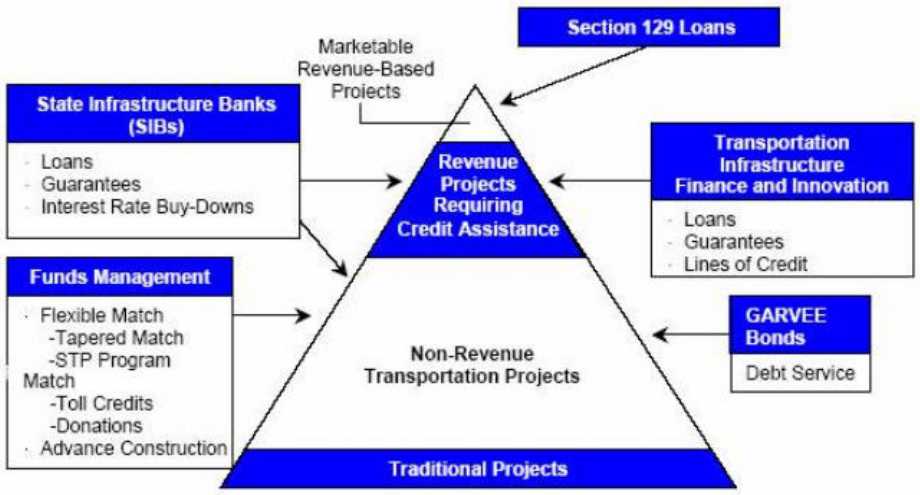


Source: Congressional Budget Office.

In addition, the failings of the current federal highway funding system are exacerbated by the misallocation of transportation resources for political or special purpose spending.[23] The number of earmarks in federal highway legislation has grown enormously in the past two decades.[24] While these earmarks may not be bad in and of themselves, they do make it more difficult to create a unified federal transportation plan.

Other programs of federal assistance will face the same difficulty.

Federal Finance Tools for Surface Transportation Projects

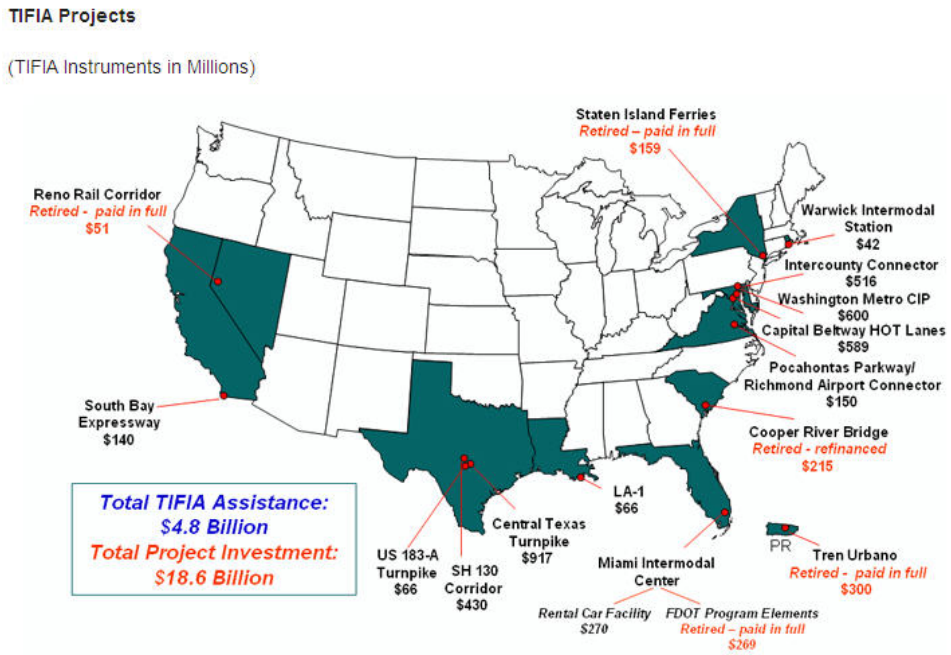


GARVEE bonds (Grant anticipation bonds) are issued in the anticipation of receiving federal grants. Texas has (wisely in our view) rejected Garvee bonds as states that use these

[23] US Department of Transportation, "Innovation Wave: An Update on the Burgeoning Private Sector Role in US Highway and Transit Infrastructure," 18 July 2008, p. 43.
[24] The 1987 highway bill had fewer than 200 earmarks. The 2005 bill contained over 6,000.

bonds are "betting on federal dollars that aren't going to be there any more."[25]

TIFIA, the Transportation Infrastructure Finance and Innovation Act of 1998, enacted as part of the Transportation Equity Act for the 21st Century (TEA-21), established a new federal program under which the U.S. Department of Transportation provides credit assistance to major surface transportation projects of national or regional significance. TIFIA provides three forms of credit assistance – secured (direct) loans, loan guarantees, and standby lines of credit. The program's fundamental goal is to leverage federal funds by attracting substantial private and other non-federal co-investment in critical improvements to the nation's surface transportation system.



Projects in Central Texas have benefited from TIFIA,[26] but the program has fundamental limitations – mainly the $10.6 billion (national) limit in the amount of credit instruments issued.

State Infrastructure Banks (SIB) were authorized in 1995 to accelerate mobility improvements through a variety of financial assistance options made to local entities through state transportation departments. Texas was chosen as one of the ten states to test the pilot program, and the Texas Legislature authorized TxDOT to administer the SIB program in 1997. SIBs are capitalized by federal funds plus state matching contributions.

[25] Steve Simmons, TxDOT deputy executive director, cited in *Texas Contractor*, 21 April 2008.
[26] A TIFIA loan and credit assistance formed part of the financing packages for the Central Texas Turnpike, US 183-A, and SH 130 segments 5 & 6.

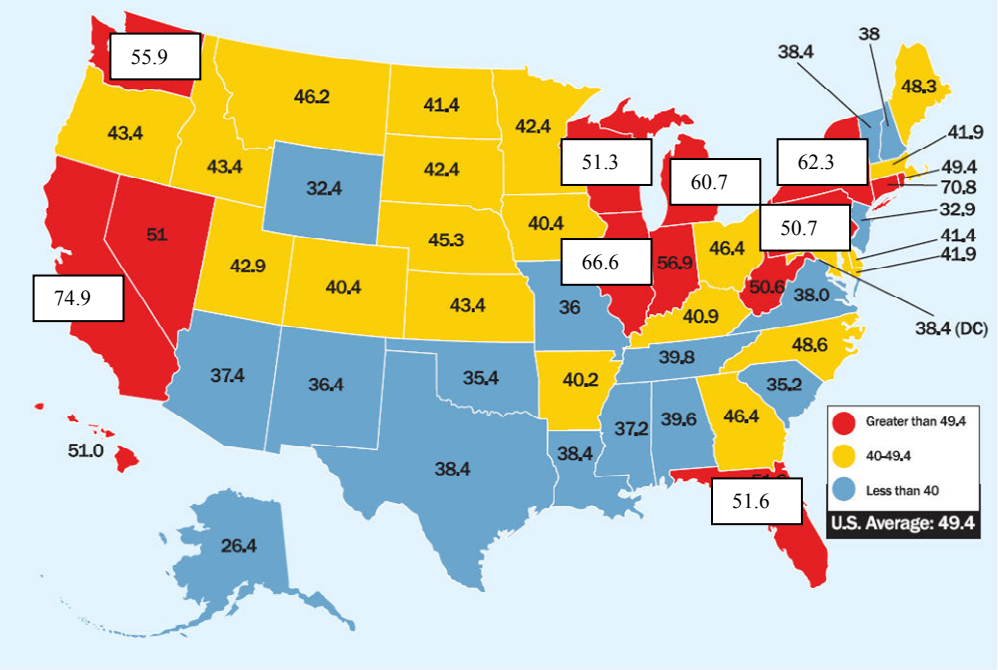
To date, the Texas Transportation Commission has approved 67 loans totaling more than $294.9 million from the SIB program. These loans have helped leverage more than $2.03 billion in transportation projects in Texas.[27] The SIB operates as a revolving loan fund, where the account balance grows through the monthly interest earned and repaid principal and interest payments.

However, the SIB program, like all other programs depending on federal dollars, will compete for increasingly scarce resources, especially given that the ongoing economic turmoil has decimated the finances of a number of our sister states – some of whom have already gone hat in hand to Washington for an emergency loan to pay for basic state operating expenses.[28]

2.3. Index and/or Raise the State Motor Fuels Tax

The motor fuels tax currently sits at 20 cents per gallon for both gasoline and diesel, a figure that was last raised in 1991 and is not indexed to inflation. Texas's motor fuels taxes are low relative both to other states and to countries in the developed world.[29]

COMBINED FEDERAL, STATE & LOCAL GASOLINE TAXES - 2008[30]



[27] Source: TxDOT

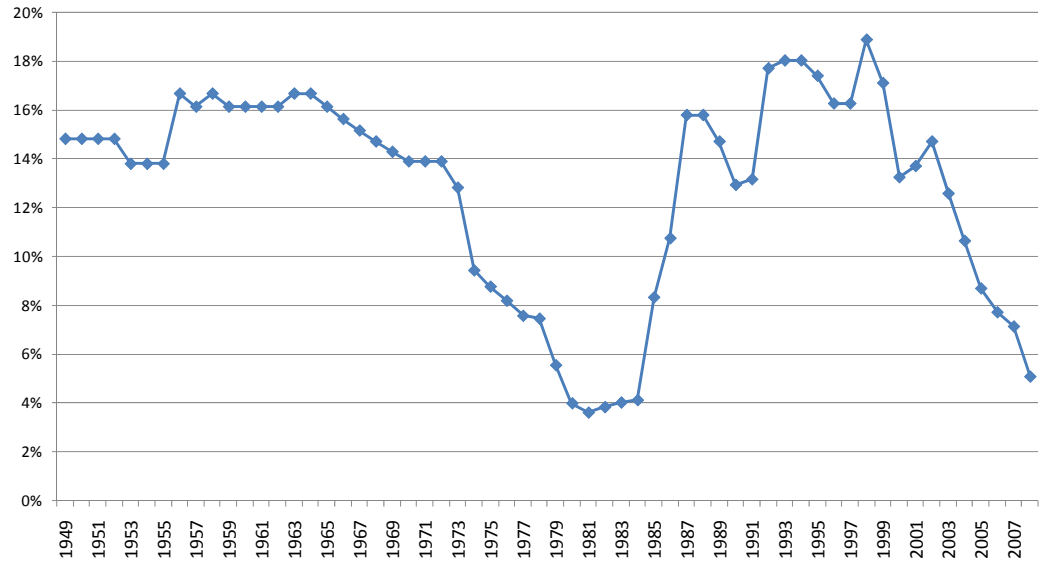
[28] "Schwarzenegger to U.S.: State may need $7-billion loan," *Los Angeles Times*, 3 October 2008.

[29] The Committee notes, however, that unlike the US, most other developed nations use the fuel tax to raise general revenue and/or to achieve separate policy objectives (i.e., environmental).

[30] Source: American Petroleum Institute. Unlike Texas, some of the higher-tax states impose sales taxes on motor fuels. Many others impose additional city/county levies, environmental taxes, and underground storage tank fees.

Since the motor fuels tax is set on a cents per gallon basis, its level varies relative to the price of fuel. Currently, the tax as a percentage of the pump price is near historic lows.[31]

STATE MOTOR FUEL TAX AS A PERCENTAGE OF THE PUMP PRICE 1949-2008



For the last ten years, the average motorist in Texas has paid between 1.2 and 1.3 cents per mile traveled in state motor fuel taxes. This translates into a cost of roughly $150 per year per registered vehicle. Add the federal tax and the average Texas driver pays around $300 in annual state and federal fuel taxes.[32] In effect, the cost of operating the system is no longer being supported by Texas motorists. While many think they are paying too much, the truth is that Texas road users are not covering the operating or capital cost of the system.

Putting this into another perspective, the U.S. Department of Transportation estimates that driving on roads in need of repair costs Texans more than $4.5 billion in annual auto repair costs, or $326 per motorist.[33] Texas drivers thus pay more, on average, to repair damage to their vehicles caused by bad road conditions than they pay to drive those roads in the first place![34]

It is difficult to escape a central point: the current gasoline and diesel taxes do not cover the total costs of road usage. For instance, estimates from other states indicated that Operations

[31] Average prices in Texas for regular unleaded reached $3.98 per gallon in July 2008, though current prices as of mid November 2008 have dropped below $2.00 per gallon. The average price for all of 2008 (through November 3) is $3.38 per gallon. Source: Energy Information Administration, US Department of Energy.
[32] Based on an average of 16.1 miles per gallon. Data derived from the Federal Highway Administration (miles driven), the Texas Comptroller (taxable gallons), and TxDOT (number of registered vehicles).
[33] Comptroller of Public Accounts, *Fiscal Notes*, June 2008 – based on estimates by the US Dept of Transportation.
[34] Higher repair costs also have the additional disadvantage of unpredictability, with the burden often falling on those who are least able to afford them and are most dependent on one vehicle.

and Maintenance ("O&M") costs for rural interstates run at roughly 2.5 cents per vehicle lane-mile.[35] This does not include the far higher cost for amortization of the highway's construction expenses, which vary widely depending on the urban/rural nature of the road as well as a number of specifically local factors. Estimates we have seen range from ten to fifteen cents per vehicle lane-mile.[36]

One option – and the simplest – would be to raise the fuel tax rate. At current levels of fuel consumption, each one cent increase would bring in an additional $110 million in Fund 6 revenue (net of the amount taken for public education).

Another option would be to change the fuel tax to an *ad valorem* tax based on a percentage of the fuel price (much like the state's sales tax operates today). The downside to this approach is that fuel prices can be quite volatile, which would add to the difficulties of long range transportation planning.

In the end, whether to raise the motor fuel tax and by what amount is a policy matter for the Legislature, and we will address the impact of higher fuel prices on consumption – via tax increase or otherwise – later in this report.

Another option is to index the tax to inflation. Like most other states, Texas does not currently do this, and the purchasing power of the motor fuels tax declines each year.[37] Using the CPI, the 20 cents per gallon tax in 1991 translates into approximately 14 cents per gallon of purchasing power today.

Since we have no crystal ball, we will not attempt to forecast inflation rates decades into the future. Instead, we examined the impact of various indexing possibilities based on historic inflation data. If Texas had indexed the motor fuels tax to the CPI the last time the Legislature raised the tax in 1991, the current rate would be 29.6 cents per gallon, which would bring in approximately $1.2 billion in net revenue to Fund 6 (after education funds are taken out). Had

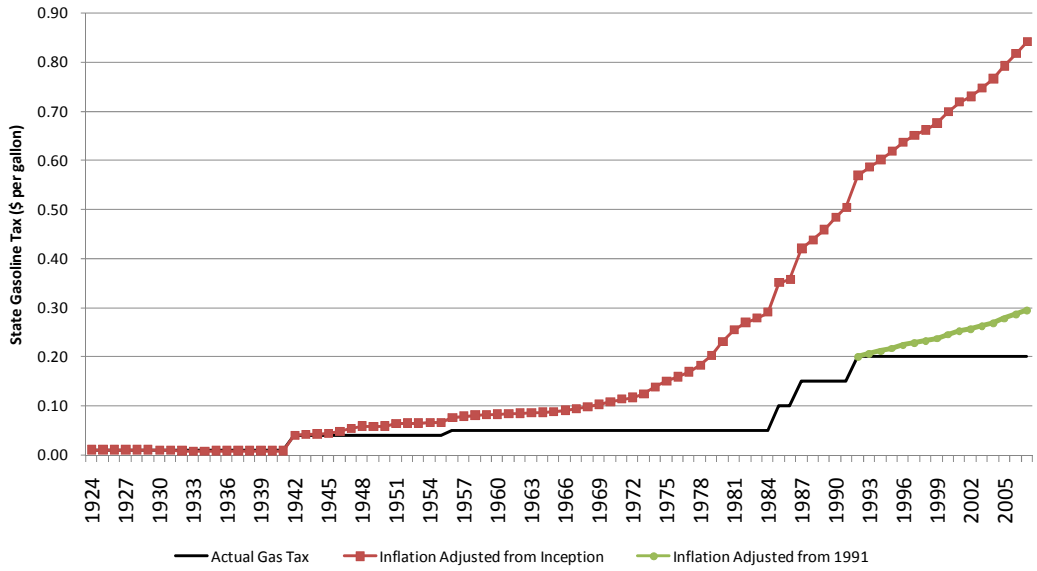
[35] As an example, the Pennsylvania Department of Transportation estimated its O&M costs for Pennsylvania's 311 miles of Interstate 80 to be $100 million per year, which translates to $321,543 per mile, or $80,386 per lane-mile. Extrapolating this figure to the traffic volumes found on busy rural Texas interstates – for example, Interstate 20 near Tyler – yields a figure of 2.5 cents per vehicle lane-mile. We do note that Texas costs could be lower. Pennsylvania must contend with more severe winter weather, among other factors. However, even if Texas' O&M costs are as low as 60% of Pennsylvania's, this still means a cost of 1.5 cents per vehicle lane-mile, a figure higher than that raised by the state motor fuels tax.

[36] The 2030 Committee is expected to address this issue more comprehensively.

[37] States that index their motor fuels tax to inflation include Maine, Florida, New York (petroleum business tax, not the gasoline tax), Nebraska (a partial percentage tax rather than a fixed amount). Wisconsin once indexed their motor fuels tax, but repealed this provision in 2006. Source: Federation of Tax Administrators

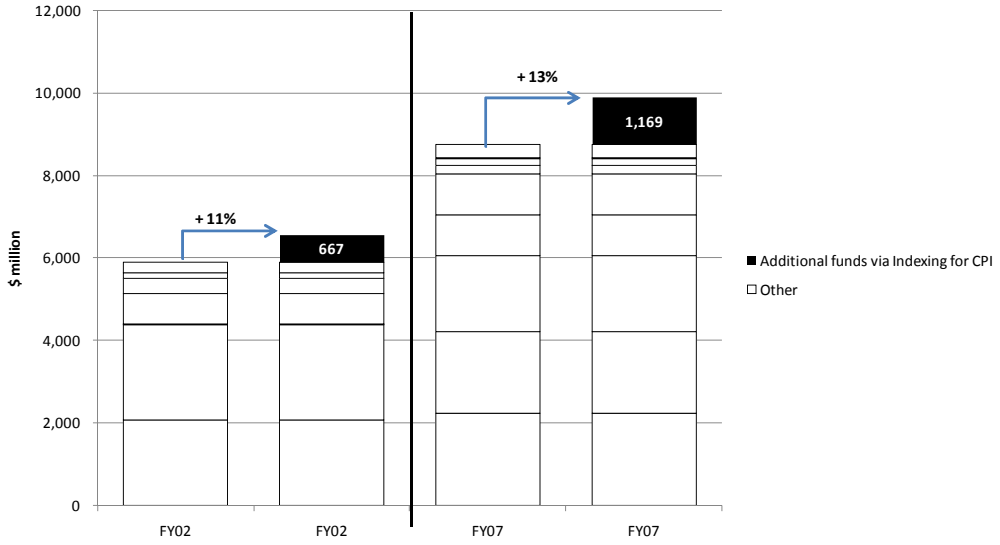
Texas indexed the tax to inflation at its inception in 1923, the current rate would be 84.1 cents per gallon, which, net of education, would produce $7.1 billion of additional revenue.

HYPOTHETICAL INFLATION-ADJUSTED MOTOR FUELS TAX (CPI)



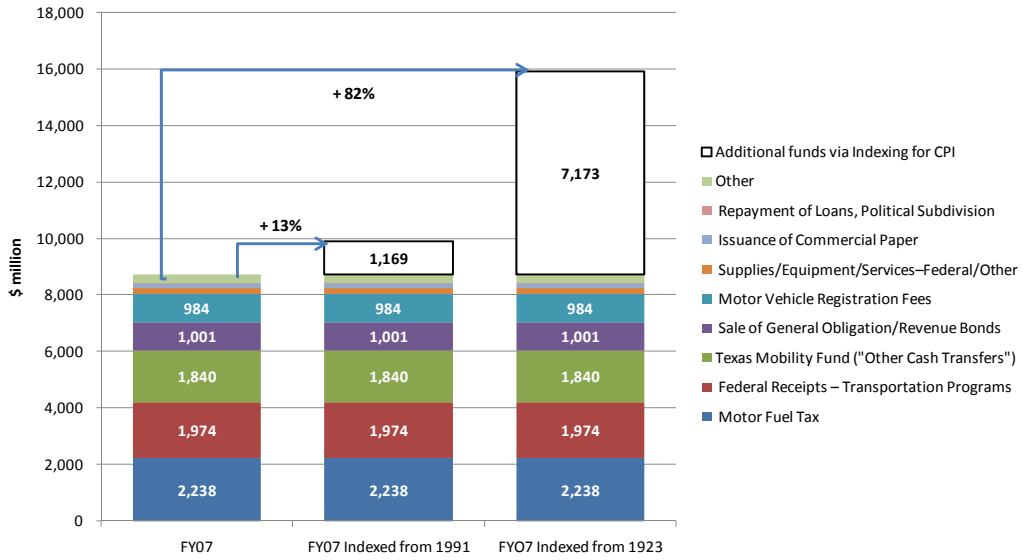
While indexing the motor fuel tax to inflation would be a useful step to maintain the tax's purchasing power, in raw dollar terms, the increases for the first several years will be quite limited. As with any measure of compound interest, the largest gains only occur over long periods of time.

ADDITIONAL REVENUE TO FUND 6 FROM INDEXING THE MOTOR FUEL TAX SINCE 1991 (CPI)



These charts also make the critical assumption that increases in the tax rate do not affect consumption volume – a subject we will subsequently address in more detail.

ADDITIONAL REVENUES TO FUND 6 OF INDEXING THE FUEL TAX TO THE CPI – SINCE INCEPTION IN 1923

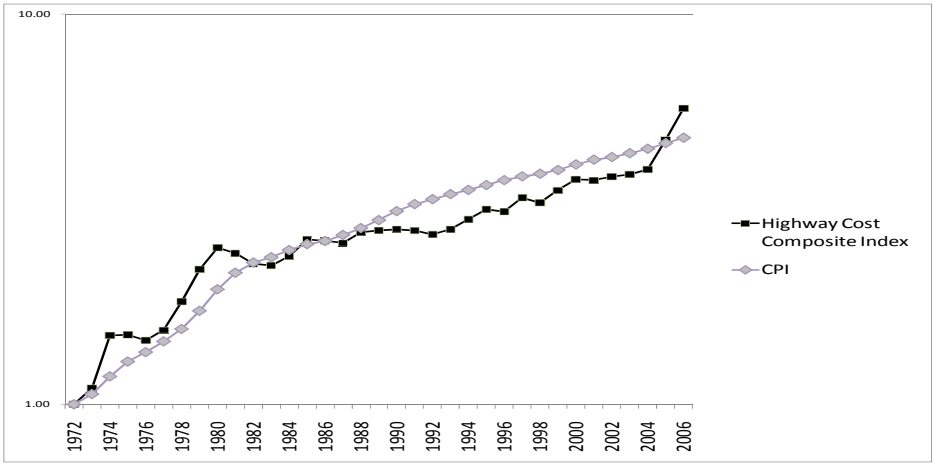


The choice of index measure is equally important. During the past few years, the costs of materials used in construction have risen faster than consumer price inflation as developing nations spend vast sums to build and upgrade their own transportation infrastructure.[38]

However, it is important to note that prices for construction materials are quite volatile. The past forty years have also witnessed long periods where the Highway Cost Index significantly lagged behind the CPI, and the prices of industrial commodities can fall just as quickly as they rise.[39]

[38] The prices of earth-moving equipment and component parts have also risen quickly due to a global mining boom.
[39] "From Gold to Lead," *The Economist*, 1 November 2008. The "China fines" index refers to Chinese spot – as opposed to contract – prices for iron ore.

US CONSUMER PRICE INDEX[40] VS. FEDERAL HIGHWAY COST INDEX[41] (LOG SCALE)



The policy choice is this: should Texas choose the more steady CPI measure, or run the risk of indexing fuel taxes to the Highway Cost Index at a peak in construction costs,[42] thereby lagging the CPI and producing less revenue in the long run?

2.4 Fuel Tax Unreliability in the Future

On balance, the evidence indicates that increasing and indexing the motor fuel tax remains a viable source of additional transportation funding, in the near term.

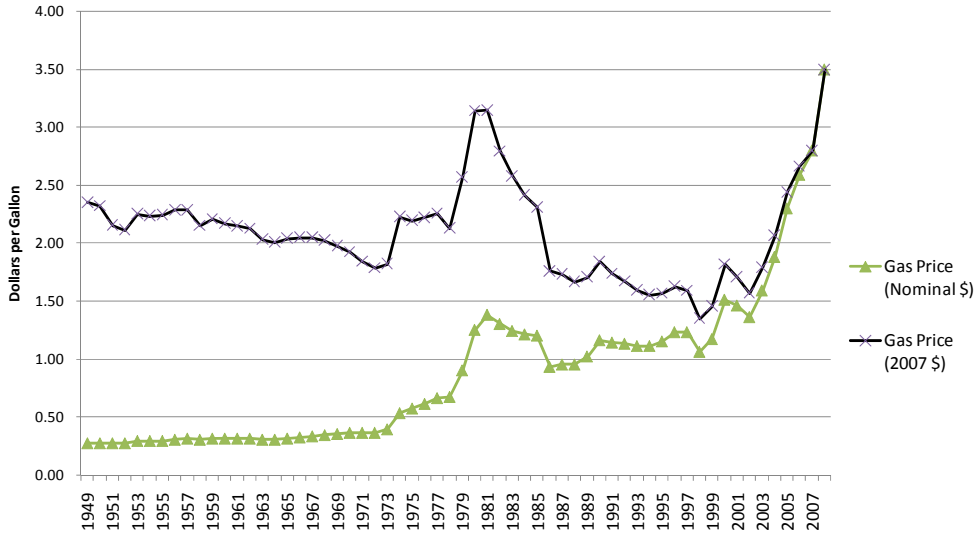
However, the recent steep run up and related steep run down in gasoline and diesel prices also points to issues that make a long term reliance on the motor fuel tax problematic. These include:

- A shift in consumer preferences to more fuel efficient vehicles;
- Likely federal policies to discourage carbon based fuel consumption
- Harder-to-tax alternate fuels replacing gasoline and diesel
- More stringent clean air requirements

The past two years have witnessed the fastest run up in energy prices since the oil shocks of the 1970s. Though prices have declined recently, real, inflation-adjusted prices in the summer of 2008 exceeded prior highs.

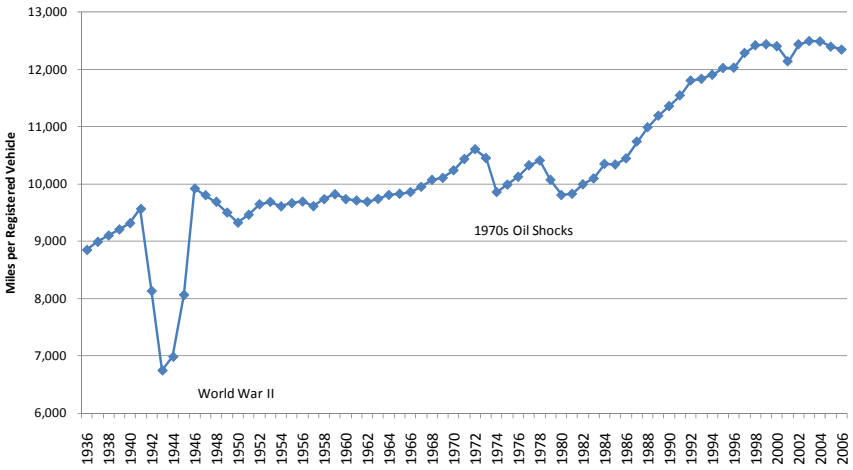
[40] Consumer Price Index data from the Bureau of Labor Statistics, US Department of Labor.
[41] The Federal Highway Cost Composite Index includes costs for Excavation, Portland Cement, Bituminous Concrete, Reinforcing Steel, Structural Steel and Structural Concrete (source: Federal Highway Administration, "Price Trends for Federal-Aid Highway Construction"). TxDOT's Texas Highway Cost Index presents a similar picture.
[42] Since the summer of 2008, the prices of many industrial commodities have declined sharply – many over 50 percent. Source: Bloomberg, London Metal Exchange.

REAL VS. NOMINAL AVERAGE REGULAR GASOLINE PRICES 1949-2008[43]



These price increases were all the more shocking to consumers since they followed a fifteen year period when fuel prices declined, in real terms, to postwar lows. The 1970s became a distant memory as consumers switched en masse from passenger cars to less fuel efficient trucks and SUVs. In addition, the period from 1985-2000 marked a significant increase in miles driven per vehicle.

MILES PER REGISTERED VEHICLE – USA 1936-2006[44]

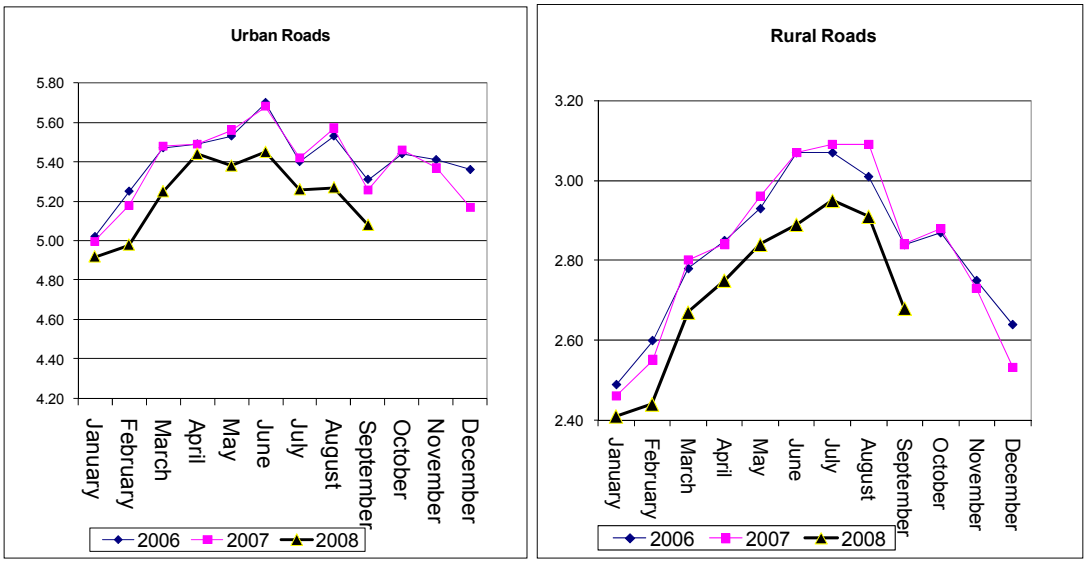


This trend is now reversing. Spot gasoline prices above $4 per gallon appear to have

[43] Source: Energy Information Agency. Note that 2008 prices reflect the average for the year to date up to early November, reflecting the high prices of the spring and summer.
[44] Source: Federal Highway Administration Tables mv200; vm201; mv1 (1996-2006); vm2 (1996-2006)

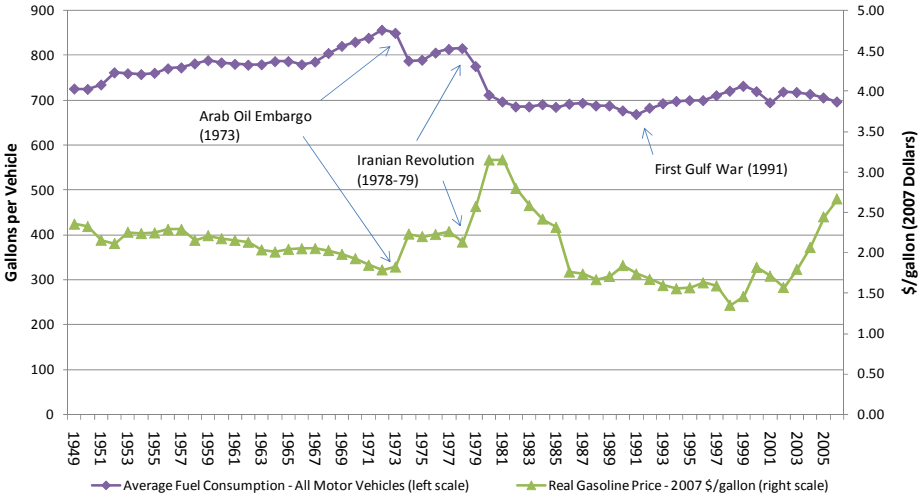
been the "tipping point" that compelled motorists to take action rather than merely grumble about high prices. The evidence to date is that consumers are reacting to today's high fuel prices the same way they did in the 1970s – initially by driving less –

AVERAGE DAILY VEHICLE-MILES TRAVELED (U.S. – BILLION MILES)[45]



– and then over time switching to more fuel-efficient vehicles.

U.S. FUEL CONSUMPTION PER VEHICLE VS. REAL GASOLINE PRICE 1949-2006[46]

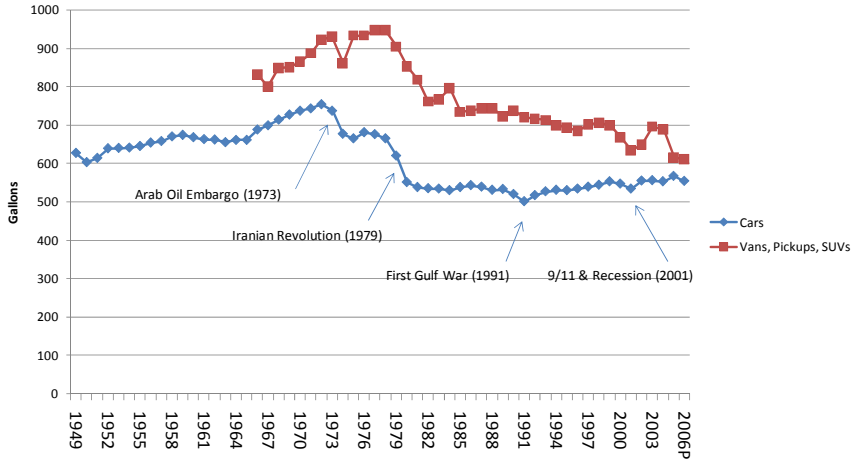


Increased fuel efficiency has negative implications for the long run viability of the motor

[45] Source: US Department of Transportation
[46] Source: Energy Information Agency, *Annual Energy Review - Energy Consumption by Sector*, Table 2.8.

fuels tax. In the decade from 1972 – the year before the first oil shock – to 1982, the average gallons of fuel consumed per vehicle in the U.S. fell by 20 percent. In the late summer of 2008, consumers responded in a similar way, as September 2008 sales of SUVs plummeted 47 percent and sales of pickups dropped 30 percent from their 2007 levels.[47] We note, however, that the October-November 2008 drop in fuel prices has reignited consumer interest in large, less efficient vehicles.[48]

U.S. MOTOR FUEL CONSUMPTION PER VEHICLE 1949-2006[49]



While a precise calculation of the cumulative impact of higher fuel prices is beyond the scope of this report, a 20 percent decrease in per-vehicle fuel consumption – all else being equal – would represent a loss of Fund 6 revenues of roughly $400 million per year – a figure equivalent to a four cent change in the fuel tax rate.

Federal policies going forward are likely also to reduce the demand for fuel on a per-vehicle basis, both for environmental and national security reasons. The 2007 energy bill increased Corporate Average Fuel Economy (CAFE) standards to 35 mpg by 2020. Other business and political leaders are proposing more radical solutions – the support for which tends to rise and fall with the price of fuel and international headlines.

Today's situation is likely to be different from the 1970s, though, in one critical respect: the vehicle replacement cycle will probably be longer – meaning that less efficient vehicles will remain on the road longer than they did in the 1970s.

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[47] Source: *The Wall Street Journal*

[48] Source: "Repeat Performance: Buyers Return for Pickups, SUVs; Lower Gas Prices and Bargains Lure Consumers to Dealers Creating a Headache for Auto Makers," *Wall Street Journal,* 3 November 2008.

[49] Source: Energy Information Agency, *Annual Energy Review – Energy Consumption by Sector*, Table 2.8.

First, today's cars are better made. In 1981, cars in the U.S. averaged 4.5 defects per vehicle. By 1995 that figure had declined to less than one.[50] Quality is now less of a distinguishing characteristic for manufacturers than a requirement just to stay in the game. More consumers will hang on to their existing vehicles because they can.

Another, perhaps larger, group will do so because they have no choice. One of the consequences of the easy credit environment of the past few years is that a significant number of consumers are "upside down" on their auto loans – they owe more than their vehicle is worth. While there are no official figures, reasonable estimates have found that this number could be as high as 40 percent – up from 25 percent just five years ago.[51] The plummeting resale values of "gas guzzlers" will only exacerbate this problem.

Finally, we must address the potential impact of alternate energy sources on Texas' current highway financing mechanisms. We raise three key points:

- Expert opinion regarding mass market availability of alternative vehicles differs widely
- Change, when it comes, could be relatively sudden
- Taxation policy will depend in large part on which alternative fuel is the "winner"

The first two points are beyond the scope of this narrative and are the subject of fierce debate within the automotive industry – with billions of dollars riding on the outcome.

The upshot to state policy makers – the ongoing viability of a fuel tax in an alternative fuel environment – will depend on the degree to which the successful technology resembles today's fuel distribution system. For instance, if hydrogen powered cars become the vehicles of the future, taxation could proceed in a manner similar to the existing motor fuel tax. Customers would refill their tanks at hydrogen service stations, and the state could simply compare the energy content of a cubic meter of hydrogen to that of a gallon of gasoline and set tax rates accordingly.

Electric vehicles, on the other hand, would require a more fundamental change. Though it would be possible to tax electricity usage, how would the state allocate – or even know – whether a particular kilowatt-hour was used to charge an electric car or to operate other household appliances? Electric vehicles would require an entirely new taxation approach.

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[50] Source*:* *McKinsey Quarterly*

[51] Source: Edmunds.com. This squares with anecdotal evidence from Dallas-area car dealers.

3.0 HIGHWAY INFRASTRUCTURE FINANCE OPTIONS & METHODS

3.1 A Brief History in Texas

Texas began to move away from the traditional "pay as you go" highway model in the 2001 legislative session. Later that year, voters approved Proposition 15, creating the Texas Mobility Fund ("TMF"). TMF bonds are serviced by the cash flows from various license, inspection and traffic violation fees.[52]

The TMF has no hard dollar cap. Instead, Mobility Fund obligations may only be issued if the Comptroller certifies that Mobility Fund revenues, for each year in which such obligations will be outstanding, will be equal to at least 110% of debt service requirements. As of 31 August 2007, the Texas Transportation Commission had issued $3.9 billion in bonds.[53]

Proposition 15 also authorized the "toll equity" concept - overturning a constitutional provision dating back to 1954 that barred the use of state money or credit to build or maintain toll roads, unless the toll roads could be financed completely with the revenue generated by the road itself.

The Legislature in 2001 also created Regional Mobility Authorities and authorized TxDOT to transfer any highway to an RMA for maintenance and operations as a toll road. Texas currently has eight different RMA's. In 2003, the Legislature expanded the powers of RMAs to issue revenue bonds and to condemn property via eminent domain. To date, the Central Texas RMA has issued toll revenue bonds. (Note: the North Texas Tollway Authority, the Harris County Toll Road Authority, and the Texas Turnpike Division of TxDOT have also issued revenue bonds, while the Camino Real RMA and the Grayson County RMA have issued tax-backed bonds as of the writing of this report).

In 2003, voters approved Proposition 14, which authorized the issuance of bonds backed by Fund 6 cash flows. The Legislature initially authorized $1 billion of annual bond issuance, up to a total of $3 billion. In 2007, this was raised to $1.5 billion annually, with an aggregate limit of $6 billion. At the writing of this report, there are $3.1 billion of Proposition 14 bonds issued and outstanding.

In addition, the 2003 session authorized TxDOT to use pass-through financing and

[52] The collection of delinquent surcharges is becoming problematic. Stutz, Terrence, "Texas Moves to Collect Delinquent Surcharges for Driver Violations, *Dallas Morning News*, 11 October 2008. 972,000 drivers collectively owe $815 million – though it is unclear how much of this surcharge revenue belongs to the Mobility Fund.
[53] Texas Mobility Fund Financial Statements FY07.

shadow tolling – a method by which TxDOT would pay a private company for certain lane-availability.[54]

In 2005, the Legislature authorized Comprehensive Development Agreements (CDAs) which allowed for full public-private partnerships.[55]

Later that year, however, voters defeated Proposition 9, which would have provided staggered six year terms for RMA board members.[56] Opposition to the amendment was driven by the perception that it would make the RMA boards less accountable.

In 2007, voters approved Proposition 12, which allows the state to issue up to $5 billion in general obligation bonds for highway construction. However, the enabling legislation giving the authority to issue the bonds failed to pass, so there are no Proposition 12 bonds outstanding.

Historically, Texas has been averse to debt. This fact, ironically, has put Texas in a better position relative to many of our sister states regarding current and future bonding capacity. Though superficially attractive in a time of general economic distress, it is questionable whether increasing Texas' level of debt would be advantageous as a long run public policy. The challenge is that the primary underlying support for revenue bonds comes from either a pledge of state gas tax receipts or, if a toll project, the toll income generated from the project. The New Jersey Transportation Trust Fund, for instance, is due to run out of cash in three years as payments on bonds consume all of the money it receives annually from the state's gasoline tax.[57] We must emphasize that like any other source of financing, bond funding has its limits. Bonding capacity exists only to the level that is supported by the underlying cash flows.

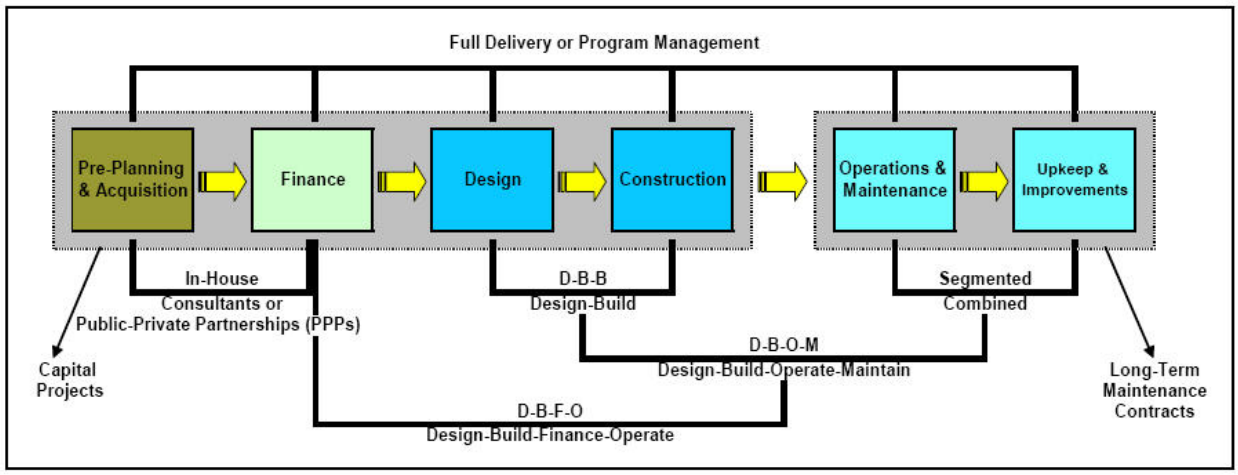
3.2 Various Models of Public-Private Partnerships and Private Participation

Texas has a long history of private sector involvement in building and maintaining our state's highways. The public's relationship with the private sector need not be "all or nothing." Rather, it is more accurate to think of private participation as a continuum of ways to include the private sector ingenuity and capital, all while maintaining full public control and oversight.
It is unfortunate that the term "private participation" has become, in the eyes of certain segments

[54] Shadow tolling is a mechanism often used when it is known that current toll revenue would not be sufficient to support the full costs of a particular road. We will address shadow tolling in subsequent sections of this report.
[55] Technically, CDAs were introduced by HB3588 in 2003, but HB2702 in 2005 set forth the implementation details.
[56] Article XVI, Section 30(a) of the Texas state constitution states, "The duration of all offices not fixed by this Constitution shall never exceed two years."
[57] Source: Bloomberg.

of the public, inextricably linked and synonymous only with the Trans-Texas Corridor (TTC) project. The reality is that a spectrum of partnership structures exist for private participation that need to be considered and better understood.

ALTERNATIVE CONTRACTUAL ARRANGEMENTS FOR DELIVERING HIGHWAY INFRASTRUCTURE[58]



Texas has utilized the services of private contractors in the traditional Design-Bid-Build ("DBB") procurement framework since the early 1920s. Until the late 1990s, this was the only legal contracting method for all types of state construction – the argument being that separating design and construction responsibilities reduced fraud and minimized the incentive to employ unsafe design or construction practices in an effort to save money.[59] For many years, state law mandated a Qualifications Based Selection ("QBS") process for the design element,[60] while requiring the construction contract to be awarded by competitive bid.

A movement in the late 1990s pushed to change the law to allow Design-Build ("DB") contracts for "vertical" construction (i.e., state and local government buildings and schools), but the resulting legislation specifically excluded "horizontal" construction such as highways and water projects, [61] under the reasoning that vertical structures are governed by building codes and that key safety issues are not entirely dependent on the designer's engineering judgment.[62]

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[58] FHWA Design-Build Effectiveness Study, January 2006, p. *i,* citing Pakkala, Pekka. *Innovative Project Delivery Methods for Infrastructure—An International Perspective*. Finnish Road Enterprise, Helsinki, 2002, p. 32.
[59] This was also driven by corruption scandals involving Highway Department officials and contractors in the 1920s.
[60] The QBS process required that professional services – design – be selected not by low bid, but by demonstrated competence and qualifications at a fair and reasonable price.
[61] SB 583 (1999), SB 510 (2001).
[62] *Design-Build and Alternative Project Delivery in Texas*, Texas Council of Engineering Companies, April 2004.

Texas law changed in 2003 to permit Design-Build contracts for highways, but only under the aegis of a Comprehensive Development Agreement.[63] A bill in 2003 to establish a design-build pilot program for 24 TxDOT projects above a $50 million cost threshold passed the Senate but died in the House.[64] Thus, as of now, DB contracts may only be used in Texas in the context of CDA projects.

The federal government has taken a more active role in encouraging alternative contracting arrangements. In 1990, the Federal Highway Administration (FHWA) established Special Experimental Project 14 (SEP-14) to enable state agencies to evaluate a variety of alternative project contracting methods. By the end of 2002, 140 projects representing $5.5 billion, had been completed under SEP-14.[65] The 1998 highway reauthorization bill, the Transportation Equity Act for the 21st Century (TEA-21), required the FHWA to conduct a comprehensive national study to evaluate the effectiveness of design-build contracting.

This FHWA Study found that the DB approach reduced the average duration of highway projects by 14 percent and the average cost by 3 percent with no loss in quality – though the study did find a wide disparity between the results of individual projects.[66] The DB approach was found most suitable for large, complex projects and least suitable for small projects, such as road resurfacing. Key advantages of DB contracts were:

- The elimination of delays resulting from a second procurement cycle for the "build" phase
- A significantly lower number of claims, reflecting a fundamental shift in the adversarial nature of transportation contracting
- Fewer change orders (though the average cost per change order tended to be higher than with DBB)
- More innovative solutions in complex projects

The FHWA study noted, however, that DB contracts were "not a panacea," and stressed the importance of trained and capable contracting agency staff to administer DB projects. Moreover, "the presence of a number of competent design and construction firms interested and willing to compete for work … helps to ensure cost-competitive bids."[67]

[63] In 2003, House Bill 3028 also permitted the Design-Build approach for ports.
[64] SB 1499.
[65] FHWA Design-Build Effectiveness Study, January 2006, p. *ii*
[66] FHWA Design-Build Effectiveness Study, January 2006, p. *v*
[67] FHWA Design-Build Effectiveness Study, January 2006, p. *xiii*

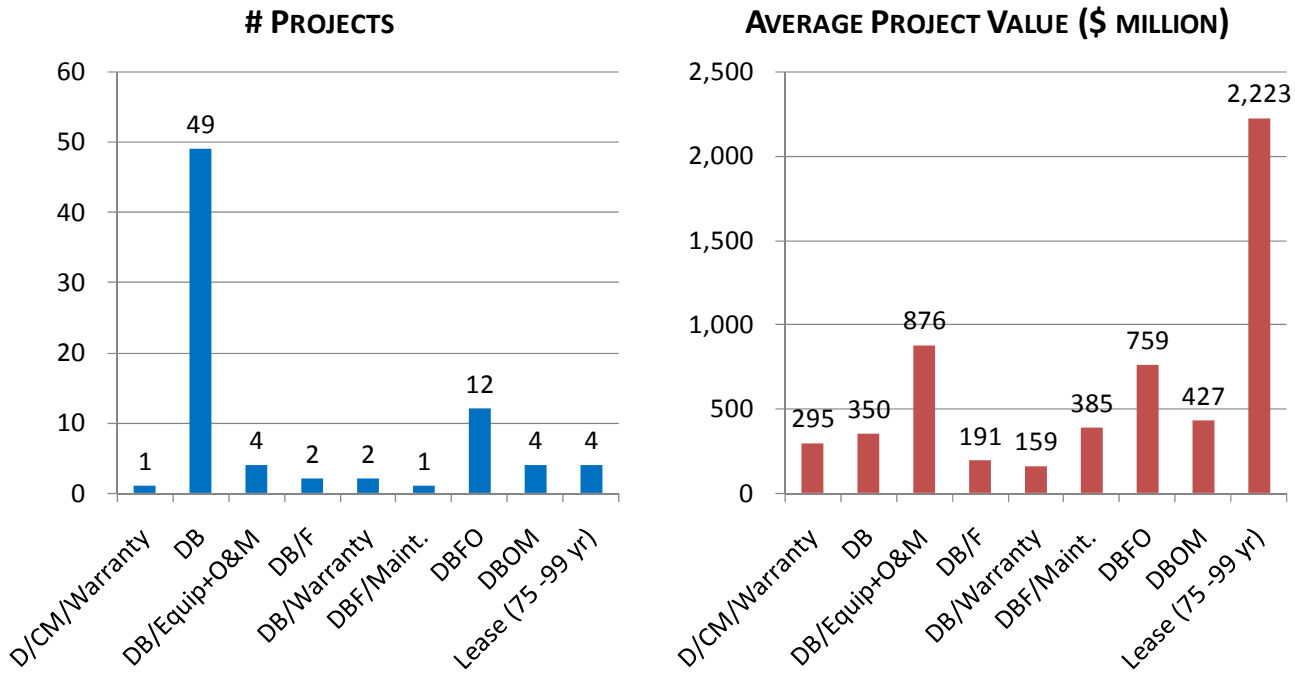
The Study also cautioned that "while many of the conditions that spawned the promulgation of highly restrictive contracting laws and procedures early in the twentieth century are no longer in evidence, care must be taken to prevent a repeat of these conditions []. Contracts must be … entered into with the understanding that the public and private participants … have a shared interest and liability for the process results …"[68]

To date, Texas has two "Design-Build" projects: SH130, Segments 1-4 to the north and east of Austin and the US183 project in northwest Austin.[69]

Texas also has one Design-Build-Finance-Operate project under development (DBFO or DBFOM is what many think when they hear the term "CDA"). This is SH130, Segments 5&6, which will link SH130, Segments 1-4 to I-10 near Seguin.

Another study looked at 79 transportation projects in the United States and Canada from 1989 to 2008. Of these, 62 percent were "Design-Build."[70] Only 15 percent followed the DBFO model.

US AND CANADIAN TRANSPORTATION PROJECTS WITH PRIVATE PARTICIPATION (1989-2008)[71]



[68] *Ibid*.
[69] US281 in San Antonio is included in PWF's list, but this project has been shelved indefinitely.
[70] Source: *Public Works Financing*, September 2008, pp.22-23.
[71] D = Design; CM = Construction Management; F= Finance; B = Build; O&M = Operations & Maintenance

Most Design-Build and DBFO projects involve tolling, but the traditional form of tolling is not required, even for CDA-type concessions. Two alternative methods do not directly toll motorists: availability payments and shadow tolling.

With availability payments, the governmental entity pays the private builder a set fee based on lane availability rather than traffic volume. This method is particularly useful to build roads where future costs are expected to be considerably higher than those of today – notably the outskirts of fast growing metropolitan areas where today's traffic is too low to support the road's full cost, but where development could soon make right of way acquisition prohibitively expensive.[72]

Availability payments are a common technique in the U.K., though the arrangement is new in the U.S. The I-595 upgrade west of Fort Lauderdale, Florida will be the first such American project. The state will charge express lane users a variable toll, but will compensate the DBFO Company via availability payments rather than direct toll revenue.

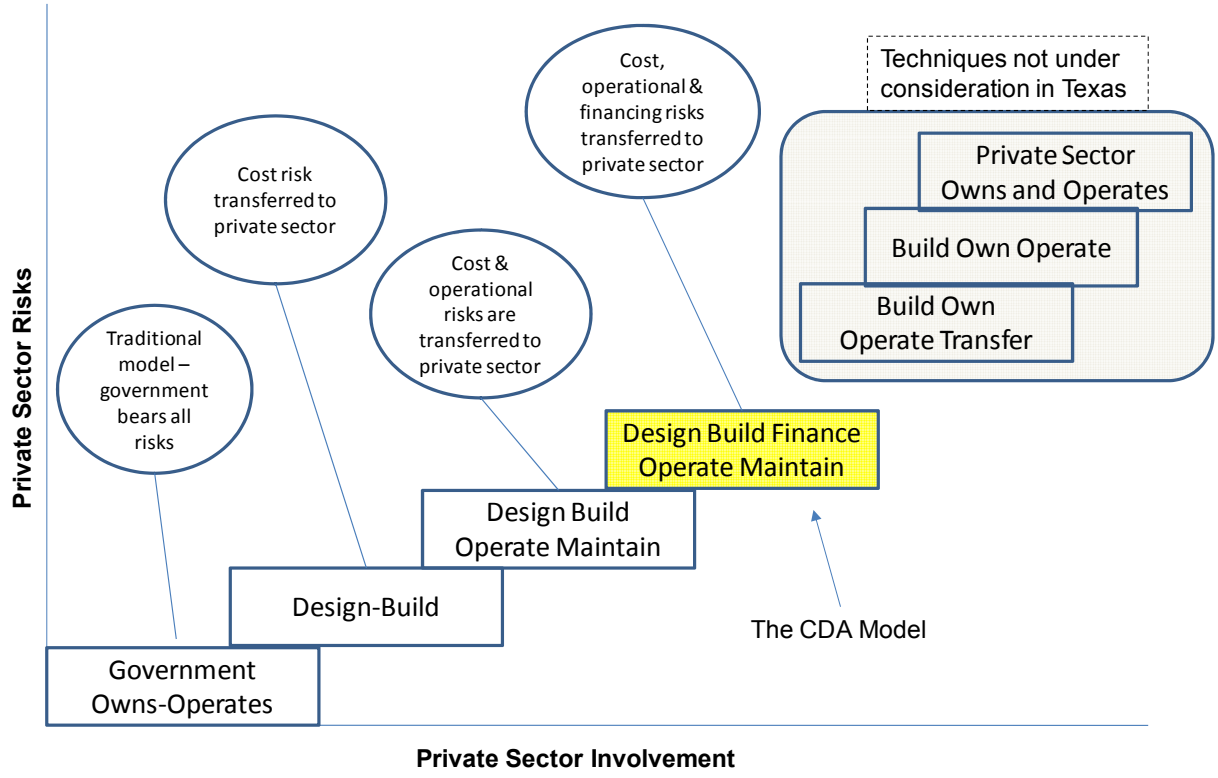
Shadow tolling takes a similar approach. In this case, the public or private entity developing the project will finance, construct, maintain and/or operate a project. The state then reimburses a portion of the project cost by making periodic payments to the developer for each vehicle that drives on the highway. A new highway project can be tolled or non-tolled.[73] Texas' Pass-Through Financing plan is an example of shadow tolling, as are similar devices in the U.K. and Portugal.[74]

The disadvantage of availability payments and shadow tolling is that they bring no new money into the system.

[72] One variation of the availability payment approach would be to build the road as a toll road and set up a sliding scale where availability payments are reduced as traffic volumes and toll revenues increase. After a certain level, the road could be converted to a standard toll facility.
[73] Source: TxDOT *Pass Through Financing* brochure.
[74] Note that Portugal recently changed policy to shift away from any "free" roads not requiring some form of payment by the roads' users.

To summarize:

SPECTRUM OF PRIVATE SECTOR INVOLVEMENT AND RISK



3.3. Very few Projects are Toll Viable

Toll roads began in postwar Texas with the establishment of the Texas Turnpike Authority in 1953 and the opening of the Dallas-Fort Worth Turnpike in 1957.[75] In 1966, construction began on the Dallas North Tollway, and in 1983, a referendum of Houston area voters approved the creation of the Harris County Toll Road Authority (HCTRA).

The North Texas Tollway Authority (NTTA) (successor to the Texas Turnpike Authority) and HCTRA operate the two major toll road systems in Texas. Other notable toll roads include the Central Texas Turnpike system (SH45, SH130, parts of Loop 1 in Austin), Loop 49 (Tyler), and SH255 (Laredo).

A popular misconception of toll roads in general is that toll roads will soon "take over the state." This is simply not true. Witnesses before the Committee and our own research have

[75] In 1977, the Turnpike's debt was retired 17 years early, and the toll booths were removed.

found that tolling is a viable option for only a very limited subset of the state's roads.[76] Even federal officials have described tolling as the "seven percent solution."[77]

In 2007, TxDOT identified 87 'Candidate Toll Projects'. The agency first conducted an initial screening of all TxDOT Unified Transportation Program (UTP) projects for toll viability. Then, TxDOT narrowed this list to large, added-capacity projects with heavier traffic volumes; and solicited TxDOT District input on which of each District's larger added-capacity projects could benefit from a potential CDA delivery process. Finally, the agency combined or phased the projects into initial segments of logical termini.[78]

With few exceptions, these 'Candidate Toll Projects' are concentrated in the state's major metropolitan areas. Less populated regions simply do not have the requisite traffic volumes to support and economically justify tolling as a realistic option to pay for highway construction, nor are such projects able to generate sufficient revenues to support the projects. In addition, the Committee notes the following:

- The threshold floor for inclusion in the list was the ability of the project to generate sufficient revenue to pay for *the cost of toll collection* – not for the construction or operation of the road itself.
- Sources within TxDOT speaking not for attribution indicated that of the 87 projects, only about 30 were truly viable toll roads, and of this group, "*only a handful" had the potential to earn back their full costs via toll revenues.*
- *Many toll projects require a combination of funding sources. When considering financing options for funding toll projects it is important to consider that: few projects are 100% toll viable.*

It also bears mentioning that even if every road to be built were toll worthy, Texas would not necessarily follow this course, given the public's unwillingness to support such a system past a certain point. In addition, since most of the potentially revenue viable toll projects are located

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[76] Source: TxDOT: *Open for Business, Toll Feasibility Analysis*, Summer 2007. TxDOT's own terminology is somewhat confusing on this issue. TxDOT has separate definitions for "Toll Feasible" and "Toll Viable." According to TxDOT:

• *Toll Feasible* – "a candidate toll project that is able to generate enough revenue to pay for the cost of collecting tolls."

• *Toll Viable* – "net toll revenue after operations and maintenance costs is sufficient to sell bonds, and the portion of the project cost funded through bonds is sufficient to cover the portion of project development and construction costs not covered by public or other sources of funds."

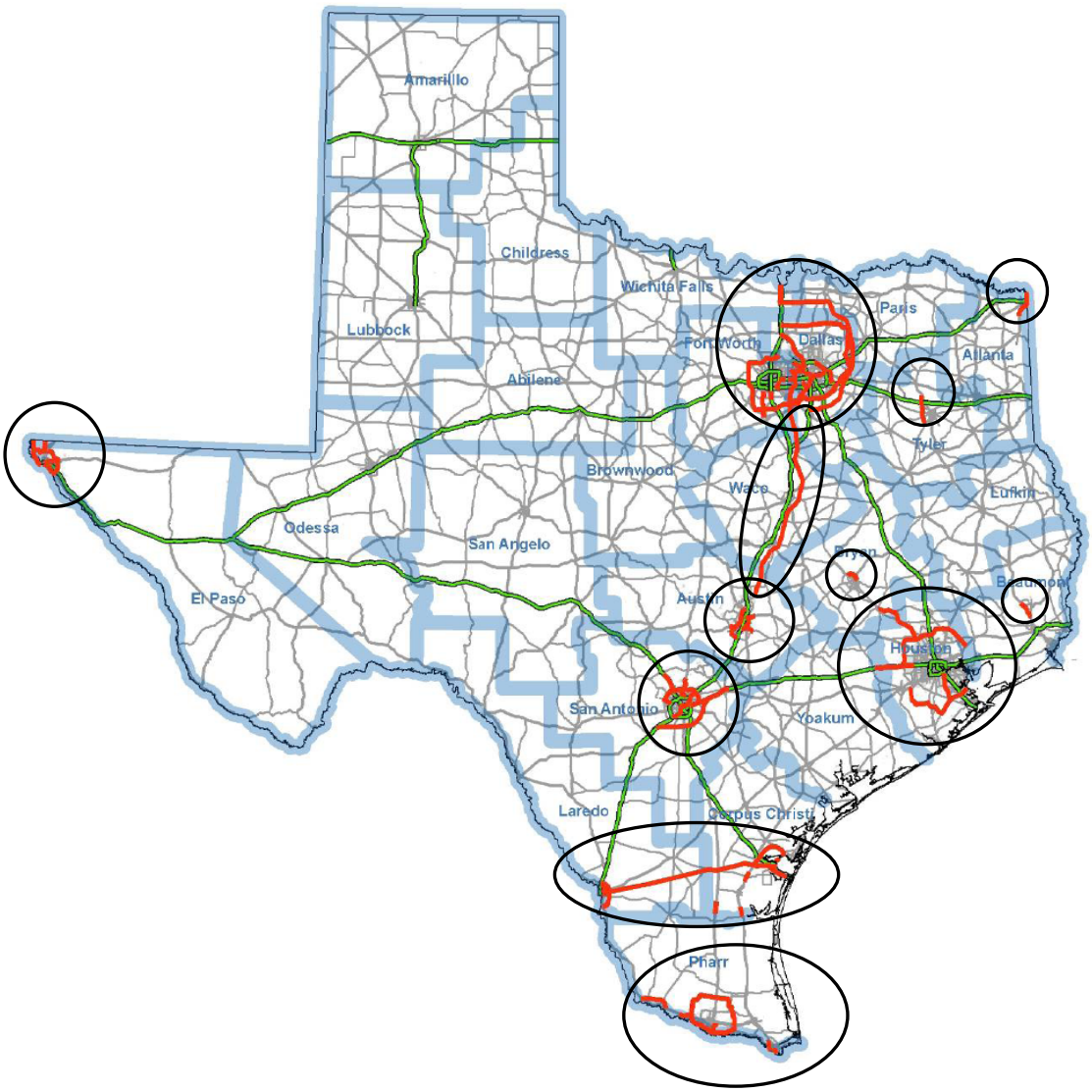
Further confusing the issue, TxDOT defines "*Toll Feasibility Analysis*" as "a screening analysis process used to determine whether a project, group of projects or corridor can generate net revenues after O&M costs have been covered and what portion of project cost can be covered by bonding the net revenues from tolls."

[77] Testimony of Jennifer Mayer, USDOT – San Antonio hearing 22 July 2008.

[78] The final list rose to over 100 when all phases or projects that were added late in the process are counted. Source: Texas Transportation Commission, *Minute Order*, 26 June 2007.

in the urban areas, there will come a point where local planners will need to balance the building of more roads versus investing in alternatives such as rail, especially if the criticality arises from air quality concerns versus congestion relief and/or general economic expansion.

POTENTIAL TOLL VIABLE PROJECTS (CIRCLES HIGHLIGHT PROJECT LOCATIONS)[79]



The primary advantage to tolling is that it brings *new revenue streams* beyond the gas tax into the system, and that these revenue streams allow projects to be built long before the state could have afforded to construct them using the pay-as-you-go approach. Equally significant,

[79] The original map highlighted the potential toll viable projects in red. The circles identify project locations that are not necessarily clear in black and white. It is important to note that existing Interstate lanes will NOT be tolled.

tolling helps achieve a fundamental goal of project finance, which is to match the funding mechanism of the investment to the life cycle of the infrastructure asset. [80]

3.4. Limits to traditional public sector financing

Tax-exempt municipal bonds are securities issued by a state or local government, or one of their creations such as local tollway authorities or special districts. Bonds are issued either as a general obligation of the state or local government (relying on the full faith and credit of the entity in question), or as revenue bonds, backed only by the credit worthiness of the project being financed.

Municipal bonds represent a stable, fixed-income investment. After initial placement with investors, these bonds are traded in the open market until called or defeased (paid in full by the issuer). The interest income on most municipal bonds is exempt from federal income taxes, making these financial instruments attractive primarily to retail investors in high marginal tax brackets (it should be noted that investors in municipal bonds are "private investors").

Given this tax advantage, highly taxed investors are generally willing to accept lower yields on municipal bonds than they would for a taxable equivalent. Since public employee pension funds are already exempt from taxation, a tax exempt bond provides little additional value to them, and thus these entities usually seek the higher yields offered by taxable securities.[81]

The market price of municipal bonds, as with any other bond, varies in response to changes in interest rates, which are themselves subject to Federal Reserve monetary policy and changing investor expectations regarding inflation.[82] Changes in demand for these securities on the part of investors, the perceived creditworthiness at a point in time of a particular bond issuer or a particular bond, and the total volume of municipal bonds issued at a given time can also cause wide fluctuation in market bond yields.

The ability to issue debt (whether by a state, municipality, or public authority) is contingent upon having a dedicated source of funds that can support the debt repayment.

[80] We will address an additional benefit of Public Private Partnerships – the ability of private capital to leverage that capital in a way that public entities cannot – in a later section of this report.
[81] Note that changes to the Internal Revenue Code in 1986 imposed significant restrictions on the types and amounts of tax-exempt municipal securities that can be issued.
[82] Given their fixed interest rate, as interest rates rise, the prices of the bonds decline. Similarly, when rates drop, a bond's interest rate becomes more valuable, and thus the price of the security increases. The longer the term of the bond, the greater the price swings in response to current interest rate changes.

However, unlike a corporation that borrows to build facilities that will improve its return (thus repaying the debt through the profits generated by that investment), municipalities do not earn profits. Thus, deciding who will issue and pay for the debt, and in what way, depends on the local political and economic climate.

The theory behind municipal revenue bonds is, in part, a direct extension of "pay as you go" philosophy. In a toll project, the beneficiaries of the project – the customers or users – are the ones paying off the debt through the toll box. However, these motorists may not necessarily be residents of the community in question. This is a delicate issue that needs to be balanced, given that those who authorize a given project are not necessarily the same entities governing and managing the debt, and that these entities or persons are not necessarily the ones paying for the debt or benefiting from the project.

A very important issue with municipal revenue bonds has to do with issuer debt capacity, borrowing limits, and credit quality of the project being financed, which bear a direct relationship to the overall creditworthiness of both the issuer and the project.[83] This is especially significant when considering system finance versus a one-off project.

It is axiomatic that the better the credit quality, the higher the credit rating and the lower the interest rate on the debt. This is true whether the bond is a revenue bond – where the source of repayment consists of revenues from the project itself – or a general obligation (GO) bond, which is backed by the full faith and credit (i.e., the general revenues and ultimately the taxing powers) of the entity in question.

In addition, there are various tools to "enhance" credit, ranging from bond insurance to guarantees by entities with GO taxing powers. An example would be toll road revenue bonds, payable by the project's toll revenues, but guaranteed by a local entity's taxing powers. The interest rates on such bonds would be lower than on standard revenue bonds as investors would be protected from default by the GO guarantee.

It is important to note at this point that a GO bond does not imply unlimited debt capacity. Taxpayers can and do revolt when taxes become burdensome, or if they do not support a project for which they are being taxed. Moreover, the use of general obligation bonds must be done prudently, given that the taxing authority must keep capacity available to cover all the

[83] We note, however, that market conditions can swing wildly, and that there may be times where a good project in a bad credit market cannot find financing, as well as instances, such as the case of the sub-prime mortgages of the past few years, where investors will buy extremely questionable securities (and regret it later).

activities and needs of the state or locality. Borrowing today constrains borrowing tomorrow, and some economists have even questioned the borrowing capacity and creditworthiness of the federal government in light of the current economic situation.

For local governments especially, one of the biggest challenges is the ability to raise the capital required to fully fund a particular project, especially given the vagaries of traffic and revenue forecasts.

An additional negative of municipal bonds as a way to finance transportation projects is that such debt securities typically have a term limit of 30 years,[84] which may be too short to match the life expectancy of the project.[85]

Moreover, municipal bond indentures usually require the issuer to place part of the capital raised into a reserve fund to ensure that debt service repayments can be made on a timely basis, especially in a project's early years when it may not be open or may not generate sufficient revenue to meet its debt service requirements. This has the practical effect of forcing the entity to raise more capital than necessary, resulting in the borrower paying additional interest.

Last, we must address two of the most misunderstood aspects of municipal bonds: the risk factors and the concept that rates for municipal bonds will always be lower than those of corporate securities (tax considerations aside).

The last few months have witnessed an unprecedented amount of turmoil in the capital markets. Prior to 2008, the municipal securities market, estimated now to be worth approximately $2 trillion, was viewed as a reliable, low risk, and even stodgy environment. Earlier this year, however, this "safe" market essentially came to a screeching halt. No new issues were being done, and trading volumes dropped sharply. For many government entities, this financial market meltdown became a real crisis. For instance, California's government briefly stalled when it could not sell Tax Revenue Anticipation Notes (short term securities backed by future tax collections). The safety and security long associated with municipal capital is no longer.

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[84] Long term bonds are generally priced based on the current rate for 30 year US Treasuries, which is considered the "risk free" rate.

[85] Most municipal bonds have a "call provision" that at a certain point in time gives the issuer the right during the duration of the financing (starting typically at 10 years) to pay off the debt at a predetermined price, typically the unamortized principal plus a premium of 3 to 5%. These factors all affect how the bonds are credit rated and evaluated, all of which will affect the pricing.

Moreover, the traditional method to enhance municipal credit – bond insurance – has fallen by the wayside as the monoline insurers (AMBAC, MBIA, among others) ventured away from their primary business and began insuring exotic securities that they did not fully understand. The losses the monoline insurers incurred from these ventures destroyed their own creditworthiness and made their insurance virtually worthless in the eyes of investors.

Without bond insurance or other credit enhancement tools, there is little investor demand for revenue bond financings that are not at least rated 'A' or better on a stand-alone uninsured basis. Issuers with lower ratings simply cannot obtain financing in today's climate (though this, of course, is subject to change).

As a result, projects with specific timelines are now delayed – a very expensive proposition that adds to eventual total project costs or, in the worst case, may terminate the project altogether, leaving the issuer (and perhaps local taxpayers) to cover the costs incurred in non-completion.

Finally, we address the perception that municipal securities will *always* have a lower cost of capital. For instance, one witness provided testimony at the August committee hearing in Irving that "a public sector infrastructure provider can always deliver more value than a private sector provider since its cost of funds is at least 30 percent less"[86] – primarily due to the tax advantage.

As a generalization, this has some appeal. However, while public sector entities may well be able to deliver more value due to lower borrowing rates, this is the case only if these entities are well established and enjoy strong credit ratings. Smaller RMAs attempting a large project for the first time, as well as newly organized RMAs, would face high costs of capital more in line with those of similar start-up enterprises in the private sector.

On the other hand, large private sector companies with established reputations for building quality projects on a timely basis have the credibility in the marketplace – due to many years of strong performance – to provide investors with comfort in their financial security sufficient to justify lower interest rates.[87]

[86] Written testimony of Dennis Enright, 12 August 2008.
[87] Microsoft, for instance, could borrow money at a lower rate than many financially strapped municipalities today.

Moreover, the public advantage is limited in a volatile market environment. The ongoing turmoil in the financial markets has virtually frozen the municipal debt market, and the ability of localities to raise large sums of capital at rates approximating five to six percent has, as a general rule, disappeared.

In addition, many of the traditional underwriters of municipal debt have either gone bankrupt or are suffering from severe financial problems themselves. Two of the formerly top tier municipal underwriters – Lehman Brothers and Bear Stearns – have disappeared entirely. First Albany is part of the distressed Depfa Bank. One of the (formerly) most stable, long-time municipal underwriters – Citigroup – has now become the recipient of a massive federal bailout.

Despite unprecedented efforts by the federal government to unclog the credit markets after the September 15 bankruptcy of Lehman Brothers, the municipal market re-priced to higher levels. The three month LIBOR rate, a key borrowing rate for credit markets, rose from 2.6% prior to the Lehman bankruptcy to over 4.6% in mid October.

During this time, tax-exempt interest rates also increased as capital needed to support the municipal market became scarce, and institutional investors who relied on borrowing in the short term market to finance long term investments found that capital was either non-existent or too expensive to take new positions or even to hold existing ones.

Institutional liquidations in the secondary market thus resulted in a decline in the value of bonds, which pushed bond yields to levels not seen in nearly a generation. Municipal bond issuers found themselves competing with institutions for investors who were able to purchase high yielding bonds sold under such extreme and adverse conditions.

This is not to say that the current crisis is permanent, nor will the financial turmoil affect all public toll authorities equally. When the credit markets finally start to thaw, entities such as the NTTA or HCTRA that have reputations as well-run organizations delivering a quality product will find financing more readily, and at lower cost, than a small start-up RMA undertaking a toll project for the first time.

Finally, we do agree with Mr. Enright's point that in spite of the debate over public versus private cost of capital, the infrastructure finance problem boils down "not to one of the availability of capital, but rather the establishment of an acceptable method of charging motorists for roadway usage."

3.5. Local Authorities and the ability to access private sector resources

One of the most misunderstood aspects of PPPs in Texas is the interrelationship between local Toll Project Entities (TPEs) and the private sector. This misunderstanding was exacerbated by the well publicized controversy between Cintra and the NTTA over SH121 – which occurred before the passage of SB792.

We will address most of the issues surrounding local TPEs in later sections of this report. At this point, however, we note that much of the confusion regarding the respective roles of local TPEs and private road developers has arisen because under current and proposed state and federal regulations, a local TPE can be *both* a competitor *and* a customer of a private highway development enterprise.

Under SB792, local TPEs have the same rights as TxDOT to award CDA contracts within their particular regions. Thus, entities such as NTTA or HCTRA could choose to employ private capital to build out a portion of their system and award a CDA contract to a private developer for that purpose.

On the other hand, recently proposed federal regulations would permit – and in fact encourage – direct competition between a local TPE and a private toll road company for the rights to develop a particular highway.

3.6. Other public sector structures that employ private investment can add value

Authorized by the legislature in 2007, a Transportation Reinvestment Zone (TRZ) is an innovative technique, financing transportation projects through an agreement between an RMA and a city or county contained therein.

The operative principle is this: the RMA issues bonds to fund new highway construction. This new infrastructure generates economic development, raising the ad valorem tax base of the defined zone. A percentage of the new tax growth – the increment – is then used to service the bonds backed by these additional tax dollars. Currently, TRZs are in use in El Paso (Camino Real RMA) and in Hidalgo County (Hidalgo RMA).

TRZs offer the greatest benefits in undeveloped areas where large real estate developments can occur if the infrastructure is built first. The primary drawback to TRZs is the lag time between the initial transportation investments and the tax revenue cash flows generated by the economic development spurred by the new roads.

In addition, it is often difficult to predict the incremental increases in ad valorem tax revenue that a new road may bring (and the road itself is not taxed, only the development that follows the road). It is also a challenge to connect road projects to specific local economic gains, especially when the impact may be negative in the short term initial phases of the project (as businesses may close or relocate during the construction phase as customers have more difficulty with site access or avoid general construction-related hassles).

As such, TRZs are an important additional financing tool, but the overall dollars generated and the timing of those funds may vary considerably and their impact likely will remain localized.

4.0 –UTILIZING PUBLIC-PRIVATE PARTNERSHIPS TO OUR STATE'S BEST ADVANTAGE

The heart of the Committee's work involved an examination of the relative advantages of public-private partnerships ("PPPs" or "P3s") and the steps required to best protect the interests of the public to ensure the greatest benefits of PPP transactions. Perhaps the most important point about PPPs is that they have been well established everywhere in the world but in the U.S. The challenge in the U.S. has been primarily the public's acceptance.

4.1. Private Sector Participation – Ownership and Control

It is important at the outset to clear up the misconception that private participation results in a loss of control over the asset in question. Though there is an option that would allow the public to legally transfer full operating rights to the private sector for a defined period (known as "Build-Own-Operate" and used overseas), no one in Texas is giving serious consideration to this financing approach.

Rather, all types of PPPs contemplated in Texas merely grant the private party contractual rights in return for contractual obligations. *The state at all times retains full legal ownership of the project*.

4.2. *Availability of Private Capital*

Even during a time of unprecedented strain in the global financial system and on state and federal transportation budgets, enormous sums of private capital are seeking attractive infrastructure investments. Widely reported estimates of the cash currently sitting in infrastructure funds top $400 billion[88], while another estimate has calculated that private investment funds raised $105 billion for infrastructure projects from 2006 to mid-2007 alone.[89]

Many investors, such as insurance companies and pension funds, face an ongoing struggle to match the duration of their assets to that of their liabilities, and these organizations find highway projects attractive due to their long lives and reasonably steady cash flows over time.

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[88] Source: Mary Peters, US Secretary of Transportation, in a speech to the National Governors Association, 25 February 2008.

[89] Source: Robert N. Palter, Jay Walder, and Stian Westlake, "How Investors Can Get More Out of Infrastructure," *McKinsey Quarterly*, February 2008.

This is equally true of public employee pension funds. Across the globe, public pension funds have been actively investing in economic and social infrastructure for a number of years – including transportation, energy, utilities, education facilities, health care facilities, and even military housing – as part of an "alternative investment" strategy intended to capture above market financial returns.

Public pension funds, like insurance companies and their private pension fund counterparts, view infrastructure investments as not only having long lives but also providing both steady growth and a good hedge against inflation. By 2005, global infrastructure investments as an asset class had an estimated value of $17 trillion, and the OECD estimates that total global expenditure requirements for infrastructure through the year 2030 could reach $27 trillion. In addition, financial crises tend to drive additional commitments to infrastructure (though often as public works programs intended to generate employment and stimulate beleaguered economies).

Australian pension funds were the pioneers of this trend in the 1990s when the Australian economy suffered a downturn and local governments encountered severe financial problems. Firms such as Macquarie partnered with government entities to start investing in infrastructure.

Canadian funds have also become enthusiastic investors in infrastructure assets. The Ontario Municipal Employees Retirement System (OMERS) has $10 billion committed to this investment category via infrastructure specialist Borealis, while the Canada Pension Plan Investment Board has $7 billion invested. In addition, the Ontario Teachers' Pension Plan recently teamed with Australia's Victoria Fund Management to purchase 48% of the Birmingham airport, the U.K.'s fifth largest.

A new report shows estimates that PPPs now provide funding for 15% of infrastructure projects in Europe, making these projects prime candidates for pension investments.

Pension fund investment in infrastructure is now making its way to the United States. Late last year CalPERS Board made the decision to commit an initial $2.5 billion to infrastructure investments. Other major U.S. pension funds, including CalSTRS, the State of New Jersey, and the Illinois State Board of Investments have target infrastructure allocation levels.

In the past, some of the greatest opposition to PPPs came from labor unions. For instance, California has not yet passed enabling PPP toll road legislation primarily due to the objections of state employee unions. However, across the country, unions that were once strongly against PPPs seem to be warming up to investing their own pension assets in privatized infrastructure. One of Macquarie's newer funds, Macquarie Infrastructure Partners, includes, among the 47% of its investors that are U.S.-based, the Midwest Operating Engineers Pension Fund and the Mid-Atlantic Carpenters Pension Fund.

We note that typically, pension funds do not invest directly in specific projects. Rather, they invest in infrastructure funds that target and invest (i.e., supply the capital and expertise) in such projects. This is an important distinction.

Recently, Texas officials have been exploring the possibility of *direct* investment by the state's $24 billion Employee Retirement System and the $107 billion Teachers Retirement System in toll roads and other state infrastructure.

One proposed concept would be for Texas public pension funds to consider investing in Texas infrastructure projects through a Texas Transportation Finance Corporation that would be created through the passage of new legislation. The earliest this could go into effect would be late 2009, if such legislation did pass, and we stress that the current proposals would *permit*, but *not require* Texas state pension funds to invest directly in Texas infrastructure.[90]

The proposed Texas Transportation Finance Corporation (TTFC) raises two important issues. First, if Texas does not authorize the use of PPPs, few transportation projects will exist that would be suitable for an investment by a Texas Transportation Finance Corporation.

Second, unlike the situation where a Texas pension fund invested in another state or overseas, Texas pension funds making direct investments in Texas projects could face situations that created independence issues and the Fund trustees would have to make sure that investments be made based on consideration of the project's financial merits – and administrators of pension funds must retain their fiduciary obligations to their stakeholders as their highest duty.

[90] These funds already have the ability to invest in private infrastructure *funds* – just not directly in the infrastructure itself.

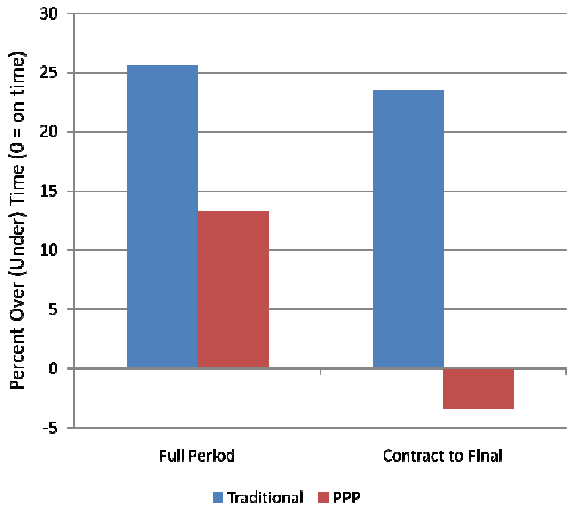
4.3 Advantages of using PPPs

Aside from bringing in new money, the PPP approach conveys a number of other important advantages. These include:

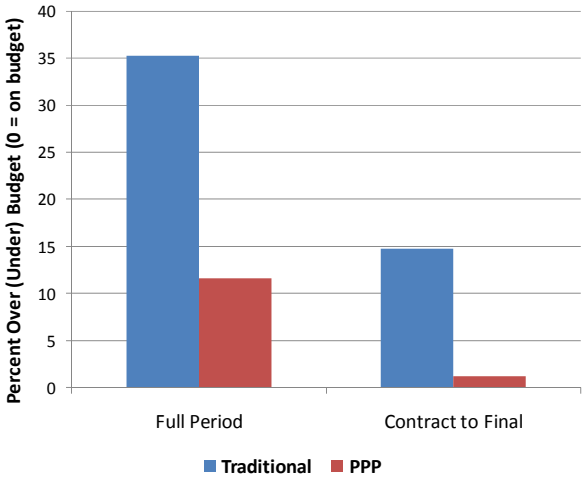
- Greater time and budgetary certainty
- Lower life cycle costs
- Risk transfer from the state to private parties
- Access to new pools of capital not available to public sector toll agencies
- Ability to raise larger sums due to less conservative financing models.

While direct comparisons are difficult due to differences between individual projects, an extensive Australian study found that PPPs performed significantly better than traditional contracts in bringing in projects on time and within budget.[91]

TIME



BUDGET



The study divided projects into four phases: initial approval; budget approval; award of contract; and project completion. For the full period, traditional projects averaged roughly 25 percent late and 35 percent over budget. Moreover, traditional projects had a much wider dispersal of outcomes – a greater unpredictability. Moreover, the study found that the PPP advantage grew with the size and complexity of a particular project, a result which squares with the findings of the U.S. FHWA study of Design-Build Contracts compared to traditional Design-Bid-Build.[92]

[91] *Performance of PPPs and Traditional Procurement in Australia: Final Report*. The University of Melbourne and the Allen Consulting Group, 30 November 2007. Note: not all projects were highway projects.
[92] See FHWA Design-Build Effectiveness Study, January 2006.

Two factors stood out in the Australian analysis: incentives and "scope creep." The efficiency of private companies is driven in large part by the fact that they have much more to lose from time and cost overruns than do their public counterparts. In addition, public projects were plagued with politically driven scope changes, even after work had commenced. PPPs, by contrast, had the terms fixed by contract, so that once the contract was awarded, the private company could get on with the job of providing the agreed-upon product or service.

Another important advantage of PPPs concerns life cycle versus initial cost sensitivity. While public agencies such as TxDOT are cognizant of the advantages of life cycle costing, they face conflicting demands from multiple constituencies, each pressing for the maximum funding for its particular priority – a situation that compels a focus on up-front costs today rather than long-run costs tomorrow.

Compounding this problem, public agencies suffer from the "ribbon versus the broom" problem – the fact that ribbon-cutting is exciting (and provides local photo-ops), while daily maintenance is away from the public view and unheralded.

A private entity, by contrast, must consider a project's whole life, even at the expense of higher initial costs. For instance, use of a higher grade of concrete can cut maintenance costs significantly. Maintenance savings also lower the externalities imposed on motorists by lane closures, which come out of no agency's budget but impose high costs on individual drivers in terms of both lost time and wasted fuel.

Recent federal guidelines also incorporate this concept,[93] and the fact that lane closures carry a high cost is amply demonstrated by lane-rental charges imposed by reconstruction contracts. For instance, the recent "High Five" project in Dallas carried lane rental charges of up to $110,000 per hour, depending on the number of lanes blocked and the time of day.[94]

4.4. Understanding the importance of Risk Transfer

One of the most significant advantages of PPPs is the ability to transfer of risk from the state to the private participants. These risks may be grouped into two basic categories: operating

[93] The FHWA's *Economic Analysis Primer,* found on the agency's web site, states that "best practice life cycle cost analysis should reflect work zone user costs along with agency costs."
[94] Source: *Innovative Strategies on the Dallas High Five Project*, TRB Annual Meeting, 15 January 2004. http://info.ctr.utexas.edu/innovativeDH5.pdf

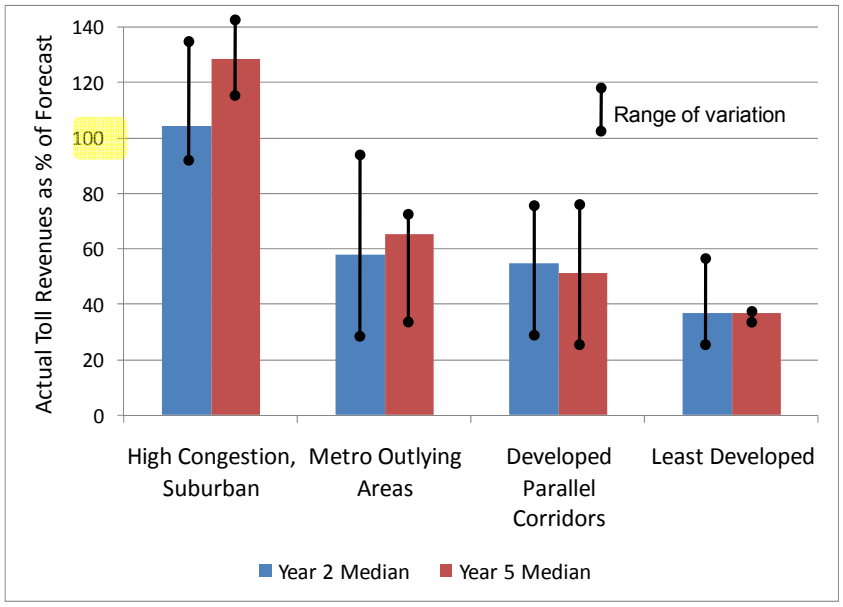
risks and financial risks.[95]

Most PPP contracts, including the one CDA in Texas to date, require the private company to assume the risk of unexpected obstacles in the construction process, ranging from poor soil conditions to the discovery of endangered species to the doubling of concrete prices.

Historically, the greatest risk in a toll project is that actual traffic – and thus toll revenue – will fall well short of projections.[96] This has, in fact, been quite common throughout the developed world.

A recent study of 23 U.S. toll projects (nearly all done by public sector agencies) determined that most did not meet their initial traffic and revenue (T&R) projections.

ACTUAL TOLL REVENUES AS A PERCENTAGE OF FORECAST REVENUES[97]



[95] For this purpose, Operating Risk includes all phases of the project's operations: site, design, construction, commissioning, operation and maintenance risk. Financial Risk includes changes in interest rates, investor perception of particular asset classes, market demand for securities, and tax rates. Financial risk also includes the failure of a project to meet projected traffic and revenue provisions.

In addition the state bears Sponsor risk – the risk that the private company proves to be unable, financially or technically, to complete the project – as well as Termination Risk – that the value of the asset at the contract's end proves less than expected or that the asset is in worse condition than the contract called for.

For a thorough analysis of the major PPP risks, see *Working with Government: Guidelines for Privately Financed Projects, Appendix 3,* by the Government of New South Wales (Australia), December 2006.

[96] Our research has not found any examples in the developed world where a private developer became insolvent before completing the project.

[97] *National Cooperative Highway Research Program, Synthesis 364*, Transportation Research Board of the National Academies.

The NCHRP study divided these 23 projects into the four categories shown above, and found that performance versus projections after years 2 and 5 varied significantly depending on the general location of the project (large variations existed within particular categories as well).

"High Congestion Suburban" toll roads (n=3) – a category that included the NTTA's George Bush Turnpike – were the most reliable performers.[98] "Metro Outlying Areas" (n=7)[99] and "Developed Parallel Corridors" (n=5) – a category that contained HCTRA's Sam Houston and Hardy toll roads – had a median performance of around 50 percent.[100]

Bringing up the rear were those toll roads in the "Least Developed Areas" (n=8), such as Virginia's Pocahontas Parkway and Dulles Greenway.[101]

T&R counts for overseas PPPs have also fallen well short of projections. For instance, Sydney, Australia's Cross-City Tunnel slid into insolvency as traffic topped out at 35,000 vehicles per day (versus 90,000 forecast), and the low volume in the Lane Cove Tunnel to the city's northwest has already led the LCT's primary investors to write off most of their investment – though both projects were sorely needed from a congestion relief standpoint.

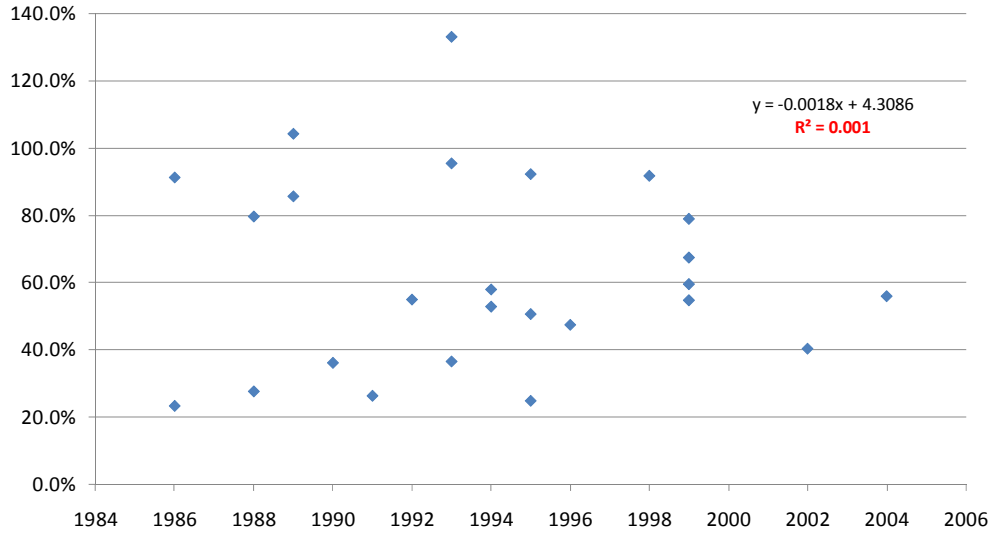
The fact that T&R projections have proven overly optimistic leads to the questions of 1) why are they high; and 2) what are the consequences of T&R forecasting errors? Addressing the first question, the literature offers several possibilities:

- Toll roads in many cases are relatively new to a region, and the forecasters lack experience (projections, therefore, should improve over time as personnel become more skilled);
- Initial T&R projections are driven by financing considerations, rather than vice versa.

A statistical review of the 23 projects does not show any correlation between time and forecasting accuracy.

[98] Others in the 'High Congestion, Surburban' were the GA400 (Atlanta) and the Illinois North-South Tollway (Chicago).
[99] Including the Foothill Expressway (Orange Co., CA); Seminole Expressway (Orlando, FL); Veterans Expressway (Tampa); Florida Turnpike Enterprise Polk (Lakeland); Central Florida Greenway (Orlando); Creek Turnpike (Tulsa, OK); John Kilpatrick Turnpike (Oklahoma City).
[100] Others in the Developed Parallel category included Orange County, CA's Foothill Eastern and San Joaquin Hills tollways, as well as the Garcon Point Bridge (Pensacola, FL)
[101] Others included the E-470 (Denver); Sawgrass Expressway (Fort Lauderdale, FL), Central Florida Greenway (Orlando), Osceola Parkway (Osceola County, FL) and the Greenville Connector (Greenville, SC)

YEAR 2 TOLL REVENUES VS FORECASTS[102]



One explanation for the lack of apparent improvement in T&R projections is that the projects in question were scattered across the United States. Thus, rather than one group of forecasters gaining valuable experience and improving over time, each particular road involved what were essentially rookie forecasters starting from scratch. This speaks for the establishment of an interstate and/or federal compilation of best practices. The Australian federal government has recently taken such a step, combining the already extensive work done by the states of Victoria and New South Wales.

A more troubling issue, though, is the possibility that financing considerations are driving the traffic projections rather than the other way around. One of the three major firms involved in the traffic forecasting process has admitted that his consultants are under great pressure to supply numbers that sell bonds.[103] The scandals surrounding appraisals in the current mortgage market – "made as instructed" valuations performed by appraisers who relied on a few local financial institutions for the bulk of their revenues – have amply demonstrated the ever-present temptation for appraisers to provide the numbers that their clients desire, even if such numbers run contrary to their own professional judgment.

Given the prevalence of T&R forecasting errors, the question becomes how to protect the state's interests when road projections go wrong – whether by design or mistake. The

[102] Source: *National Cooperative Highway Research Program, Synthesis 364*, Transportation Research Board of the National Academies.
[103] Plunkett, Chad, "Roads to Riches," *Denver Post*, October 25, 2006.

Committee examined a number of PPP toll projects, both in the United States and abroad, where the road fell into financial difficulty shortly after opening for traffic.[104]

In one respect, what the Committee found was encouraging – from the standpoint of the state. The transfer of risk worked exactly as it should have. The private investors lost heavily and the state, in the end, received a high quality asset at a discounted price. Even a critic of PPPs admitted that this was the norm: "no matter what happens, [the state] will get a road, and that's how they're selling [toll road bonds] across the United States."[105]

Three examples follow:

CAMINO COLOMBIA (LAREDO, TEXAS)[106]

- 21.8 mile route around Laredo linking I-35 to the major highway to Monterrey, Mexico over the Bridge 3 crossing of the Rio Grande.
- Original plan (opened in October 2000)
  - Construction costs of $90m ($75m loan; $15m from local investors)
  - Tolls: truck, $16; car, $3
  - Forecast was for 1,500 trucks and 300 cars per day, producing $9m in annual revenue
- The Problem
  - Actual traffic of 75 trucks/day (though 400-500 cars) and annual revenues of $500K
    - Camino Colombia promoters counted on a large increase in Mexican trucks driving straight through into the US, but most traffic continued using the old model whereby customs officials shuttle trailers over the border, where they are picked up by US drivers.
    - Truck traffic used Bridge 4 in Laredo, which also linked to I-35, instead. Bridge 4 is closer to motels and truck stops and more convenient for US drivers.
- Resolution
  - Camino Colombia sold at foreclosure auction in January 2004 for $12m. TxDOT later acquired CC from the John Hancock Insurance Co. for ~ $20m.
  - Tolls today are truck, $8; car $2.

POCAHONTAS PARKWAY (RICHMOND, VIRGINIA)[107]

- 8.8 mile road closing the southeast portion of the loop around Richmond.
- Original Plan: 20,000 vehicles per day
- Reality: 10,000 vehicles per day; bonds dropped to junk status
- Concession taken back from the Pocahontas Parkway Association and sold to Australia's Transurban Group for $611 million in 2006. Transurban agreed to:
  - Pay all of Pocahontas Parkway's existing debt (Transurban paid $191 million in equity)
  - Reimburse VDOT's costs incurred to operate, maintain and repair the Pocahontas Parkway, including upgrading the existing electronic tolling equipment
  - Finance and build the Route 895 Airport Connector Road
- VDot officials are pleased with Transurban's management of the asset to date

[104] The Committee was unable to locate any statistics comparing the accuracy of various forecasting firms.
[105] Plunkett, Chad, "Roads to Riches," *Denver Post*, October 25, 2006.
[106] TxDOT, *Toll Road News*
[107] Virginia Department of Transportation

CROSS-CITY TUNNEL (SYDNEY, AUSTRALIA)[108]

- Tunnel under Sydney's CBD designed to facilitate flow of traffic from western to eastern suburbs. Opened August 2005.
  - Construction Cost: A$1 billion.
- Original Projections: 90,000 vehicles per day after two years
- Reality: traffic counts maxed out at 35,000 vehicles per day.
- CCT placed in receivership December 2006.
  - Receivers auctioned CCT to another consortium for A$700 million
  - Lenders received money back in full
  - Equity investors recovered 10 to 20 cents on the dollar
  - Road continues to operate

- Bank leading consortium that bid in the bankruptcy auction had declined to participate in the original venture. "We couldn't make the traffic numbers stack up …" "We were criticized at the time because 16 other banks went in, but our decision has been vindicated."
- T&R forecasts also off because of popular resistance to high tolls, local grievances against surface street changes and poor community outreach

The Committee has noted indications that bond investors have started to discount T&R projections – potentially leading to a vicious circle whereby forecasters exaggerate projections knowing investors will discount them, while investors discount them even more, knowing the projections will be inflated. As a result, it is conceivable that the better-quality issuers with more accurate projections may find themselves disadvantaged in the marketplace and may either be required to pay higher interest rates or be subject to more stringent financing terms than their projects would merit.

4.5. Who are the PPP providers and why are there so few U.S. companies?

One of the most misunderstood issues in the PPP debate is what is meant by the term "private equity." For the purposes of this report, we believe the term "private capital" is more appropriate, as our discussion focuses more on sources of additional private *investment* for the transportation system. The term "private equity" in the popular perception relates more closely to Wall Street leveraged buyouts - a different subject matter.

That being said, it is helpful to explore just who are the private entities that bid on public private partnership opportunities, and who are the parties to CDA contracts.

It is often cited that many of the leading private infrastructure companies are domiciled overseas. In fact, of the twenty leading firms who have the most experience delivering high

[108] *Sydney Morning Herald*; Parliament of New South Wales, *Joint Select Committee on the Cross City Tunnel, First Report*, February 2006.

quality PPP projects, not one is based in the United States. However, while this is true, the primary reason is that the PPP structure has been in use in Europe and Australia for two decades but has only recently arrived in this country. It is therefore only natural that overseas companies would have had the opportunity to grow their PPP business in a way that American firms have not.

This is starting to change. A 2007 survey by *Public Works Financing*, an industry newsletter, identified 71 U.S. PPP highway projects – with an aggregate value of $104 billion – at some stage of the procurement process. More than a dozen of these projects have advanced to the RFQ/RFP stage in 2008.

As U.S. transportation procurement evolves, the number of U.S. companies involved in PPP procurements will surely grow. Already, well-known U.S. engineering names are partnering with overseas PPP houses to take on significant highway construction tasks. Examples include Fluor-Transurban, Kiewit-Macquarie as well as Texas's own Zachry-Cintra consortium that is currently building sections 5 & 6 of SH130. As the U.S. market matures, the emergence of a sizeable U.S.-based PPP industry is inevitable, and U.S. infrastructure funds such as those managed by Carlyle and Goldman Sachs will likely seek out opportunities worthy of investment.

Moreover, contrary to what is sometimes claimed, not one of the leading foreign PPP companies is state owned. Cintra, Macquarie, and Transurban, for example, are publicly traded companies subject to developed world reporting and shareholder governance standards. None enjoy sovereign ownership or are under any type of home country government control.[109] The most important question is therefore not where the company signing a PPP contract is domiciled, but rather its financial strength and its track record for successful projects in both its home country and abroad.

4.6 To manage PPPs, Texas can draw upon the experience of other jurisdictions

Texas has the advantage of being able to draw upon a wealth of experience gained by other jurisdictions regarding the successful implementation of PPPs. Partnerships Victoria, for instance, was organized in 2000 by that Australian state to provide the framework for a

[109] As a side note, we also point out that 150 years ago, much of the US rail network was financed by European capital, and that few suggest today that this did not result in a net long term benefit for this country.

government-wide approach to providing public infrastructure and related ancillary services through public-private partnerships.

Though each PPP project has its own unique complexity, Partnerships Victoria brings consistency to the procedures for managing and implementing projects and focuses on gaining value for money – including life cycle costing – managing risk, and protecting the public interest. The state retains delivery control of core public services, and no one form of procurement is presumed to be more efficient than another. The key issue is which form of project delivery provides the best value for money in meeting government's service objectives in a particular case.

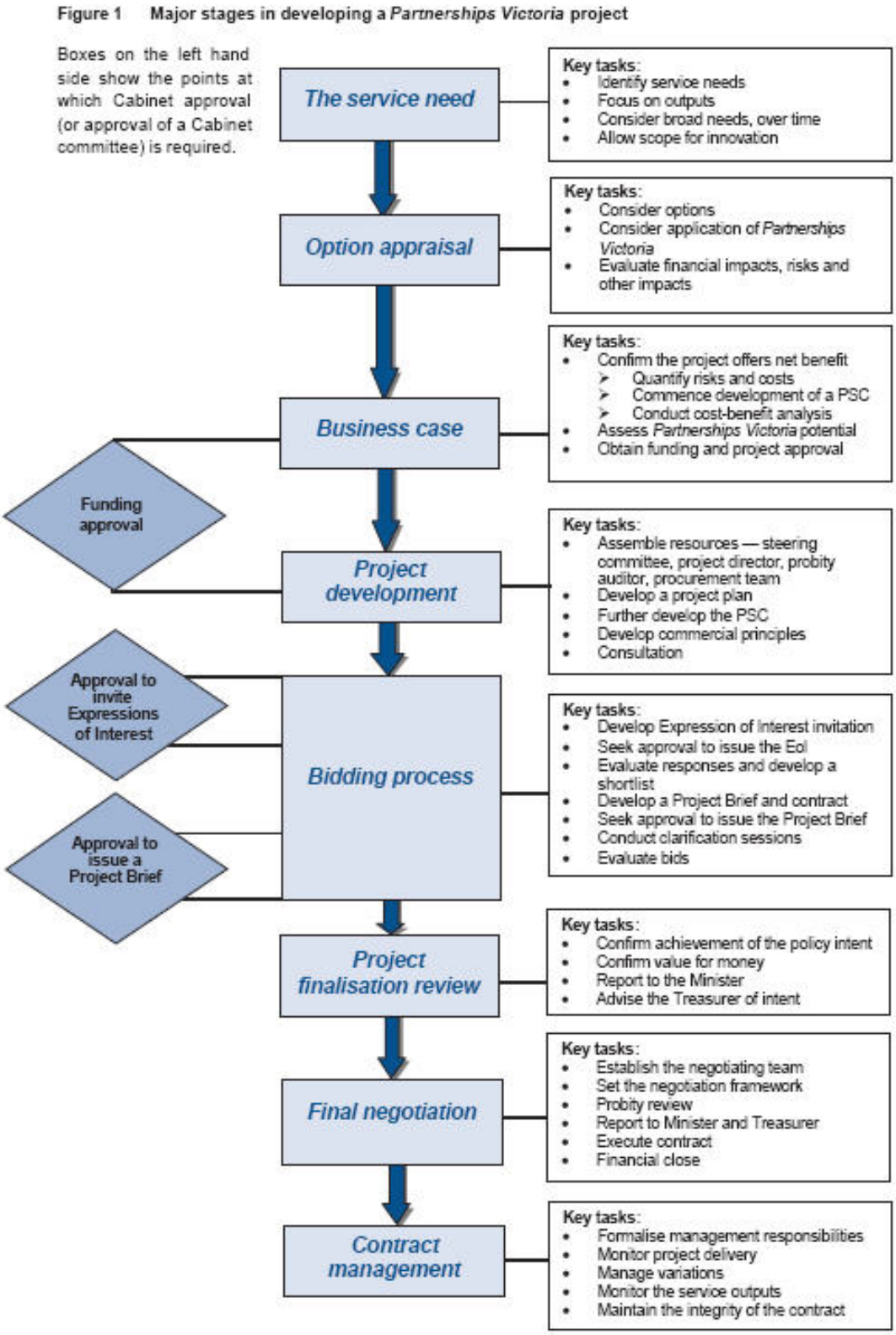
Partnerships Victoria processes are outlined in detailed guidance material, which is comprehensive, continually revised and updated, and includes useful examples and templates. The guidelines help practitioners apply policy and processes consistently when procuring and delivering Partnerships Victoria projects. This in turn sends clear and consistent messages to the market. The guidance material can be found at www.partnerships.vic.gov.au.

Key Partnerships Victoria publications include:

- Practitioners' Guide (2001)
- Risk Allocation and Contractual Principles (2001), to be read in conjunction with the Standard Commercial Principles publication (2005).
- Public Sector Comparator (2001) to be read in conjunction with the PSC Supplementary Technical Note (2003) and Use of Discount Rates in the Partnerships Victoria Process (2003); and
- Contract Management Guide (2003)

Additional advisory notes address specific technical issues, such as 1) determining the general inflation rate for use in Partnerships Victoria projects; 2) managing interest rate risk; 3) disclosure and management of conflict of interest; and 4) the interactive tender process.

MAJOR STAGES IN DEVELOPING A PPP PROJECT[110]



[110] Source: Partnerships Victoria, *Practitioner's Guide*, p. 14.

Closer to home, the Canadian province of British Columbia has set up a similar organization, Partnerships BC, whose job is to serve its public sector clients by providing core expertise on analyzing, structuring and managing partnership contracts. As a center of expertise, Partnerships BC can develop and transfer learnings from one project to the next. Partnerships BC publishes a set of guidance documents to assist both local governments and potential private-sector participants.

Over the last five years, British Columbia, with a population roughly one-fifth the size of Texas, has employed private financing for the procurement of nearly $3 billion in infrastructure financing – for projects ranging from mass transit to roads and wastewater treatment facilities.

Within the U.S., California has recently instituted a "Performance Based Infrastructure (PBI)" initiative, which is the state's public-private partnerships program. A key tenet and important part of the PBI strategy is the creation of "PBI California," a center for excellence that will help determine which projects can benefit from PBI, providing expertise in negotiations with PBI participants, ensuring transparency and monitoring performance.

Patterned after the successful Partnerships BC organization, PBI California will manage and implement contractual arrangements and will also assemble statewide demand in order to enhance negotiating leverage and improve terms and conditions for taxpayers and citizens.

Elements of the PBI initiative cover a wide ground, but the public policy emphasis and approach to be taken is specifically focused on a number of key factors:

- Expand the types of projects, services and government entities that can enter into PBI arrangements
- Increase contracting flexibility so the state can better negotiate with potential contractors
- Act as a repository of knowledge, understanding, expertise and practical experience in connection with PBI-related transactions

PBI will allow government and private companies to enter into contracts that make both parties responsible for the delivery of infrastructure services. In addition, PBI is not mandatory. It is simply an optional alternative for governments to employ if and when doing so provides value when compared to traditional infrastructure provision.[111]

[111] As a side note, the California PBI initiative also includes a plan to bring 20,000 new engineers into California's work force to provide the expertise necessary to accomplish the infrastructure construction objectives.

5.0 –PROTECTING THE PUBLIC'S INTEREST

Addressing Important Concerns Surrounding PPPs – Criticality of Protecting the Public's Interest

While PPPs offer a number of advantages, much attention needs to be directed to the details, and the state must take proactive steps so that the public's interest is fully protected in PPP transactions.

5.1. Concern: How Permanent is the Transfer of Risk?

First and foremost, it is important that any risk transferred away from the public sector to the private sector must *stay* transferred. Much of the ongoing financial meltdown is the direct result of entities who thought they had contracted away financial risk and found it coming back – often at a most inopportune time.

In the PPP context, the state must 1) offer no loan guarantees or similar arrangements; and 2) ensure that each of the private participants has sufficient equity in the project to properly align their incentives and manage the downside risk.

The problems surrounding London's Metronet illustrate what can go wrong when these principles are ignored.

DOING IT WRONG – LONDON'S METRONET[112]

- In 2003, Transport for London (TfL) signed a £15.7 billion (over the life of the contract) PPP agreement with Metronet (a consortium of five engineering firms) to upgrade roughly 2/3 of the London Underground.
- Cost overruns had reached £1 billion by 2007
- Metronet was placed in administration (bankruptcy) in July 2007. Debts were £1.7 billion.

- The problems
  - TfL agreed to guarantee 95% of Metronet's loans, leaving taxpayers exposed.
  - Each of the consortium's five members had only £70 million equity in the project, not enough to properly align incentives
  - "There simply wasn't enough equity at risk to give incentives for Metronet to perform" -- Stephen Glaister, TfL Board Member

5.2. Concern: How Transparent is the Transaction?

Second, projects must be transparent – both in reality and in the public's perception. For

[112] *The Economist*, 19 July 2007, 7 February 2008

instance, one of the drivers behind the initial failure of Sydney's Cross-City Tunnel was that the project's proponents paid little heed to local community concerns. Conspiracy theories abound in the absence of real information.[113] The CCT proponents compounded their errors by altering the configuration of surface streets above the project in a manner that many local residents took to be a patent attempt to force vehicles into the tunnel, or, as more cynical critics observed, to funnel the hard-working Sydney motorist's money into the hands of private contractors.

Transparency is critical at the outset of a PPP venture, as once public suspicion is aroused and incendiary rhetoric is thrown about, the proponents often lose credibility regardless of the underlying logic of their arguments and the support and justification for the project can become potentially compromised.

5.3. Concern: Is there Transaction Expertise, Adequate Review Time, and have Conflicts of Interest been Avoided?

State or local officials charged with negotiating PPP transactions must have the appropriate expertise, the absence of conflicts of interest, and sufficient time to evaluate very complicated proposals. For instance, the contract for SH130, Sections 5&6, ran over 1,100 pages, including the basic Concession Agreement, 25 Exhibits (often cross-referenced), plus a list of Technical Requirements. The majority of the concession agreements reviewed, both in the U.S. and abroad, were of similar complexity.

5.4. Concern: What are the Mechanisms to Control Toll Rate Increases?

PPPs generally provide for toll rate escalation based on either an inflation index (usually the CPI) or an economic growth index (GDP per capita). Some also specify a minimum increase (i.e., 2%), while others allow the private party to choose the maximum of certain specified variables.[114]

As with any compounding variable, small changes at the beginning can have an enormous impact on values in later years.

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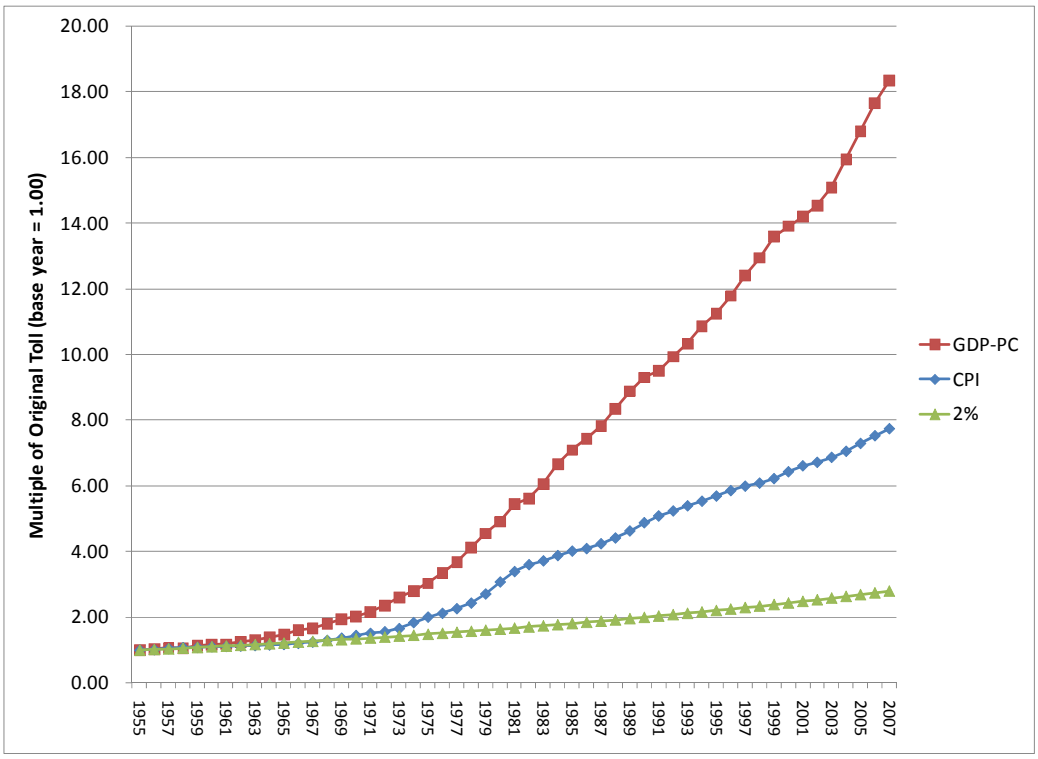
[113] Of course, some critics are simply dead-set against a project for their own reasons – logical or illogical – and no amount of community involvement will placate them.

[114] The Indiana Toll Road and the Chicago Skyway allow the private concessionaire to raise the tolls by the greater of a) 2%; b) the CPI; or c) the increase US GDP per capita. Note that many PPPs fix toll rates for a short initial period (usually one to five years).

IMPACT OF TOLL INCREASE MECHANISMS OVER 52 YEARS[115]



The above chart illustrates hypothetical toll increases from several common measures over the Texas statutory maximum term of 52 years, using inflation figures from the past 52 years.[116]

As a practical matter, increases tied to per capita GDP remove any practical limits on toll increases in a project's later years. However, this does not necessarily mean that a private concessionaire would raise tolls to that level, since excessive toll increases will have the effect of driving away traffic and thus, past a certain point, will lower net revenues.

The subject of toll rate increases is inextricably tied to the policy choices of the relevant state or local authorities regarding cross-subsidization of other parts of the highway system. Certain jurisdictions may choose, as a matter of public policy, to keep toll increases low – to use the tolls from a project to fund that particular project and no more (or relatively little more). Others may choose to extract the maximum value from the few highly profitable projects in order to fund other highway infrastructure.

[115] GDP and CPI from the Department of Commerce (Bureau of Economic Analysis).
[116] Figures for the past 75 years display a similar picture; though the Depression of the 1930s skews those early years, the long run trend is nearly identical.

In either case, PPP contracts have the advantage of permitting toll increases that are sufficient to ensure that the purchasing power of the tolls remains high enough to maintain the highway asset. Unlike the case of public-sector toll roads, the increase mechanism for a PPP toll road is set by contract and is thus, after contract approval, not subject to the same political pressures that make motor fuel tax financing and some public sector toll financing so problematic.

New Jersey, for instance, has not raised toll rates on the New Jersey Turnpike since 2000, and Garden State Parkway fees haven't risen since 1989 – two years before the last increase in the Texas motor fuel tax.[117] Today, New Jersey struggles to meet debt obligations, much less cover a $9.7 billion capital plan, yet the state's governor threatened to veto legislation doubling tolls over 15 years, citing the need to "minimize [the toll burden] given the current difficulties we face in the economy."[118]

Like the motor fuel tax, tolls lose their purchasing power over time. If too many years pass before rates increase, the increases required to recover lost purchasing power can generate intense political opposition. Hence, a policy of small annual increases is generally the wiser course.

5.5. Concern: Should we include Non-Competition Clauses and Indirect Toll Road Support?

Non-competition ("non-compete") clauses represent one of the most difficult issues when negotiating PPPs. A private company, quite naturally, wants some assurance that after it has spent hundreds of millions of dollars in capital expenditures to construct a road, the state will not subsequently destroy its hope of positive financial return by building a non-tolled parallel highway that will siphon off the expected traffic. [119]

On the other hand, the public has a legitimate concern that a public monopoly – namely what is often the only thoroughfare through a certain area – will be replaced by a private monopoly with the added disadvantage that the private monopoly will remain outside the accountability to elected officials and concerned local citizens.

Currently, Texas has prohibited direct non-competition clauses, but has provided for the

[117] Dopp, Terrence, "New Jersey's Corzine Seeks Smaller Increase in Tolls," *Bloomberg*, 1 October 2008.
[118] *Ibid*.
[119] T&R forecasts are inaccurate enough without the state adding to a project's risk. The lack of any competition limits adds an additional layer of uncertainty, leading to the private company requiring higher internal hurdle rates or discounting cash flow projections at a higher rate, leading to lower overall project valuations.

compensation of private participants in a CDA for the loss of toll revenues due to unanticipated competing projects within four miles of the CDA project's centerline.[120] The law excludes from this provision projects that are contained in a state or Metropolitan Planning Organization ("MPO") long-range transportation plan, improvements necessary for safety, exclusive HOV lanes and work required by any environmental regulatory agency. The private participant has the burden of proving lost toll revenue.[121]

It is important to note that non-competition clauses are not unique to PPPs, and that such clauses are often used in the public sector as well, such as SH130, Sections 1-4.

Direct non-competes in Texas do not appear problematic, as most MPO transportation plans run 20-30 years into the future. Most foreseeable competitive development is thus excluded from PPP non-competition provisions.

Of more concern, however, are the myriad ways the state could indirectly channel traffic onto a toll road. Means found elsewhere include lowering speed limits on the "free" road, altering the timing of traffic signals to discourage users of frontage roads and side streets, reconfiguring surface streets to make them less convenient for through motorists, and closing lanes for "maintenance" on alternative routes.

Solutions would involve the toll road offering higher value for money than the "free" alternative. For instance, the SH130, Segments 5&6 contract contain provisions for 80 mph speed limits, vs. the existing maximum of 70 mph for the parallel I-35.

5.6. Concern: Do the Key Contract Provisions Protect the Public's Interest?

For the purposes of this report, a "buyback" provision is a clause in a PPP contract giving the state a right to terminate the concession early and have the toll project revert back to being the full responsibility of the state (or in the case of Texas, a toll project entity).[122]

All well-drafted PPP contracts address the potential termination of the agreement before the expiration of its full term. However, unlike termination for *cause*, buybacks – or "Termination for Convenience" provisions as they are known in the industry – require no breach of duty on the part of the concessionaire.

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[120] See Transportation Code, §371.103 *Prohibition Against Limiting or Prohibiting Construction of Transportation Projects*.
[121] *Ibid*.
[122] Technically, the term "buyback" is inaccurate since under any structure contemplated in Texas, the asset will never be sold – and thus cannot be bought back.

Several witnesses before the Committee addressed this topic as it related to projects in their own jurisdictions, and the Committee further investigated termination for convenience provisions in other locations. Our investigation reached several broad conclusions.

- Though as with other aspects of PPPs no one size fits all, termination for convenience provisions around the world are broadly similar – granting the government the right to terminate an agreement upon the payment of compensation.
- Generally, termination compensation is based on a determination of fair market value by an independent appraiser(s).
- The termination for convenience provisions of SB792 incorporated a method not in general use elsewhere.
- Buybacks add another element of uncertainty in the parties' calculations. As with any other financial variable, parties bearing that uncertainty will demand compensation for doing so. Buybacks thus will carry a price even in the most benign credit environments,[123] and could have the unintended effect of deterring private concessionaires from entering the Texas market.

The only current large scale CDA in Texas – the SH 130, Segments 5&6 project, contains two Termination for Convenience provisions:[124]

- A limited provision expiring on June 1, 2010; and
- A general Termination for Convenience clause valid for the life of the contract.

Both provisions allow TxDOT to terminate the agreement at its own discretion in return for payment of the "Termination Compensation."[125]

In the general provision, the Termination Compensation is determined by the project's fair market value adjusted for specified developer out of pocket and demobilization costs. The procedure for determining the fair market value of the developer's interest is based on an independent appraisal. In sum:

- TxDOT and the private developer agreed to appoint an independent third-party appraiser "nationally recognized and experienced in appraising similar assets."
- If agreement on the appraiser proves impossible, both parties are to appoint their own appraisers, who will then pick a third appraiser.

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[123] Much of the current credit crunch is driven by the downfall of irresponsible lenders who ignored this fundamental truth and wildly underpriced risk – often in a grab for market share. We expect the pendulum to swing the other way – perhaps too far – as it often does when markets correct after a period of excess.

[124] See *Facility Concession Agreement, SH 130 Segments 5 And 6 Facility Between Texas Department of Transportation and SH 130 Concession Company, LLC*, March 22, 2007. Article 19.1 (Termination for Convenience provisions) and Exhibit 22 (Terms for Termination Compensation).

[125] Note: the provision expiring in 2010 also contains additional restrictions limiting TxDOT's ability to contract the facility to a different private concessionaire.

- If no agreement on this third appraiser is possible, each party may petition the Travis County District Court to appoint an independent appraiser.[126]

Unlike the general provision, the limited provision expiring in 2010 specifies that after recovering out of pocket costs and an amount equal to the project's senior debt (including prepayment penalties), the developer is entitled to a specific return on its committed equity – in this case 18 percent, compounded annually.[127]

The SH 130, Segments 5&6 contract was signed before the passage of SB792 in 2007, which added Transportation Code, §371.101 – Termination for Convenience. SB792 requires a toll project entity to develop a formula for making termination payments. This formula "must calculate an estimated amount of loss to the private participant as a result of the termination for convenience."[128]

Section 371.101 states that "the formula shall be based on investments, expenditures, and the internal rate of return on equity under the agreed base case financial model as projected over the original term of the agreement, plus an agreed percentage markup on that amount." However, this formula "*may not include any estimate of future revenue from the project, if not included in [the] agreed base case financial model* [emphasis added]."

The methodology employed by SB792 represents a fundamental change. Under a Fair Market Value (FMV) based approach, a private developer would receive some of the benefits from upside surprises in traffic and revenue. SB792 specifically excludes a developer upside in the event of termination for convenience. Instead, the determination of value is grounded entirely on the base case financial model.[129]

This is a crucial distinction, and the approach mandated by SB792 runs counter to the termination for convenience provisions most commonly used in other jurisdictions, both in the United States and abroad.

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[126] The independent appraiser's determinations of the project's Fair Market Valuation and the developer's WACC are themselves subject to challenge by either party under the contract's Dispute Resolution Procedures, which, in essence, allow each party to appoint members to a Dispute Resolution Board that functions like an arbitration panel. The subject of the extraordinary complexity of CDA contracts and the ability of TPEs to negotiate such contracts effectively will be addressed elsewhere in this report.

[127] See *Facility Concession Agreement, SH 130 Segments 5 And 6 Facility Between Texas Department of Transportation and SH130 Concession Company, LLC,* Exhibit 22, §A.4.(c).

[128] Transportation Code, §371.101(a).

[129] Transportation Code §371.101(b) does provide for "an agreed percentage markup" over the base case, but provides no details as to its calculation. We note also that downside surprises from the base case are also excluded, but in such a situation, the TPE is unlikely to exercise the right of termination for convenience, and termination for default by the developer is governed by a different set of contractual provisions.

Virginia currently has two CDA projects: the Pocahontas Parkway in Richmond and the Capital Beltway HOT lanes in suburban Washington. The current Pocahontas Parkway concession has a termination for convenience provision, based on an appraisal of fair market value, but it is exercisable only after forty years.[130] The parties agreed to the forty year term because at that point, all of the project's debt will have been repaid.[131]

Virginia's second CDA, the Capital Beltway HOT lanes, does not contain a termination for convenience clause – a decision based primarily on the need to mitigate the private party's risk in the current credit environment (as well as the concessionaire's agreement to fund $400 million in additional highway improvements designated by VDOT).[132] The Capital Beltway HOT agreement, however, does contain strong provisions protecting the state regarding termination for cause.[133]

Two Florida projects currently under negotiation are expected to contain similar termination for convenience clauses. The draft agreement for the Port of Miami Tunnel concession specifies that in the event of a termination for convenience, the Florida Department of Transportation must pay compensation equal to the senior debt, the concessionaire's out of pocket and redundancy costs, plus an equity IRR (as yet to be determined at the time of this report).[134] The I-595 project outside Fort Lauderdale will, in all likelihood, contain similar language.[135]

Projects in Canada and Australia employ similar terms. Toronto's Highway 407 concession agreement requires the government to pay fair market value for terminations not for cause or force majeure.[136] Project fair market value is defined as the aggregate of breakage costs plus, essentially, the amount that would make the concessionaire whole as if the early termination had not occurred.[137]

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[130] Note that the current Pocahontas Parkway concession is a re-bid after the first concessionaire defaulted.
[131] Source: Barbara Reese, Virginia Department of Transportation.
[132] The risk of Capital Beltway project is enhanced by the fact that it will be the first in Virginia to add High Occupancy Toll (HOT) lanes to a road that did not already have existing HOV lanes.
[133] Source: Barbara Reese, Virginia Department of Transportation.
[134] Source: Florida Department of Transportation, *Port of Miami Tunnel & Access Improvement Project Concession Agreement*, RFP-DOT 06/07-6084DS, Addendum #3, February 5, 2007.
[135] Source: Lowell Clary – former Assistant Secretary for Finance and Administration, Chief Financial Planner, Inspector General and Deputy Comptroller for the Florida Department of Transportation.
[136] *Highway 407 Concession and Ground Lease Agreement*, Article 23, pp. 91-94.
[137] *Ibid*, Article 23.2(b), p. 92.

As to the determination of FMV, the parties are instructed first to negotiate; then, if agreement proves impossible, they are to select "a skilled and experienced commercial mediator." If this fails, the parties then are to appoint a "duly qualified business valuator having not less than fifteen years' experience in the field of business valuation," and in the absence of agreement as to the valuator, each party may request that a judge of the Ontario Court (General Division) appoint the valuator. The valuator then has 60 days to complete the valuation under Ontario's *Arbitration Act of 1991*, and the decision of the valuator "shall be final and conclusive and not subject to any appeal."[138]

The Australian state of Victoria has gone even farther with the publication of *Standard Commercial Principles* governing PPPs. These affirm the government's right to terminate a project at any time, at its sole discretion, subject to a termination payment to the private contractor, with the payment amount determined by an "independent valuer's reasonable assessment of forecast cash flows to equity from the date of termination to the expiry of the project agreement."[139]

Given the distinctions between termination for convenience provisions in Texas and other jurisdictions, the Committee believes that it is important to address the fundamental reasons for such provisions in the first place. Boiled down to the essence, governments insist on termination for convenience provisions (as opposed to termination for *cause*) for two fundamental reasons:

- To prevent a private developer from making excessive profits off the state's motorists; and
- To create a mechanism by which the state may avoid a lengthy and expensive court battle with the private developer.

The Committee heard testimony that excessively stringent buyback provisions are a crude instrument that can become counterproductive, and that other mechanisms may resolve the above concerns in a manner less discouraging to potential PPP developers.

Two mechanisms exist to solve the issue of excessive developer profits: revenue sharing and Equity IRR caps.[140] Texas already employs revenue sharing. SH 130 Segments 5&6 requires the concessionaire to remit a specified percentage of toll revenues above a threshold level to the state. The amount of revenue shared is based on a sliding scale where the state's

[138] *Ibid*, p. 93.
[139] Partnerships Victoria, *Updated Standard Commercial Principles*, §29.3.1, April 2008.
[140] The subject of excessive profits is inextricably tied to the issue of cross-subsidization whereby a profitable road's motorists are charged tolls the traffic will bear rather than the tolls required to construct and operate the road itself.

share rises as toll revenues increase – reaching 50/50 after certain defined points.[141]

Revenue sharing can take on a number of varieties, as well. Australian states emphasize that the state must share in any gains earned by the private concessionaire through refinancing,[142] as well as any upside from a project's modification.[143] Ontario required the Highway 407 developer to make congestion payments to the government if toll revenues and congestion exceed defined thresholds – reasoning that congestion on the toll road pushes traffic onto nearby streets thereby increasing the government's costs.[144]

Equity IRR caps have a similar effect of reducing developer profits, but can prove more complicated in practice. Unlike revenue sharing, which is ultimately based on a single, easily verifiable, variable – revenue – the determination of Equity IRRs requires the assessment of a number of disparate factors, including the condition of the credit markets at the time of the calculation and the specific level of risk assumed by the project's developer.

For instance, projects involving shadow tolling – whereby the state bears the cost of traffic and revenue shortfalls – merit much lower IRRs than do concession agreements whereby the private developer bears the full spectrum of project risks, from environmental issues to construction overruns to lighter than expected traffic flows.

Ultimately, the determination of an equity IRR cap raises the issue of what is the "proper" number for a given level of risk. Unfortunately, the Committee is not in a position to issue a definitive statement on this matter. Too few data points exist, many of the transactions addressing the matter remain under negotiation, and the specific number will – almost by definition – vary with the details of each individual PPP.[145]

We note that buyback provisions depend on the decision to cross-subsidize. If the decision is made to use tolls to pay back only the cost of a particular road's construction, operation and maintenance, an equity IRR cap would have the practical effect of limiting toll

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[141] In the SH130 5/6 agreement, the state's share also rises as the SH130 speed limits increase. See *Facility Concession Agreement, SH 130 Segments 5 And 6 Facility Between Texas Department of Transportation and SH130 Concession Company, LLC,* Attachment 1 to Exhibit 7 (Compensation Terms).

[142] NSW Guidelines, §6.2.4;

[143] Partnerships Victoria, Standard Commercial Principles, §22.2.5.

[144] See Schedule 22: *Tolling, Congestion Relief and Expansion Agreement between The Crown in Right of Ontario and 407 ETR Concession Company, Ltd.*; Article 3.3, Purpose of Congestion Payments

[145] We note that the early termination provisions of Segments 5&6 expiring in 2010 specify an equity IRR of 18 percent. The Committee heard from a variety of sources off the record that projects whereby the developer does not assume full traffic and revenue risk (unlike Segments 5&6) would merit an equity IRR of roughly 12 percent ± 2 percent or so.

increases to the level required to reach that cap.

On the other hand, if the state has determined to extract the maximum revenue from a particular road, a revenue sharing arrangement may be the most appropriate mechanism to limit a concessionaire's profits.

Regarding the danger of drawn-out, expensive court battles, many PPP contracts provide for some type of binding arbitration (including that for SH130 Segments 5&6), and the Committee notes that Texas already has a well established network of arbitrators experienced in large scale commercial dispute resolution.

Finally, we must note that excessively stringent buyback provisions may have the unintended effect of raising the price of PPP projects as well as causing the most experienced and reputable private developers to avoid the Texas market.

It is almost axiomatic that any provision increasing the level of a developer's uncertainly will require that party to earn an additional level of return – whether through higher toll rates, more aggressive discounting of cash flows or a higher buyback price. It is for this reason that transportation authorities in Florida urged the Florida legislature not to mandate buyback provisions.

In addition, Florida transportation officials expressed concern that the more reputable concessionaires with extensive track records of successful PPP development simply would not participate in the Florida market if onerous buyback provisions were in place.[146] Likewise, Virginia declined to include termination for convenience provisions in the Capital Beltway HOT lanes project for the same reason.[147]

We note that projects currently under negotiation in Florida will probably contain termination for convenience provisions. However, an important distinction exists between taking such provisions into account during individual negotiations and imposing them via statutory mandate. Like other aspects of PPPs, termination for convenience provisions should be tailored to the requirements of each particular transaction.

[146] Source: Lowell Clary – former Assistant Secretary for Finance and Administration, Chief Financial Planner, Inspector General and Deputy Comptroller for the Florida Department of Transportation.
[147] Source: Barbara Reese, VDOT.

6.0 – POLICY CHOICES WILL IMPACT (AND MAY LIMIT) FINANCIAL OPTIONS

Regarding a number of issues surrounding PPPs, the real questions are not so much finding the "right" answer as in weighing policy choices among a set of defined tradeoffs – that need to be made explicit.

6.1 Cross-Subsidization between Projects and Systems

One of the most fundamental policy choices is to what extent one set of road users will be asked to subsidize other pieces of the highway system.

We note first that until technology (and public acceptance) permit an assessment of vehicle mile charges based on an exact measurement of miles driven on specific identifiable highways and streets, some degree of cross-subsidization is inevitable – regardless of the financing method used.

To some degree, all other mechanisms, whether tolling or the motor fuels tax, require motorists to pay for portions of the system they do not regularly use.[148] Yet a small segment of highway only has value as part of a larger overall system.

While almost all would agree with this generalization, the precise definition of what encompasses a system lies at the heart of the policy debate. Does the system cover the entire state, a particular region, or perhaps even a limited subset of highways in a small corner of an urban area?

Under Texas's traditional system of highway finance, TxDOT collected the motor fuels tax on a statewide basis and allocated the funds as it saw fit. This led to inevitable complaints by various regions that they were being shortchanged – that their own motorists' fuel purchases produced far more revenue than eventually found its way back to the region in the form of highway construction.

In the past few years, a legislative consensus has emerged that funds generated by a region should remain in that region. SB792 specifically addressed this principle in the context of toll projects, requiring TxDOT to spend any concession payments generated by projects in the regions where the project was located.

[148] For instance, a neighbor of one of the researchers involved in the drafting of this report complained that his tolls were higher than the sum needed to maintain the five mile section of the Dallas North Tollway that he utilized in his daily commute. This matter became particular contentious in the debate surrounding SH121, with motorists in the SH121 service area asking whether the rest of the NTTA system should be built on the back of their (expected) highly profitable road, with money generated by their toll payments.

In addition, SB792 provided a formula for the allocation of toll project funds within a region itself, mandating that TxDOT allocate these funds "to department districts in the region based on the percentage of toll revenue from users from each department district of the project."[149]

Yet the debate does not end here. Even within the smaller department districts, the committee heard testimony from various witnesses complaining that while their motorists regularly paid tolls into a tollway system, the projects critical to their localities remained on hold while those in another part of the district proceeded at a rapid pace.

We will address some of the proposed solutions in sections below. For now, suffice it to say here that the Committee is of the opinion that no "one size fits all" approach exists, and that each region will need to work out the allocation methodology that best suits its motorists and taxpayers.

At this point, we will address one additional issue regarding the impact of toll revenues: the desirability of up-front concession payments versus alternative schemes like revenue sharing. In general, we believe that the practice of seeking the maximum up-front concession payment suffers from three fundamental flaws:

- There exists the ever-present temptation for officials to not realize that short term gains are achieved at the expense of long-term value thus destroying value;
- High up-front payments can over-leverage a project and set it up for failure or renegotiation later; and
- High up-front payments impose a burden on the road's users – forcing them to subsidize other portions of the system.

We agree that certain regions may choose to cross-subsidize, and in this case, we believe (as discussed in other sections of this report) that the revenue sharing model is a better and more value creation oriented practice.[150]

[149] Transportation Code, § 228.0055(b).

[150] The New South Wales Parliament, in its *First Report of the Joint Select Committee on the Cross City Tunnel (Feb. 2006)*, recommended that "any policy of charging private consortia a fee for the 'right to operate' a piece of infrastructure be expressly discontinued," primarily on the basis that such payments represent "an unnecessary imposition on road users, as the toll will necessarily be increased to recoup the cost of the fee."

6.2 Maximizing Toll Revenue vs. Maximizing Mobility

Related to the issue of cross-subsidization is the policy choice between maximizing toll revenues versus maximizing regional mobility.

With any toll road (and given the particular toll sensitivity of the area's motorists), economists can calculate a point where toll revenues will be the highest – where raising tolls further will cause traffic to drop by an amount yielding lower net revenue.

Some jurisdictions, however, have made the policy decision to hold tolls below the level of maximum revenue, and to raise them only to the level necessary to keep the system well-maintained and in good working order. The Committee believes they should have the option to continue doing so, and that this decision is best made at the regional level. Like other aspects of toll road development, one size does not fit all.

The growing movement toward congestion pricing, however, changes the revenue-mobility dynamic and is becoming an integral part of toll system management. In short, two basic models exist:[151]

- Encourage car-pooling by allowing high occupancy vehicles free or discounted use of HOT lanes while charging other motorists
- Adopt a dynamically variable pricing mechanism to immediately raise tolls in HOT lanes when traffic speeds drop below a pre-defined point, driving enough motorists away from the lanes to maintain the desired traffic flow.

It is our view that the latter alternative represents the more favorable approach. If high occupancy vehicles have free or discounted access to the HOT lanes, while motorists willing to pay higher prices are turned away, this could have the unintended effect *lowering* overall revenues during times of high congestion.

Alternatively, a system of dynamic pricing would allow individual motorists to choose between the relative value of time and money for any particular moment in time. This approach will be used in Texas for the first time with the opening of the Katy Freeway HOT lanes in Houston, though a similar program is planned for the expansion of I-635 in Dallas.

[151] A third model, in use in London and Singapore (and proposed for lower Manhattan) charges a fee to all motorists entering the city's CBD at specified times of day.

6.*3. Primacy*

One of the more controversial aspects of PPPs revolves around the issue of who has the right to build a toll project in a particular region.

Current federal law requires there to be a Metropolitan Planning Organization (MPO) for each urbanized area with a population of more than 50,000, in order to carry out the transportation planning process. At the present time, Texas has 25 MPOs.[152]

MPOs, however, do not actually build the highways. That responsibility lies with either TxDOT or a local "Toll Project Entity" (TPE). At the present time, Texas authorizes three types of TPEs: Regional Mobility Authorities,[153] a Regional Tollway Authority,[154] and county based authorities (i.e, HCTRA). Each of these has similar powers within their respective regions.

Under SB792, a local TPE has the first option to develop a toll project. This option lasts for six months after the date that a market valuation[155] of the project is mutually approved by TxDOT and the TPE.[156] Once the TPE chooses to exercise the option, it must enter into a contract for the financing, construction and operation of the project within two years after clearing environmental and legal hurdles.[157]

There is broad agreement that the current process is unsatisfactory, but no consensus has emerged as to what mechanism should replace it.

Witnesses before the Committee have set forth varying proposals. One would create a flow chart with the following priorities, in order:

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[152] These are Abilene, Amarillo, Brownsville, Bryan-College Station, Capital Area (Austin), El Paso, Harlingen-San Benito, Hidalgo County, Houston-Galveston, Jefferson-Orange-Hardin Regional, Kileen-Temple, Laredo, Longview, Lubbock, Midland-Odessa, North Central Texas (DFW), San Angelo, San Antonio-Bexar County, Sherman-Denison, Texarkana, Tyler, Victoria, Waco, Wichita Falls. Source: www.planning.dot.gov/mpos1.asp.

[153] Texas currently has eight RMAs: Alamo RMA (San Antonio), Cameron County RMA, Camino Real RMA (El Paso), Central Texas RMA (Austin), Grayson County RMA, Northeast Texas RMA (Tyler), Hidalgo County RMA, and Sulphur River RMA (Paris). Source: TxDOT.

[154] Currently, the NTTA is the only regional tollway authority in the state.

[155] This report will address the subjects of market valuation in a separate section.

[156] SB792, §228.0111(e) and (f) require that a market valuation be obtained once 1) TxDOT or a local TPE determines that a particular project should be developed as a toll project; and 2) TxDOT and the TPE have agreed on terms and conditions for the project, including the initial toll rate and escalation methodology. After this, TxDOT and the TPE are to mutually agree upon which entity shall conduct the valuation. Once the valuing entity issues a final draft valuation, TxDOT and the TPE have 90 days to approve the valuation or negotiate and alternative. If TxDOT and the TPE cannot agree, then the draft valuation is deemed final. If TxDOT and the TPE cannot agree on terms and conditions, or upon which entity is to conduct the market valuation, then the project cannot be developed as a toll project.

[157] Some variations exist depending on whether the TPE is a county, a regional tolling authority or an RMA. Also, SB 792 excluded certain existing or planned toll projects from these general provisions.

1. The local TPE develops the project as a publicly operated project
2. TxDOT develops the project as a publicly operated project
3. The local TPE develops the project as a PPP
4. TxDOT develops the project as a PPP.

Under this proposal, each entity would have a certain number of days to exercise its option as well as a two-year time window (as in current law) to sign the project contract.

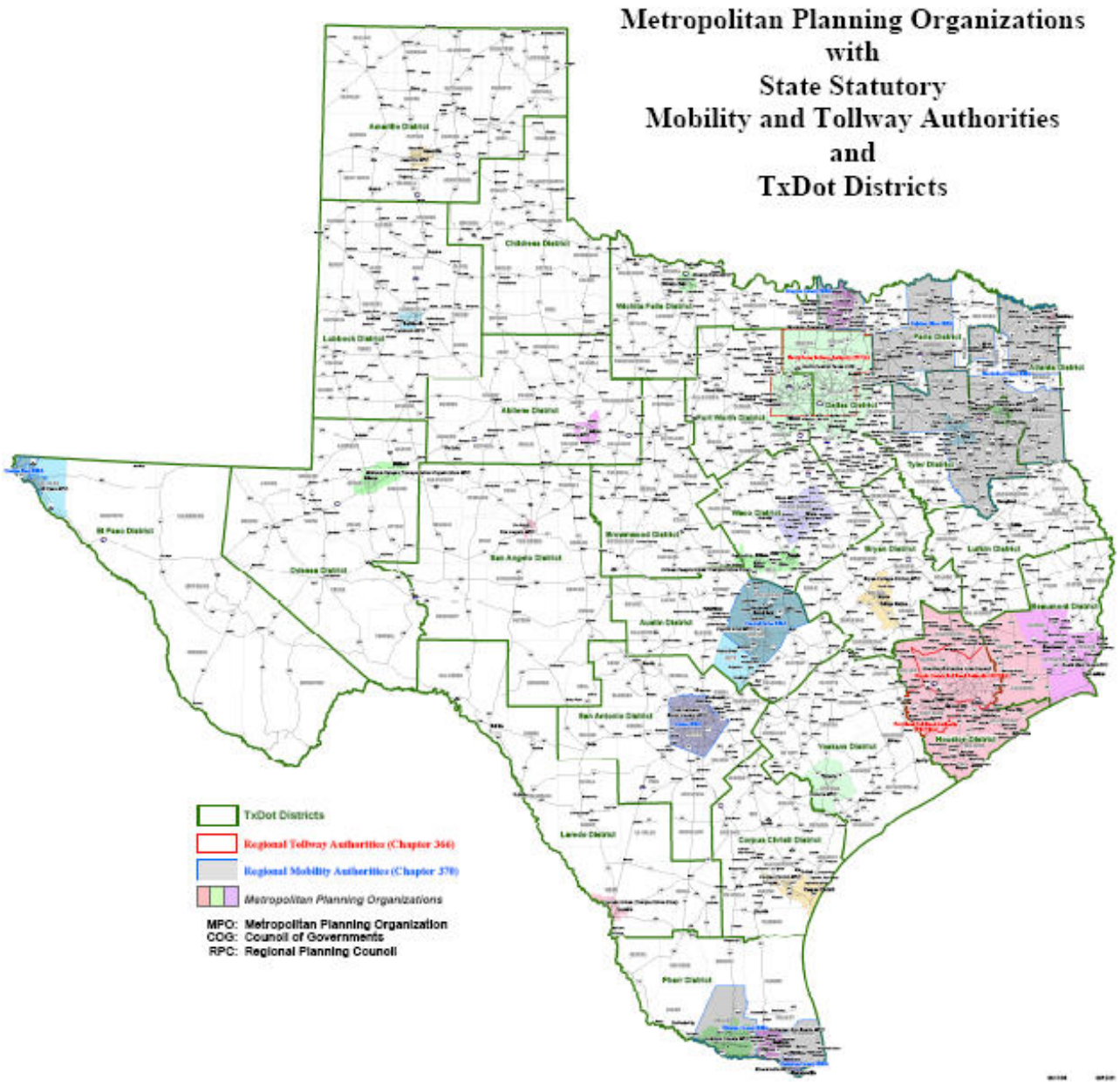
This proposal, however, seems geared more to the choice of whether a project will be developed as a PPP or as a public project, rather than settling the more fundamental issue of the limits of regional control.

Specifically, what is the extent of the power that a local TPE has over the projects in its region, and what rights do dissenting members of that region have to develop a project that those in charge of the regional TPE have not deemed a priority? This is especially significant in regions where the MPO encompasses a much broader geographic area than the regional TPE, or in regions where various sections within the region have a history of acrimony and conflict.

Our review of other jurisdictions indicates that Texas is somewhat unique in the relationships between the state DOT and local toll road entities, as well as the variety and proliferation of these entities.

Various transportation conferences and regional gatherings have revealed proposals to create even more types of transportation funding entities in the upcoming 2009 legislative session. The subjects of overlapping jurisdictions and conflict between entities remain a serious concern.

MPOs, Toll Project Entities and TxDOT Districts[158]



[158] Source: Texas Legislative Council

Many jurisdictions overseas avoid the issue of inter-departmental conflict by consolidating the responsibilities for handling toll projects within a single department or public corporation. For instance, in Australia, contracts for toll projects in the cities of Sydney and Melbourne are awarded by the states of New South Wales and Victoria, respectively.[159] Neither metropolitan region contains the equivalent of a regional tolling authority, though one distinction between Australian states and Texas is that very high concentrations of the Australian states' populations live in a single metropolitan area, blurring the division between state and city governments.[160]

In Canada, British Columbia has created a public corporation, Partnerships British Columbia, which is wholly owned by the Province and reports to its only shareholder, the Minister of Finance.

Some of our sister states within the U.S. have multiple entities responsible for toll projects, but these have – at least to date – avoided the jurisdictional conflicts observed in Texas.

In Virginia, state law mandates the selection of a "coordinating responsible public entity" for each project that requires the approval of more than one public entity,[161] and only after such a determination is made can the project proceed. The only Virginia entity similar to a Texas TPE is the Richmond Metropolitan Authority, which operates three Richmond area toll roads (along with parking decks and a baseball stadium). According to a committee witness, VDOT and the RMA have worked well together in a cooperative relationship for the past 30 years.[162]

Florida, like Texas, has a number of regional authorities in addition to FDOT's tolling subsidiary, the Florida Turnpike Enterprise.[163] Each of the regional expressway authorities was created by the Florida legislature and the state's governor appoints some of their board members. To date, Florida has no state law on primacy, but concessions have been introduced without jurisdictional conflicts.[164]

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[159] Partnerships Victoria, set up to manage PPPs in the state, is part of the Commercial Division of the Department of Treasury and Finance.

[160] For example, approximately two-thirds of NSW's population lives in metropolitan Sydney, while nearly 75 percent of Victoria's population lives in the greater Melbourne area.

[161] Virginia Code § 56-566.2. See Virginia Code §56-556 *et seq* (the Public-Private Transportation Act of 1995) authorizes both unsolicited bids by private parties and requests for proposals by responsible public entities.

[162] Barbara Reese, VDOT .

[163] These include the Miami-Dade Expressway Authority, the Tampa-Hillsborough County Expressway Authority, and the Orlando/Orange County Expressway Authority.

[164] Source: Lowell Clary, formerly of FDOT.

Focusing on the fundamental issue of the relationship between the various entities also serves to concentrate attention on the critical issue of highway finance governance, as the level of control is tied to the ability of regional TPEs to manage the process effectively. Are the interests within the region aligned in a manner that will lead to a positive result for the public, regardless of whether the region's toll projects are public or private? Do the regional TPE managers have the skills and expertise to manage road contractors (if the TPE develops its own projects) or to negotiate complex contracts with private parties in the case of concession agreements?

Texas is not alone in confronting this issue. For instance, a recent report on PPPs in Spain concluded that "as PPP activity decentralizes and accelerates at regional and local levels of government, *authorities entering into complex negotiations may be doing so without the tools that are necessary to guarantee that the projects deliver value for money* … [emphasis added]. The risk inherent in this approach is either renegotiation at higher prices in the future, lower quality services or the [non]viability of projects over the medium and longer term."[165]

Finally, the issue of management raises two other primacy-related concerns: 1) will potential conflicts between entities lead to higher costs and delays inherent in a piecemeal versus a system approach; and 2) could a local entity get in over its head and leave the state's taxpayers to pick up the pieces after the unraveling of poor financial decisions?

The issue of system finance, like the subject of buybacks, is inextricably linked to decisions regarding cross-subsidization and the ability of a region to utilize the few highly profitable roads available to it to fund additional transportation infrastructure. Taking SH121 as an example, the NTTA argued that allowing a private concessionaire to take what is likely to be one of the highest revenue generating roads in the DFW Metroplex out of the system would lessen NTTA's own ability to sell bonds for other planned roads with more uncertain traffic and revenue forecasts (though the private party argued that its up-front concession payment would allow TxDOT and the benefiting region to build many of those roads if it so chose).

At what point are the benefits of a true competition for the rights to develop highly profitable roads likely to be negated by the inefficiencies of an individual project approach, rather than a system finance approach?

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[165] Allard, G., Trabant, A., "Public-Private Partnerships In Spain: Lessons And Opportunities," *International Business & Economics Research Journal*, Vol. 2, No. 7, February 2008.

And, if a system approach proves to be the most beneficial, on balance, should the state seek to restrict "excessive" local primacy – such as the reported efforts by Collin County to set up a Collin County Toll Road Authority, given this new authority would exist entirely within the existing boundaries of the well established NTTA?

Finally, beyond the technical and transactional skills required of any successful entity involved in project management, the local TPE must also have the financial wherewithal to complete the tasks it has assigned itself, and with a reasonable margin of safety for untoward events, whether in the construction process or the financial markets.

Without careful attention, it is conceivable that an emphasis on local primacy could have the detrimental effect of either leaving certain projects un-done, or in a worst case, exposing the entire state's taxpayers to a regional Toll Project Entity's financial choices that turn out, in hindsight, to have been ill-advised.

The recent agreement by TxDOT to backstop the SH161 project sets a somewhat troubling precedent. Though the transaction is intended as a one-off proactive solution to get a specific project moving in the face of a global economic crisis and market illiquidity, we are concerned that it could be the first step on a slippery slope of others seeking the same Fund 6 guarantees for local projects – a situation all the more ironic because Texas is considering additional toll road financing precisely because Fund 6 is running short of cash.

The SH161 backstop will require TxDOT to make up only the shortfalls between actual and expected toll revenues. If for instance, forecast revenues are $60 million while actual revenues are $50 million, Fund 6 will only pay $10 million for that particular year. The agreement also specifies that "it is TxDOT's objective that it be relieved of its toll equity loan payment obligations as soon as possible."[166]

However, we also noted in previous sections that many toll roads fall well short of their traffic and revenue projections, and observe that the current financial crisis is replete with examples of guarantors suddenly being called upon to repay obligations for which their sophisticated financial models projected an almost infinitesimal probability of default.

[166] Source: *Final Term Sheet for TxDOT Toll Equity Loan for SH161 Project, NTTA Project Delivery and Disposition of Southwest Parkway and Chisholm Trail*, TxDOT Final 10/14/08.

Several of the personnel involved in the drafting of this report recently attended a transportation conference where one of the presenting bankers enthusiastically described the SH161 transaction and urged the attendees to obtain a similar deal for their own projects.

Finally, local primacy raises the question of whether an overextended and financially unstable local TPE would ever be allowed to truly default in the manner of a private concessionaire. As we have witnessed with the travails of Fannie Mae and other government sponsored entities, implicit governmental guarantees have a way of becoming explicit and creating significant moral hazard.

6.4. Market Valuation Process would be better served using the Public Sector Comparator

In the economist's ideal world – one with a large number of informed competitors bidding in a free and open process – the question of proper market valuation of a project would resolve itself. Unfortunately, however, the world is not always ideal, and thus the state needs some mechanism to ensure that the public receives the best value for any given project.

The market valuation process mandated by SB792 sets forth a number of parameters for defining the "market valuation" of a toll project. These consist of:

- Terms and conditions to be mutually agreed upon by TxDOT and the relevant TPE, which must include:
    - Initial toll rate and toll escalation methodology; and
- a valuation, which must take into account:
    - A traffic and revenue study using agreed upon assumptions
    - An agreed project scope
    - Market research
    - Estimated financing, construction, maintenance and operations costs
    - "Other information deemed appropriate by the TPE and [TxDOT]"

(Note that under the provisions of SB792, if TxDOT and the TPE are unable to mutually agree upon a market valuation, neither TxDOT nor the TPE may develop the project as a toll project, which would be an unfortunate outcome given the growing shortfall in conventional highway funding sources.)[167]

The current market valuation process has come under heavy criticism. Participants in market valuation negotiations over the past year have identified a number of deficiencies, namely:

- The parties approach the negotiations with widely different assumptions regarding the proper levels of maintenance and other service quality issues. Apples are not being compared to apples.
- The process is time-consuming and costly (with millions being spent on consultants), devouring resources that could be better spent elsewhere;
- The process pits two agencies (TxDOT and the TPEs) in an adversarial position, whereas ideally, they would work together as partners;
- The process is useless for the vast majority of the 87 TxDOT identified toll-viable projects, since most of these will not generate sufficient toll revenues to pay for their total

[167] SB792 carves out exceptions to the general market valuation process for projects either underway or in the advanced planning stages, mostly in the Houston area.

costs.[168]

In addressing these criticisms, it is important not only to examine the existing market valuation process, but also to understand why such a process is desirable from a public policy perspective. We must also consider whether alternative approaches would better protect the public's interest while simultaneously furthering the state's transportation goals.

The language of SB792 points to the maximization of cash flow to a particular region's *other transportation projects* as the focus of the market valuation process. SB792 mandates that upon exercising its option to develop a toll project (within two years after legal and environmental requirements are fulfilled), a TPE must enter into a contract for the construction of the toll project, and either:

- Commit to make a payment equal to the value of the toll project (as determined by the market valuation); or
- Commit to construct additional transportation projects in the region whose estimated construction costs equal the market valuation of the toll project.

Similarly, if TxDOT exercises its option to develop the project as a toll project, TxDOT must commit to spending the market value of the project in that particular region, either by making a payment into a regional sub-account or by constructing projects of equivalent value.[169]

Most overseas jurisdictions look at project valuation from a different perspective. The most common approach is known as the Public Sector Comparator (PSC), pioneered in the U.K. and now utilized across Europe, Australia and Canada. The PSC offers a simple test: does the private investment proposal offer better value for money in comparison with the most efficient form of public procurement?[170]

This distinction is not mere semantic hair-splitting, but rather reflects fundamentally different policy objectives. Rather than move to extract the maximum amount of up-front cash from project bidders, the PSC sets a threshold level of value required for private participants to meet or exceed.

Sophisticated PSCs strive to achieve true apples-to-apples comparisons, recognizing the difference between public and private entities. The Australian state of Victoria, for instance, mandates the consideration of at least four factors when developing a PSC, with the base costing

[168] Costs include construction, finance, O&M, etc. See minutes of the Texas Transportation Commission, 29 May 2008; comments of Ted Houghton, Jr.
[169] See SB792; Sec. 228.0111 (g), (i).
[170] See Partnerships Victoria: *Public Sector Comparator*, p. 1.

of the project itself as developed by the public sector as only the first step.[171]

For stand-alone economic infrastructure, such as roads, the PSC will also adhere to the principle of competitive neutrality (i.e., make adjustments to remove public competitive advantages such as property tax exemptions and lower regulatory burdens),[172] utilize the private sector's cost of capital,[173] adjust for a commercial capital structure,[174] and adjust for credit rating differentials between the specific project and the state's higher (one hopes) credit rating.[175]

The PSC, however, is not simply a quantitative algorithm. It is one step (though a key one) in the process of determining a private proposal's overall Value For Money (VFM). Factors not purely quantitative, such as timeliness and safety, are also significant in assessing VFM.[176] Wider social benefits, including the earlier or more flexible provision of important infrastructure than would be possible under a public procurement, are also important considerations in the PSC/VFM process,[177] as is the value of the risk transfer itself.

Where a PPP adds more value than an outright public procurement will vary according to the nature of the particular project, as well as the specific circumstances in which a public entity finds itself at a given moment in time. For instance, the threshold for private value will be higher if the public entity has a pristine balance sheet and demonstrated ability to oversee the construction and operation of a project. The threshold will be lower – making it easier for a PPP to add value over its public comparator – if the public entity is heavily indebted, has spread itself too thin, or is less able to manage the project in an effective manner (this latter point is especially true when considering new, inexperienced RMAs planning greenfield toll roads – the riskiness of which was discussed in earlier segments of this report).

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[171] Partnerships Victoria: *Public Sector Comparator*.
[172] Partnerships Victoria: *Public Sector Comparator*, p. 7.
[173] Partnerships BC (British Columbia), *Project Report: Achieving Value for Money – Sea to Sky Improvement Project* (December 20, 2005), p. 20.
[174] A commercial capital structure is the level of debt and equity that optimizes the value of the project while maintaining an investment grade credit rating for the project's debt, including constraints such as minimum debt service coverage ratios and appropriate reserves for debt service. See *Working with Government: Guidelines for Privately Financed Projects* (December 2006), p. 55-56, published by the state of New South Wales (Sydney, Australia).
[175] Ibid.
[176] The Sea-to-Sky project from Vancouver to Whistler in British Columbia is one example where the PPP for the project cost slightly more than the reference PSC, but where the PPP provided better overall value via the PPP's agreement to provide additional highway improvements beyond the PSC baseline. See *Project Report: Achieving Value for Money – Sea to Sky Improvement Project* (December 20, 2005).
[177] New South Wales, *Working with Government: Guidelines for Privately Financed Projects*, p. 54

Some American states utilize a PSC-like process,[178] but our investigation found none that do so in the same manner as practiced overseas. As a recent Government Accountability Office report noted, "governments in other countries, including Australia and the United Kingdom, have developed *systematic approaches* [emphasis added] to identifying and evaluating public interest before agreements are entered into, including the use of public interest criteria, as well as assessment tools, and require their use when considering private investments in public infrastructure."[179]

This last point is critical and intersects with other governance related issues noted in this report. The physical steps and calculations required to conduct a PSC are well understood and do not vary in any meaningful way across the developed world. Texas could adopt, without significant change, the PSC methodology used in New South Wales, Victoria or British Columbia. However, the questions of who conducts the PSC and how to resolve jurisdictional conflicts between the various entities involved in Texas toll road finance present a more difficult challenge.

Finally, proposed changes in federal regulations will impact the Texas market valuation process. Current federal law requires that a state receive fair market value for sale, lease, use, etc. of real property acquired with federal assistance.[180] Regulations list certain exceptions this general rule,[181] and the FHWA has expressed concern that one of these exemptions could be construed to exclude toll project concession agreements from the fair market value rules.[182]

The proposed changes to federal regulations serve three primary purposes:

- To clarify that concession agreements fall within the existing fair market value rules.

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[178] Virginia has adopted a PSC-like approach in the Quality Control phase of its proposal mechanism. Specifically, VDOT's quality control evaluation "will consist of, but not be limited to, the following criteria: Does the proposal:

- Address the needs identified in the appropriate local, regional or state transportation plan;
- Identify that public needs may not be wholly satisfied with existing methods of public procurement;
- *Result in the availability of the facility to the public on a more timely, more efficient or less costly fashion* (italics added);
- Provide for cost and/or risk sharing with private entities.

Under the current approach, the Virginia quality control procedures form Phase 1 (of six) of the Proposal Submission and Review process. Phase 1, however, must take place within 30 days, a time frame shorter than a full-blown Public Sector Comparator analysis. Source: VDOT, The Commonwealth of Virginia Public-Private Transportation Act of 1995 (as Amended) *Implementation Guidelines* (Revised October 31, 2005).

[179] GAO, *Highway Public-Private Partnerships: More Rigorous Up-front Analysis Could Better Secure Potential Benefits and Protect the Public Interest*, GAO-08-44, February 2008.

[180] 23 USC § 156.

[181] 23 CFR 710.403(d)(5)

[182] *Federal Register*, Vol. 73, No. 196, October 8, 2008, *Proposed Rules*, pp. 58908-58912.

- To allow a public agency to bid in competition with private contractors (though only in the context of a concession agreement)
- To permit contracting agencies to incorporate unsuccessful bidders' ideas into a contract upon payment of a stipend

Regarding market valuation, the proposed rules require that a highway agency – defined as a state DOT or a public authority with jurisdiction over a federally funded highway – receive "fair market value" for any concession agreement, which is defined as either "best value" or the highest bid received pursuant to a competitive process.

The proposed federal regulations state explicitly that "any concession agreement awarded pursuant to a competitive process shall be presumed to be fair market value."[183]

For concession agreements awarded on a "best value" basis, the regulations state that the concession offering "best value" is "the proposal offering the most overall public benefits as determined by the amount of concession payment and other appropriate considerations." These other considerations consist of:

- The qualifications and experience of the concessionaire;
- The quality of the services to be provided;
- The track record of the concessionaire;
- The time lines for delivery of services;
- Performance standards;
- The complexity of services to be rendered; and
- Revenue sharing[184]

The proposed rules make explicit the policy choice to encourage competition between public and private toll project entities.[185] At the same time, they also raise some troubling questions – such as whether federal policy could be construed to mandate the extraction of the maximum up-front payment from private concessionaires, or whether federal policy will require the users of the minority of profitable roads to provide the maximum subsidy to other highway

[183] Proposed 23 CFR 710.709(c). Under these regulations, a competitive process must be "on the market for a reasonable period of time" as well as "an arms-length transaction," but the proposed rules do not elaborate further on the precise meaning of these terms.
[184] Proposed 23 CFR 710.703(a). Note that the burden of proof is on the highway agency to demonstrate to the FHWA that the process used resulted in fair market value being received. 23 CFR 701.703(d).
[185] The SH 121 project is mentioned in the context that the state would have benefited from a direct competition between NTTA and a private developer – something that then-existing regulations did not allow. Source: Background to Proposed 23 CFR 710, *et seq*.

projects.

The background indicates that the proposed rules are intended to expand local options regarding toll project concessions – that the regulations will "provide States an opportunity to expand the range of potential bidders for concession agreements." Nevertheless, "the States will retain an option to award these agreements exclusively to public agencies in accordance with their own policy objectives, provided the States can demonstrate to the FHWA that fair market value for the concession has been obtained."[186]

It is unclear, however, whether a local Toll Project Entity, following the principles set forth by these federal regulations, would be able to maintain its current policy of keeping toll rates low to enhance mobility. The comment period for these proposed regulations ends on November 21, 2008 and their final form may not be known for several months.

[186] *Federal Register*, Vol. 73, No. 196, October 8, 2008, *Proposed Rules*, p. 58910.

7.0 – ADDITIONAL VALUATION ISSUES – PUBLIC SECTOR AND PPP TOLL PROJECTS

The present value of net cash flows associated with a proposed tollway is often a major criterion in the choice between competing development proposals. The appeal of choosing a structure with the "most value" for tax payers remains a primary objective. Unfortunately, there is no general agreement in what constitutes "most value."

Many commentators believe that those tollways financed through traditional public financing are always cheaper and of more value than those financed with private equity. Others argue that a present value comparison gives an informed choice, and that fostering competitive bidding produces the greatest value for the public.

7.1. Valuation for Public Agency Financing is not Necessarily Analogous to that for the Private Sector

Valuation of a tollway project is easy in concept. A project's value is equal to the net present value of the cash flows of that project. For a toll road, these cash flows consist primarily of a large up-front capital expenditure for the road's initial construction, followed by incremental cash inflows over time as traffic builds and toll revenues increase (less expenses for ongoing operations and maintenance). The rate at which expected future cash flows are discounted is determined by the risk-adjusted cost of funds.

Interest cost is easily understood. The concept of cost of equity is also widely understood – equity, if used, requires a higher rate of return because it carries the residual risk. So, discounting at a properly estimated cost of mixed debt and equity funds makes sense. Basically, a determination is made as to whether or not a net positive present value is created when future net cash flows are discounted at the estimated cost of funds.

As to the choice between a situation where a tollway is financed solely with public debt and one where the tollway is financed through a public-private partnership, no definitive and clear choice of better value can be made "a priori" between all public debt or PPP methods of financing. We often hear that private projects cannot compete with their public equivalent because the public sector's cost of capital will always be lower than the private sector's. This is not necessarily the case. The value of a tollway carrying 100% public financing does not always exceed the value of a tollway governed by a public – private partnership.

Consider the risk to bonds for a tollway financed 100% by a public agency. The risk of agency default is likely to not be the only consideration. Rather, explicit or implicit bond guarantees and paths for coverage become significant. In a corporate situation, equity serves as a cushion for debt. Equity holders lose before bond holders do. In the government agency and all-debt situation, the risk is reduced for the issuer itself but borne somewhere. Operational risk of a project is the same regardless of how it is financed. How is this reconciled?

A. First, through the taxing power of the state because entities and agencies have no inherent taxing power. State rates for borrowing should logically rise as increased numbers of toll projects are taken on by state agencies and state-created regional organizations. It is unlikely the nominal project rate for borrowing reflects this spread of risk.

B. Second, through guarantees and securitizations. The same considerations hold as those discussed for project borrowing rates and spread of risk.

C. Third, it is possible to conceive of asset mortgages. However, this is unlikely to be the case in that roadways themselves are not used as collateral. The state or its agency retains ultimate ownership. In fact, this points up the central issue: risk with a PPP is handled differently than risk with 100% public agency borrowing.

D. Fourth, by means of a system carrying the risk. Are NTTA, HCTRA and the like on the line? If so, then the marginal debt rate chosen for analysis should reflect the increased risk and increased debt cost now shared across many projects. All debt costs for a system may rise if there is cross-collateralization. The debt cost for one project is no longer sufficient for analysis.

For the above reasons and stated another way, a PPP appears to be able to carry more risk on the debt it issues than a public agency can for the same debt interest rate. This is because in the all-debt financed situation, the availability of debt is limited. There is no way the enlarged budget of an agency seeking to fund all projects at hand by debt, down to the marginal cost of debt exceeds the expected return rate of the tollway, would be funded.

Beyond some point, the debt markets would deny availability. In a PPP, however, there are two offsetting effects reducing debt risk. As more projects are added, the equity carries most of the increased risk and second, more equity is often demanded by lenders and subsequently added. The private sector's ability to utilize leverage may allow it to construct marginal projects that the public sector cannot; or to construct them faster. In a well structured transaction, the private sector will have a sufficient equity stake in the project to motivate performance; an element that does not factor in a public sector procurement.

7.2. Other Issues Surrounding the Economic Valuation of a Public Sector Tollway

Governments and their subdivisions are very careful in making tollway commitments. Public agencies are very selective in projects they will finance. As explained above, public agencies ration their investments to ensure success of the investment. They ensure that the tollway revenues will comfortably exceed debt service in any foreseeable scenario.

The actual economic value for a debt-financed tollway is very likely to be lower than that calculated with the coupon rate of debt used as the discount rate. A second logical consequence is that any front-end or periodic concession payment must not be too large. Calculated economic value which is not paid out is viewed by the holders of the debt to be a safety net supporting the debt service due them. It acts like equity in the case of PPP's.

No one should confuse project competition with higher front end or periodic concession payments. The latter are easy to inflate but doing so takes safety margins away from the concessionaire's financial structure.

8.0 – OTHER ISSUES

8.1 Special Considerations Regarding Brownfield Toll Projects

Brownfield projects are existing assets with well established operating histories and cash flows. As we mentioned in the introductory chapter, a consensus has emerged against the sale or lease of an existing Texas highway. However, other states either have gone ahead with brownfield projects or are actively considering doing so. As such, the topic remains relevant to this Committee's charter.[187]

While critics have raised a number of arguments against brownfield projects, these boil down to the following points:

- To a far greater degree than with greenfield projects, the lease of a brownfield project is subject to the inevitable temptation for local officials to grab a large, headline-generating up-front payment at the expense of the taxpayers' interests in the project's later years.
- Often, entities leasing transportation infrastructure do so to raise money for non-transportation related spending or to fill other budgetary shortfalls. Thus, motorists' tolls serve more as a general tax than as a means of improving mobility.
- The primary users of privatized brownfield roads are often not residents, nor voters of, the entity leasing the asset. The transportation system, as a whole, could suffer as more jurisdictions adopt a "soak the out-of-towner" mentality.

To date, there are two operating examples of brownfield toll roads in the United States: the Chicago Skyway and the Indiana Toll Road (though New Jersey and Pennsylvania have recently considered similar moves). Both projects suffered from the above flaws.

In 2004, the City of Chicago leased the Chicago Skyway – a 7.8 mile highway linking the Indiana Toll Road to the Dan Ryan Expressway (I-57) – to a partnership between Cintra and the Macquarie Infrastructure Group for 99 years in return for an upfront payment of $1.83 billion.[188]

The city utilized these proceeds to pay off outstanding debt (both the $430 million in Skyway bonds as well as other city debt), and to invest $500 million in a long term reserve fund to be used only in a dire financial emergency. Of the remainder, approximately $375 million

[187] To clarify further, some projects are hybrid, or "rehabilitated brownfield" projects. These are operating projects that are in need of immediate and critical capital improvements, and as such, are more risky than the typical brownfield project, yet less risky than a greenfield start-up project.

[188] See Buxbaum, Jeffrey and Ortiz, Iris, "Protecting the Public Interest: The Role of Long Term Concession Agreements for Providing Transportation Infrastructure," *USC Keston Institute for Public Finance and Infrastructure Policy*, Research Paper 07-02; June 2007.

went into an annuity, whose funds are being expended annually to help cover city operating costs (this will be depleted after 2011), and $100 million was set aside for human services and neighborhood and business investment programs – ranging from the city's program to end homelessness to an ex-offender job training initiative (this money will run out after 2009).[189]

Aside from the diversion of proceeds away from transportation purposes, the Chicago Skyway deal has also been criticized for the fact that the increased tolls required to support the $1.83 billion up-front payment will primarily come out of the pockets of commuters entering Chicago from Indiana. Thus, the seller of the asset gains the benefits, while none of the constituents of the seller bear the costs.[190]

The 2006 lease of the Indiana Toll Road was a similar monetization of an existing asset – in this case a 157 mile highway stretching across the northernmost part of the state from Ohio to the Illinois border. IDOT leased the road for 75 years to a Cintra/Macquarie consortium in return for an upfront payment of $3.85 billion.

While the Indiana upfront payment was intended to fund a ten-year transportation capital improvement program (and is thus more justifiable from a transportation policy perspective than the Chicago Skyway deal), critics have noted that the Indiana Toll Road's primary users are long-haul truckers – who are not Indiana voters – traveling across the state. Trucking industry personnel are concerned that a proliferation of similar transactions (requiring a corresponding increase in tolls) could threaten their livelihoods.[191]

Given the population distribution within Texas and the extensive travel between the state's major cities, Texas is unlikely to be as subject to efforts to shift the burden of highway finance to residents of other states. Nevertheless, state policy makers should remain vigilant that money raised for transportation remains in the transportation system, and that the state does not succumb to the temptation to shift costs to later generations in an effort to relieve a budget shortfall today.

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[189] Source: Washburn, Gary, "Daley's Way, Not Skyway," *Chicago Tribune*, 25 October 2007.
[190] See Enright, Dennis, "The Chicago Skyway Sale: An Analytical Review," *NW Financial Group, LLC*, 1 May 2006.
[191] Enright, Dennis, "Then There Were Two: Indiana Toll Road vs. Chicago Skyway," *NW Financial Group, LLC*, 1 November 2006.

CONCLUSIONS & RECOMMENDATIONS

- Public-Private Partnerships are a significant tool to help address the state's large and growing highway funding gaps. It is extremely important to keep the PPP option open to both TxDOT and local toll agencies alike.

The simple fact is that due to our growing infrastructure funding requirements, Texas cannot afford to be without every funding option going forward. Texas should not seek to limit any particular financing method, but instead should retain the maximum flexibility possible – preserving the option to use the best matched and most cost effective method.

The recent chaotic financial environment makes maintaining such flexibility even more important, given the uncertainty and the limitations of traditional financing options. Numerous well established infrastructure investment funds and engineering providers will able to bring both financial strength and a solid track record for quality construction and performance, providing qualified expertise and an important source of additional capital for Texas highways.

- Texas can draw on the wealth of experience gained by other jurisdictions, and should create a centralized entity (examples such as Partnerships Victoria or Partnerships BC) to provide technical and process expertise to TxDOT, MPOs and RMAs/Toll Authorities.

Though private capital offers important advantages, the public sector needs to ensure that when partnering with private enterprises, it has strong oversight and contractual controls that clearly spell out performance requirements, incentives and penalties, as well as defining significant parameters – such as allowable toll rate increases and the target rate of return on the private sector's investment.

To achieve this objective, Texas should establish a foundational independent structure and resource for managing PPPs. This will not only protect the public interest, but will also serve as a repository of knowledge, experience and best practices that RMAs or local toll authorities can draw upon to better manage their own projects.

- Texas should replace the current Market Valuation process of SB792 with the Public Sector Comparator model and process – with the focus on establishing the threshold level of value for private participants to meet or exceed.

Unlike the current Market Valuation process – the focus of which has been on generating the maximum up-front payment to apply to a region's other transportation projects, the Public Sector Comparator (PSC) model offers a simple test: does the private investment proposal offer better value for money in comparison to the most efficient form of public procurement? In addition, the PSC model seeks to normalize, to the extent possible, some of the inherent differences between public and private procurement.

The mechanics and process of conducting a PSC analysis are well established in other jurisdictions and do not vary in any meaningful way across the developed world. Texas can thus draw upon a wealth of experience gained by others to set up a PSC model here.

- Revenue sharing is the best way to limit a private company's potential windfall profits, and should replace upfront concession payments.

The focus on upfront concession payments distorts the various parties' incentives and can not only cause public sector attention to be focused excessively on the short term, but also increase the overall risk of a project's failure by burdening the project with additional debt not related to the construction of the highway itself.

The better approach – and a conclusion drawn by other jurisdictions with longer experience managing PPPs – is to implement revenue sharing provisions over the life of the contract to align incentives, ensuring the long-term performance and success of the project.

Supplement: Texas Toll Road Timeline

- 1953
  - Legislature creates Texas Turnpike Authority (TTA)
- 1954
  - Voters approve constitutional amendment prohibiting use of state money or credit to build or maintain toll roads (toll roads could be financed only with the revenue generated by the road itself).
- 1957
  - Dallas-Fort Worth Turnpike opens (debt retired 17 years early in 1977 and tolls removed)
- 1966
  - TTA begins Dallas North Tollway
- 1983
  - Legislature authorized creation of Harris County Toll Road Authority (HCTRA)
- 1987
  - Voters reject a constitutional amendment that would have 1) permitted joint projects by the TTA and TxDOT; 2) allowed the state to contribute money from any source for such projects; and 3) allowed certain counties and cities to use revenue from a specific property tax to subsidize toll roads.
- 1991
  - Voters approve constitutional amendment allowing TxDOT to contribute state money for toll projects as long as any Fund 6 money used for this purpose was repaid with toll revenue.
- 1997
  - North Texas Tollway Authority (NTTA) created
- 2001
  - *Proposition 15*: Texas Mobility Fund (TMF) created (no hard cap; $ limits based on revenue sources – namely traffic violation, driver license and inspection fees).
  - "Toll equity" concept – TxDOT now authorized to spend money from any source on *public* toll projects without reimbursement.
    - Surplus funds deposited back into Fund 6 to be spent on other toll projects or facilities.
  - RMAs created; TxDOT authorized to transfer any highway to RMAs for maintenance and operation as toll roads. RMAs may spend toll revenue from these conversions on any roadway within their jurisdiction.
- 2003
  - RMAs powers expanded; along with HCTRA and NTTA, RMAs may now condemn property via eminent domain and issue revenue bonds

- *Proposition 14* – allowing borrowing by the Texas Transportation Commission (sold to the public as a cash-management tool)
    - Prop 14 authorized the issuance of Fund 6 backed bonds (separate from the Texas Mobility Fund, which is backed by specific fees). Legislature initially authorized $1B in Fund 6 bonds annually (up to a total of $3B)
        - Note: in 2007, SB792 doubled the aggregate limit to $6B and authorized $1.5B annually.
- TxDOT authorized to use pass-through financing and shadow tolls (payments made incrementally to either public or private entities).
- HB3588 (Krusee) authorized the Trans Texas Corridor (TTC).

- 2005
    - CDAs authorized
    - *Proposition 9 defeated* (63.4%-46.6%) – would have provided for staggered 6 year terms for RMA board members, with no more than 1/3 being appointed every two years.
        - Article XVI, Section 30(a) of the Texas state constitution states, "The duration of all offices not fixed by this Constitution shall never exceed two years." Opposition to the amendment was driven by the perception that it would make the RMA boards less accountable.
- 2007
    - Prop 14 (from 2003) Bonds aggregate limit doubled to $6B; annual issuance increased from $1B to $1.5B.
    - *Proposition 12* Bonds approved.
        - Authorizes up to $5B in General Obligation bonds for highway construction.
        - Enabling legislation (failed to pass) that would have let the proceeds of these bonds be used for loans to local authorities to pay for development of new toll road projects.
    - SB 792 Moratorium and the LSC

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Note: links to many of the documents submitted to the Committee – as well as audio/video links – may be found on the following web page: http://www.senate.state.tx.us/75r/senate/commit/c820/c820.htm.

February 5, 2008 (Austin)

Testified On:

- Ted Houghton- Commissioner, Texas Transportation Commission
- Phil Russell- Asst. Executive Director for Innovative Project Development, Texas Department of Transportation
- Amadeo Saenz- Executive Director, Texas Department of Transportation

Provided Written Testimony:

- Texas Department of Transportation
  - http://www.senate.state.tx.us/75r/senate/commit/c820/020508-TxDOT-CDA-Testimony.pdf

April 29, 2008 (Houston)

Testified Against:

- Tore Fossum
- Terri Hall- Founder/Director, Texans Uniting For Reform & Freedom
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/042908/Terri_Hall-TURF.pdf
- David Stall- Co-Founder, CorridorWatch.org
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/042908/David_Stall-CorridorWatch.pdf

Testified On:

- Jeff Austin, III- Chairman, North East Texas Regional Mobility Authority
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/042908/Jeff_Austin-NET_RMA_(1of3).pdf
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- Brian Cassidy- Partner, Locke Lord Bissell & Lidell LLP (various Regional Mobility Authorities)
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  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/042908/Alan_Clark-HGAC.pdf

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  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/042908/Lowell_Clary-Florida_(1of3).pdf
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- James Patterson- County Commissioner, Farmers Branch County and Transportation Policy Council

- Barbara Reese- Deputy Secretary of Transportation, Commonwealth of Virginia
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- Arthur Storey- Executive Director, Harris County and Harris County Toll Road Authority

- Gary Trietsch- Houston District Engineer, Texas Department of Transportation
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/042908/Gary_Trietsch-TxDOT.pdf

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July 22, 2008 (San Antonio)

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- Betty Ann Matthies- Mayor, City of Seguin

- Richard Perez- President/CEO, Greater San Antonio Chamber of Commerce

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Testified On:
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- Terry Brechtel- Executive Director, Alamo Regional Mobility Authority

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  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/072208/Julia_M_Brown.pdf

- Judy Chambers- Managing Director, Pension Consulting Alliance, Inc.
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/072208/Judy_Chambers_Pension_Consulting_Alliance_Inc.ppt

- Arthur Chan- Senior Advisor, Manatt, Phelps & Phillips, LLP
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- David Ellis- Associate Research Scientist, Texas Transportation Institute
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/072208/David_Ellis.pdf

- Professor William L. Fisher
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/072208/William_Fisher.pdf

- Tore Fossum
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/072208/Tore_Fossum.pdf

- Railroad Commissioner Elizabeth Ames Jones- Railroad Commission of Texas

- Eric Lang- Acting Managing Director, Teacher Retirement System of Texas
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/072208/Eric_Lang.pdf

- Jose Lopez- CEO, Cintra
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/072208/Jose_Lopez.pdf

- Jennifer Mayer- Innovative Finance Specialist, Federal Highway Administration
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/072208/Jennifer_Mayer.pdf

- Phil Russell- Asst. Executive Director for Innovative Project Development, Texas Department of Transportation
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/072208/Phil_Russell.pdf

- William E. Thornton- Chairman, Alamo Regional Mobility Authority
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/072208/William_E_Thornton.pdf

- David Zachry- President and CEO, Zachry American Infrastructure

Only Provided Written Testimony:

- Alamo Regional Mobility Authority
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/072208/Alamo_RMA_1_of_3.pdf
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/072208/Alamo_RMA_2_of_3.pdf
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/072208/Alamo_RMA_3_of_3.pdf

- Mary Sanger
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/072208/Mary_Sanger_1_of_3.pdf
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/072208/Mary_Sanger_2_of_3.pdf
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/072208/Mary_Sanger_3_of_3.pdf

- Sheila D. McNeil
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/072208/Sheila_D_McNeil.pdf

August 12, 2008 (Irving)

Testified For:

- Kathy Ingle- LBJ Corridor Champion
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/081208/Kathy_Ingle.pdf

Testified Against:

- Terri Hall- Founder, Texans Uniting For Reform & Freedom

- Katy Hamilton
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/081208/Katy_Hamilton.pdf

- Lee Hamilton
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/081208/Lee_Hamilton.pdf

Testified On:

- Jorge Figueredo, Ph.D.- Executive Director, North Texas Tollway Authority
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/081208/Jorge_Figueredo_NTTA.pdf

- Rob Franke- Mayor, City of Cedar Hill

- William Hale- District Engineer, Texas Department of Transportation - Dallas
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/081208/William_Hale_TxDOT_1_of_2.pdf
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/081208/William_Hale_TxDOT_2_of_2.pdf

- Donna Halstead- President, Dallas Citizens Council

- Mary Horn, Denton County Judge, Dallas Regional Mobility Coalition
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/081208/Mary_Horn_Denton_County_1_of_2.pdf
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/081208/Mary_Horn_Denton_County_2_of_2.pdf

- Leslie Jutzi- Group Director of Government Affairs and Community Relations, I-35 Advisory Committee/The Allen Group
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/081208/Leslie_Jutzi_IH35_Advisory_Committee.pdf

- Bill Meadows- Commissioner, Texas Transportation Commission

- Michael Morris- Director of Transportation, North Central Texas Council of Governments
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/081208/Michael_Morris_NCTCOG_1_of_3.pdf
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/081208/Michael_Morris_NCTCOG_2_of_3.pdf
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/081208/Michael_Morris_NCTCOG_3_of_3.pdf

- Phil Russell- Asst. Executive Director for Innovative Project Development, Texas Department of Transportation

- Amadeo Saenz- Executive Director, Texas Department of Transportation

- Ken Shetter- Chair, Tarrant Regional Transportation Coalition; Mayor, City of Burleson
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/081208/Mayor_Ken_Shetter.pdf

- Vic Suhm- Executive Director, Tarrant Regional Transportation Coalition
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/081208/Vic_Suhm_Tarrant_Regional_Transportation_Coalition.pdf

- Oscar Trevino- Mayor, City of North Richland Hills; Past Chair, Regional Transportation Commission

- Paul N. Wageman- Chairman, North Texas Tollway Authority
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/081208/Paul_Wageman_NTTA.pdf

Only Provided Written Testimony:

- Bob Poole
  - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/081208/Bob_Poole_1_of_2.pdf

    - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/081208/Bob_Poole_2_of_2.pdf

- Dennis J. Enright
    - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/081208/Dennis_Enright.pdf

- Frank Sturzl- Texas Municipal League
    - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/081208/Frank_Sturzl_Texas_Municipal_League.pdf

- JayEtta Z. Hecker- US Government Accountability Office
    - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/081208/JayEtta_Z_Hecker_GAO_Toll_Testimony.pdf

- Maribel Chavez- Texas Department of Transportation
    - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/081208/Maribel_Chavez_TxDOT.pdf

- North Central Texas Council of Governments Executive Summary
    - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/081208/NCTCOG_Executive_Summary_1_of_3.pdf
    - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/081208/NCTCOG_Executive_Summary_2_of_3.pdf
    - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/081208/NCTCOG_Executive_Summary_3_of_3.pdf

- Senator Robert Nichols
    - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/081208/Senator_Robert_Nichols_Primacy.pdf

- Tarrant Regional Transportation Coalition Testimony
    - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/081208/Tarrant_Regional_Transportation_Coalition.pdf

- US Department of Transportation Report
    - http://www.senate.state.tx.us/75r/senate/commit/c820/handouts08/081208/USDOT_PPP.pdf