



INTERIM REPORT

TO THE 88TH TEXAS LEGISLATURE

HOUSE COMMITTEE ON TRANSPORTATION
NOVEMBER 2022

**HOUSE COMMITTEE ON TRANSPORTATION
TEXAS HOUSE OF REPRESENTATIVES
INTERIM REPORT 2022**

**A REPORT TO THE
HOUSE OF REPRESENTATIVES
88TH TEXAS LEGISLATURE**

**TERRY CANALES
CHAIRMAN**

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Committee On
Transportation

November 14, 2022

Terry Canales
Chairman

P.O. Box 2910
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The Honorable Dade Phelan
Speaker, Texas House of Representatives
Members of the Texas House of Representatives
Texas State Capitol, Rm. 2W.13
Austin, Texas 78701

Dear Mr. Speaker and Fellow Members:

The Committee on Transportation of the Eighty-seventh Legislature hereby submits its interim report including recommendations and drafted legislation for consideration by the Eighty-eighth Legislature.

Respectfully submitted,

Terry Canales, Chair

Ed Thompson,
Vice-Chair

Trent Ashby

John H. Bucy III

Yvonne Davis

Cody Harris

Brooks Landgraf

J.M. Lozano

Armando "Mando" Martinez

Evelina "Lina" Ortega

Mary Ann Perez

Glenn Rogers

John T. Smithee

Ed Thompson
Vice-Chair

Members: Trent Ashby, John H. Bucy III, Yvonne Davis, Cody Harris, Brooks Landgraf, J.M. Lozano,
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TABLE OF CONTENTS

INTRODUCTION	1
INTERIM CHARGES	2
TRANSPORTATION SAFETY.....	4
INTERIM CHARGE 1: MONITOR LEGISLATION	5
SUMMARY OF COMMITTEE ACTION.....	5
BACKGROUND FOR HOUSE BILL 2219	5
FINDINGS FOR HOUSE BILL 2219.....	8
BACKGROUND FOR HOUSE BILL 3514	9
FINDINGS FOR HOUSE BILL 3514.....	9
BACKGROUND FOR HOUSE BILL 3927	10
FINDINGS FOR HOUSE BILL 3927	13
RECOMMENDATIONS.....	13
INTERIM CHARGE 2: ECONOMIC IMPACTS OF TEXAS-MEXICO BORDER MIGRATION.....	14
SUMMARY OF COMMITTEE ACTION.....	14
BACKGROUND	14
FINDINGS.....	21
RECOMMENDATIONS.....	21
INTERIM CHARGE 3: TRANSPORTATION PLANNING URGENCY.....	22
SUMMARY OF COMMITTEE ACTION.....	22
BACKGROUND	22
FINDINGS.....	29
RECOMMENDATIONS.....	30
INTERIM CHARGE 4: INFRASTRUCTURE INVESTMENT & JOBS ACT.....	31
SUMMARY OF COMMITTEE ACTION.....	31
BACKGROUND	31
FINDINGS.....	35
RECOMMENDATIONS.....	35
INTERIM CHARGE 5: ROAD USE REVENUE PARITY	36
SUMMARY OF COMMITTEE ACTION.....	36
BACKGROUND	36
FINDINGS.....	43
RECOMMENDATIONS.....	43
INTERIM CHARGE 6: COMMERCIAL TRUCKING & SUPPLY CHAIN ISSUES	44
SUMMARY OF COMMITTEE ACTION.....	44
BACKGROUND	44

FINDINGS	50
RECOMMENDATIONS	51
INTERIM CHARGE 7: SEAPORT INFRASTRUCTURE NEEDS	52
SUMMARY OF COMMITTEE ACTION.....	52
BACKGROUND	52
SHIP CHANNEL IMPROVEMENT REVOLVING FUND	55
PORT CAPITAL IMPROVEMENT REPORT	56
FINDINGS	57
RECOMMENDATIONS	58
ENDNOTES	59

INTRODUCTION

The Honorable Dade Phelan, Speaker of the House of Representatives, appointed thirteen members of the 87th Legislature to serve on the House Committee on Transportation. The following members were named to the committee: Chair Terry Canales, Vice-Chair Ed Thompson, Representative Trent Ashby, Representative John H. Bucy III, Representative Yvonne Davis, Representative Cody Harris, Representative Brooks Landgraf, Representative J.M. Lozano, Representative Armando “Mando” Martinez, Representative Evelina “Lina” Ortega, Representative Mary Ann Perez, Representative Glenn Rogers, and Representative John T. Smithee.

Pursuant to House Rule 3, Section 32, the House Committee on Transportation has 13 members, with jurisdiction over all matters pertaining to the following:

- (1) commercial motor vehicles, both bus and truck, and their control, regulation, licensing, and operation;
- (2) the Texas highway system, including all roads, bridges, and ferries constituting a part of the system;
- (3) the licensing of private passenger vehicles to operate on the roads and highways of the state;
- (4) the regulation and control of traffic on the public highways of the State of Texas;
- (5) railroads, street railway lines, interurban railway lines, steamship companies, and express companies;
- (6) airports, air traffic, airlines, and other organizations engaged in transportation by means of aerial flight;
- (7) water transportation in the State of Texas, and the rivers, harbors, and related facilities used in water transportation and the agencies of government exercising supervision and control thereover;
- (8) the regulation of metropolitan transit; and
- (9) the following state agencies: the Texas Department of Vehicles, the Texas Department of Transportation, and the Texas Transportation Commission.

After the 87th legislative session, Speaker Phelan charged all committees to study and make recommendations to numerous challenges the State of Texas is facing. The interim charges for the House Committee on Transportation are listed on the following page.

INTERIM CHARGES

CHARGE 1: MONITOR LEGISLATION

Monitor the agencies and programs under the Committee's jurisdiction and oversee the implementation of relevant legislation passed by the 87th Legislature. Conduct active oversight of all associated rulemaking and other governmental actions taken to ensure the intended legislative outcome of all legislation, including the following:

- HB 2219, relating to the issuance of Texas Mobility Fund obligations;
- HB 3514, relating to the functions of the Texas Department of Motor Vehicles; and
- HB 3927, relating to temporary motor vehicle tags.

CHARGE 2: ECONOMIC IMPACTS OF TEXAS-MEXICO BORDER MIGRATION

Complete study of assigned charges related to the Texas-Mexico border issued in June 2021:

Review the impact that trade across the Texas-Mexico border has on the Texas economy. Consider the impact of the recent increase in border migration on transnational trade, including its effects on the communities along the border, points of entry, and access by Texas businesses to supplies, labor, materials, and markets in Mexico. *(Joint charge with Committee on International Relations & Economic Development)*

CHARGE 3: TRANSPORTATION PLANNING URGENCY

Study current and future transportation needs and consider improvements to ensure that Texas is adequately planning for the state's population growth forecasts. Evaluate the impacts of the COVID-19 pandemic on transportation projects and investment decisions.

CHARGE 4: INFRASTRUCTURE INVESTMENT & JOBS ACT

Study the impacts that increased federal funding, formula changes, and new programs authorized in the Infrastructure Investment and Jobs Act will have on state transportation projects. Evaluate strategies to ensure Texas communities can maximize receipt of federal grant funds.

CHARGE 5: ROAD USE REVENUE PARITY

Study the impact of the increasing sale and use of electric and alternatively fueled vehicles on revenue predictions for the state highway fund. Recommend a road use revenue equalization methodology to create fairness and parity between gasoline, electric and alternatively fueled vehicles.

CHARGE 6: COMMERCIAL TRUCKING & SUPPLY CHAIN ISSUES

Study policies impacting truck transportation, a key link in the supply chain, including utilizing state property and right-of-way for natural gas fueling stations and truck parking, the potential shortage of drivers and sellers of commercial trucks, the shortage of truck parking options to accommodate hours of service regulations, and ways to reduce

border crossing wait times. Examine regulatory and statutory impediments to connected vehicle and autonomous technologies aimed at improving the safety and efficiency of trucking in Texas.

**CHARGE 7:
SEAPORT
INFRASTRUCTURE
NEEDS**

Examine the ability of the state's seaports to promote the public purposes of state economic growth, diversification, and commerce through development of port-owned properties within their boundaries. Review the investments needed for Texas ports to remain competitive in handling increased cargo volumes and ensuring a resilient supply chain.

TRANSPORTATION SAFETY

November 7, 2000 was the last deathless day on Texas roadways. This year will mark 22 years of daily deaths. It's going to take every single driver to do their part behind the wheel to end the long streak of traffic deaths in Texas.



INTERIM CHARGE 1: MONITOR LEGISLATION

Monitor the agencies and programs under the Committee's jurisdiction and oversee the implementation of relevant legislation passed by the 87th Legislature. Conduct active oversight of all associated rulemaking and other governmental actions taken to ensure the intended legislative outcome of all legislation, including the following:

- *HB 2219, relating to the issuance of Texas Mobility Fund obligations;*
- *HB 3514, relating to the functions of the Texas Department of Motor Vehicles; and*
- *HB 3927, relating to temporary motor vehicle tags.*

SUMMARY OF COMMITTEE ACTION

The House Committee on Transportation addressed this interim charge on April 26, 2022 in a public hearing at the Texas Capitol. The committee heard testimony from the Texas Department of Transportation (TxDOT), the Texas Department of Motor Vehicles, and other key stakeholders. The public hearing notice, meeting minutes, witness list, and handouts can be found on the website for the Texas House of Representatives, www.house.texas.gov, or the hyperlinks below:

April 26, 2021

[Hearing Notice](#)

[Meeting Minutes](#)

[Witness List](#)

[Handouts](#)

BACKGROUND FOR HOUSE BILL 2219

[*HB 2219, relating to the issuance of Texas Mobility Fund obligations*](#)

To understand why 77% of the Members of the Texas Legislature sent HB 2219 to Governor Abbott and why Governor Abbott signed it into law, it is crucial to have some background information. Texas voters created the Texas Mobility Fund (TMF). In 2001, the TMF was created with 68% voter approval of a constitutional amendment, Proposition 15, and by enacting legislation in the 77th Legislature.¹ Specifically, Texas voters authorized that Article III, Section 49-K of the Texas Constitution create the TMF within the treasury of the State of Texas.²

The TMF is administered by the Texas Transportation Commission as a revolving fund to provide a method of financing for the construction, reconstruction, acquisition, and expansion of state highways.³ It may also be used to provide state participation in the payment of a portion of the costs of constructing and providing publicly owned toll roads and other public transportation projects.⁴ “Other public transportation projects” is an undefined phrase, but generally, it includes passenger rail and transit projects.⁵ The TMF is regarded as one of the most flexible infrastructure financing tools in Texas because it can be used to finance various types of projects.

The revolving fund has multiple dedicated revenue sources legislatively approved in 2003.⁶ The largest sources of funding are driver's license fees, driver's record information fees, motor vehicle inspection fees, and certificate of title fees.⁷ These dedicated revenues may not be reduced, rescinded, or repealed unless the Legislature dedicates a substitute or different source that is projected by the Texas Comptroller to be of an equal or greater value.⁸

Because the TMF has dedicated revenue streams, the tool can be used in two ways. Infrastructure can be financed by (1) the revenues deposited into the account and (2) issuing a bond secured by the revenues. These bonds are also backed by the full faith and credit of the state.⁹

The TMF has multiple safeguards built into it. The amount of bonds that may be issued under the program is based on a certified revenue estimate provided by the Texas Comptroller that must show that the projected revenues of the TMF are projected to be at least 110 percent of the program's debt service.¹⁰ The maximum bond maturity is 30 years.¹¹ Additionally, while the Texas Transportation Commission authorizes the issuance of TMF bonds, all TMF bond issuances must be approved by the Texas Bond Review Board prior to issuance.¹² The Texas Bond Review Board is chaired by Governor Greg Abbott, and the remaining members are Lieutenant Governor Dan Patrick, Speaker of the House Dade Phelan, and Comptroller of Public Accounts Glenn Hegar.¹³

As required, TxDOT is fully transparent on the TMF and is required to produce annual reporting documents, which can be found on the TxDOT website or at the following hyperlink: [Texas Mobility Fund Reports](#).

During TxDOT's presentation in the interim hearing, the Committee learned that since 2001, the state has issued \$7.4 billion in bonds, and the outstanding principal is \$5.6 billion. The final maturity date on the bonds is October 1, 2044.¹⁴ TxDOT has also refinanced its outstanding TMF bonds, obtaining a gross savings of approximately \$938 million.¹⁵

The Evolution of the Texas Mobility Fund

After the state leveraged the TMF revenues for legally permissible transportation infrastructure projects for more than 10 years, the Texas Legislature passed [HB 122 \(84R\)](#), which was enacted during the 84th Legislature and provided that no additional TMF obligations may be issued or incurred after Jan. 1, 2015, except for obligations issued to refund outstanding obligations to provide savings to the state.¹⁶ One might ask why legislation was needed to prevent further bonds from being issued when significant safeguards are in place: (1) Texas voters and the Texas Legislature intentionally gave an entirely governor-appointed governing body—the Texas Transportation Commission—discretionary authority to issue TMF bonds, and (2) the Texas Comptroller of Public Account certifies that projected revenues of the TMF are projected to be at least 110 percent of the program's debt service, and (3) the Texas Bond Review Board has authority on whether the bonds would be issued.

According to the author of the legislation, the chair of the House Committee on Transportation at the time, one of the goals behind the legislation was to reduce the amount of debt issued from the TMF and allow the revenues to pay down that debt—an objective that both the Texas Transportation Commission and the Texas Bond Review board could unilaterally accomplish.¹⁷ Another goal behind the legislation was to prevent the TMF from being used as a funding tool for

controversial transportation projects—an objective that the Texas Bond Review Board could unilaterally accomplish. The critics of HB 122 (84R) were either silent or nonexistent, according to the official witness lists, and the proponents were few in number. In the House Committee on Transportation, two individuals registered and testified in favor of the bill, and no one registered against it.¹⁸ In the Senate Committee on Transportation, the same two individuals registered and testified in favor of the bill, and two individuals from the Texas Association of Realtors registered in favor but chose not to testify.¹⁹ Governor Abbott, the chair of the Texas Bond Review Board, signed the legislation into law on June 10, 2015.²⁰

Chair Terry Canales filed HB 2219 on February 24, 2021 to reauthorize the Texas Transportation Commission to have discretionary authority to issue bonds from the TMF as it was designed. Senator Robert Nichols, chair of the Senate Committee on Transportation, was not only the Senate sponsor of HB 122 (84R) but also the Senate sponsor of HB 2219 (87R).²¹

Canales noted in laying out the bill before the House Committee on Transportation that Texas is underinvesting in transportation infrastructure at approximately \$7.2 billion every year, and that number is increasing.²² As per Canales, our current trajectory of Texas transportation revenue is forecasted to decline over the decade unless we make some changes in our revenue structures.²³ Moreover, he referenced the multi-billion dollar megaprojects that TxDOT is planning and the Texas state demographer’s statistics on our state’s population growth, showing an almost doubling of our population in 30 years.²⁴

The House and Senate witness lists for HB 2219 represent a staggering display of transportation advocacy. In the House Committee on Transportation, 24 entities representing a broad spectrum of the transportation community registered in favor of the bill; two individuals registered against it.²⁵ Notably, two of the same individuals registered in favor of HB 122 (84R) were the only two individuals registered against HB 2219 (87R). In the Senate Committee on Transportation, 15 entities registered in favor of the bill, and no one registered against it.²⁶ One cannot help but wonder where these supporters of HB 2219 (87R) were at the time of HB 122 (84R).

Nevertheless, HB 2219 was signed into law by Governor Abbott on June 18, 2021 after a few noteworthy amendments on the Senate floor: (1) the TMF only has a temporary restoration of bonding authority of up to \$3.6 billion, and (2) the authority to issue bonds sunsets on January 1, 2027.²⁷ With the new sunset date, the Legislature has ensured that they will have greater control and oversight of the TMF moving forward. Below is a modified TxDOT funding table that characterizes the new, temporary TMF.

		PROJECT TYPE						
		Non-Tolled Highways	Tolled Highways	Rail – Passenger	Rail – Freight	Transit	Aviation	Ports
FUNDING SOURCE	Texas Mobility Fund – Revenue	✓		✓		✓		
	Texas Mobility Fund (TMF) – Bond Proceeds	✓		✓		✓		

28

FINDINGS FOR HOUSE BILL 2219

As TxDOT reminded the committee at the April 26, 2022 interim hearing, TMF bonding capacity is subject to change and could be higher or lower depending on, at the time of issuance, if there is a substantial change in the revenue forecast for the TMF or in interest rates.²⁹ Moreover, based on revised August 2021 Texas Comptroller estimates, the current borrowing capacity is approximately \$2 billion in total.³⁰ This is a sizeable decrease from the Texas Comptroller's \$3 billion estimate included in the Fiscal Note for HB 2219 in 2021.³¹ According to TxDOT, prior to the Texas Transportation Commission issuing TMF bonds, the Texas Comptroller will provide an updated 30-year revenue projection that will reflect the borrowing capacity of the TMF.

As of October 1, 2022, no TMF bonds have been issued by the Texas Transportation Commission. The most that TxDOT has done is program approximately \$2 billion into TxDOT's 2023, ten-year Unified Transportation Program.³² This allows TxDOT to accelerate the project planning and development process today.³³

Since this revenue tool has been re-holstered in TxDOT's tool belt, the transportation community has been abuzz with questions about what projects might be financed by TMF bonds. Many would like to see more highway projects financed to increase capacity through some of our state's most congested roadways. Others would like for state leadership to come to terms with the fact that our state cannot pave enough highways to decongest our state highway system and that the state should begin finding ways to mitigate highway demand by creating mass transportation alternatives. To date, these questions remain unanswered.

The existential concern about debt-financed transportation infrastructure continues to linger over the TMF. Some look at the state's ten-year infrastructure program at its record high and ask a reasonable question: "Why should Texas issue bonds when the state has more revenue forecasted than ever before?" At least two assessments should be considered: (1) The Texas State Demographer, Dr. Lloyd Potter, stated in the interim hearing that the Texas population forecasts show the state's population growing from 29.1 million as of 2020 to 47.4 million in 2050—but possibly up to 55 million.³⁴ The higher projection is almost a doubling of the state's population in 30 years. Highway projects can take a decade or more from start to finish: Is TxDOT building a state highway system that will meet the capacity needs of the future? This answer is complicated and may require more studying; however, the congestion levels around the state suggest we may be losing the fight.³⁵ (2) While interest rate payments may seem like an unnecessary added cost to a project, inflation is a hidden tax that may be more expensive in the long run for taxpayers. The best and most prudent use of taxpayer dollars may be to issue bonds if the interest rates are lower than the National Highway Construction Cost Index, which is the measure of the average change over time in the prices paid by state transportation departments for roadway construction materials and services.³⁶

Regardless, our state leaders have reauthorized the TMF to be used as intended, albeit with bonding and time constraints, and TxDOT has an opportunity to accelerate infrastructure projects. As Chair Bruce Bugg, Jr. of the Texas Transportation Commission often says, "Let's turn dirt."

BACKGROUND FOR HOUSE BILL 3514

HB 3514, relating to the functions of the Texas Department of Motor Vehicles

House Bill 3514 codified recommendations made by the Texas Department of Motor Vehicle (TxDMV) Board to update statutes and improve a variety of department operations, hence the all-encompassing bill caption.³⁷ The bill helped clean up the TxDMV statute to better modernize the agency, including updates to nomenclature like the "Motor Vehicle Board," which was the board within TxDOT that handled licensing and regulation before TxDMV was created.³⁸ Additionally, the bill made Lemon Law updates, improved dealer inventory tax declarations, clarified the dealer hearing procedures, and made updates to the Motor Vehicle Crime Prevention Authority.

The following summary can be found in TxDMV's handouts for the interim hearing on April 26, 2022:

The bill revised outdated references to the "Motor Vehicle Board" and process related to issuance of final orders in Lemon Law cases. Also related to Lemon Law, a Public Information Act exception for active cases was reinstated, and greater flexibility was allowed for conducting re-hearings. Counties and the department were given more flexibility in cases of a dealer not filing their inventory tax declarations. The bill contained wording clean-ups to a section of code that contained conflicting language regarding dealer hearing procedures. Motor Vehicle Crime Prevention Authority (MVCPA) related updates removed outdated Texas Department of Transportation reporting requirements and aligned statute with longstanding fee refund and Comptroller collection practices. The bill also excluded MVCPA costs related to fee collection efforts from administrative expense limits.³⁹

FINDINGS FOR HOUSE BILL 3514

At the hearing, TxDMV provided an implementation status to the Committee as well:

House Bill 3514 is materially implemented with two remaining sections proceeding through the formal rulemaking process. Texas Administrative Code revisions to Section 215.207, related to Lemon Law hearing processes, are drafted and were approved for posting for public comment by the TxDMV Board on April 14, 2022. The proposed revisions concern motions for rehearing by the Office of Administrative Hearings on contested cases involving vehicle warranties and give the chief hearings examiner the authority to designate a person to decide the motions for rehearing. Rules related to MVCPA authority to impose a penalty on insurers for delinquent payment of fees or delayed report filings are under development.⁴⁰

According to TxDMV, as of October 2022, HB 3514 has not been fully implemented. The bill requires rulemaking relating to late fees and penalties for the Motor Vehicle Crime Prevention Authority Insurance fee. TxDMV has informed the committee that the Board will take up proposed

rules in the coming months.

BACKGROUND FOR HOUSE BILL 3927

[HB 3927, relating to certain temporary motor vehicle tags](#)

At least four different House bills were filed during the 87th Legislature that addressed the temporary tag issue, but only one bill crossed the finish line to be signed into law: HB 3927. However, astute lawmakers modified HB 3927 during the legislative process, and the final version became an amalgamation of the key components of the multiple bills.⁴¹

According to TxDMV, temporary tags, which are also commonly referred to as temp tags, paper tags, or paper license plates, are issued to vehicle buyers as temporary registration until the dealer completes the title and registration process.⁴² Temp tags are also issued to dealers for use during demonstrations, for vehicle transfers, or for loaner cars.⁴³ Temp tag is a broad term, in which buyer tags are a subset. Buyer tags are



one of the most commonly seen temp tags on Texas roadways, and those are issued to vehicle buyers at the time of purchase. Each type of temp tag has various uses and restrictions.⁴⁴ For instance, buyer tags are only valid for 60 calendar days, and only one tag is allowed for one VIN/Buyer.⁴⁵ A chart of the multiple tags that can be issued through the e-Tag system can be found on the TxDMV website or at the following hyperlink: [Tags Issued Through e-Tag](#).

The buyer tag is issued with a retail sale of a vehicle in the dealer's inventory. Using the online e-Tag system, the dealer must then enter the vehicle's and the buyer's information. The system then assigns a specific tag number to the transaction, which can be printed out in the form of a temporary registration tag.⁴⁶ At first glance, the e-Tag system appears to be an efficient mechanism to ensure every vehicle in Texas is traceable; however, the e-Tag system has gaping security weaknesses that have allowed criminals to print hundreds of thousands of fraudulent buyer tags.⁴⁷

The Temp Tag Issue

NBC 5 Dallas-Fort Worth and KXAN are two of the news outlets that helped shine a spotlight on the issue. NBC 5 has published more than 40 news articles on the issue since November 2021.⁴⁸ In one of their earliest articles, investigative journalists worked with Travis County Constable Sgt. Jose Escribano, the leader of a team of investigators hailed as the top temp tag fraud unit in Texas, to understand the severity of the issue.⁴⁹ Sgt. Escribano and NBC 5 showed that one licensed dealer had printed roughly 110,000 buyer tags in four months.⁵⁰ Another dealer issued over 17,000 buyer tags in eight months.⁵¹ Between two fraudulent dealers alone, an estimated 27,000 buyer tags were printed in one week.⁵² Where one buyer tag equates to one car sale, the state's largest car dealerships are not selling anywhere near this many vehicles in the same time frames.⁵³

Criminals would falsify the information required in the application to be a licensed dealer in Texas. A successful application would grant an individual a general distinguishing number (GDN), which would allow the criminal to have access to the e-Tag system. These criminals would print and sell buyer tags to other criminals or ignorant Texans in-person or on websites like Facebook Marketplace and Craigslist. Sgt. Escribano estimated that this criminal enterprise is a \$200 million black market industry.⁵⁴

A fraudulent temp tag creates an untraceable vehicle while appearing legitimate on the road, enticing criminals, drug cartels, and human smugglers to use them.⁵⁵ Vehicles that are not registered or seized by law enforcement can remain untraceable on roads for years by affixing new fraudulent temp tags every 60 days. Fake Texas temp tags have been found all over the United States and in Mexico and Canada.⁵⁶ One man was nicknamed the “Used Car King of New York” and pleaded guilty in a nationwide scheme for selling over 600,000 fraudulent Texas temp tags.⁵⁷

Over multiple years, TxDMV leadership and the nine-member, governor-appointed board failed to represent adequately to state officials the magnitude of the criminal activity within the e-Tag system and the ineffectual tools the agency had to purge criminals from the system. Consequently, it was not the TxDMV that raised the alarms on the severity of criminal activity, but rather, it was local investigative news outlets.

On the TxDMV website, the agency described the recourse they had prior to HB 3927 that allowed them to eliminate fraudulent dealers: “...the department’s only recourse to stop dealers that were fraudulently obtaining temporary tags was license revocation, a formal administrative process that can take months or years to complete, leaving the dealer with access to the temporary tag database to continue fraudulent activity.”⁵⁸

TxDmv also described that “as an administrative agency, TxDMV is not authorized to enforce criminal laws, investigate crimes, or prosecute criminals. When TxDMV encounters criminal activity, they notify law enforcement who are then able to take the appropriate action. Arrest or prosecution decisions for these fraudulent or illegal activities are at the discretion of the investigating law enforcement agency or prosecuting jurisdiction. Law enforcement will also notify TxDMV when evidence of fraudulent temporary tag activity is discovered during criminal investigations.”⁵⁹

Considering the rooted criminal enterprises parasitically embedded in the underbelly of the state’s e-Tag system, the agency’s relationship with law enforcement, whether statutorily or culturally derived, failed to safeguard Texans. The negligence of the agency and governing board warrants scrutinizing all aspects of the agency, including key personnel, the culture of the agency, and the composition of the Board.

Implementation of HB 3927 in 2022

With advice and guidance from TxDMV, the Texas Legislature passed HB 3927 at the end of the 87th Legislative Session, and Governor Abbott signed the bill into law on June 15, 2021. The effective date of the bill was September 1, 2021.⁶⁰

HB 3927 made numerous changes to the tools TxDMV has to address the fraud, and it also gave

TxDMV the responsibility to implement administrative rules to fine-tune the process. In the committee hearing, then-Acting Executive Director Daniel Avitia informed the committee that HB 3927 provided the agency with two important tools: (1) TxDMV now has the ability to limit the total number of tags available to each dealer with access to the system. Tag limits are based on past vehicle sales history and adjusted for market conditions and business growth. (2) TxDMV now has the ability to immediately shut off system access to users engaged in identified fraudulent behavior. Both components required rulemaking to fully implement, and each was implemented in February 2022 and January 27, 2022 respectively.⁶¹

Under the Board's adopted rules, "Each dealer has an individual limit to the number of tags they can access in a year based on their sales history and business tenure. Tag limit status is clearly identified within the e-Tag system for dealer awareness and tracking. After a dealer uses 50% of their allotted tags for the year, they can request an increase by submitting sales documentation supporting the need. TxDMV staff uses the tag limits in the system to track dealer activity and identify concerns for referral for enforcement review."⁶²

While it is true that the TxDMV Board requested that the Legislature provide the department with greater authority to combat misuse and fraud in the issuance of temporary tags by motor vehicle dealers prior to the 87th Legislative Session, the slow pace to adopt rules after Governor Abbott signed the bill into law suggests a confusing disconnect.⁶³ HB 3927 was signed into law on June 15, 2021, yet it took between seven to eight months for this high-stakes law to be implemented by the agency. Texas has laws on the books to cut down on bureaucratic red tape like this.

Texas Government Code, Sec. 2001.006(b) reads as follows: "In preparation for the implementation of legislation that has become law but has not taken effect, a state agency may adopt a rule or take other administrative action that the agency determines is necessary or appropriate and that the agency would have been authorized to take had the legislation been in effect at the time of the action." TxDMV could have had a two-and-a-half-month head start on the process.

A New Chapter for TxDMV in 2022

Governor Abbott appointed two new members and a new chair of the TxDMV Board on May 4, 2021.⁶⁴ In February 2022, the Executive Director and General Counsel of the agency abruptly resigned, and a few days later, Daniel Avitia was selected to be the Acting Executive Director.⁶⁵ A few months later, Mr. Avitia was officially selected to be the Executive Director of the agency.⁶⁶

Under Director Avitia's leadership so far, the agency has implemented new fingerprinting rules that apply to all dealer applicants.⁶⁷ Fingerprinting every GDN holder before having access to buyer tags has added a significant measure toward legitimizing every dealer in the system. In addition, the agency has greatly improved its relationship with law enforcement by streamlining the ability to share motor vehicle data directly with officers and by meeting with them regularly. The agency has also enhanced pre-licensing processes that require more robust background data on applicants and their locations, and the agency is moving forward on mandating physical site inspections for new or relocated licenses.⁶⁸

FINDINGS FOR HOUSE BILL 3927

HB 3927 has been fully implemented, and the agency has gone beyond the legislation to further enhance the security of its systems. The agency is now requiring fingerprinting of dealers and has the ability to shut down bad actors within hours of spotting them in the system as opposed to months. According to TxDMV, “within the first 10 days of implementing the rules required by HB 3927, six dealers engaging in suspect activities were prevented from accessing the system.”⁶⁹

TxDMV manages an enormous volume of data on the motoring public, amplifying the need to ensure the security of its systems. As of 2021, the agency has totaled 25.2 million vehicles registered, 7.6 million vehicle titles issued, 670,000 oversize/overweight permits issued, 14,000 industry licenses issued, 95,000 motor carriers credentialed, and 20,000 enforcement cases completed.⁷⁰

While HB 3927 has not only helped combat fraud in Texas, it has also helped snuff out weaknesses in the agency. Make no mistake: TxDMV is under scrutiny right now; however, many are encouraged that the new leadership has remained steadfast in course correcting the agency. Lastly, as the Texas economy and population grow, the agency will continue to grow in importance. New, emerging transportation technologies have begun to introduce new challenges in transportation that the state will need to address, such as electric vehicle fees. The Texas Legislature and taxpayers require TxDMV to be an agile and dependable agency so that it can help address the challenges ahead, and the Legislature should continue to find ways to support it.

RECOMMENDATIONS

1. The Legislature should continue to monitor the Texas Department of Transportation to ensure the Texas Mobility Fund is used responsibly.
2. The Texas Department of Motor Vehicles should expeditiously implement all remaining rulemaking required for legislation from the 87th Legislative Session.
3. The Legislature should continue to monitor the Texas Department of Motor Vehicles so that it has all the tools necessary to combat temporary tag fraud as it evolves.
4. The Legislature should continue close oversight of the Texas Department of Motor Vehicles Board to ensure that the body is adequately representing the general public.
5. The Legislature should invest to modernize the Texas Department of Motor Vehicles to have the agility to adapt to emerging technologies.

INTERIM CHARGE 2: ECONOMIC IMPACTS OF TEXAS-MEXICO BORDER MIGRATION

Complete study of assigned charges related to the Texas-Mexico border issued in June 2021.

Review the impact that trade across the Texas-Mexico border has on the Texas economy. Consider the impact of the recent increase in border migration on transnational trade, including its effects on the communities along the border, points of entry, and access by Texas businesses to supplies, labor, materials, and markets in Mexico. (Joint charge with Committee on International Relations & Economic Development)

SUMMARY OF COMMITTEE ACTION

The House Committee on Transportation addressed this interim charge on September 30, 2021 in a joint public hearing at the Texas Capitol with the House Committee on International Relations and Economic Development. The committees heard testimony from a diverse set of experts and stakeholders. The public hearing notice, meeting minutes, witness list, and handouts can be found on the website for the Texas House of Representatives, www.house.texas.gov, or the hyperlinks below:

September 30, 2021

[Hearing Notice](#)

[Meeting Minutes](#)

[Witness List](#)

[Handouts](#)

BACKGROUND

As noted in the committee hearing by Marc Williams, the Executive Director of the Texas Department of Transportation (TxDOT), Texas and Mexico share a long history of economic, cultural, and social relations. International trade with Mexico and the state's southern border transportation infrastructure are part of the bedrock of the local, regional, state, and national economy.

The mere introduction of the 423-page [Texas-Mexico Border Transportation Master Plan](#) (BTMP), a frequently cited source during TxDOT's presentation, provides an eloquent yet relentlessly comprehensive background to the deep relationship between Texas and Mexico. Much of the BTMP's introduction has been provided below, adding necessary background to the interim charge:

Introduction to the BTMP

The Texas-Mexico border connects the people and commerce of the United States and Mexico. The two countries share a 1,954-mile common border—64 percent, or 1,254 miles, is shared between Texas and Mexico. The Texas-Mexico border is North America's busiest trade gateway. Mexico is the largest trading partner of

Texas and 68 percent of trade between the U.S. and Mexico passes through the Texas-Mexico border.

Texas-Mexico trade has grown rapidly, increasing by 267% from \$58 billion in 1994 to \$213 billion in 2019. This translates to over \$24 million of trade crossing the border every hour.

In 2019, Texas traded with Mexico more than three times the amount Texas traded with China, the state's second-largest trading partner. Driven by sustained trade growth, in March 2019 and again in February 2020, the Port of Laredo overtook the Port of Los Angeles as the top international trade gateway in the U.S.

Today, the bilateral relationship between Texas and Mexico goes beyond trade and includes close commercial, cultural, and educational ties. The relationship between the U.S. and Mexico has a direct impact on the lives and livelihoods of millions of people.

Economic Significance

The Texas-Mexico border is a key contributor to the local, regional, state, and national economies of the U.S. and Mexico. In 2019, the economic impact of cross-border trade and travel for Texas was \$73.5 billion in gross domestic product (GDP).

Trade across the U.S.-Mexico border has strengthened the competitiveness of both U.S. and Mexico and created jobs in both countries. Texas-Mexico trade supports more than 382,000 jobs in Texas. Economic activity in the Texas border region represents \$116.4 billion in 2018, while economic activity in the Mexico border states represents approximately 3.7 trillion pesos or \$169.5 billion in 2018. Of this, almost one-half of the GDP in Texas border counties and approximately two-thirds of the GDP in Mexico border states are dependent on international trade.

Employment

Between 1990 and 2019, the border region experienced 97 percent employment growth—from 1.5 million to 2.9 million jobs across both countries. Increased manufacturing and trade have contributed to employment growth.

Population

The Texas-Mexico border region is growing—outperforming the U.S. and Mexico in population growth. Between 1990 and 2019, the regional population grew 70 percent, from 4.4 million to 7.4 million—this growth outpaced national trends in the U.S. and Mexico at large which experienced 32 and 54 percent growth respectively during this same period.

Transportation Infrastructure

Transportation infrastructure is the foundation for local, regional, national, and binational connections. The binational multimodal transportation infrastructure connects the cultural and commercial fabric of the Texas-Mexico border region and beyond. The common link that sustains people and goods movement between the U.S. and Mexico is the multimodal transportation system. The U.S. and Mexico share 49 vehicle and pedestrian border crossings, of which 28 are located between Texas and Mexico.

Of the 28 vehicle border crossings located along the Texas-Mexico border plus the Santa Teresa, New Mexico border crossing, below are the breakdowns:

- 28 border crossings that process passenger vehicle (POV) movements.
- 24 border crossings that process pedestrian movements.
- 14 border crossings that process commercial vehicle (CMV) movements, with several of them processing two or more of these types of movements.

Additionally, cross-border movements in the border region are further supported by other means:

- Six freight rail crossings.
- 15 airports in Texas that have regularly scheduled flights to 31 airports throughout Mexico that serve as major hubs for cargo and small shipments.
- Seven seaports in Texas and 11 seaports in Mexico that currently support maritime trade between Texas and Mexico.
- 13 import and export pipeline terminals along the border that are most concentrated along the Gulf of Mexico near seaports.

Moving People

The Texas-Mexico border facilitates more than 45 percent of the 188 million people crossing the border between the U.S. and Mexico. In 2019, more than 32 million cars, more than 20 million pedestrians, and more than 90,000 passenger buses crossed the Texas-Mexico border. The number of northbound people crossing the Texas-Mexico border by all modes declined steadily between 1996 and 2019, which is a 37 percent decrease over the 24 years. Most of that decline was driven by the reduction in northbound crossings of people using POVs. The cause for this decline likely relates to the high crossing times at the border, as well as other factors such as security, migration, and currency volatility.

POV passengers moving northbound across the border decreased by 45 percent from 118 million in 1996 to 65 million in 2019, while the number of bus passengers and pedestrians increased during this period. Northbound bus passengers increased by 5 percent from 1.6 million in 1996 to 1.7 million in 2019, and northbound pedestrians increased by 18 percent from 16.9 million in 1996 to 20 million pedestrians in 2019, partially due to increased wait times for POVs. The daily

student movements in the Ciudad Juárez–El Paso region depend on a network of bridges and bus services. For example, college students from Juárez regularly travel to the University of Texas at El Paso and back home again via multiple bus connections.

Moving Goods

In 2019, over \$451 billion in goods were traded across the Texas-Mexico border. Goods movement increased significantly between 1996 and 2019. Northbound truck crossings increased by 107 percent from 2.2 million in 1996 to 4.5 million in 2019, and northbound railcar moves increased by 305 percent from 251,769 in 1996 to 1 million in 2019. Of the \$451 billion in U.S.-Mexico trade that crossed the Texas-Mexico border in 2019, 47 percent, or \$213 billion, was direct trade between Texas and Mexico, while the 53 percent, or \$238 billion, passed through Texas border crossings with origins or destinations in other U.S. states and Canadian provinces.

Trade with Mexico includes both parts and finished products, such as automobiles, vegetables, furniture, and clothing. Trade through the Texas-Mexico border reaches businesses and homes throughout the U.S., Mexico, and Canada. For example, most of the avocados consumed in the U.S. are grown in Michoacán in central Mexico. At supermarkets in Mexico City, consumers buy globally sourced products, including apples grown by farmers in Washington State and New York. The border transportation system makes these connections possible—allowing companies from both sides of the border to flourish and for people to access work, school, shopping, and social opportunities.

Planning for the Future of the Border

The border transportation infrastructure must be positioned to meet current and future challenges and opportunities. Given the past, current, and projected trends in population, employment, and cross-border movements of people and goods, planning for the future of the border transportation infrastructure is critical to sustaining the continued economic prosperity of the Texas-Mexico border region, the states, and the nations. A key opportunity is the United States-Mexico-Canada Agreement, which is anticipated to generate greater certainty in the binational trade relation, encouraging investment in infrastructure, facilities, and operations along the U.S.-Mexico border.

Other potential opportunities come with U.S.-China trade relations and the impacts of Coronavirus Disease 2019 (COVID-19), both of which are anticipated to result in reshoring manufacturing back to Mexico and the U.S. given uncertainties and supply chain risks. Increasing congestion at Texas-Mexico border crossings and within the multimodal transportation networks will result from growth in cross-border movements of people and goods. Improving the capacity and operations of existing Texas-Mexico border crossings and multimodal transportation infrastructure is critical to alleviating traffic congestion, facilitating international

trade, reducing environmental impacts, and improving the quality of life for residents in the border region. The Texas-Mexico Border Transportation Master Plan will serve as a blueprint to prepare for the future.

Investment

During the hearing, TxDOT noted that the agency and the Texas Transportation Commission understand the value of the border regions and the impact they have on the state. Over the past seven years, with increased funding provided by the Texas Legislature and the voter-approved passage of Proposition 1 in 2014 and Proposition 7 in 2015, TxDOT has increased investment in the region. Since 2015, TxDOT’s three primary border TxDOT districts—Pharr District, Laredo District, and El Paso District—have seen an increase in state infrastructure funding of 221%. In the same time frame, the total statewide infrastructure funding has increased by just 109%.⁷¹

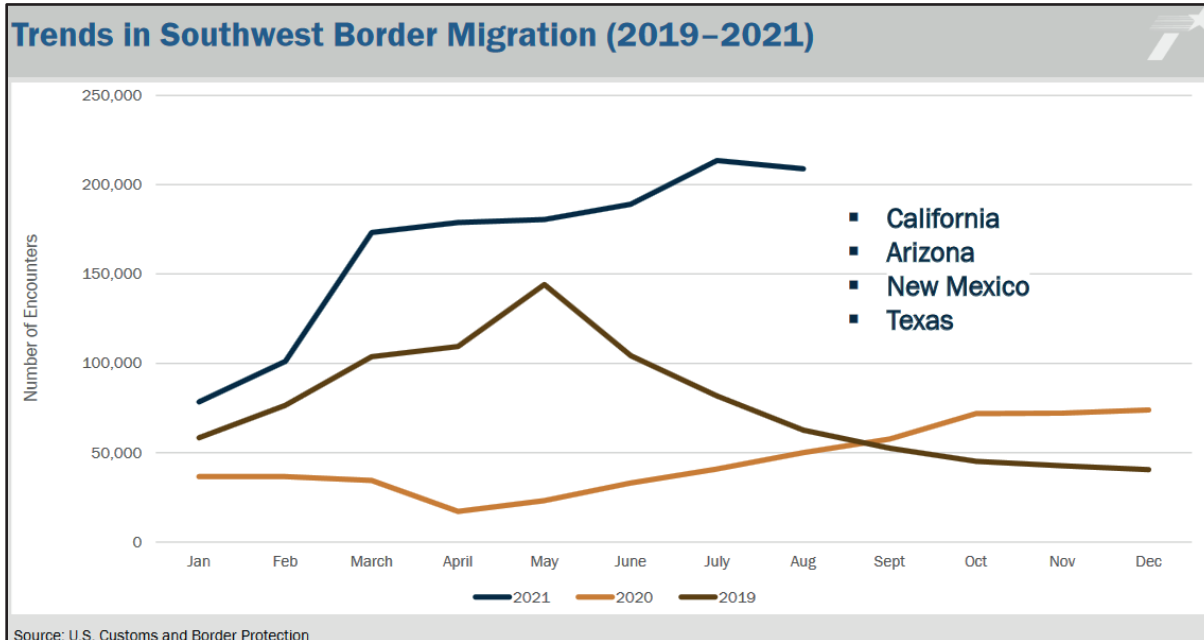
The COVID-19 Impact on Trade

TxDOT provided the following chart to show the impact that COVID-19 has had on trade during 2019 and 2020.



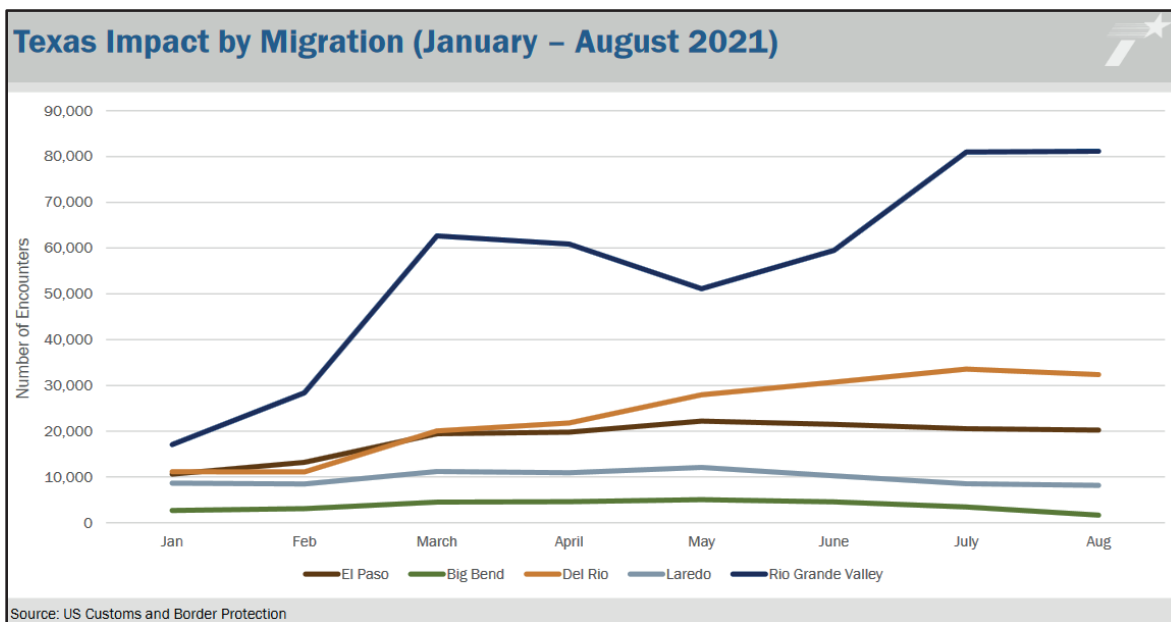
Migration

According to Caroline Mays, Director of Planning and Modal Programs at TxDOT, migration encounters were significantly higher in 2021 than they were in 2019 and 2020, and although not depicted in the chart, she noted that most of the encounters were in Texas.



73

The chart below, also provided by TxDOT, shows the impact of migration on different Texas regions from January to August 2021.

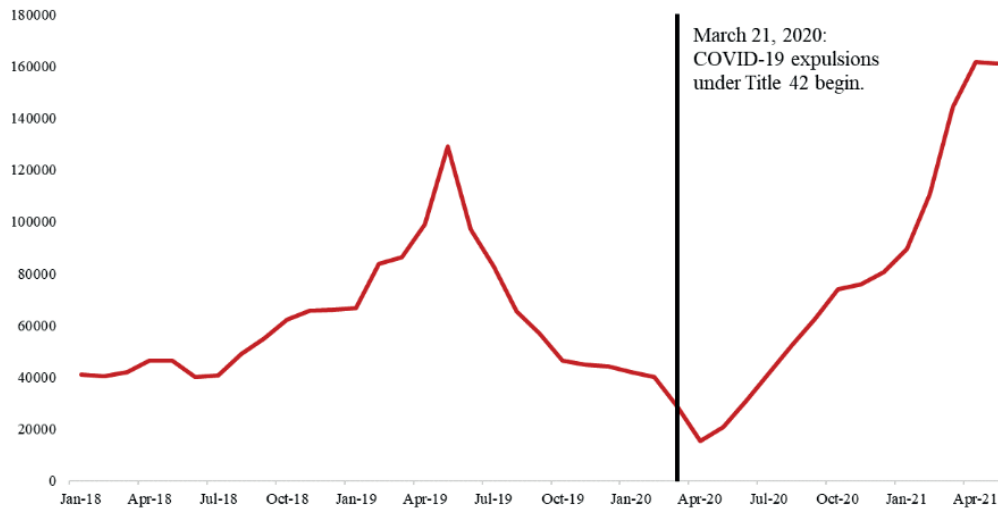


74

Although migration during 2021 was higher than usual, Vice President and Senior Economist at the Federal Reserve Bank of Dallas, Pia Orrenius, provided additional context to migration over the decade, showing that migration from Mexico has been trending downward for over a decade and the trend fell sharply in 2020.

CBP encounters surged in late 2020, 2021

Monthly CBP Encounters at Southern Border (Seasonally Adjusted)



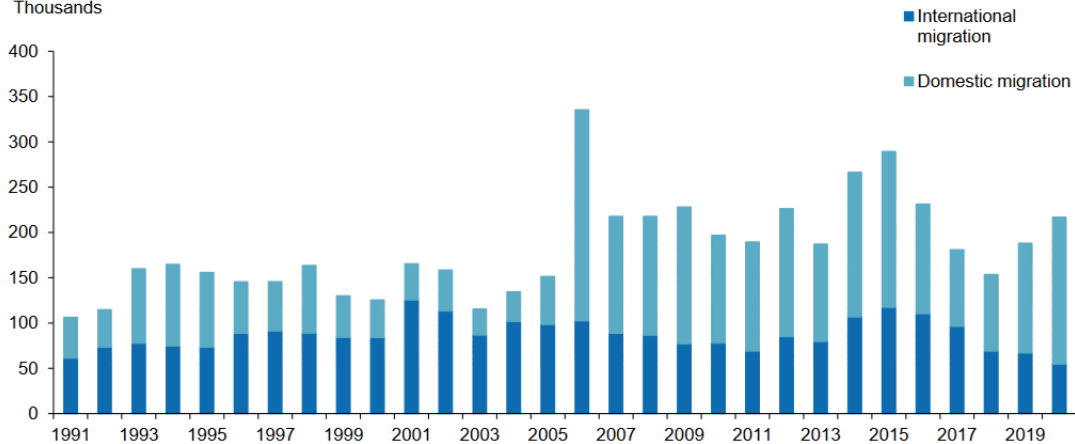
SOURCE: Customs and Border Protection, accurate as of June 3, 2021.

Federal Reserve Bank of Dallas

75

But in general, international migration to Texas has been on the decline

Thousands

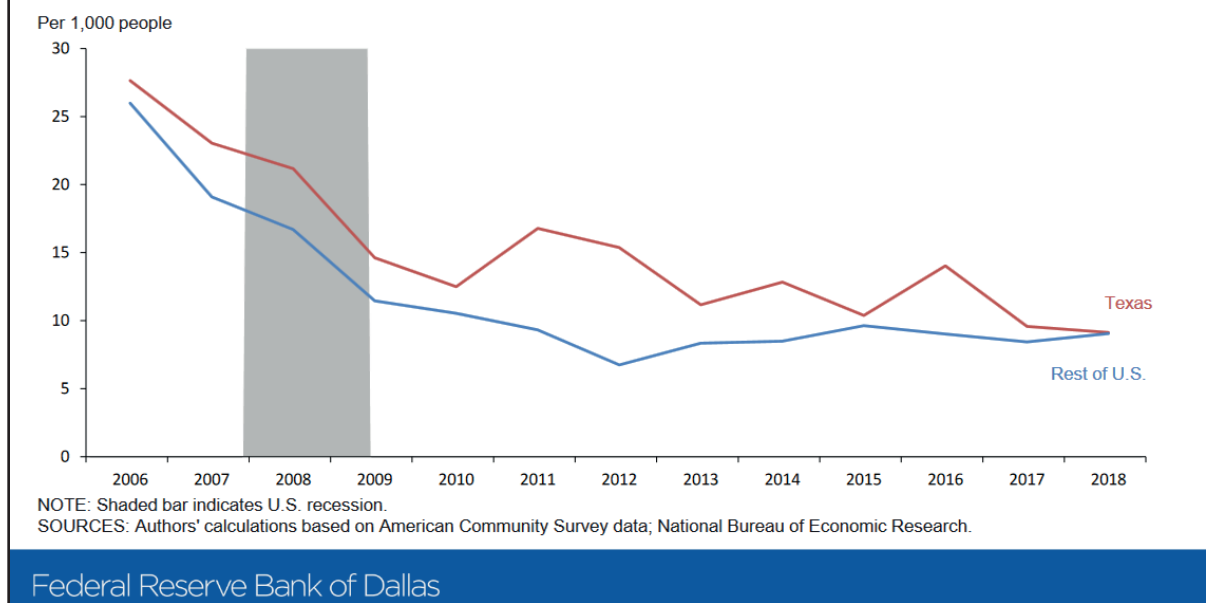


NOTE: Migration is from July 1st of the previous year to July 1st of the given year.
SOURCE: U.S. Census Bureau.

Federal Reserve Bank of Dallas

76

In-migration from Mexico has trended down for over a decade



77

Lastly, the Senior Economist noted that Texas trade had already recovered to pre-pandemic levels at the time of the hearing. Moreover, the migration surge may continue into the near term, but the surge will not impede international trade unless resources are diverted from ports of entry to process migrants.⁷⁸

FINDINGS

With Mexico serving as Texas's number one trading partner, providing \$213 billion in economic impact for the state in 2019, it is critical that the state continues to prioritize infrastructure around the southern border to handle the ever-growing trade demands. The magnitude of international commerce amounts to over \$24 million of trade crossing the border every hour.

While the recent migration spikes had an impact on the security of our state, the data shows that migration has not significantly impeded international trade unlike the effects of COVID-19. However, as noted by the Federal Reserve Bank of Dallas in the hearing, if resources are diverted from ports of entry to process migrants, the state may begin to see greater impacts on trade.

RECOMMENDATIONS

1. The Legislature should continue to work with its state agencies to stay educated on the impacts of migration on international trade while ensuring international trade infrastructure is not impeded by the ebbs and flows of migration.

INTERIM CHARGE 3: TRANSPORTATION PLANNING URGENCY

Study current and future transportation needs and consider improvements to ensure that Texas is adequately planning for the state's population growth forecasts. Evaluate the impacts of the COVID-19 pandemic on transportation projects and investment decisions.

SUMMARY OF COMMITTEE ACTION

The House Committee on Transportation addressed this interim charge on April 26, 2022 in a public hearing at the Texas Capitol. The committee heard testimony from the Texas State Demographer, Texas Department of Transportation (TxDOT), Texas A&M Transportation Institute (TTI), and numerous other stakeholders. The public hearing notice, meeting minutes, witness list, and handouts can be found on the website for the Texas House of Representatives, www.house.texas.gov, or the hyperlinks below:

April 26, 2022

[Hearing Notice](#)

[Meeting Minutes](#)

[Witness List](#)

[Handouts](#)

BACKGROUND

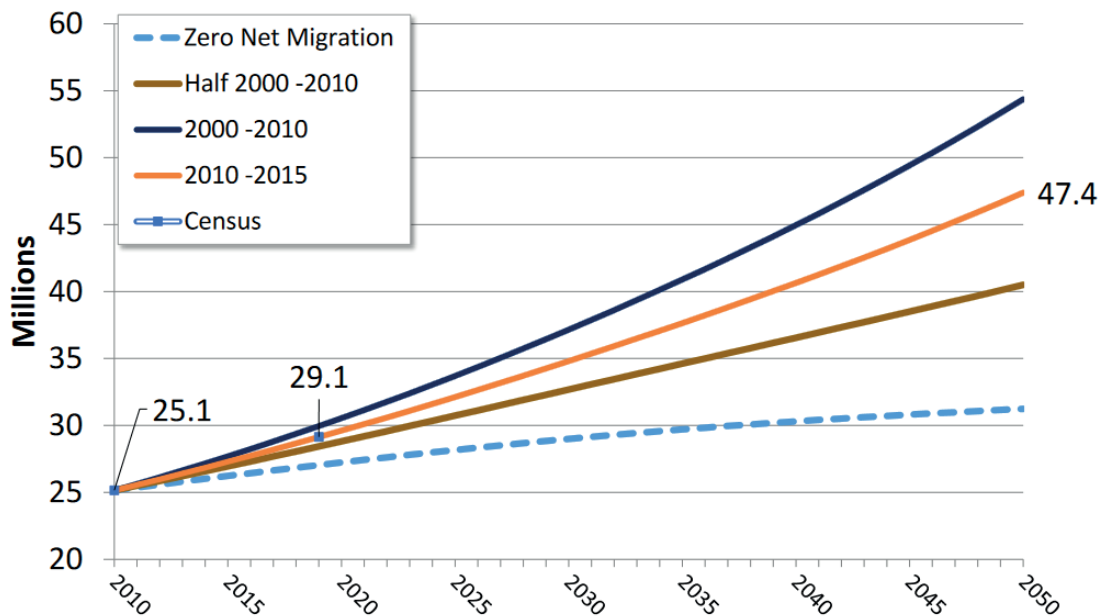
The April 26, 2022 interim hearing was a unique moment for the transportation community in that all stakeholders intersected at a single, unifying question: Is Texas adequately preparing its transportation systems for the next generation? In an attempt to answer the question, the Committee heard testimony from a variety of experts and visionaries, and their testimony provided the bulk of this section.

The Texas State Demographer

The Texas State Demographer, Dr. Lloyd Potter, provided an in-depth analysis of Texas' current and future population. According to his testimony, in the 2020 census, Texas's population was over 29 million, adding approximately 4 million Texans in the last decade: 2010-2020. This is more than any other state in the nation during that same time. Texas also grew fast—at a rate of 15.9% over the decade.⁷⁹

In 2021, the state added an estimated 310,000 Texans in one year while the United States only added an estimated 392,000 in the same year.⁸⁰ Every single day, approximately 1,100 individuals are added to the Texas population.⁸¹ By 2050, only 28 years away, Texas's population is projected to increase 62% to approximately 47 million, representing the average growth rate.⁸² An above-average yet reasonable growth scenario alternative shows the Texas population growing to

approximately 55 million by 2050: a 90% increase.⁸³



As noted by Dr. Potter, the majority of the population growth throughout the last decade has been in the state’s major urban areas like Houston, Dallas, Fort Worth, San Antonio, and Austin.⁸⁴ Three other regions—the Rio Grande Valley, El Paso, and Midland/Odessa—grew quickly as well.⁸⁵ The State demographer anticipates future population growth to remain focused in all of these regions.⁸⁶

Moreover, Dr. Potter added that domestic migration—citizens moving from other states to Texas—is the most significant measure to monitor in terms of transportation demand. Domestic migration means people are moving to Texas, living in a house or apartment, and bringing one or two cars with them. The use of the state highway system by domestic migrants begins immediately. Population growth by natural increase—meaning more births than deaths—is a much more gradual process.

Domestic migration is primarily occurring in the suburban ring counties around major metropolitan centers and along the I-35 corridor.⁸⁷ In west Texas, the urbanized areas in the Permian Basin are experiencing significant domestic migration because of the energy industry.⁸⁸

In terms of actual population growth from 2010-2020, Harris, Bexar, Tarrant, Collin, Travis, and Dallas counties were among the top 11 fastest-growing counties in the entire United States.⁸⁹ Harris County was the 2nd fastest growing in the entire country. In terms of the highest percent growth, Hays, Comal, Williamson, and Fort Bend counties were among the fastest growing in the country. As previously mentioned, this fast growth is from domestic migration.⁹⁰

Texas’s five metro areas—Houston, Dallas, Fort Worth, San Antonio, and Austin—represent 67% of the Texas population, and 87% of all Texans live in counties along and east of I-35.⁹¹ Meanwhile, by 2050, when the state population approaches 50 million, our transportation systems must be capable of supporting not only a 62% increase in population but also the immense increase in commercial motor vehicle travel.⁹²

According to TxDOT’s [Texas Transportation Plan 2050](#), adopted in August 2020 by the Texas Transportation Commission, more than 2.2 billion tons of freight moved within Texas on the state’s transportation network in 2016. This is expected to grow to 4 billion tons by 2045. Highway tonnage is expected to double from 1.2 billion tons in 2016 to 2.5 billion tons in 2045, a projected increase of 1.3 billion tons and growth of 108%. During this period, the value of freight moved in Texas is forecasted to grow by 213% from \$1.7 trillion to \$5.2 trillion. The state’s economy is projected to grow by over 250% between 2020 and 2046, from a gross state product of approximately \$2 trillion to nearly \$7 trillion.⁹³

The Texas Department of Transportation

The Executive Director of TxDOT, Marc Williams, also testified during the committee hearing. He noted that, while Texas will have an estimated 62% increase in population by 2050, it will not have an equal increase in vehicle miles traveled—a measurement of the overall miles driven on Texas roads by all drivers. Director Williams said that the vehicle miles travel increase is projected to be approximately 56%. Vehicle miles traveled growth has not historically kept pace with population growth, and there are a lot of variables that affect that rate. However, Texas will certainly have greater growth in freight movement.

In one of his final comments, Director Williams commented that the state motor fuel tax has not been adjusted since 1991, and due to inflation in the National Highway Construction Cost Index—the cost to build a mile of highway—the tax has lost substantial buying power. Director Williams also noted that while Texas has 66% more state motor fuel tax revenue since it was last increased in 1991, the effective buying power has reduced by 33% due to inflation.

Texas A&M Transportation Institute

Dr. David Schrank, Senior Research Scientist and Program Manager for the Texas A&M Transportation Institute, provided a snapshot of how the state has evolved over the last two decades on transportation. Since 2000, Texas has seen a growth of 32% in travel, and the yearly travel time for the average commuter grew 14 hours in the last nine years. In 2019, the average commuter wasted 56 hours in traffic congestion. The cost of traffic congestion in 2019 was \$17.6 billion.

**“TEXAS CAN NOT
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CONGESTION OF
THE FUTURE.”**

During the hearing, Dr. Schrank articulated a phrase that is well understood in the transportation community: Texas can not build itself out of the congestion of the future. He followed this recitation with an acknowledgment that Texas can not, however, afford to stop trying and must adopt better practices. The public and private entities of Texas need to incorporate a variety of solutions to tackle the increased congestion: incorporate work-from-home options, provide flexible work strategies, invest in technology and automation to improve traffic flows, and invest in high rate of return projects. Moreover, transportation leaders should provide more choices to slow the growth in vehicular traffic, including managed lanes, transit options, bike options, and walking options. Dr. Schrank also noted that land use and strategic urban centers are vital components of transportation systems. Urban centers should be built to reduce the necessity for passenger vehicles by providing short distances from jobs, shops, and residences.

Forward-Thinking Transportation Planning in Metropolitan Regions

Michael Morris, the Transportation Director for the North Central Texas Council of Governments (NCTCOG), which is the metropolitan planning organization for the Dallas/Fort Worth region, testified that in 1979 the population of that region was growing by one million people every ten years. The region is now growing by one million people every seven years. In terms of planning, NCTCOG is looking 20 years into the future and planning for 3.7 million more people.

He also noted that there will be significantly more demand on the transportation networks in the 20 to 30-year future, and every city in the state is going to need significantly more transportation funding to meet their challenges. Morris had four areas of recommendation for policymakers to help focus long-term transportation planning considerations while prefacing that the costs of mega projects, such as I-35, and construction cost inflation are significantly outpacing revenue. Moreover, he noted that, considering Texas's current transportation revenue trajectory, the state's revenue will not catch up to its needs unless revenue streams improve.

Below are the four suggestions: (1) Better support for the state's mega-regions in optimizing capacity and safety. Autonomous vehicles and trucks are already here, and if the state plans accordingly, they can be used to free up capacity on inner-city freeways. (2) Review metropolitan trends in the last 15 years and project them forward, including navigational data and land use. The Dallas-Fort Worth region added 1.2 million in 11 years and traffic congestion only increased by four percent. This trend is not comparable in other metropolitan areas. While Morris was not trying to sell the Dallas-Fort Worth solution to other parts of Texas, he said that the region would like to be able to continue its solutions going into the future. (3) Technology is the state's friend. Autonomous passenger vehicles and trucks will be safer than humans. The state should have an interest in adopting and encouraging the adoption of technology to solve transportation problems. He believes that adopting transportation technologies should be a registered position of transportation policymakers. Additionally, he encouraged transportation designers to build freeways for 20 to 30 years into the future with traffic mitigation technology considerations, such as autonomous vehicles and on-the-fly electric vehicle charging. (4) Lastly, Morris noted the disconnect between state objectives and that more is needed to assist metro regions to address safety, technology, and clean air. Whereas Texas often cuts property taxes and has refrained from raising the state motor fuel tax in the last 30 years, cities have needed to pass bonds, due to inadequate transportation funding, to pay for projects. These bonds are paid by property revenues. Morris suggested that to help reduce property taxes, the state should look at improving transportation revenue streams so that communities are not limited to passing bonds to compensate. Morris also mentioned that there is a growing need to bring together transportation leaders and technology innovators to better identify and solve transportation problems moving forward.

Mass Transportation Alternatives

In one of his first comments to the committee, Mario Delgado, representing the Texas Transit Association, said that while transit does not increase revenues to help construct and maintain roads, Regional Transit Authorities (RTA) provide the opportunity to reduce highway capacity. RTAs not only provide mass transportation options to communities, but they build infrastructure as well,

including deploying bike-sharing options, building sidewalks, building bike lanes, reducing congestion, creating jobs, and pioneering innovative technologies like adopting natural gas and electric vehicles. RTAs are adaptive and are at the forefront of emergency and disaster responses for communities.

There are 75 transit entities in Texas, divided into three district types: 36 rural transit districts, 31 urbanized districts, and 8 metropolitan transit authorities.⁹⁴ RTAs are facing their share of challenges ahead as well. RTAs have a statewide transit driver shortage, partly due to the backlog of testing appointments at the Texas Department of Public Safety (TxDPS). Getting new employees' commercial driver's licenses through TxDPS can take several weeks to months. Moreover, RTAs struggle to find personnel and transit equipment, like vehicles, and they are also seeing their costs skyrocket with limited options to increase revenues.

Tom Lambert, President and CEO of the Houston Metro, testified that 7 million people live in the Houston region, and by 2040, the population will grow to 10 million. In the same time period, 4.4 million jobs are anticipated to be created—ostensibly adding significant traffic to the already congested Houston region. The future of the Houston region will require multimodal solutions that give people options: bicycles, light rail, sidewalks, transit, ride-sharing, and other innovative transportation ideas. Lambert noted that highway expansions going forward need to have the ability to accommodate efficient mass transportation alternatives. To truly combat the mass population growth, technology and transportation options should be at the forefront. Lambert also asserted that the state needs to be coordinated in planning for the future and that all of it is fundamental to our state's continued economic success.

Texas Railroad

The President of the Texas Rail Advocates, Peter LeCody, informed the committee that Texas has the most rail miles of any state in the nation, has over 10,000 rail crossings, and moves more freight cars than any other state. The state has some urban passenger rail, but it has weak connections between major cities. Over the last decade, Texas has missed out on approximately \$90 billion in federal competitive grant opportunities for freight and passenger rail because the state does not participate in or financially support private rail grants. While many recognize that the Infrastructure Investment and Jobs Act (IIJA) is a once-in-a-generation investment in the railroad industry, Texas will miss out on all of it unless something changes. LeCody suggested a kick-start general appropriation from the Texas Legislature of 20% or more matching funds for IIJA grants could help Texas seize federal rail improvement funding.

One conduit for this appropriation could be the flexible Texas Rail Relocation and Improvement Fund, which was created by Texas voters via a constitutional amendment in 2005. While Texas voters wanted more rail opportunities, the Legislature never capitalized the fund. LeCody emphasized that investing in rail expands economic opportunity, relieves congestion on highways, and enhances public safety. Moreover, TxDOT created the Texas Rail Plan many years ago to reflect rail project priorities and fulfill eligibility requirements for federal funding of rail projects, but no project in the plan was ever funded. There is opportunity to invest in freight and passenger rail in the 88th legislative session while the Legislature has a significant surplus in rainy day funds.

[Texas Rail Plan – Executive Summary](#)

Short Line Rail Industry

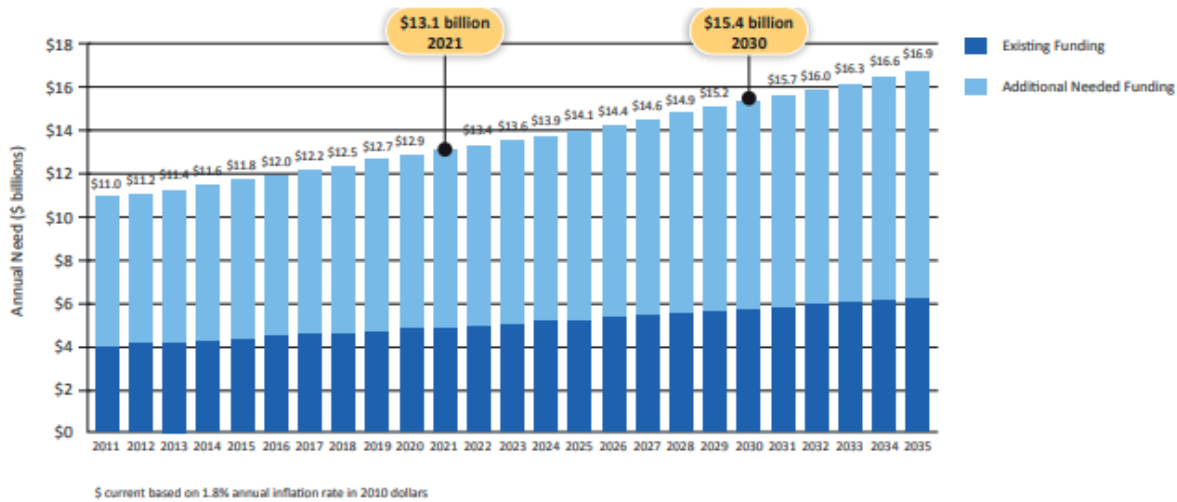
The President of the Texas Short Line and Regional Railroad Association (TSLRRA), Paul Treangan, gave the committee a primer on the short line rail industry. TSLRRA is comprised of 41 short line rail companies all over Texas, including the gulf coast, south Texas, the panhandle, many metropolitan regions, and dozens of rural towns. Short line rail tracks in Texas average about 20 miles long yet are approximately 20% of the freight rail network in the state. Their combined efforts move approximately 360,000 railcars a year, and they take approximately 1,260,000 trucks off the state and county transportation networks. Short line railroad companies are Class 3 railroads as opposed to Union Pacific, BNSF, and Kansas City Southern railroads, which are Class 1. Short lines mostly operate in small towns and are local businesses that are tied to local communities. Their lines are often the “on-ramps” to major rail corridors for shippers. Whereas Class 1 railroads have the resources to inject billions of dollars into their rail lines each year, Class 3’s do not have the ability to do so—meaning they struggle to keep up with maintenance and upgrades.

Treangan highlighted that Texas is one of the few states that has not actively participated in Federal Rail Administration funding options to assist or encourage short line capital investment to aid in congestion relief on the state highway system. Many states invest in short line rail through partnerships with the industry, such as creating investment tax credits, matching federal railroad administration loans and grants, or other creative ways to move state and fed transportation revenue through the state’s department of transportation. Short line rail companies struggle to keep up with track improvements over bridges, enhance safety at interchanges, and improve grade separations and crossing because funding is so limited. Treangan finished by emphasizing that Texas is positioning itself to pass up on a once-in-a-generation rail infrastructure funding because it has failed to prioritize rail—and the Texas Rail Relocation and Improvement Fund is just one way in which the state can help the rail industry.

The Elephant in the Room

In the hearing, Peyton McKnight, the President of the American Council of Engineering Companies (ACEC), as corroborated by many speakers during the hearing, highlighted one of the biggest transportation issues that Texas is facing: insufficient funding. McKnight noted that the association has assessed that, as a result of multiple mega projects and the spike in the National Highway Construction Cost Index—the measure of the average change over time in the prices paid by state transportation departments for roadway construction materials and services—Texas is underfunding transportation infrastructure by \$7.2 billion every year just to keep up with 2010 transportation levels.⁹⁵ Moreover, the \$7.2 billion shortfall will continue to increase over the decade to over \$9.3 billion per year. In essence, Texas is woefully underfunding transportation infrastructure, and ACEC, using the 2030 Committee Report as the foundation of their analysis, appears to be the only entity that has published a methodology to identify the shortfall value.

Figure II.B.1 2030 Committee Report Projection of Funding Needs (\$ Current)



96

Transportation is financed through a complicated series of revenue streams in which some are steady and others are less so. Prior to the IJJA, TxDOT’s own revenue projections showed a decline in infrastructure revenue during this decade as a result of a reduction in federal funding, which amounts to approximately 33% of TxDOT’s transportation revenue. The IJJA has helped reverse that trajectory for a few years and is adding more than \$1 billion in funding per year over the next five years as compared to previous federal funding.⁹⁷ To take a closer look at Texas transportation finance prior to the IJJA, page 23 of the [Interim Report to the 87th Legislature](#) has an analysis. Lastly, although the state’s revenue projects are not likely to trend downward over the next few years, the funding gap identified by ACEC has not been closed. The Texas Legislature must continue to stay abreast of long-term funding projections to ensure Texas infrastructure is properly funded for the next generation.



98

The 2030 Committee was originally formed in 2008 by the Texas Transportation Commission and consisted of numerous experienced and respected business leaders. The charge to the committee was to provide an independent, authoritative assessment of the state’s transportation infrastructure and mobility needs from 2009 to 2030.⁹⁹ The committee produced its report in 2009. The 2030 Committee was reconvened in 2010 and was charged with developing a forecast for alternative levels of service for the four elements of the Texas transportation system—pavements, bridges, urban mobility, and rural connectivity—along with analyzing potential sources of transportation revenue and determining the economic effects of under-investing in the system. The Committee provided guidance and direction to a team of transportation experts from the Texas A&M Texas

Transportation Institute, the University of Texas at Austin Center for Transportation Research, and the University of Texas at San Antonio. The findings of the second report, published in 2011, are highly regarded in the transportation community in 2022, as it took a comprehensive dive into the infrastructure realities of Texas.

[2030 Committee Report – March 2011 – Executive Summary](#)
[2030 Committee Report – March 2011](#)

However, many notable changes have transformed Texas transportation in the last decade: (1) Texas voters passed into law Proposition 1 and Proposition 7. (2) The 10-yr Unified Transportation Program forecasts have more than doubled. (3) Tolls roads have been temporarily withdrawn as potential transportation infrastructure options for TxDOT. (4) Legislative authority for Comprehensive Development Agreements has expired. (5) Electric vehicle and plug-in hybrid vehicle proliferation have impacted the state motor fuel tax revenues and federal reimbursement totals. (6) Congress passed the once-in-a-generation IIJA that enhanced federal funding opportunities. (7) Multiple mega-projects have been added to the state’s plan. (8) The National Highway Construction Cost Index has shown a significant increase in the cost of building roads over time. (9) Texas had the highest actual population growth of any state from 2010-2020.

Considering the success of the 2030 Committee in identifying the state’s transportation issues and placing a value on the importance of infrastructure investment, the Texas Legislature should commission a 2045 Committee with the same objectives.

COVID-19 Impact

According to TxDOT, there have not been any sizeable negative effects on project delivery by the impacts of COVID-19. Although there was a reduction in state motor fuel taxes due to a reduction in overall vehicle miles traveled by the motoring public, the state rebounded quickly and is near normal.¹⁰⁰ TxDOT’s employees continued with their responsibilities and the letting process proceeded, allowing project delivery to stay on track.

FINDINGS

As noted by the various transportation leaders that testified at the committee hearing, Texas has succeeded in growing economically and in population over the last decade. However, while the state has grown, it is facing new challenges that are stressing our state’s ability to keep up with that growth.

It is of paramount importance that the Texas Legislature has a realistic plan for its achievable long-term transportation infrastructure objectives, and it should not allow the next generation to be burdened with correcting the mistakes of poor planning. To solve this problem, the Texas Legislature should commission a 2045 Committee, paneled by the top transportation leaders in Texas, to keep the Legislature informed for policy discussions. While the 2030 Committee report looked into the state’s future in 2010, it is time for the Legislature to look further.

RECOMMENDATIONS

1. The Legislature should convene a committee similar to the 2030 Committee of 2008 and 2010 to assess the state's transportation infrastructure and mobility needs through 2045. Similarly to the 2030 Committee, the 2045 Committee should develop an analysis of the current state of the Texas transportation system, determining the household costs of under-investing in the system, and identifying potential revenue options to fund transportation improvements.
2. The Legislature should appropriate funding into the Texas Rail Relocation and Improvement Fund to be used as a strategic funding mechanism to assist the rail industry in seizing IJJA rail grant funds for improvements to the state's rail infrastructure.

INTERIM CHARGE 4: INFRASTRUCTURE INVESTMENT & JOBS ACT

Study the impacts that increased federal funding, formula changes, and new programs authorized in the Infrastructure Investment and Jobs Act will have on state transportation projects. Evaluate strategies to ensure Texas communities can maximize receipt of federal grant funds.

SUMMARY OF COMMITTEE ACTION

The House Committee on Transportation addressed this interim charge on October 6, 2022 in a public hearing at the Congressman Solomon P. Ortiz Center in Corpus Christi, Texas. The committee heard testimony from the Texas Department of Transportation (TxDOT) and the public. The public hearing notice, meeting minutes, witness list, and handouts can be found on the website for the Texas House of Representatives, www.house.texas.gov, or the hyperlinks below:

October 6, 2022

[Hearing Notice](#)

[Meeting Minutes](#)

[Witness List](#)

[Handouts](#)

BACKGROUND

The Infrastructure Investment and Jobs Act (IIJA), also referred to as the Bipartisan Infrastructure Law, was signed into law by President Joe Biden on November 15, 2021, representing a \$1.2 trillion, once-in-a-generation federal investment into United States infrastructure.¹⁰¹ The IIJA funding includes investments in transportation infrastructure, environmental infrastructure, energy infrastructure, broadband infrastructure, cybersecurity, disaster response, and more.¹⁰² It is the largest long-term investment in United States' infrastructure and competitiveness in nearly a century.¹⁰³

As charged to the committee, the House Committee on Transportation focused its time on the impacts of increased funding to transportation infrastructure in Texas. Countless summaries of the over 1,000-page law have been compiled and published online; therefore, this section of the report will provide a simplified overview of the IIJA and how it affects Texas, including resources for small towns and transportation electrification. Additional materials will be provided in hyperlinks for a deeper dive into the IIJA.

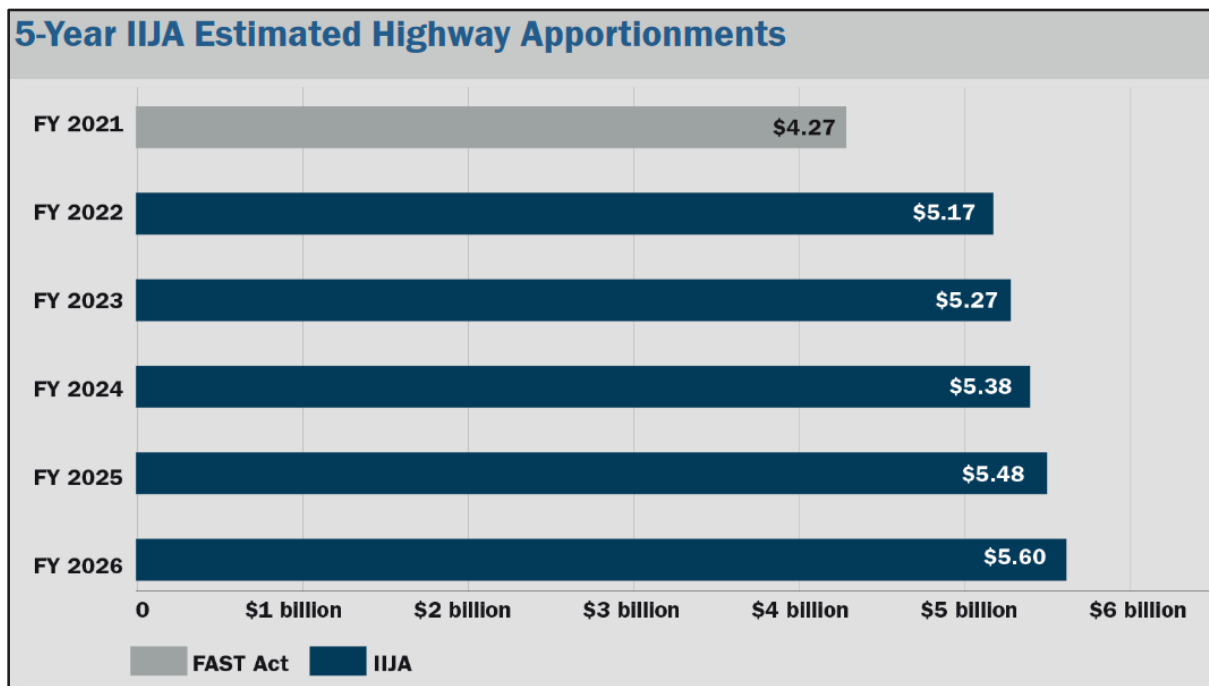
Federal Funding Impacts on TxDOT Funding

For fiscal year 2022-2023, TxDOT has 33% of all of its revenue coming from federal funds, amounting to approximately \$9.8 billion of a \$30 billion two-year budget.¹⁰⁴ It amounts to the largest single source of revenue for Texas transportation infrastructure. At the federal level, revenue collected from the federal tax on gasoline and diesel is deposited in the federal Highway Trust Fund. Highway Trust Fund dollars are then distributed to states in amounts primarily

determined by highway and transit formulas.¹⁰⁵ Since 1993, the federal motor fuel tax rate has remained at 18.4 cents per gallon of gasoline and 24.4 cents per gallon of diesel fuel. These collections have not kept up with the rising demands on the nation’s transportation system. Therefore, since 2008, Congress has supplemented the Highway Trust Fund with federal general revenue to add to the federal gas tax collections.¹⁰⁶

IIJA Overview and Impacts on Texas


First and foremost, the IIJA provides a five-year reauthorization of federal transportation funding programs for federal fiscal years 2022 through 2026. Generally, these federal transportation funding programs were previously enacted in 2015 in the Fixing America's Surface Transportation Act (FAST Act). However, the IIJA significantly increased the amount of federal funding compared to the FAST Act and created four new funding programs.¹⁰⁷ For example, in 2022 TxDOT will have received a 21% increase in federal apportionments, amounting to over \$1 billion of additional federal funds per year.¹⁰⁸ By 2026, TxDOT will receive an estimated 30% increase in federal apportionments.¹⁰⁹ In the committee hearing, TxDOT noted that, although there is a 21% increase in federal funds to Texas now, the increase is only 6% of their annual appropriations.¹¹⁰ These funds are referred to as formula funds, which are automatically assigned to Texas. TxDOT provided the graph below to the committee at the hearing, showing the estimated federal highway funds over the next five years. It also shows the apportionments TxDOT received in 2021 under the FAST Act for comparison.



111

TxDOT also provided the graphic below, underscoring the specific formula funding Texas will receive over the next five years under the IIJA. The graph shows the four new funding programs mentioned previously.

5-Year IIJA Estimated Program Allocations (\$ millions)


Highway Formula Funding		Transit		Aviation		Ferry Service	
National Highway Performance Program	\$14,783.30	Public Transit	\$450.10	General Aviation Airports	\$173.00	Construction (boats, terminals)	\$35.48
Surface Transportation Block Grant (STBG) Program after Transportation Alternatives (TA) Set-Aside Program	\$6,472.70						
Highway Safety Improvement Program	\$1,572.30						
Rail-Highway Grade Crossings	\$104.10						
Congestion Mitigation & Air Quality	\$989.60						
Transportation Alternatives	\$719.20						
Metropolitan Planning	\$178.10						
National Highway Freight Program	\$704.00						
Carbon Reduction Program (CRP)	\$641.30						
Pre-disaster Mitigation Resiliency (PROTECT)	\$729.20						
EV/Alt. Fuel Charging Corridors	\$407.80						
Bridge Rehab/Replace	\$537.20						
Total Highway Trust Fund (HTF) Contract Authority	\$27,838.80						

112

In addition, the IIJA included funding for numerous new and existing discretionary grant programs that states, cities, counties, and other entities may apply for if eligible. TxDOT has compiled a list of the IIJA discretionary grants on their website, which can be viewed at the following link: [IIJA Discretionary Grant Programs](#). The graphic below also provided by TxDOT depicts most but not all discretionary grants and the eligible entities that may apply for each:

Federal Discretionary Grants and Eligible Entities

Grant Programs	State	MPO	Local	Tribe	PA*
Rebuilding American Infrastructure Sustainably & Equitably (RAISE) Grants	✓	✓	✓	✓	✓
Port Infrastructure Development Program Grants	✓		✓		✓
Bus & Bus Facilities Competitive Grants	✓		✓	✓	✓
National Infrastructure Project Assistance (also known as "Megaprojects" or MEGA)	✓	✓	✓	✓	✓
Infrastructure for Rebuilding America (INFRA) Grants	✓	✓	✓	✓	✓
Rural Surface Transportation Grant Program	✓		✓	✓	
Safe Streets & Roads for All Program		✓	✓	✓	
Bridge Investment Program (discretionary)	✓	✓	✓	✓	✓
Reconnecting Communities Pilot Program	✓	✓	✓	✓	
Railroad Crossing Elimination Grants	✓	✓	✓	✓	✓
Charging & Fueling Infrastructure Grants	✓	✓	✓	✓	✓
Advanced Transportation Technologies & Innovative Mobility Deployment	✓	✓	✓	✓	✓
Consolidated Rail Infrastructure & Safety Improvements Grant Program	✓		✓	✓	✓
Strengthening Mobility & Revolutionizing Transportation (SMART) Grants	✓	✓	✓	✓	✓
Wildlife Crossings Pilot Program	✓	✓	✓	✓	✓
National Culvert Removal, Replacement, & Restoration Grant	✓		✓	✓	
Promoting Resilient Operations for Transformative, Efficient, and Cost Saving Transportation Grant	✓	✓	✓	✓	✓
Congestion Relief Program	✓	✓	✓		



*This table includes grant programs in the IIJA and eligible entities. It is not an exhaustive list of programs or entities.
 **"PA" means a special purpose district or public authority with a transportation function.

113

Small Towns and Rural Texas Benefiting from the IIJA

Population and traffic congestion are not only a growing concern in metropolitan regions, but rural communities are facing the same issues.¹¹⁴ Fortunately, the IIJA has increased federal formula funding for small towns and rural communities and has ensured them the opportunity to apply for many of the discretionary grants.¹¹⁵ TxDOT informed the Committee during the hearing that those

local governments who want to learn more about the discretionary grants and whether their community may be eligible for them should reach out to their regional TxDOT District Offices for assistance.

In April 2022, the White House published the Bipartisan Infrastructure Law Rural Playbook for communities wanting to seize opportunities in the new law. According to the National Conference of State Legislatures (NCSL), “the guidebook provides information for rural communities on all available resources under the IIJA, where to apply, funding flexibilities, and how to find more information. It also includes a list of more than 100 programs with cost share or matching requirement waivers. There are also federal agency-specific fact sheets for all rural programs within the IIJA.”¹¹⁶ These two resources can be found at the hyperlinks below:

[Bipartisan Infrastructure Law Rural Playbook](#)
[Federal Agency Fact Sheets for All Rural Specific Programs](#)

Electric Vehicle Infrastructure and Electric School Buses

One of the new formula programs in the IIJA is the National Electric Vehicle Infrastructure Formula Program, which provides funding to states to strategically deploy electric vehicle charging infrastructure and establish an interconnected network to facilitate data collection, access, and reliability.¹¹⁷ Under the formula, Texas is scheduled to receive \$407.8 million for this initiative as long as it follows the steps to obtain it.¹¹⁸ One of the steps is to produce an extensive Electric Vehicle Infrastructure Plan to strategize how the state will utilize the funds. TxDOT, in working with other state agencies, has already submitted its detailed plan, and the plan was approved in the fall of 2022. Below is a hyperlink to the plan:

[Texas Electric Vehicle Infrastructure Plan](#)

TxDOT has also created a hub for Texas Electric Vehicle Planning resources. One of those resources includes an interactive map that shows where TxDOT plans to build EV charging infrastructure in the future.

[TxDOT’s Texas Electric Vehicle Planning Resources](#)
[TxDOT EV Interactive Map](#)

School buses travel over four billion miles each year, providing safe transportation to and from school for more than 25 million children every day.¹¹⁹ In light of this reality and in addition to the National Electric Vehicle Infrastructure Formula Program, the IIJA authorized the United States Environmental Protection Agency to offer rebates to replace existing school buses with clean and zero-emission models, such as electric school buses. For each fiscal year between 2022 and 2026, \$500 million is available to fund zero-emission and clean school buses, and \$500 million is available to fund only zero-emission school buses. Eligible applicants include state and local governmental entities that provide bus services, including public school districts.¹²⁰ Additional information on the Clean School Bus (CSB) Program may be found at the following hyperlinks:

[CSB Program Information Hub](#)
[CSB Rebates Program Overview](#)

FINDINGS

On the impacts of IIJA, at least two things are clear: (1) Texas is the single largest beneficiary of funding in the IIJA formula funds, making Texas a true winner under the new law.¹²¹ (2) Texas legislators have put a considerable focus on road funding over the past decade, and as a result, the IIJA has provided less of an increase to the state's overall road and bridge funding compared to other states. Moreover, there are opportunities for every community in Texas to benefit from the IIJA funds.

According to the North Central Texas Council of Governments, Texas has more than 150,000 electric vehicles registered, including plug-in hybrid vehicles.¹²² Although that represents only about 1% of Texas vehicles, Texans are quickly embracing them: Since 2020, the number of electric vehicles and plug-in hybrids in Texas has almost tripled.¹²³ The Electric Reliability Council of Texas, ERCOT, projects that Texas will have approximately 1 million of these vehicles on the road by 2028.¹²⁴ Fortunately, TxDOT is positioning the state to be ready for them.

Additional resources to learn about the IIJA and the federal highway programs are at the hyperlinks below:

[NCSL Section-by-Section Summary of IIJA](#)

[NCSL IIJA Presentation](#)

[Texas IIJA Fact Sheet](#)

[TxDOT Legislative Resources on IIJA and More](#)

[Federal Highway Programs: In Brief](#)

RECOMMENDATIONS

1. The Legislature should encourage TxDOT to expand its outreach to smaller and rural communities and provide them with information to apply for IIJA discretionary grant opportunities. Many smaller and rural communities do not have the resources to focus on these opportunities.
2. The Legislature should continue to monitor TxDOT's efforts to seize federal funding opportunities under the IIJA, including applying for discretionary grants that benefit state infrastructure.
3. The Legislature should encourage TxDOT to have additional infrastructure projects ready for construction in order to seize any extra redistributed IIJA formula funds that may come available.
4. The Legislature should continue to monitor TxDOT's efforts to prepare the state with strategic electric vehicle charging infrastructure.

INTERIM CHARGE 5: ROAD USE REVENUE PARITY

Study the impact of the increasing sale and use of electric and alternatively fueled vehicles on revenue predictions for the state highway fund. Recommend a road use revenue equalization methodology to create fairness and parity between gasoline, electric and alternatively fueled vehicles.

SUMMARY OF COMMITTEE ACTION

The House Committee on Transportation addressed this interim charge on April 26, 2022 in a public hearing at the Texas Capitol. The committee heard testimony from the Texas Department of Motor Vehicles (TxDMV) and a diverse set of stakeholders. The public hearing notice, meeting minutes, witness list, and handouts can be found on the website for the Texas House of Representatives, www.house.texas.gov, or the hyperlinks below:

April 26, 2022
[Hearing Notice](#)
[Meeting Minutes](#)
[Witness List](#)
[Handouts](#)

BACKGROUND

On December 1, 2020, TxDMV released a comprehensive study, in accordance with [Senate Bill 604 \(86R\)](#), that discussed many core components of this interim charge. Whereas the study, TxDMV's [Study on Imposing Fees on Alternately Fueled Vehicles](#), does not make a specific recommendation to the Legislature on what fee and fee arrangement to adopt, this section adds a bit more to that conversation.

When a driver of a gasoline-powered vehicle refills their fuel tank, they pay a state and federal tax on each gallon of gasoline that they purchase. In Texas, regardless of the price of a gallon of gasoline that day, every gallon of gasoline has a 20-cent state motor fuel tax and an 18.4-cent federal motor fuel tax. For the state motor fuel tax, 15 cents is deposited into the state highway fund, and 5 cents is dedicated to public education. Generally, for the federal motor fuel tax, almost all of the tax revenue is deposited into the Highway Trust Fund, a federal fund with a variety of revenue sources. This fund is later redistributed via complex algorithms to all fifty states. The vast majority of the two revenue streams are required to be spent on the construction and maintenance of the state highway system.

A driver of a battery electric vehicle—a vehicle with a battery pack that stores electrical energy that powers the motor—refuels their car by plugging their car's battery into the power grid. They do not pay a motor fuel tax at the state or federal level; therefore, these drivers are not contributing to the construction and maintenance of the state highway system at the same rate as gasoline-powered vehicle drivers. A similar issue persists with other alternatively fueled vehicles, such as hybrid electric vehicles, plug-in hybrid electric vehicles, natural gas vehicles, propane gas vehicles, and hydrogen fuel cell vehicles. This disparity is the issue to be solved.

However, this report focuses on battery electric vehicles, hybrid electric vehicles, and plug-in hybrid electric vehicles, and for simplicity's sake, these three are routinely referred to as electric vehicles. This report does not focus on natural gas vehicles, propane gas vehicles, or hydrogen fuel cell vehicles since there are limited amounts of these vehicles registered in Texas.¹²⁵ As of 2021, only 0.02% of all vehicles registered in Texas were powered by natural gas, propane gas, and hydrogen gas combined.¹²⁶

Highlights of TxDMV's Study on Imposing Fees on Alternately Fueled Vehicles

The study provides several key data points that are important considerations:

Average Annual Mileage of a Gasoline-Powered Light Duty Vehicle:	11,484 miles
Average Fuel Efficiency of a Gasoline-Powered Light Duty Vehicle:	22.3 miles per gallon
Average Annual Gallons of Gasoline Used per Light Duty Vehicle:	514.98
Average Annual State Gasoline Tax Revenue per Light Duty Vehicle:	\$103
Average Annual Federal Gasoline Tax Revenue per Light Duty Vehicle:	\$94.76
Average Gasoline-Powered Vehicle Cost per Mile in State Gas Tax:	<\$0.01
Average Gasoline-Powered Vehicle Cost per Mile in Federal Gas Tax:	<\$0.01
Average Annual State and Federal Tax Revenue per Light Duty Vehicle:	~\$198

The data can be found in the following paragraphs of the study:

“The U.S. Department of Transportation’s Bureau of Transportation Statistics estimated that in 2018, the average miles traveled per vehicle for all light duty vehicles in the United States was 11,484 miles. Additionally, recent data available by the same agency states that in 2017, the average fuel efficiency for a light duty vehicle—an ordinary passenger vehicle—in the United States was 22.3 miles per gallon.”¹²⁷

“If the 11,484 average miles traveled per vehicle for all light duty vehicles in the United States is divided by 22.3 miles per gallon of gasoline, it can be determined that the average light duty vehicle needs a total of 514.98 gallons of gasoline a year. To determine what that means in gasoline tax revenue, 514.98 gallons of gasoline need to be multiplied by the Texas state gasoline tax rate of \$0.20 a gallon. This calculation determines that the average light duty vehicle pays an average of nearly \$103 in state gasoline tax revenue per vehicle. If 514.98 gallons of gasoline is multiplied by the federal tax rate of \$0.184, the average light duty vehicle pays an average of \$94.76 in federal gasoline tax revenue per vehicle. It is worth noting, that Texas does not receive an equal return in gasoline taxes submitted to the federal government, but for purposes of analysis, we will assume a 100% return on federal gasoline taxes to the state.”¹²⁸

“To narrow that number down to a per-mile basis, when the estimated annual state gas tax collected amount of \$103 is divided by the average annual miles driven per light duty vehicle of 11,484, it is estimated that the average gasoline-powered vehicle pays slightly less than \$0.01 per mile driven in state gasoline tax, and similarly less than \$0.01 per mile driven in federal gasoline tax.”¹²⁹

Revenue Equalization Methodologies

There are a few different methodologies that are used in other states that have attempted to solve the parity issue: (1) A flat fee, (2) a fee on the mileage driven of a vehicle over time, (3) a fee on the electricity usage, and (4) an option of any or all of the three. Each of these strategies has advantages and disadvantages that will be discussed below.

Another important factor in assessing a revenue equalization methodology is whether the state should set a methodology that incorporates the federal funds reimbursements. At this time, the federal government is not assessing a specific fee on drivers of electric vehicles to compensate for their lack of paying the federal motor fuel tax; therefore, the state is not receiving equivalent federal funds from the Highway Trust Fund reimbursements. To elaborate further, one factor among a few in the formula for redistribution of the Highway Trust Fund to each state is the estimated tax payments attributable to highway users paid in that state into the Highway Trust Fund.¹³⁰ If electric vehicles in Texas are not purchasing gasoline, then the Highway Trust Fund formula for Texas's share is reduced. Ultimately, this impacts the state's ability to deliver construction and maintenance projects in the state highway fund, especially considering that federal funds make up approximately 33% of TxDOT's total transportation infrastructure revenue.¹³¹ Prior to the Infrastructure Investment and Jobs Act (IIJA), Texas was receiving approximately 95 cents back in federal funds for every \$1.00 of federal motor fuel tax paid—the only state in the country that receives less than what their state drivers contribute to the Highway Trust Fund.¹³² It is unclear under the IIJA whether Texas is still considered a donor state.

A Flat Fee

According to the TxDMV study, as of early 2020, 29 states have levied an additional registration fee specific to electric vehicles to resolve the issue.¹³³ The chart below shows specific fees per state and may be found on page 35 of the study.¹³⁴ The average flat fee across the country for battery electric vehicles is \$119.54, and the average flat fee across the country for plug-in hybrid electric vehicles is \$70.97.

Advantages and Disadvantages of a Flat Fee

A flat fee is the quickest and easiest method of solving the revenue problem. TxDMV's presentation to the committee indicated that it was straightforward and efficient to administer, understand, and communicate.¹³⁵ Essentially, the amount of a flat fee is fixed and paid at the time of registration, but it could vary based on vehicle characteristics like weight and specific fuel type.¹³⁶

However, there are consequences to simplicity. While a flat fee is easy to administer, it poorly addresses the fairness and parity concerns with gasoline vehicles. Using the numbers from TxDMV's study, the average annual gasoline vehicle driver travels 11,484 miles a year and pays \$198 in state and federal fuel taxes. Ostensibly, a driver who travels 6,000 miles in the same year will pay \$103.45 in state and federal fuel taxes. A highly used company vehicle that travels 20,000 miles in the same year will pay \$344.83 in state and federal fuel taxes.

The flat fee neither creates parity nor fairness with gasoline-powered vehicles that benefit from a

per-gallon fee assessment; however, it is the simplest methodology, which is primarily why so many states have implemented one despite its flaws.

Annual Fees Specific to Alternately Fueled Vehicles and Alternative Fuels

	Hybrid Electric	Plug-in Hybrid	Electric
Alabama		\$100	\$200
Arkansas		\$100	\$200
California			\$100 ⁶⁶
Colorado		\$50	\$50
Georgia			\$213.69 or \$320.54
Hawaii		\$50	\$50
Idaho		\$75	\$140
Illinois			\$100
Indiana	\$50	\$50	\$150
Iowa		\$32.50	\$65
Kansas*	\$10 or \$20	\$10 or \$20	\$60 or \$70
Michigan**		\$30 or \$100	\$100 or \$200
Minnesota			\$75
Mississippi	\$75	\$75	\$150
Missouri		\$37.50 - \$500	\$75 - \$1000
Nebraska		\$75	\$75
North Carolina**			\$130
North Dakota		\$50	\$120
Ohio	\$100	\$200	\$200
Oklahoma		\$30 ⁶⁵	\$100 ⁶⁷
Oregon*			\$77 - \$92
South Carolina ⁶⁸	\$30	\$30	\$60
Tennessee			\$100
Utah	\$15	\$39	\$90
Virginia			\$64
Washington	\$75	\$75	\$150
West Virginia		\$100	\$200
Wisconsin		\$75	\$100
Wyoming			\$200
AVERAGE⁶⁹	\$59	\$70.97	\$119.54

Mileage-Based User Fees / Vehicle Miles Traveled Fee / Road User Charge

A mileage-based user fee, a vehicle miles traveled fee, and a road user charge are all terms used to describe the same concept. The state and federal motor fuel taxes, assessed on a gallon of gasoline, are a variation of a mileage-based user fee. Every vehicle travels a certain number of miles per gallon of gasoline; therefore, a driver is essentially paying for the mileage that the gallon of gasoline can take them. At the time of fueling, drivers are paying for their mileage in advance. It is an efficient method with many benefits.

A mileage-based user fee assessment can be accomplished in other ways, such as calculating the mileage of a vehicle from year to year on the odometer during the annual vehicle inspection, using built-in software on a smartphone, or using an

onboard GPS device that logs mileage. According to the National Conference of State Legislature (NCSL), since 2013, at least ten states have enacted studies or pilot programs examining the feasibility of per-mile charges.¹³⁷ These efforts also have been supported by the federal government through the recently replaced Surface Transportation System Funding Alternatives (STSFA) grant program.¹³⁸ These pilot programs are allowing states to slowly roll out the program while gradually ironing out the kinks.

In 2021, the U.S. Department of Transportation Federal Highway Administration awarded Dallas-Fort Worth with a \$5 million grant to demonstrate the feasibility of a smartphone-based alternative to the current gas tax structure. That project is ongoing.

Advantages and Disadvantages of a Mileage-Based User Fee

A mileage-based user fee is one of the fairest methods to resolve the parity and revenue issue. It captures a driver that travels 3,000 miles a year and a driver who travels 15,000 miles a year—exactly as the motor fuel taxes do. The following table shows a hypothetical fee structure for how much revenue is generated if the mileage rate is 1 cent a mile.

Annual Miles Traveled	Fee Rate Per Mile (State Tax)	Fee Rate Per Mile (Federal Tax)	Total Revenue (State Only)	Total Revenue (State and Fed)
3,000	\$0.01	\$0.01	\$30.00	\$60.00
5,000	\$0.01	\$0.01	\$50.00	\$100.00
10,000	\$0.01	\$0.01	\$100.00	\$200.00
12,000	\$0.01	\$0.01	\$120.00	\$240.00
15,000	\$0.01	\$0.01	\$150.00	\$300.00

Below is a hypothetical fee structure showing how much revenue is generated if the mileage rate is $\frac{3}{4}$ of 1-cent (\$0.0075) a mile:

Annual Miles Traveled	Fee Rate Per Mile (State Tax)	Fee Rate Per Mile (Fed Tax)	Total Revenue (State Only)	Total Revenue (State and Fed)
3,000	\$0.0075	\$0.0075	\$22.50	\$45.00
5,000	\$0.0075	\$0.0075	\$37.50	\$75.00
10,000	\$0.0075	\$0.0075	\$75.00	\$150.00
12,000	\$0.0075	\$0.0075	\$90.00	\$180.00
15,000	\$0.0075	\$0.0075	\$112.50	\$225.00

Unfortunately for mileage-based user fees, implementing a new program has its challenges, including implementation costs, collection costs, privacy concerns, educational requirements, and more. However, a new federal grant may help with these costs, and ironclad privacy measures can be established.

The IJA included an updated version of the STSFA, entitled the Strategic Innovation for Revenue Collection grant program, and will provide grants for state-level user fee pilots. It also expanded eligibility from state transportation departments to local governments and metropolitan planning organizations.¹³⁹ The new version of the grant also increases the federal share for new pilot projects to 80%, with a 70% share for recipients who have already received STSFA grant money.¹⁴⁰

Whereas at least ten states have enacted studies or pilot programs examining the feasibility of mileage-based user fees, Utah and Oregon have unique arrangements.¹⁴¹ Oregon and Utah allow drivers to participate in a mileage-based user fee program in lieu of paying other special registration fees on battery electric vehicles and plug-in hybrid electric vehicles.¹⁴² Specifically in Utah, lawmakers set a per-mile rate of 1.5 cents per mile until the accumulated total matches the annual flat fee. Utah's flat fee for electric vehicles is \$123 as of 2022. Participants of the pilot program can never be charged more than this fee and receive monthly invoices based on miles driven. For electric vehicles, \$120 is equal to 8,000 miles driven.¹⁴³

At the committee hearing, TxDMV recognized a mileage-fee-based approach could be done, but there may be challenges ahead. The agency also recognized that the mileage of vehicles could be determined in multiple ways, including self-reported mileage at the time of registration, electronic mileage log of a vehicle onboard system, or reported during the vehicle inspection process.¹⁴⁴ The agency ensured they would continue to remain a resource on this issue to the Legislature and implement the laws as enacted by the Legislature.

Lastly, many drivers may have concerns over the privacy of their driving data in a mileage-based fee assessment depending on the method in which the mileage data is captured. These are legitimate concerns, and the privacy of a driver must be a high priority. However, if the mileage is assessed by logging the vehicle's odometer every year, then one should not have this concern as this data is already collected at the time of a driver's annual vehicle inspection. Plus, specific location data from an annual odometer reading is not possible. If mileage is assessed by using data from an onboard GPS logging device or a smartphone application, then one might benefit from knowing that cellular phones are already tracking devices that log information about one's locations and movement throughout one's day.¹⁴⁵ Regardless of the methodology of logging mileage data, privacy must be strictly adhered to.

A Fee on Electricity Usage

Although some states have looked at assessing fees per-kilowatt hour at the time of charging an electric vehicle, there are many challenges to it. With electric vehicles, most charging will occur at the driver's residence and not at a charging station. To charge a per-kWh fee at a residence, the driver would require a separate meter for determining the electricity consumption of the electric vehicle. Submetering may be an option, but they rely on meters embedded into the vehicle or the charging equipment, and the process of implementing submetering and separating the electric vehicle charging usage from the household usage would require a significant cost. While charging per kWh at the time of charge closely mirrors the transaction that gasoline-vehicle drivers execute at the fuel station, there are roadblocks that would require extensive studying and costs. Meanwhile, other cost-effective and fair solutions would be easier to implement.¹⁴⁶

Option: The Driver Chooses a Flat Fee or Mileage-Based Fee

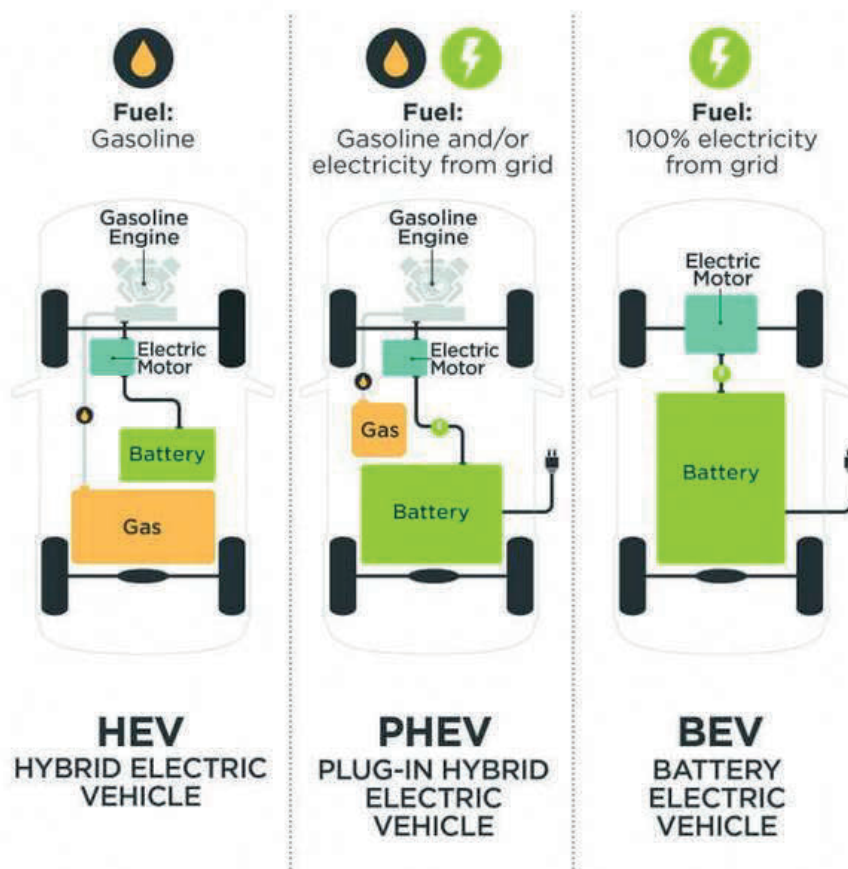
A flat fee and a mileage-based fee option could come in many different forms and allowing drivers to choose their desired fee methodology comes with several benefits and drawbacks. For instance, a driver who is concerned about their privacy may select a flat fee at the time of vehicle registration to ensure their mileage is not logged. Additionally, if a driver is concerned that they will drive only 3,000 miles a year and could be charged an unfair flat fee, they have the option to request a mileage-based fee.

One of the drawbacks to this option is that the state agency implementing the law will need to implement two methodologies with two different fee structures, educate the public, and iron out the logistical kinks, among other challenges. However, similar to how Utah has arranged its fee structure, setting a flat fee while allowing drivers to opt-in to a mileage-based fee pilot program in lieu of the flat fee may allow an organic and incremental growth of the program.

Methodologies for Hybrid Electric Vehicles and Plug-in Hybrid Electric Vehicles

The TxDMV study explained the differences between hybrid electric vehicles and plug-in hybrid electric vehicles:

- Hybrid electric vehicles are powered by an internal combustion engine and an electric motor that uses energy stored in a battery. The battery is charged by the internal combustion engine as well as through regenerative braking. Hybrid electric vehicles do not plug in to charge and must use conventional fuels.
- Plug-in hybrid electric vehicles are powered by an internal combustion engine and an electric motor that uses energy stored in a battery but can also be plugged into an electric power source to charge the battery. Plug-in hybrid electric vehicles can operate using only electric power, only internal combustion, or through a combination of the two and can rely on conventional fuels.



147

Either a flat fee, a mileage-based fee, or an option could be implemented to collect fees for these vehicles. However, most states have not implemented specific fees for hybrid electric vehicles—as seen in a previous chart. Part of the assessment for states is that, generally, hybrid electric vehicle batteries provide much less fuel economy benefits overall than plug-in hybrid electric vehicle batteries provide. Additionally, hybrid electric vehicle batteries are typically much smaller than plug-in hybrid electric vehicle batteries, and hybrid electric vehicles do not plug into the

power grid to charge their battery. Whereas hybrid electric vehicles have improved fuel economy, it is not as significant as plug-in hybrid electric vehicles and does not warrant a new fee.¹⁴⁸

Assessing a fair fee for plug-in hybrid electric vehicles can be a challenge because of the broad spectrum of battery-only driving mileage improvements, referred to as the EV Range, seen between vehicles on the market.¹⁴⁹ Varying models of plug-in hybrid electric vehicles can drive on their plug-in battery alone between ~10 miles to up to ~150 miles before the gasoline engine provides assistance.¹⁵⁰ InsideEVs has information comparing EV Ranges on plug-in hybrid electric vehicles and battery electric vehicles.¹⁵¹

Fee Amount

The fee amounts and methodology for the different classes of vehicles continue to be debated. However, the TxDMV study stated that the average driver pays approximately \$198 in state and federal motor fuel taxes and that equates to less than 1 cent a mile for each tax. At the committee hearing, Tesla, Rivian, the Transportation Advocates of Texas, and the Texas Electric Transportation Resources Alliance had varying testimony: they either wanted the specific fee on battery electric vehicles to be fair, be founded on a mileage-based methodology, be at around \$100, or be a mix of flat fee and an opt-in mileage-based fee. Many believe that a fee assessment should only capture the state motor fuel tax revenue and not the federal motor fuel tax portion as they fear the rate would not be reduced in the future when the federal government assesses a fee. Each is concerned that a fee that is too high will stifle the growth of the electric vehicle industry, and many believed \$200 is too high. What is too high is, of course, subject to debate.

FINDINGS

To ensure steady infrastructure revenue sources into the future, Texas must establish a road use revenue equalization methodology to create fairness and parity in the 88th Legislative Session. For the reasons previously mentioned, battery electric vehicles should be the vehicle type that fees are assessed. Moreover, a fair fee and a fee parity are best accomplished by a mileage-based user fee; however, considering privacy concerns and ease of implementation and understanding, a flat fee should be adopted for the time being.

RECOMMENDATIONS

1. The Legislature should adopt a \$200 flat fee for battery electric vehicles.

INTERIM CHARGE 6: COMMERCIAL TRUCKING & SUPPLY CHAIN ISSUES

Study policies impacting truck transportation, a key link in the supply-chain, including utilizing state property and right-of-way for natural gas fueling stations and truck parking, the potential shortage of drivers and sellers of commercial trucks, the shortage of truck parking options to accommodate hours of service regulations, and ways to reduce border crossing wait times. Examine regulatory and statutory impediments to connected vehicle and autonomous technologies aimed at improving the safety and efficiency of trucking in Texas.

SUMMARY OF COMMITTEE ACTION

The House Committee on Transportation addressed this interim charge on September 8, 2022 in a public hearing at the University of Texas Rio Grande Valley Brownsville campus. The committee heard testimony from the Texas Department of Public Safety (TxDPS), the Texas Department of Transportation (TxDOT), the Texas Trucking Association, Texas State Technical College, Kodiak Robotics, Inc., and Waymo. The public hearing notice, meeting minutes, witness list, and handouts can be found on the website for the Texas House of Representatives, www.house.texas.gov, or the hyperlinks below:

September 8, 2022

[Hearing Notice](#)

[Meeting Minutes](#)

[Witness List](#)

[Handouts](#)

BACKGROUND

If Texas were a nation, it would rank as the 10th largest economy in the world.¹⁵² Moreover, commercial trucking is one of the pillars bracing the Texas and United States economy and one of the essential movers of all freight in Texas. In the committee hearing, TxDOT provided a litany of impressive statistics about the impact of Texas freight as a whole and specifically on commercial trucking. Most of the statistics originated from TxDOT's [Economic Role of Freight in Texas Study](#).

Below are the 2018 annual economic impacts of freight in Texas through trucking, rail, maritime, pipeline, air, warehousing, and others:

- More than 3.3 billion tons of freight worth \$3 trillion moved within Texas
- \$572 billion in gross state product
- \$302 billion in labor income
- \$102 billion in Federal, State, and Local tax revenue
- ~4 million jobs impacted directly, indirectly, or induced¹⁵³

Below are the 2018 annual economic impacts of freight specifically through commercial trucking

in Texas:

- \$91.6 billion in gross state product
- \$62.7 billion in labor income
- \$7 billion in state and local tax revenues
- 1.1 million jobs¹⁵⁴

Other statistics add context to the footprint commercial motor vehicles have in Texas:

- In 2018, trucks moved an estimated 1.5 billion tons of freight and \$1.2 trillion in freight.
- In 2018, trucks traveled 8.1 billion miles and made 3.3 million northbound border crossings.

In accordance with federal requirements in the Fixing America's Surface Transportation (FAST) Act of 2015, TxDOT created a comprehensive, multimodal strategy for addressing freight needs and moving goods efficiently and safely through Texas:

[Texas Freight Mobility Plan 2018 – Executive Summary](#)

[Texas Freight Mobility Plan 2018 – Full Report](#)

Among the mountains of freight-related information within the Texas Freight Mobility Plan, a key product of the plan was the designation of the Texas Multimodal Freight Network (TMFN), which outlined the key corridors that facilitate the efficient and safe movement of goods in Texas and is critical for focusing investment. A map of the TMFN can be found on page 13 of the executive summary.¹⁵⁵

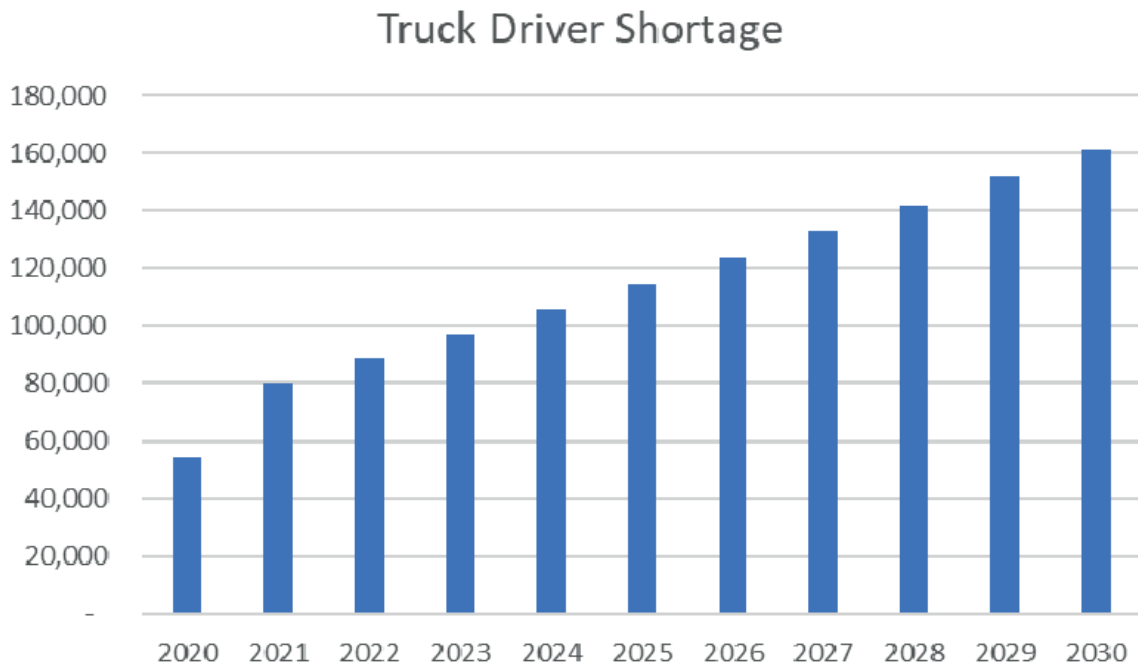
A quote from the plan sets the stage for this interim charge: “Highway tonnage is expected to double from 1.2 billion tons in 2016 to 2.5 billion tons in 2045—a projected increase of 1.3 billion tons and growth of 108%. During this period, value is forecasted to grow by 213% from \$1.7 trillion to \$5.2 trillion.”¹⁵⁶

With this immense increase in truck freight comes the increase in commercial trucks on highways, the increased demand for commercial truck drivers and commercial truck supplies, strain at international bridges, the increased demand in truck parking, and other challenges like higher fuel costs. The biggest consequence of not addressing these challenges will be the inflated price of goods and services for Texans—perpetuated by supply and demand—as a result of Texas not properly planning and investing. Meanwhile, Texas is already feeling the pressure building from many of these challenges.

Shortage of Commercial Truck Drivers

In the committee hearing, John Esparza, President and CEO of the Texas Trucking Association (TTA), stated that the United States has a truck driver shortage of approximately 80,000 drivers, and by 2030, the shortage will increase to 160,000 drivers—only seven years away.¹⁵⁷ The issue has plagued the industry for years, and countless articles have been written about it. Reasons often cited include the following: low wages, being away from home for long periods of time, lack of available truck parking, and difficult work requirements. TTA noted in the committee hearing that

the annual trucking industry salary for 2020 was \$52,252.



158

Commercial truck driving, which requires a Class A Commercial Driver’s License (CDL), is not the only trucking sector that has a shortage of drivers. School buses and city bus services, which require a Class B CDL, are also suffering from the driver shortage.¹⁵⁹ The TransitCenter, a transit advocacy organization, published an extensive [report](#) identifying many of the issues and solutions to the Class B driver shortage.¹⁶⁰ Two of the primary reasons transit agencies struggle to find and retain transit operators are uncompetitive wages and the bureaucratic delays in obtaining a commercial driver’s license from the issuing state agency.¹⁶¹ Moreover, two of the primary reasons that schools struggle to find and retain school bus drivers are uncompetitive wages and the split shift, driving in the morning and then again in the late afternoon.¹⁶²

Cledia Hernandez of Texas State Technical College (TSTC) testified before the committee and discussed how they are helping address the Class A driver shortage. They also provided an opportunity for the state to engage in the solution. TSTC has a Professional Driving Academy in Marshall, Fort Bend, Harlingen, and Abilene, Texas where students learn specific skill sets associated with the professional truck driving occupation. The program prepares trainees to test for a Class A CDL and is designed to lead graduates to immediate employment within the transportation industry after four weeks of hands-on training.¹⁶³ TSTC indicated that they are trying to expand their Professional Driving Academy in areas around the state since they have a sizeable backlog; however, their funding model limits their growth. They proposed that a \$103 million state investment will allow them to scale their Professional Driving Academy to a couple of thousand new trainees every year at six locations across the state.

TSTC has a unique funding model known as return-value funding. According to the Cicero Institute, “the college earns funding from the Texas Legislature by teaching students the most in-demand and highly-paid skills in today’s labor market. TSTC provides a ‘returned value’ to

students and the Texas economy by improving students' job prospects and incomes. To determine the value-add of a TSTC education, the returned-value formula compares former students' average wages to the minimum wage. A percentage of this 'returned value' is appropriated to TSTC each biennium as 100% of their instruction and administration funding."¹⁶⁴ In essence, TSTC's focus is to ensure trainees pursue a career and not just a job. While TSTC is not the only pathway or learning academy for individuals to obtain a Class A CDL, strategically funding TSTC will ensure the state gets a great return on that investment.

In addition to TSTC, many of Texas's community colleges provide commercial driver training programs. The Texas Workforce Commission data shows that these schools train several hundred if not thousands of drivers each year.¹⁶⁵ Enhancing this pipeline through funding incentives or the promotion of college and workforce collaborations are proven pathways for adding drivers to address this shortage.

One company has seen the writing on the wall and is taking matters into its own hands to solve the Class A CDL shortage for itself. Sysco Corporation (Sysco) is one of the largest Texas-based heavy-duty commercial fleet operators selling, marketing, and distributing food and food-related products to restaurants, healthcare, educational facilities, lodging establishments, and other customers who prepare meals away from home.¹⁶⁶ In Texas, they have 17 broad-line distribution facilities and specialty companies across the state to service tens of thousands of Texas customers each year. Their products are delivered by their Texas-based fleet of over 2,000 heavy-duty trucks and trailers. Sysco depends on drivers, and they are struggling to find enough Class A CDL drivers. As a response, Sysco formed a nationwide Sysco Driver Academy to allow them to recruit and train drivers on their own, and Sysco will cover the costs of licensing and certification. In return, the trainee agrees to work for Sysco for a period of time. Sysco's first Texas-based Driver Academy opened in Lewisville, Texas in the summer of 2022.¹⁶⁷ Sysco's proactive approach will certainly pay dividends later as the driver shortage increases this decade, but unfortunately, this model will not likely be easily reproducible.

Commercial Truck Parking

In trying to understand the issue, TxDOT published the [Texas Statewide Truck Parking Study](#) to assess and address existing and future truck parking needs with practical, innovative, and cost-effective strategies. It represents the first comprehensive analysis of truck parking in Texas.

TxDOT provided critical parking data during the committee hearing: In 2018, an average of 140,000 trucks parked per day, and 90% of truck parking spaces were provided by the private sector. During peak demand, this represents 98% capacity of existing truck parking. In 2050, TxDOT projects more than 240,000 trucks parking per day while peak demand represents 170% of current truck parking capacity. TxDOT and other public entities maintain 177 locations with approximately 2,300 truck parking spaces.



168

While TxDOT recognizes that virtually all truck parking is privately owned, it certainly knows its role in educating the private sector in assessing strategic parking locations around the state. The agency also understands that truck parking is a crucial safety issue to address, and advancing the recommendations from the study will only be successful with the participation and collaboration of all public and private sector users and owners of the transportation system. It will be important for TxDOT and TTA to keep the Texas Legislature informed over the next decade to ensure the gradual increases in commercial trucks on the state highway system are met with a similar increase in strategic parking locations. Whereas the private sector may satisfy the growing demand over time, Texas leaders cannot afford to poorly plan for the future as it directly affects the highway safety of the motoring public.

Border Wait Times

Texas-Mexico border wait times at the numerous international bridges have continued to be a drag on international trade for decades—and the reasons are complex. According to the TxDOT handouts at the hearing, in 2019 border delays resulted in \$68.3 million in economic productivity losses, reducing the gross domestic product (GDP) by \$2.3 billion in both countries. This represented a GDP loss of more than \$5,000 per minute.

Moreover, Caroline Mays, TxDOT’s Planning and Modal Programs Director, testified at the hearing and projected the staggering costs of border delays for 2050. If no improvements are made to the fluidity of international commerce between Texas and Mexico, GDP will be reduced by \$116 billion in both countries, representing a GDP loss of more than \$293,000 per minute.





Working intimately with the Texas Border Trade Advisory Committee, which was created by the Texas Legislature in 2001, TxDOT published the [Texas Border Trade Master Plan](#) (BTMP). The plan is exactly as it sounds, and it is the blueprint for how Texas prepares its international trade systems for the next generation. It is the premiere document addressing how Texas leaders should solve our state's border infrastructure issues as it relates to international commerce.

The BTMP identifies current and future transportation needs, challenges, and investments needed for moving people and goods across the Texas-Mexico border. It also identifies 661 total Texas-Mexico border-wide projects, costing a total of \$37.4 billion. Below are some quick facts about the BTMP projects and costs:

- 559 projects in Texas/U.S. totaling \$32.7B.
- 102 projects in Mexico representing \$4.7B.
- 193 border crossing projects totaling \$6.0B.
- 468 corridor projects representing \$31.4B of estimated costs.

The greatest challenge to solving border wait times at our state's international bridges is funding. The BTMP ranks the economic impact of each project, categorizes projects by purpose, and prioritizes them within three distinct regions in Texas: the El Paso, Laredo, and Rio Grande Valley regions. The vast majority of the projects that mitigate border crossing issues and international trade corridor issues are unfunded or partially funded as seen in the chart below:

Total Projects by Border Crossing/Corridor and Funding

FUNDING STATUS	 BORDER CROSSING		 CORRIDOR		TOTAL	
	PROJECTS	COST	PROJECTS	COST	PROJECTS	COST
Fully Funded	36	\$0.4B	149	\$5.1B	185	\$5.5B
Partially Funded	14	\$0.4B	13	\$1.7B	27	\$2.1B
Unfunded	143	\$5.2B	306	\$24.6B	449	\$29.8B
TOTAL	193	\$6.0B	468	\$31.4B	661	\$37.4B

170

Autonomous Commercial Trucking

Autonomous commercial trucking companies are moving freight on Texas highways today, including Kodiak Robotics, Inc., Waymo, and Aurora—and they all generally agree that Texas has a friendly regulatory climate for the autonomous trucking industry. Right now, the three companies are operating with similar models: (1) driving long distances on highways, (2) using licensed commercial drivers behind the wheel and a technical assistant in the passenger seat during all autonomous traveling, (3) using trucking hubs outside of major metropolitan areas for autonomous trucks to load and unload, and (4) needing licensed commercial drivers to move freight from hubs into the major metropolitan centers.

At the committee hearing, Kodiak and Waymo made it clear that they need licensed commercial drivers and the industry is going to continue needing them for years. The business models of these companies are all currently based on the continued need for licensed commercial drivers. Whereas autonomous trucking may help solve long-distance highway driving, autonomous trucking companies will continue to need commercial drivers to move freight into metropolitan areas from their respective trucking hubs.

Some may believe that the autonomous trucking industry will cause the extinction of the commercial driver—but that is far from the truth for the foreseeable future. The reality is that the commercial driver shortage is too vast and is growing at an alarming pace. Long-haul autonomous trucking may be the means to improve the life of a career commercial driver and create a career that does not require drivers to spend days behind a steering wheel in often difficult working conditions. Moreover, in the autonomous trucking business models, commercial drivers will have improved hours, could work near their homes, and return home at the end of their shifts—a luxury long haul drivers do not currently have.

FINDINGS

By the production of the [Texas Freight Mobility Plan 2018](#), the [Texas Statewide Truck Parking Study](#), and the [Texas Border Trade Master Plan](#), TxDOT has shown that they have taken great care in understanding many of the challenges and solutions to commercial trucking in Texas. Communicating the mountains of data and solutions to Texas transportation leaders to produce

actual solutions will be an ongoing task for the agency and stakeholders for years. It is critical that the left hand and the right hand continue to talk to each other to solve these problems for the next generation.

Many of the solutions boil down to properly funding infrastructure for the immense growth the state is forecasting: infrastructure like parking facilities, international bridge expansions, and enhanced trade corridors. Other solutions include the following: (1) state investment in technological improvements that allow commercial drivers to have more information to make smarter and safer driving trips, (2) further collaboration in private sector business development, and (3) improve licensing and testing procedures at the Texas Department of Public Safety to speed up commercial driver licensing.

One question begs to be asked: What happens if Texas does not follow through with investing in commercial trucking issues—a critical component in supply chain infrastructure? The short answers are that the supply chain demands will balloon the cost of all goods and services, highways will face an increased safety crisis, and international commerce issues with Texas and Mexico will increase in severity. Hopefully, this is a future that the next generation will not have to face.

RECOMMENDATIONS

1. The Legislature should work with the Texas Department of Public Safety to improve the process to obtain a commercial driver's license.
2. The Legislature should invest in expanding commercial driver's license schools around the state, including but not limited to the Texas State Technical College Professional Driving Academy.
3. The Legislature should promote and encourage workforce partnership programs between Texas employers and educators, such as community colleges and TSTC, by maintaining currently existing grant programs and further incentivizing commercial driver training programs.
4. TxDOT should continue to find ways to educate transportation leaders and lawmakers on the importance of finding solutions to many of the trucking challenges addressed in this report and the repercussions if Texas does not fully address them.

INTERIM CHARGE 7: SEAPORT INFRASTRUCTURE NEEDS

Examine the ability of the state's seaports to promote the public purposes of state economic growth, diversification, and commerce through development of port-owned properties within their boundaries. Review the investments needed for Texas ports to remain competitive in handling increased cargo volumes and ensuring a resilient supply chain.

SUMMARY OF COMMITTEE ACTION

The House Committee on Transportation studied this interim charge on two separate committee hearing dates: September 8, 2022 and October 6, 2022. The committee heard testimony from the Texas Department of Transportation (TxDOT), the Texas Ports Association, the Port of Beaumont, the Port of Port Arthur, Port Houston, the Port of Corpus Christi, the Port of Brownsville, the Port of Harlingen, Union Pacific Railroad, and other key stakeholders. The public hearing notices, meeting minutes, witness lists, and handouts can be found on the website for the Texas House of Representatives, www.house.texas.gov, or the hyperlinks below:

September 8, 2022

[Hearing Notice](#)
[Meeting Minutes](#)
[Witness List](#)
[Handouts](#)

October 6, 2022

[Hearing Notice](#)
[Meeting Minutes](#)
[Witness List](#)
[Handouts](#)



171

Port of Corpus Christi

BACKGROUND

The state of Texas does not invest in its 19 seaports, but on numerous occasions in recent years, the Texas Legislature, the Texas Transportation Commission, and TxDOT have recognized that this needs to change.

In 2001, the Texas Legislature enacted [Chapter 55](#) of the Transportation Code, which developed a means for the state to invest strategically in its maritime port infrastructure through the port access account fund. In 2014, in their Legislative Appropriations Request (LAR), the Texas Transportation Commission and TxDOT requested \$90 million to aid in deepening and widening navigational ship channel projects and for port capital improvements via the port access improvement fund.¹⁷² These funds were not appropriated. Again in 2016, the Texas Transportation Commission and TxDOT requested funding for port capital improvements in their LAR. These funds were not appropriated.

In 2016 and in the wake of the extraordinary expansion of the Panama Canal, Lt. Governor Dan Patrick formed the Senate Select Committee on Ports. The Select Committee's interim report from 2016 noted that the Texas Legislature should create a revolving loan program, similar to the Texas Mobility Fund, for port infrastructure and ship channel improvements.¹⁷³ In 2016, the Select Committee recognized that Texas's fully self-funded maritime ports are facing an unprecedented competitive threat as many port improvement projects in other states (e.g., Louisiana, Georgia, Alabama, and Florida) are financially supported by the state.¹⁷⁴

In 2017, the 85th Legislature enacted [Chapter 56](#) of the Transportation Code, creating the Ship Channel Improvement Revolving Fund (SCIRF) to be used as a low-interest revolving loan program to expedite congressionally authorized deepening and widening ship channel projects. However, the SCIRF has never been funded by the Legislature.

In 2018, the Texas Transportation Commission and TxDOT again requested funds in their LAR for port capital improvements and funds for the SCIRF for the deepening and widening of ship channels. These funds were not appropriated.

In 2019, the 86th Legislature amended the SCIRF statute even though the SCIRF had yet to be funded. In 2020, the Texas Transportation Commission and TxDOT requested funds again in their LAR for port capital improvements and the SCIRF. The funds were not appropriated.

In 2022, the Texas Transportation Commission and TxDOT again requested funds for port capital improvements and the SCIRF. In 2023, the 88th Legislature will again have the opportunity to appropriate funds to invest in its seaports.

A common misunderstanding must be cleared up before proceeding. In the September 8 hearing, TxDOT noted over \$140 million have been invested in 47 port access improvement projects through state budget riders since 2015. Multiple Port Directors and CEOs in the October 6 hearing recognized these important investments TxDOT has made for port connectivity.¹⁷⁵ While these investments have been successful in mitigating port connectivity issues for numerous ports, these investments have been in the public roadways outside of the ports and not within the ports themselves. As mentioned, unlike a myriad of other states, Texas does not currently invest in port infrastructure, such as channels, docks, piers, wharves, rail lines, etc., inside the gates of the ports themselves even though the Legislature has passed laws intending to help assist in these important infrastructure investments.

Why Invest?

The Port Authority Advisory Committee (PAAC) was statutorily formed under the Texas Transportation Commission in 2001 and is tasked with publishing a biennial Port Mission Plan—a comprehensive analysis of Texas seaports and their infrastructure investment needs. Among many things, the [2022-2023 Port Mission Plan](#) highlights the strength of Texas ports:

- In 2018, Texas ranked second nationwide for total waterborne tonnage handled and first nationwide for total foreign waterborne tonnage of imports and exports.
- Ten of the state’s ports ranked among the top 100 U.S. ports in total tonnage and five of the state’s ports are ranked in the top 20 ports in the U.S. in total tonnage.
- Three Texas ports were among the top five fastest-growing U.S. ports in terms of absolute export revenue: Port of Corpus Christi (1), Port Houston (2), Port of Beaumont (4).

While recognizing the economic might of Texas’s maritime ports, the Port Mission Plan states that the congressional authorization and appropriations process for ship channel improvement projects can take decades, which has contributed to a backlog of almost \$100 billion of federal water resource projects nationwide. In essence, the process for Texas ports to receive ship channel deepening and widening and port capital investment aid from the federal government is unreliable and broken, and the ripple effects are requiring ports to seek funding assistance for expensive port infrastructure projects elsewhere.



176

Port of Brownsville

The consequences of this broken financial model are evident all around our gulf coast. According to the CEO of the Port of Corpus Christi, Sean Strawbridge, the Corpus Christi Ship Channel Improvement Project originally was authorized by Congress in 1990. It has been mired in federal bureaucracy, and over the last 30 years, the original project cost estimate of \$188 million has increased to the current project cost of \$681.6 million.¹⁷⁷ Eduardo Campirano, Port Director and CEO of the Port of Brownsville, stated in his testimony to the committee on September 8 that the Port of Brownsville has recently started its channel deepening project—42 feet to 52 feet. However, Campirano noted that it has taken more than 15 years to get the project through the federal government. In fact, to expedite the project, the port secured an arrangement with an

industry partner to help pay for a significant percentage of Phase 1 of 2 of the channel deepening—an extremely uncommon scenario for a project this size. Phase 2 of the project will be delivered by the traditional funding model through the federal government; however, the port has pledged immense financial resources to get it moving faster.

The reality is that Texas ports are falling behind on basic infrastructure improvements, yet they are in serious competition with ports in other states that are financially supported by their respective state governments. As mentioned previously, Louisiana, Georgia, Alabama, and Florida all have some form of state investment in their port infrastructure to keep them competitive. A vast list of states outside of the Gulf of Mexico also have state investment in their ports. Meanwhile, in order for some Texas ports, such as the Port of Beaumont and the Port of Port Arthur, to improve decades-old dilapidated port infrastructure, they have had to pass local tax-supported general obligation bonds and fill the gaps with limited port revenues and federal grants. It took over a decade for the Port of Beaumont to obtain funds to rebuild a hazardous dock that had over 60-year-old structural components. It was a defunct structure no longer generating economic activity and a safety liability—and the port lost significant economic opportunity for years while trying to find funding to rebuild it. A similar issue occurred on the Port’s grain elevator that remained out of service for more than two years.¹⁷⁸

The Port of Port Arthur has struggled with many of the same funding woes as many other Texas ports have while being ranked 15th in national tonnage in the entire United States.¹⁷⁹ To raise revenue in the past for aging infrastructure, the Port of Port Arthur has had to pass bonds on the backs of local taxpayers—an already economically distressed population. The area has 55,000 residents, a flat population growth, a median home value of \$68,700, a median household income of \$37,794, and a poverty rate of 26.7%.¹⁸⁰ These residents are propping up an economic engine for the rest of the state and country to benefit.

According to the Texas Ports Association, the alliance of Texas’s 19 maritime ports, Port Freeport initiated a feasibility study to deepen and partially widen the Freeport Channel in 2003. A “new start” designation and initial construction funding were not received until 2020 and only after the \$72 million in work was pulled from the project and funded 100% with non-federal dollars. Moreover, the Port Navigation District taxpayers voted to issue bonds to fund the Port’s \$130 million cost share of the remaining \$295 million project. Once completed in 2025, Port Freeport will have spent more than two decades preparing, funding, and constructing its channel.¹⁸¹

Where to Invest?

Previous Texas Legislatures have already enacted laws designating proper channels for seaport infrastructure investment: (1) the Ship Channel Improvement Revolving Fund (SCIRF) in Chapter 56 of the Transportation Code, and (2) the Port Capital Improvement Report, which is also commonly referred to as the Port Capital Program or Port Access Improvement Fund, in Chapter 55 of the Transportation Code. The Port Mission Plan elaborates on both:

SHIP CHANNEL IMPROVEMENT REVOLVING FUND

In 2017, the 85th Texas Legislature established the Ship Channel Improvement Revolving Fund (SCIRF). This created a program to help finance the modernization

of ship channels. By providing financing through the SCIRF, Texas has the ability to move forward on navigation projects in spite of limited federal appropriations and invest in the port system, enhance the state’s economy, and be repaid through the loan process. There are five projects in Texas that are eligible to draw on the fund should it be capitalized. As added context, federal ship channels are the responsibility of the U.S. Army Corps of Engineers, but ports and navigation districts act as “non-federal sponsors” and are responsible for funding a portion of the project cost. Ship channel improvement projects are investments that are costly and time sensitive. Delays in funding and implementing navigation projects can lead to missed opportunities for attracting tenants, increases in overall project costs, and loss of returns on the overall investment.

PORT CAPITAL IMPROVEMENT REPORT

The 2022-2023 Texas Port Capital Investment Report (PCIR) is a key component of the Texas Port Mission Plan that is developed by the Port Authority Advisory Committee (PAAC). The PCIR takes a broad view of the needs of the Texas port system and considers port facilities, waterways, and inland connections. Whereas waterways and inland connectivity needs are assessed in separate reports included in the Texas Port Mission Plan, the PCIR is the only statewide maritime plan that addresses port facility needs. The PAAC elevates matters related to maritime transportation to the Texas Transportation Commission and recommends strategic capital projects and studies to be considered for funding under the PCIR. To do this, the PAAC conducts a biennial assessment of port capital improvement project needs and studies throughout Texas. An independent panel of engineers evaluates projects that have been submitted by ports and navigation districts for their strategic importance to the individual port, the larger port system, and the state of Texas. The 2022-2023 PCIR includes 30 capital projects and one study at eight different ports whose total project cost is just over \$2.18 billion. The PCIR project list includes the cost of four authorized ship channel improvement projects, which are also reflected in the Ship Channel Improvement Report and are eligible for funding from the Ship Channel Improvement Revolving Fund. All ports are willing to provide a minimum cost share of 25% for each project and study. The PCIR has not resulted in funding for these port projects from the State previously.

How Much to Invest?

In the Port Mission Plan, the PAAC has identified \$2.7 billion in SCIRF-eligible ship channel improvement projects. The PAAC has also identified \$2.18 billion for assistance in funding 30 capital projects and one study at eight different ports under the PCIR.

The Texas Ports Association has respectfully requested a minimum investment of \$1 billion for the Port Capital Improvement Report and \$750 million for the Ship Channel Improvement Revolving Fund—noting that these investments will expedite infrastructure improvements and rapidly multiply port economic benefits to the Texas economy.

TxDOT, with approval from the Texas Transportation Commission, has requested funding in their

LAR for maritime ports since at least 2014, and since then, the Texas Legislature has not appropriated any funds for these requests. Consequently, while TxDOT and the Commission understand the significant funding assistance needed for Texas’s maritime ports and the powerful economic benefits of strategic investments, they have routinely restrained their appropriations requests for reasons unknown. For their 2024-2025 LAR, TxDOT recommends \$140 million for the Port Capital Investment Report and \$400 million for the Ship Channel Improvement Revolving Fund.¹⁸²



183

Port of Beaumont

FINDINGS

In the September 8 committee hearing, TxDOT informed the committee that, without any state investment, Texas maritime ports recently supported \$449.6 billion in economic activity for Texas, which is more than 25% of Texas’s gross domestic product, and \$1.3 trillion in economic activity for the United States.¹⁸⁴ However, while Texas ports are supporting the 10th largest economy in the world, they are still not able to handle the world’s largest vessels and missing out on significant economic opportunities.¹⁸⁵

Meanwhile, according to the Texas Ports Association, competing states like California and Florida are significantly outpacing Texas by investing billions of dollars in their ports. For example, California just announced \$2.3 billion in state funding solely for port infrastructure, and Florida invested \$250 million of state dollars in their ports last year alone. In 2020, the state of Louisiana appropriated \$85.5 million to their ship channel improvement project and another \$19 million in 2019. Furthermore, many other states like Georgia, Alabama, and North Carolina have state port authorities that support their maritime port facilities both on the water and landside with state funding.¹⁸⁶

Texas’s transportation leaders know the impact of the state’s maritime ports on the Texas economy, the aging infrastructure needs of many of the state’s ports, and that the investment tools are primed in statute. The next step is for the Texas Legislature to appropriate funding for the tools.

RECOMMENDATIONS

1. The Legislature should appropriate \$750 million to the Ship Channel Improvement Revolving Fund for the deepening and widening of the authorized ship channels.
2. The Legislature should appropriate \$1 billion for the purpose of investing in projects in the Port Capital Improvement Report.

ENDNOTES

- ¹ Office of the Secretary of State, 2001 Constitutional Amendment Election Report
https://elections.sos.state.tx.us/elchist85_state.htm
- ² The Texas Department of Transportation, Texas Mobility Fund reports
<https://www.txdot.gov/about/financial-management/financial-publications/texas-mobility-fund-reports.html>
- ³ *Id.*
- ⁴ *Id.*
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