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APPENDIX M

TxDOT TEXAS STATEWIDE MULTIMODAL TRANSIT PLAN 2050



Texas Statewide Multimodal Transit Plan 2050

October 2025

Fall 2025 Outreach



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Acronyms

Acronym	Definition
ADA	Americans with Disabilities Act
APTA	American Public Transportation Association
AV	Autonomous Vehicle
BRT	Bus Rapid Transit
CARTS	Capital Area Rural Transportation System
COG	Councils of Governments
CoP	Community of Practice
DART	Dallas Area Rapid Transit
DCTA	Denton County Transportation Authority
FTA	Federal Transit Administration
FY	Fiscal Year
ICB	Intercity Bus
ITS	Intelligent Transportation Systems
LRT	Light Rail Transit
MPH	Miles per Hour

Acronym	Definition
MPO	Metropolitan Planning Organization
MTA	Metropolitan Transit Authority
NEMT	Non-emergency Medicaid Transportation
NTD	National Transit Database
RTD	Rural Transit District
SAM	Statewide Analysis Model
SATP	Statewide Active Transportation Plan
SMTP	Statewide Multimodal Transit Plan
SOGR	State of Good Repair
TAM	Transit Asset Management
TDC	Texas Demographic Center
TTI	Texas A&M Transportation Institute
TxDOT	Texas Department of Transportation
UTD	Urban Transit District
VMT	Vehicle Miles Traveled

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Introduction

Importance of Transit

Each year, Texas transit systems provide nearly **230 million trips** for riders throughout the state, connecting Texans to jobs, healthcare, recreational activities, educational opportunities, and other essential services.^[1] Transit helps fuel the Texas economy by spurring economic activity, connecting businesses to qualified workers, and giving Texans a safe, low-cost travel option in response to their mobility needs. More specifically, transit:

- Connects you with Texas.** Access to healthcare, jobs, and other critical needs are provided for everyone, including veterans, people with disabilities, and those who lack reliable access to automobiles.
- Supports economic growth and opportunity.** According to the American Public Transportation Association (APTA), for every \$1 communities invest in transit, approximately \$5 is generated in economic returns.^[2] Transit is also a significant source of employment with more than 49,000 Texans working to provide transit services throughout the state every day.^[4]
- Helps connect employers and workers.** Employment is expected to increase over 33% by 2050. Transit can connect employers with larger employee markets, reduce absenteeism and turnover rates by providing affordable and reliable transportation, and attract younger, less auto-dependent workers to Texas jobs.
- Increases people-moving capacity in congested corridors.** The Texas Statewide Multimodal Transit Plan (Texas SMTP 2050) paves the way for investing in transit as an essential element of a dynamic and comprehensive multimodal transportation system.
- Provides a safe way to travel.** Traveling by transit is 10 times safer per mile than traveling by car.^[5]

In the 2023 statewide Texas Department of Transportation (TxDOT) Transportation Visioning Survey,* **1 in 5 respondents said they use public transit daily or almost daily.**^[6]

*The statewide statistically valid Transportation Visioning Survey asked a randomly selected representative sample of over 4,500 residents to consider the state's transportation system needs through the year 2050, and it sought to understand attitudes towards various transportation topics. The findings from the survey helped identify Texans' needs, challenges, and priorities and were used to develop Connecting Texas 2050.

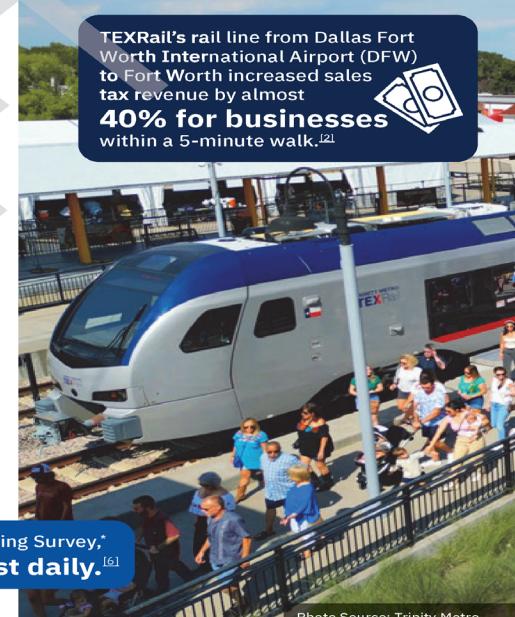


Photo Source: Trinity Metro

Texas Is Growing, and Texans Want Options

The Texas Demographic Center (TDC) forecasts a 40% increase in population and a 33% increase in employment between 2020 and 2050 across the state.¹¹ Most of this anticipated growth is projected to occur within the Texas Triangle megaregion, which includes Houston, the Dallas-Fort Worth metroplex, Austin, and San Antonio.

According to the 2023 statewide TxDOT Transportation Visioning Survey, in addition to roadways, 86% of respondents say it is important to improve public transit in Texas. Texas SMTP 2050 provides a framework for developing the improvements Texans want and many others need. The plan recommends a set of near-term initial priority steps along with high-level cost estimates for implementing the transit vision.

Transit Supports Economic Growth and Opportunity

Transit provides a safe way to travel and increases people-moving capacity in congested corridors. Transit connects employers and workers, supporting economic growth and opportunity. Texas transit agencies alone employ more than 49,000 Texans throughout the state.

Transit Provides Mobility and Creates Connections

Texas transit agencies provide millions of trips each month while managing rising costs and workforce challenges. Continuing to provide these mobility services requires exceptional coordination and a shared focus on needs and priorities. Texas SMTP 2050 provides that statewide consensus to maintain and expand transit services. Transit provides affordable connections to opportunities and essential services for everyone, including veterans, people with disabilities, and those who lack reliable access to an automobile.

In the 2023 statewide TxDOT Transportation Visioning Survey,
86% of respondents said it is important to improve public transit in Texas.



Photo Source: East Texas Council of Governments

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Texas Fast Facts

- Between 2020 and 2050, Texas' population is projected to increase by 40% and employment is projected to grow by 33%.¹¹
- It is expected that 92% of the state's population will live in an urban area by 2050.¹²
- The Texas Triangle megaregion is projected to grow by nearly 50% and include nearly 80% of the total state population from 2020 to 2050.¹³
- Registered vehicles have risen by 172% in the past four decades, while highway capacity has increased by 19%.¹⁴

A Transit Plan for Texas: Vision 2050

Transit in Texas is at a crossroads. Agencies are grappling with rising costs, workforce shortages, and declining local revenues needed to sustain essential services and maintain critical assets such as vehicle fleets. These issues are most prominent in the rural and smaller urban areas of the state. Traditional metropolitan area systems are struggling to respond to growth beyond existing service boundaries and outside of existing sales tax collection areas. Additionally, travel patterns and travel demand are rendering traditional fixed route service networks increasingly unresponsive to regional and community mobility needs.

Addressing these issues and utilizing transit as a key strategic asset to address Texas' growing mobility needs and economic opportunities will require unprecedented levels of consensus, coordination, and cooperation among all levels of government, transit agencies, employers, healthcare and workforce organizations, and customers.

Texas SMTP 2050 lays the foundation for achieving this statewide consensus and focus by building on existing local, regional, and statewide plans. This plan explicitly embraces the goals of the adopted Statewide Long-Range Transportation Plan (*Connecting Texas 2050*) and recommends transit-specific strategies to sustain and expand transit's role in achieving those goals. This plan also closely aligns with a concurrent plan development effort, the Texas Statewide Active Transportation Plan (SATP). Both plans are described in more detail on the following pages.

Timeline and Process

Beginning in 2023, Texas SMTP 2050 required an integrated effort spanning technical analysis, stakeholder engagement, and interagency coordination.



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Connecting Texas 2050 and Texas SMTP 2050

The goals, objectives, and implementation strategies outlined in Texas SMTP 2050 closely align with the broader vision of *Connecting Texas 2050*, reinforcing a unified, multimodal approach to advancing the state's transportation future.

Safety and Security

 Maintain a transit network that is safe and secure, strives toward zero fatalities, and fosters a culture of transportation safety and security in Texas with the following objectives:

- Incorporate safety and security in transit design and operations
- Accommodate all users, including transit employees, in safe design
- Enhance system security
- Plan for emergencies and disasters

Asset Preservation

 Maintain and preserve a resilient and high-quality transit system that is financially stable and operates in a state of good repair (SAGR) to meet community needs with the following objectives:

- Leverage technology for best use of assets
- Create a proactive environment for asset management and SAGR
- Assist transit operators with sustainable funding opportunities to enable long term asset planning

Mobility

 Support an integrated transportation system that efficiently and effectively enhances access to work, school, healthcare, essential services, and recreational activities with the following objectives:

- Provide high quality transit service
- Enhance availability of appropriate mobility options
- Ensure universal equitable access
- Provide a statewide minimum level of service for transit

Connectivity

 Provide local and statewide connectivity for everyone that is coordinated, affordable, accessible, reliable, and easy to use through the following objectives:

- Establish higher capacity and quality service connections between regional centers
- Tie minimum levels of service to connectivity
- Align investment with transit supportive land use
- Provide intermodal connections to transit
- Connect the customer to mobility options through technology

Economic Vitality

 Ensure the long-term economic competitiveness of Texas by providing access to economic opportunity through a comprehensive and accessible transit system with the following objectives:

- Connect people with employment and education opportunities
- Encourage transit use for tourism and recreational activities
- Provide consistent and connected transit access for the workforce throughout the state

Stewardship

 Embrace a fiscally responsible multimodal approach to preserve natural, cultural, and human resources by reducing impacts for a sustainable and resilient transit network through the following objectives:

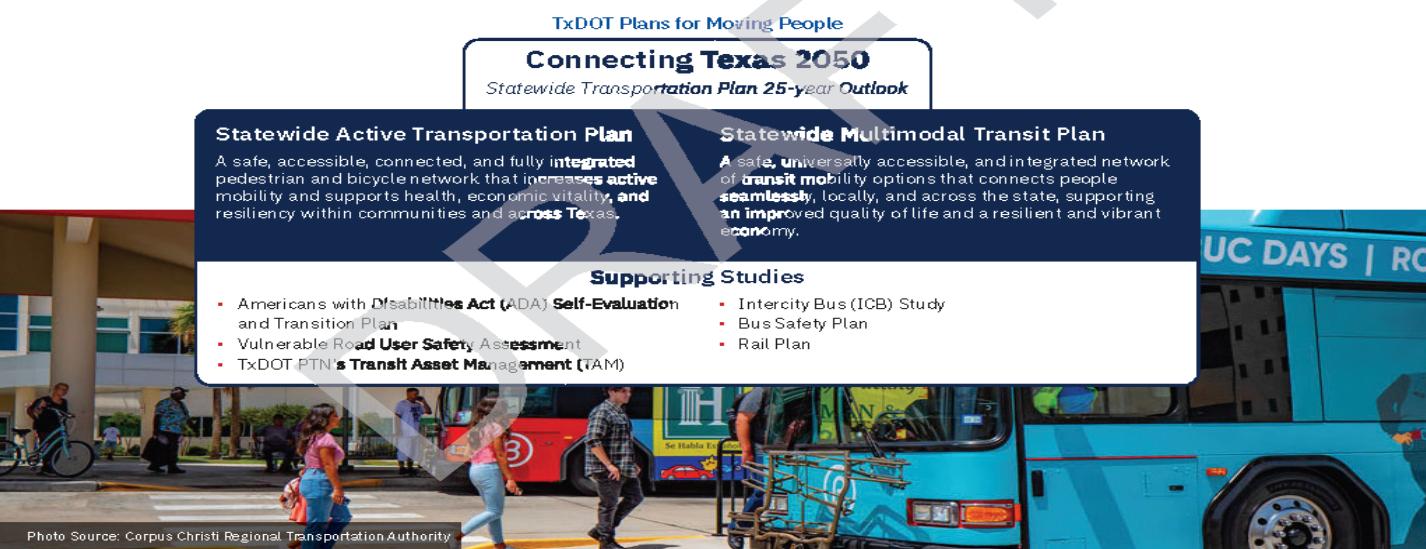
- Ensure transit is considered throughout the planning, programming, and project delivery process
- Optimize available fiscal resources
- Improve air quality
- Support and enhance human resources

Coordinated Planning Efforts

Texas SMTP 2050 builds on existing local, regional, and other statewide plans, including the concurrent development of the SATP.

With input from stakeholders and communities across the state, these two plans lay out a coordinated, unified vision for transit and active transportation priorities through 2050 and beyond.

Both plans identify actions necessary to increase safe mobility and connectivity, account for anticipated population and economic growth, and provide Texans with more transportation options.



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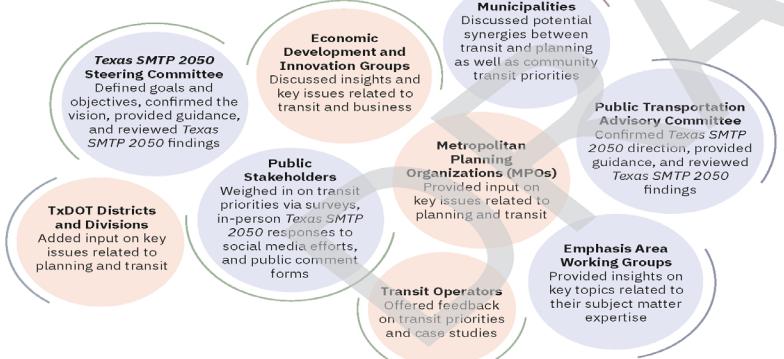
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Public and Stakeholder Engagement

Public engagement has been crucial to the development of *Texas SMTP 2050*. Through a series of robust outreach campaigns, TxDOT engaged Texans across the state to help shape *Texas SMTP 2050* through a **data-driven, collaborative, and stakeholder-informed** process, combining a rigorous analysis of transit usage, costs, and trends with qualitative research into the attitudes, desires, and needs of Texas residents.

TxDOT's outreach efforts focused first on understanding the public's transit priorities and needs and then on collecting input about the plan's needs, gaps, challenges, and potential strategies. **Reaching 90,000 Texans**, these efforts engaged current and future transit riders, transit industry professionals, economic development groups, businesses, and other stakeholders.

Who We Engaged



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Engagement Efforts

The outreach efforts connected with a broad representation of Texans across the state, including metropolitan, urban, rural, and suburban communities through virtual and in-person engagement in Fall 2023, Spring 2024, and Fall 2024. These proactive engagement approaches included a transit needs survey, stakeholder meetings, interactive conference presentations, in-person pop-up events in all 25 TxDOT Districts, social media content, and email updates.



Photo Source: Texas SMTP 2050 Pop-up Booth in Waco

Highlights from 2024 Engagement

- 24,000+ views** of Texas SMTP 2050 social media posts and more than 460 likes, shares, and comments.
- 2,900+ surveys** completed about feedback on transit priorities and draft Texas SMTP 2050 challenges and strategies.
- 2,900+ visits** to the Texas SMTP 2050 web page and SMTP/SATP web page.
- 2,000+ people** reached in 30 pop-ups at libraries, community centers, fairs, festivals, farmers markets, athletic events, and other locations across Texas.

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Using Stakeholder Feedback

Stakeholders were engaged across Texas, as shown in **Figure 1-1**. Feedback from outreach efforts was used to identify the needs, gaps, and challenges, streamline recommended strategies, and refine the initial steps for implementation included in **Chapter 7**.



Photo Source: Texas SMTP 2050 Pop-up Booth at the Texas State Fair



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The Vision for Transit in Texas

Stakeholder and public outreach efforts yielded a consensus vision for transit in Texas:

A safe, universally accessible, and integrated network of transit mobility options that connects people seamlessly—locally and across the state—supporting an improved quality of life and a resilient and vibrant economy.

Texas SMTP 2050 identifies needs, gaps, challenges, strategies, and actions necessary to achieve this vision for transit in Texas and keeps Texas on the forefront of transportation. This plan provides a description of current services and focuses on key emphasis areas:

Transit in Texas Today | Existing transit systems and key Texas transit elements (**Chapter 2**)

Urban and Rural Area Transit Services | Expanding and supporting transit services and infrastructure investments in urban and rural areas (**Chapter 3**)

Intercity Connectivity | Utilizing a combination of transit modes—including ICB and passenger rail—for a statewide network of longer distance services connecting rural and urban areas, urban areas to one another, and metropolitan areas to one another (**Chapter 4**)

Planning and Design | Comprehensive consideration of transit in planning and project development processes, as well as standardized design of transit facilities and on street operational treatments (**Chapter 5**)

Funding: Maintain and Expand Services | A summary of necessary investments and additional opportunities to increase funding sources for transit operating and capital needs (**Chapter 6**)

The Plan also identifies **implementation priorities**, including a set of initial actions. Implementation is anticipated to be a collaborative effort among state, regional, and local partners (**Chapter 7**)



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The Future of Transit in Texas

Each emphasis area includes a summary of identified needs, gaps, and challenges, along with detailed strategies to address them (Table 1-1). The matrix in Table 1-1 also outlines initial implementation steps.

Table 1-1. Texas SMTP 2050 Structure

	Needs, Gaps, and Challenges	Strategies	Steps for Implementation
Urban and Rural Area Transit Services	<ul style="list-style-type: none"> Growing urban areas Transit access to economic opportunities Congestion driven by growth Rural and small urban area general mobility networks Workforce recruitment, training, and retention 	<ul style="list-style-type: none"> Identify priority corridors and estimate minimum levels of service Integrate all transit modes and mobility options with other transportation modes Establish institutional and organizational partnerships to promote comprehensive workforce development 	Initial Priority Steps <ol style="list-style-type: none"> Establish a community of practice (CoP) to address small urban and rural transit challenges (TxDOT-led) Develop a statewide transit network and hub plan (TxDOT-led and -facilitated) Develop flexible statewide transit planning and design guidelines (TxDOT-facilitated) Develop success metrics, enhance and broaden data collection, and develop consistent reporting (TxDOT-facilitated) Identify options to increase flexibility of funding sources and identify new and innovative funding sources to maintain and expand transit (TxDOT-supported) Formalize a plan for regular outreach and education on the benefits of transit (TxDOT-led and -facilitated)
Intercity Connectivity	<ul style="list-style-type: none"> Statewide transit service network and connectivity Intercity connectivity Governance 	<ul style="list-style-type: none"> Identify a statewide route and hub network Develop a governance framework for statewide and regional intercity services Implement technology to enable seamless travel statewide 	
Planning and Design	<ul style="list-style-type: none"> Transit and the transportation planning and design process Transit resilience Public awareness of the importance of transit Inconsistent consideration of transit in economic development Aligning transit with development and transit-supportive land uses 	<ul style="list-style-type: none"> Research and document statewide transit benefits Integrate transit through local, regional, and statewide planning Incorporate transportation technology Prioritize safety and resiliency Enhance research, reporting, and knowledge sharing 	
Funding: Maintain and Expand Services	<ul style="list-style-type: none"> Maintain critical assets Need to maintain and expand service levels Funding for new and improved service Funding challenges and constraints 	<ul style="list-style-type: none"> Maximize use of existing funding Expand sources, flexibility, and levels of funding Tie funding to growth and performance 	

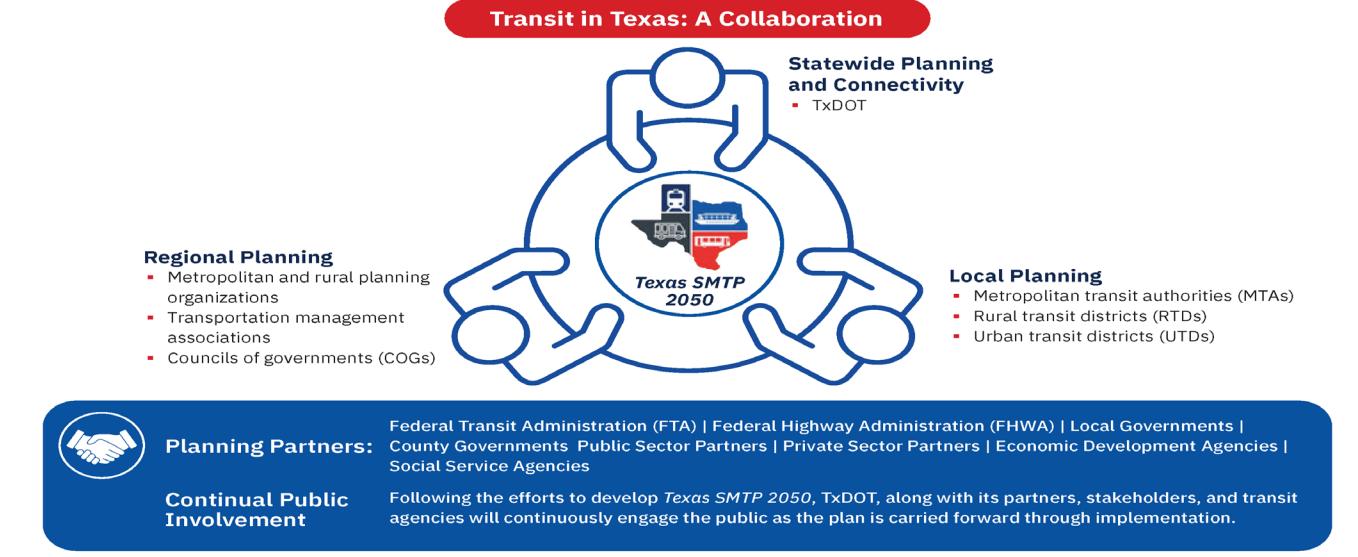
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Forming and Implementing the Plan: An Integrated Effort

Texas SMTP 2050 development has been continually guided by stakeholder engagement and informed by technical work. Connecting the technical work with stakeholder outreach resulted in a set of strategies to address key transit needs, gaps, and challenges.

Transit strategy outcomes can only be achieved through active coordination with agencies and organizations at the local, regional, and statewide levels. Texas SMTP 2050 looks to bring Texas transit operators and partners to the same table to develop a collaborative framework for an integrated multimodal transit planning and service delivery process.



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How to Use the Plan

The plan provides opportunities for:

- TxDOT Leadership** by exploring key trends, challenges, and opportunities for Texas' future transit system.
- State Officials** by communicating the opportunities transit presents.
- TxDOT Districts and Divisions** by expanding on how statewide strategic planning connects with other plans and programs, and by providing a common focus on long-range (beyond 10 years) transit needs and statewide priorities.
- Texas Transit Agencies** by engaging with other state transit providers and collaborating at all levels (local, regional, and state) to bring transit into the early phases of community planning and infrastructure development and help create synergistic partnerships and interactions between agencies.
- External Partner Agencies** by aligning their plans and projects to statewide goals and recommendations and considering access to transit in their planning.
- The General Public** by discussing how transit benefits communities, the economy, and future opportunities for transit to better connect people.
- Industry** by providing information about opportunities to better connect workers with jobs.



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Transit in Texas Today



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Chapter Elements

- Transit Agencies
- Passenger Rail Service
- Intercity Bus Service
- Ferries
- Public Transportation Funding

What We Heard During Texas SMTP 2050 Engagement

- 1 in 4 rural Texans we surveyed highlighted aging infrastructure and a need to maintain current assets as a priority challenge.
- More than 1 in 3 Texans we surveyed emphasized maintaining a SOGR as a priority strategy for Texas SMTP 2050.

Transit Agencies

The vast majority of transit services in Texas are provided by 77 statutorily defined transit districts or authorities. In fiscal year (FY) 2024, these public transit providers reported carrying nearly 230 million passengers, operating more than 252 million miles of service, and expending over \$4 billion.²² See Table 2-1 for more information about statewide ridership and cost statistics.

Texas transit agencies, as reflected in Figure 2-1, include:

- **8 MTAs** serving areas with population of more than 200,000 and supported with a state-authorized, locally approved sales tax.
- **9 large UTDs** serving areas with populations of more than 200,000 who are eligible to become MTAs. To establish MTAs, local voters need to approve sales tax measures. These areas may form an MTA supported by locally approved sales tax.
- **24 small UTDs** serving urban areas with populations between 50,000 and 199,999.
- **36 RTDs** serving areas of the state with populations under 50,000.

Transit authorities and transit districts are independent political sub-divisions of the state formed under several different statutes with varying requirements.

Collectively, these providers offer a large variety of transit modes including commuter rail, light rail, streetcar, bus rapid transit (BRT), traditional fixed route and fixed schedule bus, demand response, on demand (microtransit), and vanpool services.

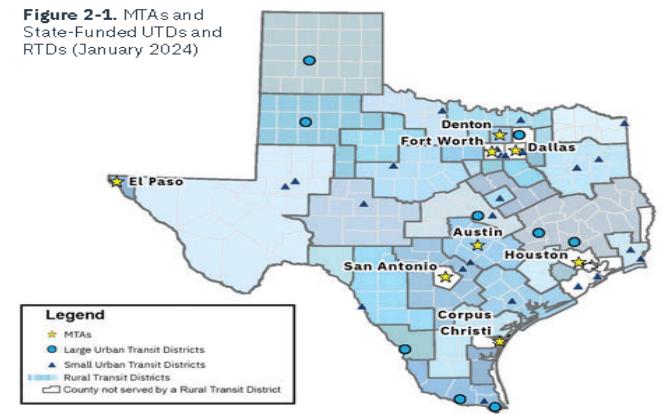
These modes operate in many different environments ranging from grade-separated rail, in street rail, high occupancy vehicle, state highway system roadways, and local street and arterial networks.

Table 2-1. Fiscal Year 2024 Statewide Summary Statistics

229,413,000 passenger trips
6,900 MTA, UTD, and RTD fleet vehicles
252,431,000 vehicle revenue miles
\$4+ billion in operating expenses
\$0.9 billion in capital costs
\$12.86 per mile
\$14.15 per passenger

Sources: TxDOT 2024 Transit Statistics, Public Transportation Division.

Figure 2-1. MTAs and State-Funded UTDs and RTDs (January 2024)



Source: 2024 TxDOT Public Transportation Division.

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Intercity Bus Service

Longer-distance service connections among rural, urban, and metropolitan areas of Texas are provided by private, independently operated ICB carriers with their own schedules, fare structures, and passenger facilities. TxDOT subsidizes critical rural area connections to the national ICB network and other regional destinations using federal rural area formula funding (5311 (f)).

The largest carriers in the state include Greyhound Lines Incorporated (with some routes branded as FlixBus) and Tornado Bus (with some routes branded as El Expresso).



Figure 2-3. Intercity Bus Service



Source: Adapted from Texas Intercity Bus Study, 2021.

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In addition to daily operations, transit providers play a critical role in emergency response efforts—supporting communities across both coastal and inland regions of the state. Extreme weather events such as hurricanes, wildfires, snow, and ice often require large-scale evacuations, including support for individuals with limited mobility. During these emergencies, transit agencies provide essential services that help protect and move Texans.

Intercity Passenger Rail Service

The National Railroad Passenger Corporation (Amtrak) is the sole intercity passenger rail operator in Texas, running three services: *Heartland Flyer*, *Sunset Limited*, and *Texas Eagle*.

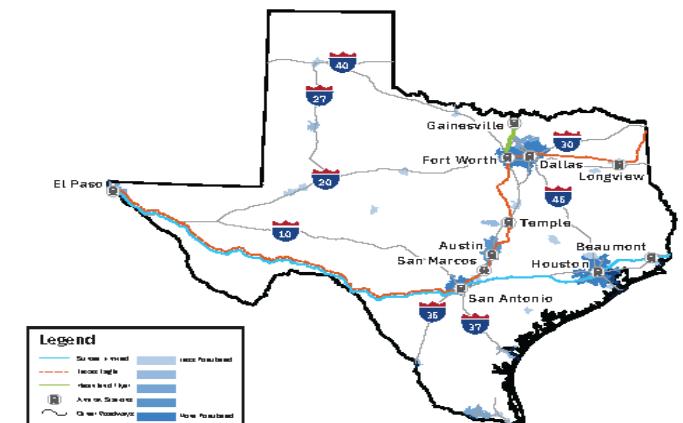
The *Heartland Flyer* is a daily regional train that operates between Fort Worth and Oklahoma City. The service is jointly funded by Texas and Oklahoma. Texas' contribution to the operating budget is approximately \$3.5 million per year.



Photo Source: Amtrak

The *Sunset Limited* and *Texas Eagle* are cross-country, long-distance trains. The *Texas Eagle* travels daily between Chicago and San Antonio and connects to the *Sunset Limited* at San Antonio for continued service to Los Angeles. The *Sunset Limited* travels triweekly between Los Angeles and New Orleans. Texas has 19 active Amtrak stations, 10 exclusively serving the *Texas Eagle*, two exclusively serving the *Sunset Limited*, and one exclusively serving the *Heartland Flyer*.

Figure 2-2. Amtrak Routes and Stations



Source: Bureau of Transportation Statistics, 2022; Homeland Infrastructure Foundation-Level Data, 2023

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Ferries

TxDOT-Operated Ferries

TxDOT operates two ferries: Galveston-Port Bolivar and Corpus Christi-Port Aransas. These lines are illustrated in Figure 2-4 and described in further detail below.

Galveston-Port Bolivar Ferry

The Galveston-Port Bolivar Ferry operates between Galveston Island and the Bolivar Peninsula with a travel time of approximately 18 minutes. The fleet consists of seven vessels, each with a capacity of 495 passengers and 70 vehicles. Operations on the Galveston-Port Bolivar Ferry have not recovered from the pandemic as quickly as those of the Corpus Christi-Port Aransas Ferry but are trending upward.

Corpus Christi-Port Aransas Ferry

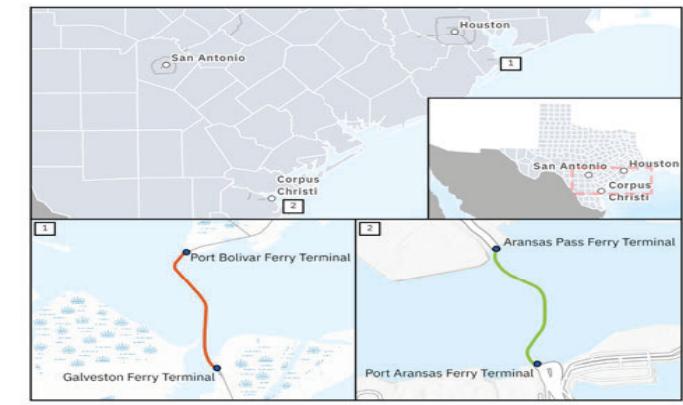
The Corpus Christi-Port Aransas Ferry System navigates a route connecting State Highway 361 across the Corpus Christi Channel between Aransas Pass on the mainland and Port Aransas on Mustang Island. This ferry operates continuously with a duration of 10 minutes for the quarter-mile route with a fleet consisting of eight vessels, each with a capacity of 149 passengers and 20 vehicles. Since 2018, there has been an upward trend in both vehicles and passengers with a slight decline in 2021 due to the pandemic. In 2022, vehicles and passengers exceeded pre-pandemic levels.



Photo Source: TxDOT

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Figure 2-4. Texas Ferries



Source: TxDOT Maritime Division, 2024

Other Ferries

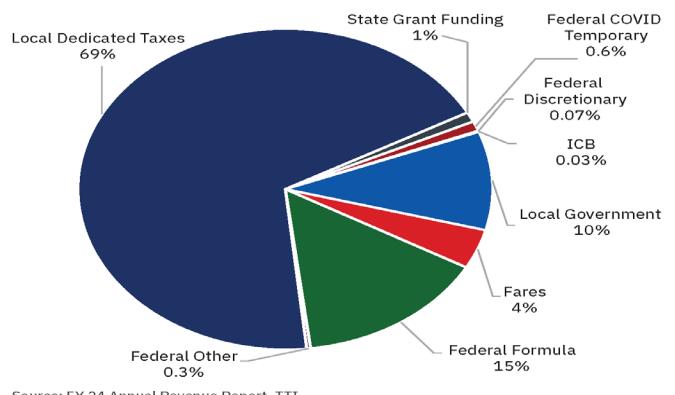
Other ferries not operated by TxDOT include the Lynchburg Ferry and the Los Ebanos Ferry. The Lynchburg Ferry provides free passenger and vehicle service across the Houston Ship Channel. It connects Crosby-Lynchburg Road in Lynchburg with former State Highway 134 and the San Jacinto Battleground State Historic Site in La Porte and is operated by the Harris County Toll Road Authority. The Los Ebanos Ferry is a hand-operated cable ferry providing crossings of the Rio Grande between Los Ebanos, Texas, and Gustavo Diaz Ordaz, Mexico. At the Los Ebanos Port of Entry, there is a U.S. Customs and Border Protection facility where passenger and vehicle inspections take place for those entering the U.S.

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Public Transportation Funding

Public transit providers are funded by a combination of federal, state, and local sources. Fares paid by riders make up only a small portion of total funding. All public transit providers are eligible for federal funds, including grants from the FTA and FHWA. State funding is available to urban and rural transit districts. Overall, 22% of the money spent on transit is for capital costs while the rest is for operation and maintenance. **Figure 2-5** shows statewide expenditures by source in FY 2024 and **Table 2-2** includes more information about expenditures by transit agency type.

Figure 2-5. Statewide Expenditures by Source



Source: FY 24 Annual Revenue Report, TTI

Overview

By 2050, Texas' population is projected to reach 40 million—an increase of more than 40% between 2020 and 2050. Employment is expected to increase by over 33% to nearly 20 million jobs by 2050.^[16] The location and focus for this anticipated growth will have a profound impact on demand for, and design of, transit services throughout the state.

Much of this growth is expected to occur in and around the metropolitan and urban areas and less likely to occur in rural areas. This shift in population and population density will create new transit needs. Rural areas will likely see transit-dependent populations become an increasing share of their overall population.

In metropolitan and urban areas, higher capacity mobility options provide opportunities to accommodate growth and bypass congestion. For rural residents, there is often a need for improved transit connections to urban areas to reach jobs, education, healthcare, and other opportunities.

These trends indicate that Texas will need to find ways to maintain and expand those services on an ongoing basis. Key areas of focus include:

1. Growing urban areas
2. Transit access to economic opportunities
3. Congestion driven by growth
4. Rural and small urban area general mobility networks
5. Workforce recruitment, training, and retention

Responding to growth requires a combination of strategies to plan, design, construct, and maintain service and capital investments. These will be addressed in Chapter 6 (Funding: Maintain and Expand Services).

Advances in technology and innovation are anticipated to create opportunities for change and enhancement of transit services and customer experience. Connected, automated vehicle operations in congested corridors; autonomous vehicle (AV) operation; vulnerable user safety detection systems; and universal travel and fare payment systems are considerations influencing future mobility options.

Key Market Considerations

- 7% of the adult population are **veterans**, the highest in the U.S.^[17]
- College and university enrollment** is projected to increase from 1.5 million in 2020 to 1.8 million by 2035 (20%).^[18]
- The percentage of **seniors** is projected to increase from 13% in 2020 to 18% of the total population in 2050.^[19]
- More than 3.8 million Texans—12.7% of the total state population—have at least one **disability**.^[20]
- More than 5% of Texas households do not have access to a **personal vehicle**.^[21]

Urban and Rural Transit Service



Photo Source: East Texas Council of Governments

Chapter Elements

Needs, Gaps, and Challenges

- Growing urban areas
- Transit access to economic opportunities
- Congestion driven by growth
- Rural and small urban area general mobility networks
- Workforce recruitment, training, and retention

Strategies

- Identify priority corridors and establish minimum levels of service
- Integrate all transit modes and mobility options with other transportation modes
- Establish institutional and organizational partnerships to promote comprehensive workforce development

What We Heard During Texas SMTP 2050 Engagement

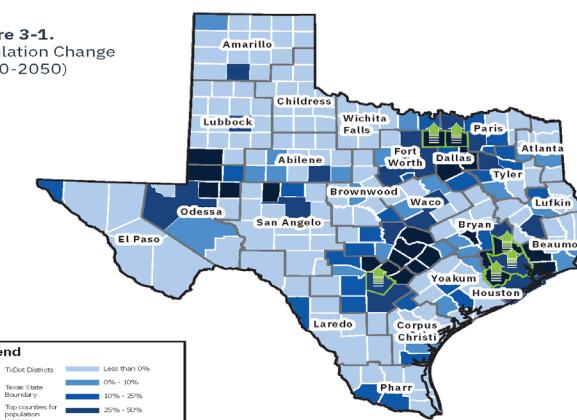
- Population growth, urbanization, and congestion are among the most mentioned challenges Texas faces when looking at the future of public transit in the state.
- 1 in 3 of the Texans we surveyed said there is a need to expand rural and urban transit service areas and hours of operation across the state.
- 1 in 3 of the Texans we surveyed ranked expanding existing urban transit and connectivity as a top five priority strategy for Texas SMTP 2050.

Needs, Gaps, and Challenges

Growing Urban Areas

Texas will experience more urbanization—growth and movement to urban centers—during the next 25 years. According to projections, about 92% of the state's population will live in an urban area by 2050, up from about 90% in 2020.^[22] This population increase is expected to take place largely within the 65-county Texas Triangle region, which includes the metropolitan areas of Houston, Dallas-Fort Worth, Austin, and San Antonio. This mega-region is anticipated to grow in population by approximately 50% and will include nearly 80% of the total state population by 2050.^[23] See cumulative population change projections in **Figure 3-1**.

Figure 3-1.
Population Change
(2020-2050)



Source: TDC, 2022 Vintage "1.0 Migration Scenario" Population Projections, 2020 to 2050.

As this population movement continues, urbanized area boundaries are continually expanding. With each decennial census, some formerly rural areas experience enough growth to be reclassified as urban areas, impacting organization, delivery, and funding of transit agency services. Given how quickly this growth can occur and that the census and this reclassification process only happens every 10 years, many jurisdictions find themselves trying to address urban issues with rural funding until their official designation catches up with their population and travel needs.

Once new urbanized area boundaries are established by an updated decennial census, service area gaps may occur with a change in area classification and corresponding service provider.

At the same time, the state's dense urban centers are surrounded by large, sparsely populated areas, making it difficult to provide efficient transit services without the density to support higher levels of use. Yet, people in these rural areas still need access to the resources and amenities of larger cities. These challenges create a need for enhanced transit connectivity between urbanized cities, growing suburban areas, and rural areas that may be experiencing population decline. Increased transit connectivity can provide better access to jobs, colleges and universities, healthcare, shopping, and recreation for all.

Needs, Gaps, and Challenges

Transit Access to Economic Opportunities

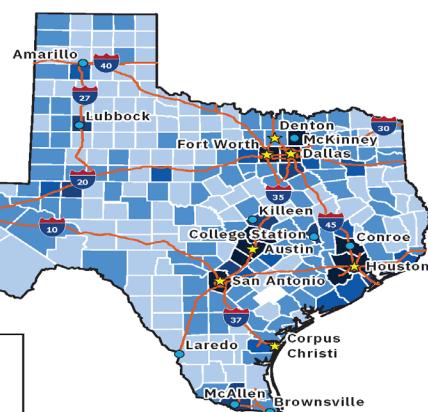
As Texas' population grows, the state's workforce is projected to increase by 33% to nearly 20 million jobs by 2050.^[24] This growth will create an increased need for transit as a travel option to employment opportunities and centers. It will also require additional coordination between transit providers, workforce development agencies, and businesses to develop transit services that meet the needs of a growing workforce. Employment growth projections are shown in **Figure 3-2**.

Significant job growth has been, and will continue to be, concentrated in urban areas where transit services currently exist. However, given the higher housing costs in urban areas, many people opt to live in more affordable suburban or rural areas and commute to urban job sites. Not only does this lead to longer commute times, transit connections between outlying residential areas and urban employment centers are typically unavailable and commutes often span service areas of more than one transit agency.

Job growth is projected to continue outside of urban areas as well. Businesses that require larger land areas, such as manufacturing and warehousing, often locate in less urbanized areas, where property is more available and affordable. Such businesses may require a larger workforce than can be supplied by local residents alone. Increased transit connections could help expand the labor market and close the gap. However, transit services in suburban and rural areas can be limited or unavailable.

Improving transit for job access and training is vital for Texas' economy. Transit reduces employment barriers for residents and potential employees, especially those without private vehicles, connecting them to jobs, fostering economic mobility, reducing commutes, and creating a more connected, productive workforce. Texas employers need to make sure transit access is a key component of jobs. Offering viable transit options can be a competitive advantage for employers in recruiting, training, and retaining skilled workers, providing easier access to training centers, professional development programs, and job opportunities.

Figure 3-2.
Employment Growth
(2020-2050)



Source: TDC, 2022 Vintage "1.0 Migration Scenario" Employment Projections, 2020 to 2050.

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Needs, Gaps, and Challenges

Congestion Driven by Growth

Congestion driven by growth causes travel delays throughout the state, costing \$11 billion per year in the Texas Triangle alone. Without significant changes in travel behavior and patterns statewide, daily vehicle miles traveled (VMT) is projected to grow 42% from 2020 to 2050. This VMT growth is expected to increase per-person delays by 200% from 12 minutes per day in 2020 to 36 minutes per day in 2050.^[25]

Congestion driven by growth impacts transit operations by reducing reliability, lengthening travel times, and increasing costs of maintaining and expanding services.

Fort Worth, Dallas, Houston, Austin, and San Antonio Areas: By the Numbers

 **\$11B**
Annual Cost of Congestion
Source: TTI, 2024 (Texas' Top 100 Congested Roadway Segments)

 **423M**
Annual Hours of Delay



Photo Source: Houston METRO

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Needs, Gaps, and Challenges

Rural and Small Urban Area General Mobility Networks

Texans face challenges in owning and operating personal vehicles for reasons that may include age, disability, medical conditions, income status, household composition, and other factors. These populations frequently rely on transit for basic travel needs, including access to work, medical services, and other essentials. Additionally, those who do not personally use transit may still indirectly rely on transit services, as their colleagues, childcare providers, medical staff, educators, and service professionals depend on it to get to work. With population growth expected to continue in Texas, the number of people dependent on transit will grow as well.

While existing MTAs provide reasonable minimum levels of service and access to transit, significant gaps in coverage, span, and levels of service persist in the rural and smaller urban (i.e., under 200,000 in population) areas of Texas.

Geographic Gaps in Services

A 2023 Texas transit needs assessment completed by the Texas A&M Transportation Institute (TTI) identified several areas across the state lacking transit coverage. RTDs have a service coverage gap of more than 8,000 square miles at an operating cost of \$6 million requiring an additional 109 vehicles at a cost of more than \$1.8 million. The assessment also identified geographic gaps in transit services in areas that have experienced significant population growth between decennial census years (e.g., areas formerly designated as rural but have become urbanized).

There are urban transit service gaps of approximately 4,500 additional square-miles of service with an operating cost of nearly \$3.5 million—requiring 58 additional transit vehicles at a cost of nearly \$10 million to fill urban transit service gaps across Texas.

Hours of Operation

The Texas transit needs assessment highlighted the need for expanded service hours. To achieve a minimum service span of 16 hours each weekday, 12 hours on Saturday, and 8 hours on Sunday (considered moderate service levels), Texas' 36 RTDs would need an additional 97,000 annual hours of transit service at a cost of more than \$70 million, while Texas' 15 UTDs would require an additional 21,000 annual service hours costing more than \$20 million. Currently, all MTAs meet the minimum service span.

Achieving the above-mentioned minimum service span is needed to make transit a viable option for more trips, to facilitate transfers between transit services, and to improve connectivity to regional transit services.

Connectivity

Within regions, transit connections between rural and urban transit district service areas can be challenging and require high levels of coordination due to differing uses and fare payment policies among individual transit districts.



Photo Source: Capital Area Rural Transportation System

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Needs, Gaps, and Challenges

Workforce Recruitment, Training, and Retention

Across the state, transit agencies encounter challenges in maintaining adequate staffing levels that impact daily services. Operating and maintaining vehicle fleets is difficult for many transit agencies who are unable to find and employ trained staff in sufficient numbers, which increases the burden and pressure on existing staff. Contributing factors include the following:

- Economic growth creates competition with private and public sector employers who may offer higher wages and incentives.
- Demand for skilled workers has created intra-agency competition, as MTAs and larger urban agencies can typically afford to hire more staff and offer better incentives than rural and small urban agencies. This can lead to staffing and resource shortages in smaller districts.
- Limited access to commercial driver licensing locations, vocational training, and certification programs—especially since few Texas institutions offer public transportation-related training—places the costly burden of workforce development on transit agencies.
- Many smaller transit agencies also experience difficulties building leadership, managerial, and technical capacity. They often do not have adequate staffing resources needed to address larger strategic projects or to effectively recruit and retain employees.

Transit Industry Trends

According to APTA's Transit Workforce Shortage Synthesis Report (2023), transit workforce shortages affect all agency types across the country. Nationwide trends include:

- 96% of agencies surveyed reported experiencing a workforce shortage, 84% of which said the shortage is affecting their ability to provide service.
- 43% of transit workers are above the age of 55—nearly double the percentage of the broader transportation sector.
- Applicants turn down job offers from transit agencies 35% of the time—more than twice the rejection rate seen across all industries.^[26]

“

What We Heard During Texas SMTP 2050 Engagement

- Many RTDs have difficulty hiring and retaining drivers and mechanics.
- All agencies face competition from private sector employers, which often offer higher wages and benefits packages.

Strategies

Responding to the many challenges that accompany the significant population and economic growth forecast for Texas—urbanization, congestion, basic mobility network needs, access to jobs, the changing demographics of Texas communities, and the workforce itself—is the primary driver of change in what transit looks like, who uses it, and how it is used, to achieve the Texas SMT 2050 vision defined in **Chapter 1**.

Strategies must:

1. Identify priority corridors and estimate minimum levels of service
2. Integrate all transit modes and mobility options with other transportation modes
3. Establish institutional and organizational partnerships to promote comprehensive workforce development

Bus Rapid Transit Optimization(BRT)

MTAs like Sun Metro in El Paso, VIA in San Antonio, CapMetro in Austin, and METRO in Houston have implemented BRT.

In Dallas, DART is studying routes to upgrade to BRT while Houston METRO is exploring bus-only red lanes and signal timing optimization to increase transit efficiency across the city.



Photo Source: Houston METRO

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Strategies

Identify Priority Corridors and Establish Minimum Levels of Service

Identifying transit priority corridors and locations for multimodal hubs will help define a robust statewide transit network. Including transit-only travel lanes or preferential treatment in priority travel corridors will also involve establishing core transit service standards by service type and location, facilitating safe trips from door to door. Transit priority design features also support higher-capacity people-moving systems and transit-supportive design in high demand corridors.

Establishing a statewide level of service (e.g., 16 hours weekday, 12 hours Saturday, 8 hours Sunday, across all geographies) will enhance mobility options for all trip purposes. This effort must include supporting improvements to federal funding programs to increase available resources, as well as identifying new funding—including local match sources, which are essential for maintaining and expanding transit services.

Minimum service spans would allow Texans to use transit for weekday essentials like work and school, as well as for trips such as evening classes, shopping, and recreational events.

The tools, approaches, and technology used to implement minimum levels of service will enhance agencies' ability to offer reliable transit options, transfers between service providers, and more seamless connections to and from transit.

Texas has 36 RTDs, with most covering multiple counties. By focusing resources on key corridors and establishing clear service expectations, the state can improve access and efficiency across its rural transit network.



Photo Source: Capital Area Rural Transportation System

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Strategies

Integrate All Transit Modes and Mobility Options with Other Transportation Modes

Integrating transit into Texas' wider multimodal transportation system (e.g., roadways, bike and pedestrian paths, passenger ferries) can significantly enhance connectivity and accessibility across Texas. Doing so will require more efficient planning and alignment between transit and other transportation modes.

Identifying strategic locations for multimodal hubs will further facilitate seamless connections between transit and other transportation options including bikes, scooters, and walking. Expanding access to active transportation options will provide additional last-mile solutions, getting people from transit stops to their ultimate destination, and enhancing transit network flexibility and convenience. Improved service planning and integration will make it easier for travelers to transfer between different modes, supporting a seamless and more user-friendly transportation experience.

Microtransit – Via Grand Prairie

The City of Grand Prairie reported an impressive 148% increase in ridership after introducing their new microtransit service, Via Grand Prairie. This is the largest ridership increase of any Texas transit agency during the 2022 to 2023 reporting period.¹²¹

Establish Institutional and Organizational Partnerships to Promote Comprehensive Workforce Development

Identify ways to incentivize collaboration, organizational partnerships, and workforce development that benefits agencies, businesses, and economic development organizations.

Potential Initial Actions

From the listed strategies, two potential implementation actions were identified:

- Develop a baseline level of service and an implementation plan
- Expand research, testing, and leadership on microtransit



Photo Source: Corpus Christi Regional Transportation Authority

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Resources Needed to Address Growth

As discussed, Texas must expand transit service coverage, span, and quality to address population and job growth, as well as changing demographics through 2050—beyond simply maintaining current services and assets. Additional components will be necessary to meet future demand and are challenging to achieve.

These include:

- **Per Capita Growth:** This refers to levels of funding relative to the total population, including adjustments for inflation.
- **Enhanced Minimum Levels of Service:** Building up to a standard minimum level of service (16 hours weekday, 12 hours Saturday, 8 hours Sunday, across all geographies) in rural and small urban areas is important for making transit a feasible mobility option. High level estimates from the TTI needs assessment indicate an initial investment of \$20 million dollars in additional vehicles (with several replacement cycles of these vehicles occurring through 2050) and cost over \$90 million more per year to operate than current services.
- **Expanded Services & Capital Investments:** Within MTAs and large urban areas, higher-capacity transit services such as light rail transit (LRT) and BRT provide significant benefits, including increased safety, improved reliability, and greater ridership. Building these systems can cost between \$30-65 million per mile (BRT) and \$200-250 million per mile (LRT). Enhanced services will be more fully defined as the Texas SMT 2050 planning process continues.

Needs & Gaps Beyond State of Good Repair





Photo Source: Capital Area Rural Transportation System

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Chapter Elements

Needs, Gaps, and Challenges

- Statewide transit service network and connectivity
- Intercity connectivity
- Governance

Strategies

- Identify a statewide route and hub network
- Develop a governance framework for statewide and regional intercity services
- Implement technology to enable seamless travel statewide

What We Heard During Texas SMTP 2050 Engagement

- 63% of the Texans we surveyed said expanding passenger rail was a top transit improvement priority.
- More than 1 in 3 respondents across urban, rural, and suburban areas said that the lack of statewide transit network and connectivity is a major challenge.
- Strengthening intercity and regional connectivity was prioritized as a top strategy by 41% of survey respondents.

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Overview

In Texas SMTP 2050 engagement, stakeholders and the general public consistently prioritized improvements to intercity travel. The needed improvements include maintaining critical rural area intercity connections into urban and metropolitan centers and coordinating private carrier routes, schedules, and fare payments. Additionally, investments are needed to facilitate travel along congested corridors between the largest metropolitan areas of the state in the Texas Triangle.

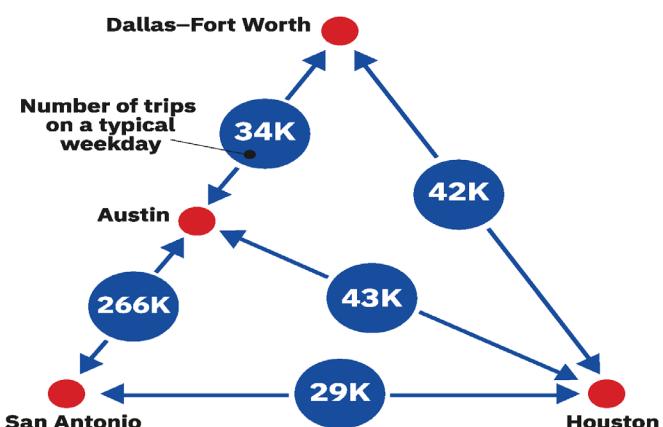
As illustrated in Figure 4-1, the opportunity for higher capacity, higher speed intercity transit connectivity is most evident within the Texas Triangle. Insufficient intercity and inter-regional transit connectivity can also be seen throughout the state, limiting access to current and future economic and quality of life opportunities. As Texas' population and employment numbers continue to increase, so will the demand for longer distance travel options to access healthcare, economic, educational, and recreational opportunities.

To address the limited intercity and inter-regional connectivity, three overall needs, gaps, and challenges were identified:

1. Statewide transit service network and connectivity
2. Intercity connectivity
3. Governance

Each of these categories can be broken down further into the detailed needs, gaps, and challenges discussed in this chapter. This analysis leads to the development of strategies to help improve intercity and inter-regional connectivity, followed by the identification of potential initial steps for implementation.

Figure 4-1. Inter-district Trips within Texas Triangle



Source: Replica Fall 2022. Data, 2023 (Average weekday in Fall 2022)

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Needs, Gaps, and Challenges

Statewide Transit Service Network and Connectivity

Texas does not have a statewide transit network, identified priority transit corridors, or a mechanism in place to advance coordination between local and state agencies and intercity service operating companies. As a result, these elements are absent from statewide planning documents and ultimately, corridor project planning. This means that incorporating transit into project development is often done after the fact.

A specific plan and a comprehensive strategy is needed to organize, coordinate, and prioritize intercity routes and schedules or the result may be a dispersed and loosely coordinated collection of intercity services—in many cases driven by national and international destinations outside of Texas.

Convenient local transit connections are not consistently present, nor are facilities or hubs always available to facilitate transfer connections. In response to these gaps, some transit districts have taken initiative on their own. Individual RTDs and UTDs have pursued cooperative agreements with private carriers such as Greyhound to allow a single ticket to be purchased for trips involving a transfer from locally operated transit to national ICB services.

Incorporating design elements into state highway improvements and construction projects is challenging and likely more expensive without previously defined priority routes.

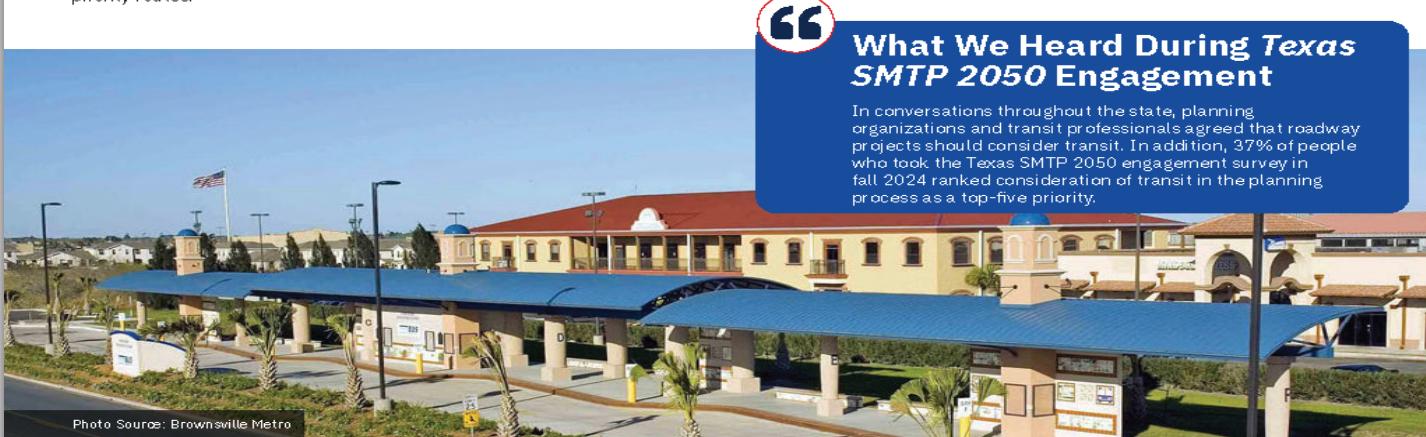


Photo Source: Brownsville Metro

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What We Heard During Texas SMTP 2050 Engagement

In conversations throughout the state, planning organizations and transit professionals agreed that roadway projects should consider transit. In addition, 37% of people who took the Texas SMTP 2050 engagement survey in fall 2024 ranked consideration of transit in the planning process as a top-five priority.

Needs, Gaps, and Challenges

Intercity Connectivity

Intercity bus service connects rural areas with urban and metropolitan areas, as well as with Amtrak passenger rail services. With Texas' limited rail network, ICB service could fill the gaps by operating on the existing roadway network and connecting smaller cities with locations across Texas. However, achieving ICB connectivity statewide requires overcoming several challenges.

One hurdle is the lack of adequate transfer facilities with little coordination occurring between private ICB providers and local transit. In many areas, ICB service providers maintain passenger facilities that are separate from the local transit system. In rural areas without a local dedicated transit station, ICB often uses businesses as transfer locations. Remote transfer locations may lack passenger waiting areas and amenities.

The 2021 Texas ICB Study identified additional challenges and gaps, including:

- Lack of local transit between towns with an ICB stop
- Poor connectivity between ICB service and local transit
- Challenges navigating between modes for those who are elderly or disabled

The Texas ICB Study identified multiple corridors that could benefit from ICB. Focusing on improving those corridors can help many Texans travel more easily throughout the state.

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What We Heard During Texas SMTP 2050 Engagement

ICB stations are often disconnected from local transit providers, with many stations closing and moving to more decentralized models that use businesses as transfer locations.

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Successful ICB Initiatives: Colorado's Bustang

Bustang is an ICB service in Colorado operated by Ace Express Coaches, Inc. and funded and managed by the Colorado Department of Transportation. Bustang primarily connects commuters along the I-25 Front Range corridor from Fort Collins to Colorado Springs and along the I-70 Mountain Corridor between Denver and Grand Junction, offering a convenient alternative to driving.



Photo Source: Colorado Department of Transportation

Needs, Gaps, and Challenges

Intercity Connectivity (cont.)

Passenger rail in TX is limited and the existing system provides inadequate levels of service. Additionally, passenger rail travel times (see **Table 4-1**) can be lengthy compared to those for private automobiles and other modes, making it a less attractive travel option. Based on the high volume of daily trips in the Texas Triangle, there appears to be an opportunity to add transit services to fill a gap in connectivity.

Amtrak is Texas' only intercity passenger rail service provider, with two lines operating in the state. The longest line is the Texas Eagle, which connects El Paso, San Antonio, Dallas, and Fort Worth. The Sunset Limited line covers the same route as the Texas Eagle, and extends to El Paso, San Antonio, and Houston.

“What We Heard During Texas SMTP 2050 Engagement

- Intercity transit is a critical need in the Texas Triangle.
- Limited passenger rail was a top challenge to address according to the Texans we engaged during fall 2024 Texas SMTP 2050 outreach.

Table 4-1. Travel Time Comparison Between Select City Pairs

City Pairs	Amtrak Travel Time	Auto Travel Time	Air Travel Time*
Dallas-Austin	7 hours, 5 minutes	2 hours, 55 minutes	1 hour, 5 minutes
Fort Worth-Austin	4 hours, 33 minutes	2 hours, 50 minutes	1 hour, 5 minutes
Austin-San Antonio	3 hours, 26 minutes	1 hour, 22 minutes	2 hours, 55 minutes**
Houston-San Antonio	5 hours, 10 minutes	3 hours, 40 minutes	1 hour
Houston-Dallas	No existing passenger rail connections		

*Does not include check-in/security delays.

**Includes connection to Dallas, as there are no direct flights between Austin and San Antonio.

Source: Amtrak, 2024; Google Flights, 2025; Google Maps, 2025

Needs, Gaps, and Challenges

Governance

Public transportation in Texas is accomplished through a decentralized system of local and regional transit entities, each operating as an independent political sub-division of the state formed under various sections of the State Legislative Code.

Each transit entity is responsible for their specific service areas and operating policies, including fares. These entities include RTDs, UTDs, MTAs, and municipal and county agencies operating independent transit services.

Longer distance intercity trips typically span multiple existing transit district service area boundaries creating coordination and integration challenges impacting the planning and operation of intercity transit services. Current statutes governing the formation of transit districts do not fully anticipate governance structures required to plan, finance, construct, and operate these services. This is especially true in areas such as the mega region forming the Texas Triangle where investments in higher capacity and higher quality transit services are actively under discussion.

Federal grant programs support rural area intercity needs by helping to maintain a minimum number of connections that would otherwise cease operation under private carriers. Higher volume corridors are typically served by multiple private carriers with limited, if any, coordination among them.



Photo Source: Trinity Metro

Strategies

Enhancing intercity connectivity throughout the entire state will require extensive planning and collaboration with public and private sector service providers and with various local, regional, and state agencies. General concepts will embrace a unifying statewide brand with varying types of service ranging from rural area connectors to higher capacity forms of either bus or passenger rail service, or both, and capital investments along high demand corridors. Key to this will be strategies that:

1. Identify a statewide route and hub network
2. Develop a governance framework for statewide and regional intercity services
3. Implement technology to enable seamless travel statewide

Successful Intercity and Regional Services: Florida's Brightline Higher-Speed Rail

Brightline is an intercity route in the U.S. that runs between Miami and Orlando, Florida. Brightline is the only privately owned and operated intercity passenger railroad in the U.S. This higher-speed intercity rail service has an average trip length of 3.5 hours and 235 miles, with operating speeds ranging from 80 to 125 mph depending on track segment. The service operates on hourly frequency between 5 AM and 9 PM daily. Brightline carried almost 2.8 million passengers in 2024. The initial segment began operations in January 2018 between Fort Lauderdale and West Palm Beach, and other segment openings followed in May 2018, December 2022, and September 2023.¹²⁴



Strategies

Identify a Statewide Route and Hub Network

A robust transit network and hub plan will outline priority actions and investments needed to enhance intercity transit in Texas. The plan will facilitate the prioritization and logical implementation of network components. A coordinated statewide approach would streamline planning efforts and ensure that intercity connectivity meets the diverse needs of Texas communities while promoting reliable travel options across the state.

Supporting the development of multimodal hubs in key locations would allow urban transit systems to plan for and provide seamless connections across modes like buses, cycling, pedestrians, and rail. Establishing core service standards would enhance coordination, ensuring clear expectations for frequency, reliability, and coverage. This would foster consistent, high-quality travel experiences throughout the network.

Additionally, identifying hubs would ensure safe first- and last-mile connections are available upon opening.

Plan components would include:

- Key statewide transit corridors connecting major destinations across the state
- Existing and future transit hubs
- Network of urban or rural connecting corridors and hubs
- Corridors within local transit agency service areas that are on state roadways



Photo Source: Capital Area Rural Transportation System

Connectivity in Action: Austin's Eastside Bus Plaza

This multimodal hub built by Austin's regional metropolitan transit provider, CapMetro, and regional rural transportation provider, Capital Area Rural Transportation System (CARTS), allows transfers between CARTS' RTD routes, CapMetro routes, and Greyhound/FlixBus. With its park-and-ride facilities, the plaza enables connectivity for commuters throughout the region.

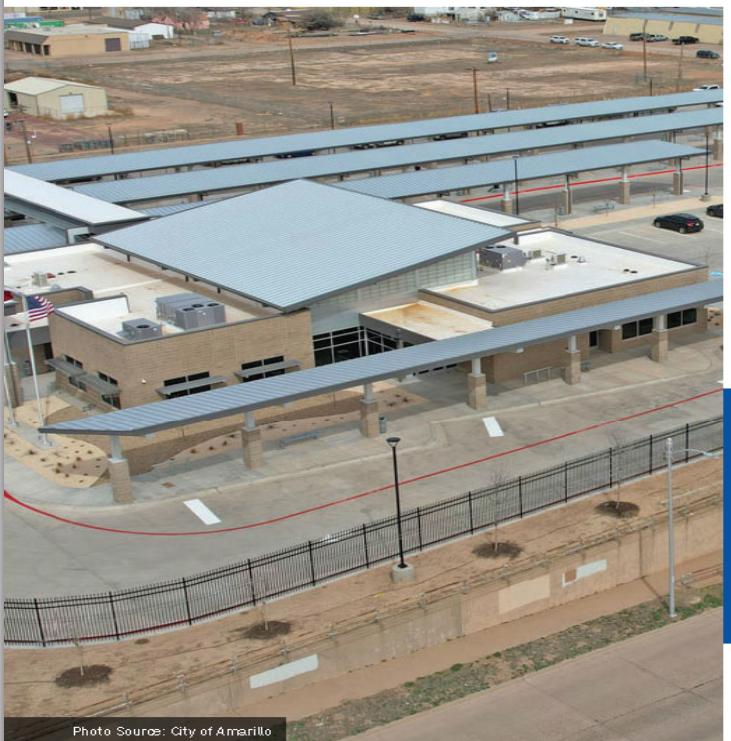


Photo Source: City of Amarillo

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Strategies

Develop a Governance Framework for Statewide and Regional Intercity Services

Developing intercity and regional services requires reviewing existing statutes and potentially developing new statutes to address the unique organizational and governance issues associated with long-distance and intercity passenger rail and bus service. Analyses should be conducted to identify and assess various frameworks for operating regional connecting services and integrating multimodal hubs, especially in the Texas Triangle.

Texas' transit strategies can build on the work of other states, such as Virginia (Breeze) and Colorado (Bustang), to develop a unique statewide brand that enhances visibility, promotes use, and provides for a consistent quality of service.

The Amarillo City Transit Multimodal Transfer Station

The Amarillo City Transit Multimodal Transfer Station opened in March 2024. It required collaboration among government, quasi-government, and private entities to make it a reality. The \$8.6 million facility involved federal funding, a significant contribution from the Amarillo Economic Development Corporation, and land donated by Downtown Amarillo, Inc.²⁰¹ This facility is a small successful example of the kind of governing framework and cooperation that will be needed at a large scale to achieve desired state-wide intercity and regional transit services.

Strategies

Implement Technology to Enable Seamless Travel Statewide

Technology has the potential to increase rider convenience, making transit a more attractive mode choice through features such as universal trip planning and in-app ticket purchases to streamline the user experience with access to real-time passenger information. As transit becomes more integrated, TNC's, rideshare, on-demand, and paratransit have new opportunities for improving their service and coverage more economically. When considered in conjunction with microtransit and the potential of autonomous vehicles in the future, price structures, fares and private partners present real opportunities to improve seamless travel locally and across the state.



Taking the First Step: ConnectSmart

ConnectSmart is a mobile app launched in September 2022 that provides users with a complete transportation solution for the Houston metro area. The app offers navigation, transportation options, travel times and costs, and in-app ticket purchase to users to streamline their experience. It encourages a variety of different travel modes, offering transportation services geared towards individual drivers, carpool, public transit, pedestrians, and cyclists.

Potential Initial Actions

While these strategies encompass many elements, several potential initial implementation actions were identified:

- Develop a Comprehensive Transit Network and Hub Plan
- Conduct a study to identify potential options for operating regional connecting services and associated hubs, as well as any governance issues
- Develop a plan to support the creation of a statewide seamless mobility and payment app
- Create a connection between existing and evolving transit technology and the Intelligent Transportation Systems (ITS) programs

Funding Intercity Connectivity

Statewide connectivity includes future services that link regions as well as the associated hubs that support the integration of local, regional, and statewide modes and services. Providing statewide connectivity through improved passenger rail, ICB services, and regional transit hubs is assumed to include transit connections between all cities with at least 10,000 people. A high-level analysis estimates that building rail and bus infrastructure would require an estimated \$30 to \$40 billion in capital investment and operating costs greater than \$5 billion annually. In addition to the capital and operating costs, there would need to be an organizational structure in place to plan, operate, and maintain the system.

Intercity Bus

ICB service could connect more communities than are linked today. It could also provide connections to rail and local bus services. Assuming ICB connections exist between 125 Texas cities that have populations greater than 10,000 and no rail access, the ICB network would require additional routing of more than 8,000 daily revenue miles and more than 30 new buses. Operating costs are estimated at \$14.50 per revenue mile with intercity coach bus costs estimated at \$1 million per vehicle in 2024 dollars.

Intercity Rail

There are 15 rail corridors with existing freight rail connections between Texas metro areas. Upgrading these to passenger rail service would require improving more than 3,000 miles of track and would provide passenger rail connectivity across the state. Where rail does not make financial sense, ICB connections can provide people with the ability to move seamlessly across the state. Filling in the ICB and intercity rail gaps would include operating more than 10,000 additional revenue miles.

Several different levels and types of services, listed below, should be considered to connect regions with intercity rail; the cost per mile increases with speed.

- **Double tracking** existing freight railroad to allow service that is not impeded by freight train interference at an estimated cost of \$25 million per mile, with speeds up to 79 miles per hour (mph)
- **Higher-performing rail** using a general freight railroad corridor (with improved track geometry at the slowest locations) to increase average speeds up to 110 MPH at an estimated cost of \$38 per mile
- **High-speed rail** that is completely grade-separated from all other crossings with speeds between 111 and 186 MPH at an estimated cost of \$65 million per mile
- **Ultra high-speed technologies** that include hyperloop and maglev with costs that cannot currently be estimated; speeds for this type of rail travel can top 186 mph

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Planning and Design



Photo Source: CapMetro

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Chapter Elements

Needs, Gaps, and Challenges

- Transit and the transportation planning and design process
- Transit resilience
- Public awareness of the importance of transit
- Inconsistent consideration of transit in economic development
- Aligning transit with development and transit-supportive land uses

Strategies

- Research and document statewide transit benefits
- Integrate transit through the local, regional, and statewide planning
- Incorporate transportation technology
- Prioritize safety and resiliency
- Enhance research, reporting, and knowledge sharing

What We Heard During Texas SMTP 2050 Engagement

More than one-third of respondents surveyed identified insufficient consideration of transit in the transportation planning and design process as one of the top five transit challenges in Texas.

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Overview

Multimodal coordination, planning, and design practices vary significantly across Texas. While some regions demonstrate best practices by fully integrating transit needs into multimodal planning and project development, this is not a universal practice. Texas' continued growth and urbanization means that mobility options provided by transit will become an increasingly important part of the overall multimodal transportation network.

Five needs, gaps, and challenges were identified related to planning and design:

1. Transit and the transportation planning and design process
2. Transit resilience
3. Public awareness of the importance of transit
4. Inconsistent consideration of transit in economic development
5. Aligning transit with development and transit-supportive land uses

Each of these categories is broken down further into the needs, gaps, and challenges discussed in this chapter. This analysis then leads to the development of strategies to strengthen transit planning and design, followed by the identification of potential initial steps for implementation.



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Needs, Gaps, and Challenges

Transit and the Transportation Planning and Design Process (cont.)

Customer-Focused Design, Access, and Safety

Customer-focused design is critical to overall transit performance, especially when it comes to customer safety and security. Although transit users interact with the overall transportation infrastructure, they are not consistently considered in all aspects of transportation and infrastructure design. This creates safety issues, access difficulties, and other challenges. Gaps in sidewalk connections, a lack of protected bike lanes, insufficient roadway space for adequate transit vehicle turning, and other design factors are the result of limited consideration for transit and transit-supportive modes such as walking and cycling in infrastructure design.



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Needs, Gaps, and Challenges

Transit and the Transportation Planning and Design Process

Transit is often overlooked or incorporated late during corridor and statewide transportation planning efforts. For example, when highways become congested, incorporating high-occupancy transit systems could be an important element to consider for capacity expansion.

Transit design guidance has recently been included in the recent update of the Roadway Design Manual (November 2024). While this guidance is an important first step, additional guidance in other statewide documents is needed, and more time is needed before the guidance is fully integrated into project development.

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What We Heard During Texas SMTP 2050 Engagement

- Stakeholders recommended considering transit early in the planning process for local and regional development decisions, roadway plans, and economic development activities.
- Transit in Texas lacks coordination with other transportation investments, with no guidance or mechanism for where or when to invest in transit infrastructure and services.

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Needs, Gaps, and Challenges

Transit Resilience

Risk Management and System Resiliency

Transit agencies play an important role in Texas' risk management and resiliency strategies in the face of emergencies and natural disasters. For this crucial function to continue, transit vehicles and facilities must be able to withstand extreme weather events, security threats, and roadway incidents. This includes the need to:

- Streamline, coordinate, and integrate system security approaches, so that they are scalable across agencies of differing size and service models
- Focus on managing economic and regulatory risks to improve security and resiliency
- Develop a proactive risk management approach that identifies and analyzes risks, safety hazards, and resiliency planning, including weather-related hazards

In today's world, security also extends to virtual assets and data. Traditionally, transit providers have had individualized approaches to securing their systems. As technology expands, agencies must secure systems that interpret data integrated from diverse sources, such as universal trip planning apps, dispatching, fare collection, and wireless communications between transit vehicles and traffic management systems. Internal systems that include personal data, such as human resources and payroll, should also be secured.

Economic and regulatory risks must also be managed, such as potential economic downturns, new safety or environmental regulatory compliance requirements (and fines for non-compliance), and operations staff shortages. These risks need more focus, but many transit agencies do not have staff for this type of resiliency planning.

Current operational structures present another challenge to risk management and resiliency planning. Transit systems operate at different levels of geography and governance (i.e., public, private, municipal, and regional). An uncoordinated approach can lead to public transportation safety issues. For example, poor transit integration can result in transit stops being placed in unsafe locations, creating difficult transfers between providers as well as potential security risks. This can result in major challenges during emergency events.

Enhancing Safety: VIA's NaviLens

Early in 2024, VIA Metropolitan Transit installed 6,000 NaviLens signs at bus stops and other transit locations across San Antonio to help visually impaired riders independently and safely access public transit. Through the NaviLens smartphone app, users can detect these signs within a 50-foot proximity and play audio messages containing real-time travel information.^[31]

Needs, Gaps, and Challenges

Public Awareness of the Importance of Transit

In the 2023 TxDOT Transportation Visioning Survey, 84% of respondents indicated that it was important to improve the alternative mode transportation network in Texas, including providing mobility options such as public transportation, paratransit, bicycles, walking, and scooters.^[32]

There is a need to increase public awareness about transit and its importance to the Texas economy and quality of life. For example, though many working Texans use transit as their commute mode, the public often does not realize how many of the staff they interact with through essential services such as healthcare facilities, retail shops, manufacturers, grocery stores, and restaurants rely on transit. During two rounds of public outreach, many Texans in smaller urban, suburban, and rural areas shared that they were unaware of the transit options available in their areas and were unsure how to access them.

Identifying local transit champions who can communicate the importance of transit will be key to helping close this awareness gap. This will be especially important in rural areas, where residents are often unaware that demand-response transit is available.



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VIA: A Leader in Customer Satisfaction

San Antonio's VIA Transit was awarded three national awards from TransPro, a transit industry leader in consumer insights and advisory services that tracks transit metrics, at their annual 2024 summit.^[33] The awards were for:

- Highest customer satisfaction score
- Highest net promoter score – measuring rider loyalty and how likely riders are to recommend the service to others
- Best improvement in net promoter score

These scores show VIA's commitment to customer service and how highly riders value VIA service.

Needs, Gaps, and Challenges

Inconsistent Consideration of Transit in Economic Development

When speaking with economic development stakeholders, it emerged that transit is not often included in early discussions between state economic development representatives and businesses interested in locating, relocating, or expanding in Texas. Even though hiring a sufficient workforce often requires businesses to recruit from beyond the immediate local area, getting employees to and from work is typically considered secondary to obtaining supplies and shipping products and is rarely discussed with regional economic development agencies.

When employee mobility does enter the conversation, it often happens when businesses are having trouble filling open positions and are looking at options to expand the pool of potential employees to a wider geographical reach. This creates a challenge, as planning and implementing new transit routes and infrastructure require substantial lead time and resources.

Unless an individual transit agency is actively engaged with the local development community, there is no formal mechanism for coordination between businesses and transit providers and inclusion in their strategic planning. Encouraging coordination would enable proactive planning to better serve the needs of businesses and employees.

Space Industry

The State of Texas has identified the space industry as a key sector of economic growth. The industry has the potential to create new demands for transit, as there is a need to connect employees to remote job locations that currently lack transit access.



Texas Statewide Multimodal Transit Plan 2050

What We Heard During Texas SMTP 2050 Engagement

- Transit is insufficiently promoted in state-level economic development activities.
- Transit is often not considered in business location decisions until there are issues finding enough workers.
- There are limited Texas Workforce Commission programs addressing transportation to work.
- More coordination is needed between economic development (at all levels), public transportation providers, and MTAs.



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Needs, Gaps, and Challenges

Aligning Transit with Development and Transit-Supportive Land Uses

Transit works best when focused in areas with transit-supportive development, densities, and design. Texas' widespread low-density development encourages an auto-centric environment that can make it challenging for public transportation to operate efficiently and safely. Many areas also lack robust non-driving infrastructure—such as sidewalks, crosswalks, and bike lanes—that support the use of transit and other personal vehicle alternatives. Since transit hubs and priority transit corridors are not defined on a statewide level, or in many cases, on a regional scale, it can be challenging to create transit-supportive land use.

Land use and zoning are crucial to creating conditions that are supportive to transit, such as transit-oriented development. Better collaboration during the early phases of development between transportation authorities, developers, businesses, local governments, and MPOs is needed to ensure that designs include appropriate access to transit.



Transit-Oriented Development in Action: CapMetro's McKalla Station

McKalla Station serves the North Burnet area of Austin on CapMetro's Red Line. Adjacent to Q2 Stadium, it provides convenient and safe options to get to the stadium and the surrounding neighborhood. As part of Austin's Project Connect investment, the project also made drainage improvements to the area, added double-tracking, and developed train whistle quiet zones. In addition, the station is connected to a wider transit network with a designated bike path and nearby bus stations. McKalla Station provides connectivity to housing, employment, and activity in the North Burnet neighborhood as well as to high-activity destinations with restaurants, breweries, and other businesses.

What We Heard During Texas SMTP 2050 Engagement

- Often, land use and zoning regulation in Texas do not accommodate efficient provision of transit.
- It is crucial to involve transit agency planners in planning, design, and implementation discussions so they can provide valuable insights as service providers.

Texas Statewide Multimodal Transit Plan 2050

Strategies

Achieving the 2050 vision for transit in Texas will require an unprecedented level of planning and cooperation among all levels of government, and, in some cases, the private sector. Strategies include:

1. Research and document statewide transit benefits
2. Integrate transit through local, regional, and statewide planning
3. Incorporate transportation technology
4. Prioritize safety and resiliency
5. Enhance research, reporting, and knowledge sharing

Demonstrating the Benefits of Transit

There are multiple examples of the economic impact of specific transit investments in Texas. A few of these include:

- The development of DART light rail created \$10 billion in economic impact from 2016–2018.^[34]
- TEXRail's rail line from DFW to Fort Worth increased sales tax revenue by almost 40% for businesses within a 5-minute walk and more than 30% for businesses within a 10-minute walk.^[35]
- Dallas saw a 29% increase in office properties located near public transit stations. This is much higher than the 6% increase in office properties not located near transit over the same period.^[36]
- Since its opening in 2010, Austin's Red Line has seen a 62% increase in jobs within a quarter mile (compared to 41% region-wide) and a 154% increase in high-paying jobs (compared to 99% region-wide).^[37]

To fully make a case for transit in Texas, coordinated data collection and reporting from a variety of sources around the state is recommended.

Quantifying Economic Impacts

A great deal of data is required to quantify the economic benefits of transit on the Texas economy. Currently, no entity is tasked with collecting statewide data on the economic benefits of transit. As a result, secondary and social benefits—like access to jobs, health benefits, and cost savings associated with avoiding roadway congestion—make the value extremely difficult to calculate on a statewide level.

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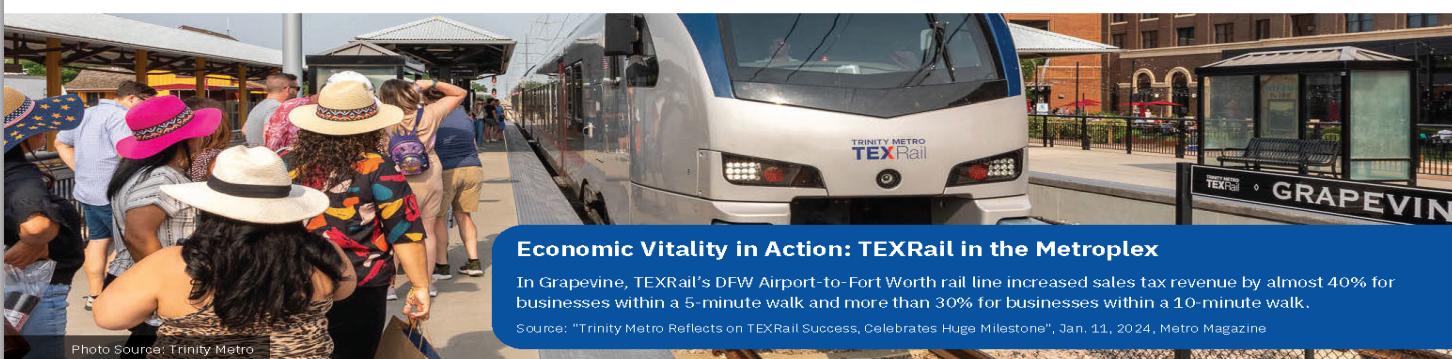
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Strategies

Research and Document Statewide Transit Benefits

Developing New Performance Measures, Expanded Data Collection, and Reporting Standards

TxDOT will continue to utilize traditional transit performance measures while adding new performance measures tailored to diverse audiences. These will include measures that account for the unique needs of small UTDs and RTDs, and will ensure that transit is evaluated not just by traditional transit performance measures but also by its impact on communities. A centralized repository of Texas-specific best practices, along with a shared-access transit data warehouse, will provide agencies with resources and data insights to inform decision-making and improve service delivery. Consistent and expanded data collection will establish a reliable foundation for reporting—enabling transit agencies to monitor progress, make evidence-based adjustments, and demonstrate value to stakeholders. Together, these efforts will create a transparent, efficient, and accountable transit network.



Economic Vitality in Action: TEXRail in the Metroplex

In Grapevine, TEXRail's DFW Airport-to-Fort Worth rail line increased sales tax revenue by almost 40% for businesses within a 5-minute walk and more than 30% for businesses within a 10-minute walk.

Source: "Trinity Metro Reflects on TEXRail Success, Celebrates Huge Milestone", Jan. 11, 2024, Metro Magazine

Photo Source: Trinity Metro

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Photo Source: Sun Metro

Strategies

Integrate Transit in Local, Regional, and Statewide Planning

Integrating transit into every stage of transportation planning is essential to developing effective urban and rural transit corridors. Transit should be a central consideration in regional, local community, and land use planning efforts, positioning it as a viable, convenient option for all types of trips.

Future transportation projects must consider transit in corridor planning and design processes as well as in land use and environmental planning at all levels of government. Providing recommendations for incorporating transit into the planning process will give planners clear guidance and enable them to address transit needs consistently and prioritize access and connectivity between rural and urban areas. Together, these strategies will help create transit corridors that align with broader transportation goals, resulting in a more cohesive and accessible multimodal transportation system.

Providing flexible statewide transit design guidelines can effectively promote transit as part of corridor planning efforts. By prioritizing higher-capacity people-moving systems and transit-supportive designs, transit can operate more efficiently in both high-density and congested areas.

Integrating multimodal improvements into high volume corridors will also encourage seamless connections between transportation modes, making transit more accessible and attractive. Focusing transit investments within congested corridors can significantly increase people-moving capacity and travel efficiency. Flexible, adaptable guidelines that are integrated into transportation design standards will ensure that transit is considered and incorporated at every development stage, resulting in a cohesive transit network that supports long-term growth, accessibility, and safety.

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Strategies

Research and Document Statewide Transit Benefits (cont.)

Broaden Engagement and Public Awareness Around Transit

Increasing public engagement and awareness of transit options is essential to fostering a transit-supportive culture and expanding support for transit investments. A focused information and awareness campaign can highlight the benefits of transit and the transit options available to communities. For example, sharing stories of how transit connects people to jobs and other vital resources can help residents recognize how these services enhance mobility and improve quality of life.

Leveraging Texas-specific research will allow agencies to demonstrate the direct impacts of transit investments. At the same time, an awareness campaign can help cultivate champions who are willing to promote transit benefits within their communities, as well as regionally and statewide. These strategies can help build a strong, and informed base of public support, positioning transit as a vital asset to Texans, as well as the state's economy.

Communicate the Value of Transit

Support for additional funding is contingent on public and stakeholder perceptions about the value of transit. It is essential to broaden and formalize regular public transportation engagement as part of TxDOT's communication strategy. Measuring the economic and community impacts of transit can provide agencies with valuable information to share with individuals and communities. Additionally, developing new performance measures that focus on serving people and reflect the diverse needs of small UTDs and RTDs will help better communicate how transit meets regional needs and provides access to opportunity for all Texans.



Photo Source: Denton County Transportation Authority

Denton County Transportation Authority (DCTA): GoRequest App

DCTA began collecting user feedback during its launch of pilot programs using the GoRequest app. The app allowed users to comment in real-time while using DCTA services and provided timely information that was used to make modifications while the pilot project was ongoing. DCTA continues to encourage riders to submit comments, requests, and other feedback through the GoRequest app and uses this feedback to tailor its services towards community needs.

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Strategies

Integrate Transportation Technology

Integrating advanced technology into transit systems will be key to improving efficiency and connectivity. Developing tools and approaches to optimize transit efficiency can streamline operations, reduce delays and wait times, and enhance the overall rider experience.

Emerging technologies that are creating transformation change include:

- Autonomous/connected vehicles
- Microtransit
- Evolving vehicle propulsion systems
- Universal seamless/contactless fare payment
- Communication between transit vehicles, traffic signals, and transit apps

Integrating these technologies with other information technology system programs will help with information sharing across all transportation modes.

Using partnerships to facilitate innovation and test leading-edge applications can help extend technology benefits to multiple transit providers.



Photo Source: City of Arlington

Arlington RAPID: Integrating Microtransit and AV Technology (Arlington, TX)

Arlington is the largest city in the U.S. without a traditional fixed route bus system, yet it is a leader in integrating technology in on-demand ridesharing. Arlington's first transit service was a one-year autonomous event shuttle service, Milo, initiated in 2017 on off-street trails. Building on this, Arlington launched an eight square mile, 10-vehicle micro transit service in December 2017. They followed up in 2018 with a second pilot program, Drive.ai, using a fleet of three self-driving passenger vans in the city's entertainment district. Microtransit services were further expanded in 2020 with an additional 28 vehicles and expansion of the service area to 40 square miles. In 2021, five AVs were integrated into the citywide microtransit service, RAPID, bringing the service to 80+ vehicles operating across a 99-square mile area.¹⁵²

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Strategies**Prioritize Safety and Resiliency**

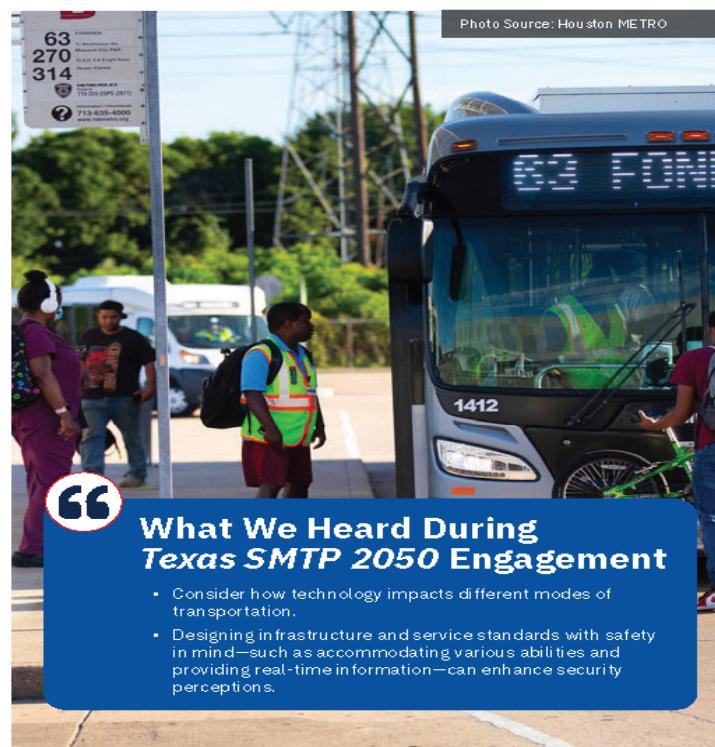
Prioritizing transit system safety and resiliency is critical for passengers, employees, and ensuring long-term service sustainability. Supporting the development of comprehensive safety management systems will help transit agencies proactively identify and mitigate risks, enhancing overall safety standards. Additionally, prioritizing safety and resiliency improvements within state discretionary funding can ensure that these critical areas receive attention and the needed resources.

TxDOT is creating the **Texas Statewide Resiliency Plan** to analyze trends and enhance the state's transportation system by:

- Integrating resilience into transit planning and operations
- Improving the resilience of transit systems through targeted strategies and tools
- Enhancing protection of critical transit assets, including stations and fleet

Design Standards

MTAs and national organizations like the National Association of City Transportation Officials and APTA have transit design guidelines that promote safety and security, multimodal design, and operational excellence.

**What We Heard During Texas SMTP 2050 Engagement**

- Consider how technology impacts different modes of transportation.
- Designing infrastructure and service standards with safety in mind—such as accommodating various abilities and providing real-time information—can enhance security perceptions.

Strategies**Potential Initial Actions**

While these strategies encompass many elements, several initial implementation actions were identified:

- Develop flexible statewide transit design guidelines for integration into all elements of transportation design standards and processes
- Create a set of recommendations for addressing transit throughout the planning process
- Create a focus on technology to help facilitate testing and implementation among urban and rural providers
- Broaden public engagement and awareness around transit; formalize a plan for regular outreach as part of TxDOT's ongoing communication efforts
- Develop new performance measures that focus on serving people and reflect different transit operating environments while also tracking traditional performance measures
- Develop a framework, tools (existing and new), and stories to demonstrate how transit can help provide people with access to economic opportunities, as well as the positive impacts of transit on local communities and the economy

**Strategies****Enhance Research, Reporting, and Knowledge Sharing**

Improving urban transit requires a strong focus on research, testing, and data-driven decision-making. Developing new tools and methods to optimize efficiency, alongside technology enhancements, will allow transit systems to respond more effectively to changes in demand. For example, expanding research and leadership in microtransit will provide insights into flexible, on-demand services that can complement fixed route options.

Continuing to track traditional performance measures while identifying metrics that emphasize serving people and recognize diverse operating environments for MTAs, large and small UTDs, and RTDs will ensure that services meet specific local needs. Additionally, broadening and standardizing data collection and reporting will support consistent improvements and provide a clearer picture of transit effectiveness across regions. These improvements can be used in future planning efforts.

Sharing resources and knowledge improves access to funding, training, research, and transit data. This greatly benefits RTDs and small UTDs with limited resources. Sharing insights enables better evaluation of services, expansion, technologies, and grant applications without costly data collection. Developing a shared-access transit data warehouse will support data-driven decisions across agencies, enhancing system efficiency and adaptability.

How Do New Approaches Impact Travel Decisions?**El Paso's Sun Metro Brio**

Sun Metro Brio in El Paso has been operating since 2014. It sets standards for each of its BRT corridors to maximize passenger comfort and encourage integration with other bus lines in the area. Each corridor has at least two transfer centers where riders can switch to local buses, and all Brio BRT curbside stations are equipped with free Wi-Fi, bike racks, ticket vending machines, and shade panels. Buses run as frequently as every 10 minutes during weekday rush hours.^[39]

Managed Lanes in Houston

Houston's high-occupancy vehicle and toll lanes allow buses, vanpools, and other vehicles to bypass roadway congestion during peak commute times. Changing the direction of these lanes (towards the city during morning hours and away from the city at the end of the workday for commuters returning home) allows for an efficient use of space. At the same time, the city promotes time-saving benefits by providing an easy carpooling platform through the SmartConnect intermodal transit service app.

Microtransit in Denton County

DCTA, which serves Denton County and the cities of Lewisville and Highland Village, significantly shifted to microtransit during the pandemic to address declining ridership on fixed routes. In 2023, DCTA's microtransit services carried more than 1 million people across 18 months of service.^[40]

6 **Funding: Maintain and Expand Services****Chapter Elements****Needs, Gaps, and Challenges**

- Funding for new and improved service
- Maintaining critical assets
- Need to maintain and expand service levels
- Funding challenges and constraints

Strategies

- Maximize use of existing funding
- Expand sources, flexibility, and levels of funding
- Tie funding to growth and performance

What We Heard During Texas SMTP 2050 Engagement

- Increasing funding for transit was the most important strategy identified by the Texans we surveyed.
- 1 in 3 of the respondents we surveyed acknowledged the funding gap as a critical challenge to improving public transit.

Overview

There is a clear funding gap between current levels of public transit service and funding required to maintain and expand these services. Finding mechanisms and sources to secure additional funding is crucial to ensuring existing services remain affordable while also allowing for the expansion of new transit services. Additionally, these funding sources will provide capital investments for transit systems and infrastructure.

Chapters 3 and 4 identified a number of estimates associated with needed service expansion and intercity connectivity. Those estimates are summarized in **Table 6-1**.

Table 6-1. Estimates Associated with Service Expansion and Intercity Connectivity

New and Improved Services	Estimated Costs (2025 Dollars)
Intercity Connectivity: Bus/Rail	<ul style="list-style-type: none"> ▪ Capital costs: \$30 to \$40 billion ▪ Operating costs: Over \$5 billion per year
Enhanced Services & Capital Investment: BRT and LRT	<ul style="list-style-type: none"> ▪ BRT capital costs: \$30-65 million per mile ▪ LRT capital costs: \$200-250 million per mile ▪ Additional operating costs, dependent on type and level of service
Enhanced Microtransit	▪ \$25 million per year (\$1 million per year for 25 small cities)
Enhanced Minimum Levels of Service (per TTI Transit Needs Assessment)	<ul style="list-style-type: none"> ▪ Initial vehicle costs: \$20 million ▪ Operating costs: \$90 million per year

The capacity to expand service is predicated on the capacity to maintain it, for both expansion and capital needs. This chapter lays out funding strategies to address both maintenance and expansion needs through 2050 and identifies significant challenges associated with maintaining current services levels.

83% of transit funding comes from local sources.^[41] Of this local funding, 69% comes from local sales tax revenue, and the remaining funding comes from federal (16%) and state (1%) sources.

What We Heard During Texas SMTP 2050 Engagement

- Rural transit agencies do not have the staff or resources needed to expand services.
- Because transit agencies base their service offerings on available funding, there are unfunded programmed projects in every budget process.
- MTAs do not have sufficient funding to implement all the projects in their long-range plans.

Needs, Gaps, and Challenges

Need to Maintain and Expand Service Levels: Projected Costs and Funding

This section provides cost projections for maintaining existing service levels through 2050 in RTDs, UTDs, and MTAs, including operating expenses and capital costs inclusive of fleet and facilities maintenance and replacement.

Projections are based on a review of historic funding levels and growth rates, and they assume that current funding sources will continue for Texas transit agencies through 2050. These funding estimates do not include what would be needed to maintain expansion beyond existing service levels.

Securing sufficient funding is a key challenge to maintaining current services. Escalating costs, coupled with supply chain limitations, make it difficult for agencies to meet asset maintenance and acquisition needs while maintaining existing service levels.

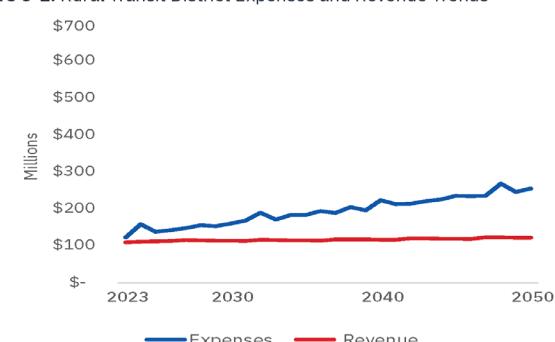
Inflation and supply chain issues were particularly pronounced during and immediately following the COVID-19 pandemic. Agencies reported extended procurement time frames coupled with 40% to 60% increases in asset replacement, and construction costs require virtually all the increased federal program funding included in the Infrastructure Investment and Jobs Act to maintain current service levels. Additionally, Texas' robust employment markets create a challenge for transit agencies to provide competitive wage rates for drivers and mechanics.

Rural Transit Districts

Operating expenses per passenger-mile for RTDs have increased during the past 10 FYs. In FY 2024, Texas' 36 RTDs needed an estimated \$157 million to maintain existing service levels and SOGR for assets. This figure is expected to increase to \$250 million in 2050 when considering inflation, vehicle replacement cycles, and facility needs.

Projected RTD funding is flat and depends on federal funds and state support. Revenue from existing sources is projected to increase by just 0.4% per year through 2050, creating a funding gap that will eventually be almost \$130 million dollars over projected costs. RTD funding and expenses are reflected in **Figure 6-1**.

Figure 6-1. Rural Transit District Expenses and Revenue Trends



Needs, Gaps, and Challenges

Maintaining Critical Assets

While sufficient funding is crucial to sustaining current services, it is not the only factor. Upgrading, maintaining, and replacing critical service-delivery assets such as fleet, facilities, and equipment are equally important.

For example, Texas transit agencies maintain nearly 7,000 transit fleet vehicles across the state.^[42] Maintaining SOGR is a continuous challenge, especially as vehicles age. Rising vehicle and maintenance costs combined with limited funding means that Texas agencies must often secure discretionary funding for one-time purchases of new vehicles or consistently pour ongoing maintenance funds into aging vehicles.

In RTDs (which have larger service areas and longer trip lengths), vehicles see significant wear and mileage. In FY 2024, Texas' 36 RTDs maintained nearly 1,800 vehicles, operating more than 31.4 million miles of service. In FY 2024, RTDs reported nearly 3,700 vehicle failures—almost a 10% increase from FY 2023.^[43]

MTAs and UTDs face similar challenges. Combined, these agencies maintained more than 5,000 vehicles operating more than 224 million miles in 2024. In FY 2024, these vehicles saw more than 41,000 vehicle failures (breakdowns while in service), a nearly 18% increase from the previous FY. This occurred as agencies reported an increase of nearly 4% in VMT compared to FY 2023.^[45]

Depending on fleet composition, agencies can anticipate having to replace their total fleet two to three times by 2050.^[46]

In addition to the challenge of maintaining vehicle fleets, agencies must grapple with maintaining SOGR for aging facilities and infrastructure. These include operations and administrative offices, maintenance facilities, parking facilities, bus transfer facilities, and elevated fixed guideway stations. According to the most recent data (2021), 19% of MTA facilities and 7% of small UTD facilities face significant deterioration and replacement needs.^[47] As transit facilities and infrastructure across the state age, this challenge will continue to increase. Asset maintenance and replacement for rural, urban, and metropolitan agencies are included in the following analysis of projected costs and funding availability.

Rural Transit Asset Replacement and Modernization

Since 2015, TxDOT has facilitated the replacement of nearly 1,300 fleet vehicles and supported the planning, design, and construction of 12 new rural transit facilities to support operations, maintenance, and passenger activities. This includes the Texas Rural Asset Replacement Project during the FY 2015 Transportation Investment Generating Economic Recovery (TIGER) grant funding cycle as well as the Rural Transit Asset Replacement & Modernization Project funded through the FY 2018, FY 2019, FY 2020, FY 2021, FY 2023, and FY 2024 FTA Bus & Bus Facilities discretionary grant program.^[48]

Needs, Gaps, and Challenges

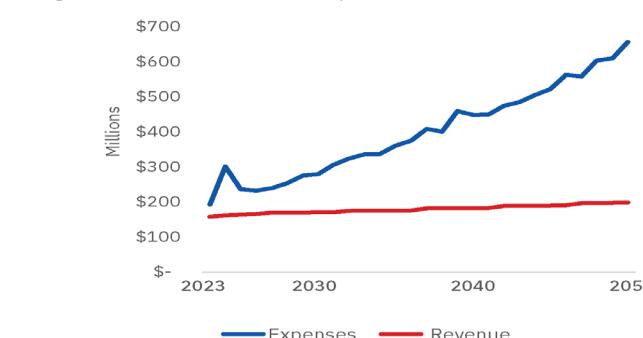
Need to Maintain and Expand Service Levels: Projected Costs and Funding (cont.)

Urban Transit Districts

For UTDs, operating costs per passenger-mile have increased at a faster rate during the last decade than they did in rural districts and MTAs. In FY 2024, Texas' 33 UTDs needed an estimated \$249 million to maintain existing service levels and SOGR. By 2050, this figure is expected to increase to nearly \$650 million.

Like RTD funding, UTD funding has also been historically stagnant and depends on federal funds and local government revenue support. Funding is forecasted to increase by 0.9% per year, resulting in a projected funding gap of nearly \$450 million dollars over projected costs by 2050. UTD funding and expenses are reflected in **Figure 6-2**.

Figure 6-2. Urban Transit District Expenses and Revenue Trends



What We Heard During Texas SMTP 2050 Engagement

- Transit agencies regularly adjust service levels to accommodate available funding.
- Since COVID, project priorities have shifted to reflect emerging transit demand.
- State and federal funding is not keeping up with rapid post-COVID increases in vehicle and operational costs.

Needs, Gaps, and Challenges

Need to Maintain and Expand Service Levels: Projected Costs and Funding (cont.)

For many transit agencies, the gap is widening between available funds and those needed to maintain existing levels of service and SOGR. The funding gap widens further when considering the additional costs of enhancing services to address Texas' significant population and economic growth.

RTDs face a future cumulative funding deficit of \$2.1 billion in today's dollars to maintain current service levels and SOGR from 2024 to 2050.

Though populations in rural areas are generally anticipated to decline as urbanization increases, transit demand will most likely increase because of a growing senior population and the rising cost of car ownership.

UTDs face a future cumulative funding gap of \$6.2 billion in today's dollars to maintain current service levels and SOGR while addressing population and economic growth from 2024 to 2050. UTDs not only face a funding shortage that challenges their ability to maintain existing services but also have insufficient funding for service improvements and expansion to address the growing demand associated with per capita growth.

MTAs are projected to have sufficient funds to maintain existing service levels and SOGR, and sufficient funding to scale service needs associated with growth at current per capita funding levels. The funding gap for MTAs is associated with expanded services needed to serve significant population and employment growth.

University Transit

Partnerships with colleges and universities can provide a source of revenue for transit agencies while providing students a low-cost option for their commute.

Student transportation is an important transit market as Texas college and university enrollment continues to grow. American college students on average attend school 17 miles from home, a number that falls to a median distance of 10 miles for community college attendees. The College Board found that the average college student spends between \$1,060 and \$1,840 per year on transportation-related expenses.^[48] For rural students, this number is often much higher as there may not be post-secondary education options nearby – creating the need to travel significant distances at an increased cost to reach campus. This is particularly true for students from lower income households and students without a personal vehicle. Lack of transportation can be a barrier to post-secondary education.

Several Texas colleges and universities provide transit services and partner with local transit agencies to provide connections between campus, student housing areas, and local shopping destinations. Transit agencies often provide transit access to students through U-Pass programs and similar contractual partnerships.

Needs, Gaps, and Challenges

Funding for New and Improved Service

Rural transit improvements—such as improving service hours and frequency, eliminating geographic service gaps, and implementing expanded micro transit—cannot be implemented within current projected funding.

Urban transit districts face similar challenges, with insufficient funding projected for new or improved transit service. This challenge is amplified by an inability to raise tax revenue through a local tax levy.

Because MTAs adjust their service offerings to align with available funding, all MTAs have unfunded projects programmed in their long-range plans. These expanded services include new LRT and BRT infrastructure and service among other improvements. Building these systems can cost between \$30 million per mile (BRT) to \$250 million per mile (LRT).

Intercity and inter-regional connectivity is envisioned as a statewide public transit network comprised of passenger rail, intercity regional buses, and associated hubs. Funding has not been identified for future statewide network projects as specific projects, such as intercity connectivity, have not yet been defined.

Building out a statewide public transit network to achieve the Texas SMTP 2050 vision will require an annual expenditure of \$5 billion and \$30 to 40 billion for fleet, facility, and other needs.



Photo Source: Capital Area Rural Transportation System

Needs, Gaps, and Challenges

Funding Challenges and Constraints

Year-to-Year Uncertainty in Funding Levels and Sources

There are risks to relying heavily on a single funding source. For example, relying on local dedicated sales taxes can be challenging because these are subject to ballot measures, economic downturns, and population changes. Similarly, heavy reliance on federal grants and programs can bring uncertainty if funding levels or programmatic requirements change.

Rural Area Per Capita Funding Disparities in Federal Transit Formula Grant Programs

Although Texas has one of the largest populations in the U.S., federal funding for rural transit lags behind other states on a per capita basis. For rural areas, FTA Section 5339 formula funding is available for buses and bus facilities and is fixed at \$4 million annually per state. In 2020, Texas had the largest rural population of any state in the nation—nearly 6 million people—but ranked 50th in Section 5339 apportionment dollars per capita.^[49] This figure is based off of the previous apportionment amount of \$3.5 million, which was updated to \$4 million in FY 2022. Texas receives \$0.57 per capita, 2% of what Rhode Island (with a total population of roughly 4 million people—10% of which is rural—receives per capita. Similarly, when comparing FTA Section 5307 formula funding for urbanized areas allocated to small UTDs and FTA Section 5311 rural formula grants for rural areas, funding for RTDs and small UTDs receive 2.2 times more funding per capita than rural districts.^[50]

Additionally, the Section 5311 rural program funding for capital, planning, and operating costs requires a 20% local match for capital purchases and provision of ADA paratransit service. Section 5311 also requires 50% matching funds for operating costs.^[51]

Over-Reliance on Federal Funding to Maintain Assets

At the end of a fleet's useful life, transit agencies often must decide whether to purchase new vehicles or keep existing vehicles in service at higher operation costs. To accomplish this, rural fleet management routinely requires large federal discretionary fund infusions to maintain SOGR. However, federal discretionary funding is not a predictable and reliable funding source. This unpredictability can make it difficult to maintain aging fleets or to increase fleets to accommodate new services and improved frequencies.

Texas RTDs have unmet funding needs for transit service and the capital investments required to replace aging vehicles and ensure adequate facilities for safe and efficient operations. Transit agencies need more funding resources to support vehicle and facility needs. This would help minimize the impacts on service reliability, particularly in rural areas.



Photo Source: East Texas Council of Governments

Needs, Gaps, and Challenges

Funding Challenges and Constraints (cont.)

Insufficient, Unreliable Sources of Local Match Supporting Rural and Urban Service Areas

Both RTDs and UTDs lack a stable and predictable local funding source and often find it challenging to optimize federal grant opportunities because they lack required local matching funds. By statute, only MTAs can collect sales tax revenues—the exception being the city of Laredo's UTD, which was granted a statutory exemption.

Texas categorizes UTDs into small and large UTDs. Large UTDs, which serve areas with populations of more than 200,000, face additional funding challenges without allocated sales tax revenue. While they meet the service area population of an MTA, these large UTDs cannot organize as an MTA because the 2% local option sales tax in their service area has already been allocated to other uses.



What We Heard During Texas SMTP 2050 Engagement

- RTDs and UTDs lack local match to secure additional federal funding.
- RTDs and UTDs have difficulty competing with other uses for limited local funds.
- The ability to optimize funding relies on the structure of the available funding.

Texas Transit Sales Tax Allocation

Of the available 2% local option sales tax (which requires voter approval), MTAs may take up to 1%, as is the case in Austin, Dallas, and Houston. Other MTAs receive 0.5% for transit. San Antonio's VIA is an exception, as the agency receives 0.5% from across the entire service area and an additional 0.25% only from within San Antonio through a statutory exception known as the Advanced Transportation District, which voters approved in 2003. Other MTAs are unable to increase their dedicated sales tax since other jurisdictions within their service areas have passed local option sales taxes that combine to reach the 2% cap.

Needs, Gaps, and Challenges

Funding Challenges and Constraints (cont.)

Funding Gaps for Intercity Connectivity

No funding source exists for delivering a statewide transit network in Texas. Today, providing funding for service that crosses transit district boundaries is complicated and, in many cases, not possible. This is especially true in the Texas Triangle, where most of Texas' growing population and employment are concentrated. There is currently no unified approach to funding intercity transit in Texas, which would require, at a minimum, state resources dedicated for intercity transit connectivity combined with new local matching funds.

Potential New Sources of Funds for Transit

There are several potential sources of state funds for transit, but all require legislative action or dedication earlier in the planning and design process to be inclusive of transit:

- **Flex Funding:** A portion of federal highway funds could be transferred to the FTA for transit projects. This includes projects that improve transit access or enhance transit facilities.
- **Hotel Occupancy Tax Surcharge:** Increasing the Hotel Occupancy Tax can fund transportation improvements, including transit.
- **Amending 4A/4B Economic Development Sales Tax:** New legislation could allow transportation authority member jurisdictions to pass voter-approved measures to fund new transit authority membership.
- **State Public Transportation Grant Program:** This program currently allocates funds for public transportation to large urbanized, small urbanized, and nonurbanized areas and could potentially be increased to meet transit needs.



Photo Credit: CapMetro

Strategies

Increasing funding for transit involves a combination of maximizing use of existing resources, improving and expanding funding mechanisms, identifying innovative revenue sources, and fostering collaboration across agencies and stakeholders. By increasing flexibility in funding programs, implementing new funding streams, and leveraging group purchasing and shared resources, Texas can enhance its transit system's financial sustainability. As discussed previously, improving data collection and reporting will also enable better-informed decisions and strengthen the case for additional investments. Communicating the value of transit will build public and political support, ultimately helping secure the funding necessary to meet growing transit demands.

Closing the gaps between project costs and funding, and ensuring the financial capacity to maintain SOGR for critical assets requires strategies that:

1. Maximize use of existing funding
2. Expand sources, flexibility, and levels of funding
3. Tie funding to growth and performance



Photo Source: Denton County Transit Authority

Strategies

Maximize Use of Existing Funding

Technology and Design

Coordinating and optimizing transit services will advance integration of transit across systems and with other modes. Layering on technology can help improve transit efficiency and reliability while traveler information and universal payment apps will further improve the user experience and integrate transit across systems and with other modes.

Improved Data Collection and Analysis

As technology evolves and sufficient support staff for transit agencies continues to be problematic, improved data collection approaches can help agencies streamline and standardize reporting. Because system improvements may be difficult to implement agency by agency, a coordinated effort will support all agencies and provide the needed focus to maximize benefits across all agencies. Updated transit asset management systems and a streamlined reporting structure will enable each transit district and agency to clearly outline projected costs and revenues.

Asset Management Plans

Focusing on asset management is essential for identifying future capital funding needs and ensuring the longevity of transit systems across Texas. Further leveraging existing transit asset management systems data will provide more defined procurement needs, enabling agencies to enhance their buying power through combined state procurements.

Reducing/Eliminating Transportation Funding Silos

Significant amounts of funding for client transportation are provided for in other federal program budgets, including Health and Human Services (Medicaid Non-emergency Transportation (NEMT) program), Workforce Development, and the Veteran's Administration. In many instances, these programs operate their own transportation services exclusively for use by their clients. Identifying opportunities to utilize those funds to expand public transportation programs has the potential to reduce overall expenditures per trip across all programs. This could be further explored through existing processes, such as the development and updating of Regional Public Transportation Coordination Plans.

These could include efforts to eliminate user eligibility barriers associated with new sources of transportation funding, including the requirements that make it difficult for transit agencies to provide NEMT program service and FTA restrictions on providing special event or charter service. Other non-traditional funding sources should also be examined.

More Formula, Less Discretionary Federal Funding

Prioritizing additional federal formula funding instead of ever-expanding, specialized discretionary programs allows for greater financial predictability and reliability for all transit providers. Discretionary programs often have very specific applicability and use requirements, thus reducing their availability to transit providers and shrinking the overall funding available to providers of public transportation.

Strategies

Maximize Use of Existing Funding (cont.)

Statewide Cooperative Purchasing Program

Currently, there are not in-state group purchasing agreements for vehicles, parts, or supplies for Texas transit agencies. Group purchasing agreements allow agencies to capitalize on volume discounts, reducing costs and the need to negotiate each individual purchase. To obtain these benefits, dedicated staff who can research and negotiate group purchasing agreements are needed. This is especially challenging for RTDs, which typically do not have dedicated staff for purchase agreements, and which make fewer and less frequent purchases than UTDs and MTAs. While some Texas transit providers have relied on group purchasing agreements maintained by adjacent states, this can be limiting. For example, Texas agencies can only choose from that state's vehicle selection, which means vehicles outside those options must be purchased at full price.

A state group purchasing agreement would level the playing field for Texas transit agencies and allow agencies of all sizes the ability to negotiate lower prices, take advantage of volume discounts, and develop FTA-approved vehicle specifications. This would reduce time and costs associated with procurement.

A clearinghouse for parts and supplies is another type of group purchasing program that is needed. This type of purchasing program for equipment, supplies, and other operational items does not currently exist, making it difficult for smaller and rural agencies to benefit from economies of scale. Shared buying, purchasing, and agency collaboration to make volume purchases across a broader area faces obstacles, as each agency often has its own contracts and systems for purchasing, as well as having different governing bodies with different priorities.

Federal Program Consolidation

Consolidating federal formula funding programs would maximize the availability of funding across all transit modes and allow greater flexibility for transit providers. Specifically, consideration should be given to opportunities to consolidate Bus and Bus Facility and Seniors and Individuals with Disabilities programs into their respective rural and urban area formula programs.



Photo Source: Capital Area Rural Transportation System

Strategies

Expand Sources, Flexibility, and Levels of Funding

Support Transportation Funding Increases in Conjunction with Flexibility of Use, Including Transit

Potential ways to increase transit funding could include creating new state or local revenue streams beyond what is currently available, as well as increasing the allocations to current mechanisms. In addition, identifying new revenue streams and supporting changes to federal funding programs to boost funding levels would provide a solid financial foundation for expanded service levels and connections. Existing funding sources could also be made more flexible to allow agencies to use the funds more broadly.



Photo Source: East Texas Council of Governments

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Support Innovative Institutional and Private Sector Partnerships

Institutional and private sector partnerships create opportunities to increase service and to develop large-scale infrastructure investments supporting higher capacity, corridor-level transit investment.

Universities, colleges, shift-based manufacturing locations, and large-scale, mixed-use developments all present opportunities for service-based partnerships resulting in higher levels of transit service than otherwise possible within transit district resources.

Additional funding to support multimodal transit solutions could be leveraged through private sector investments in transit-oriented development, or for-profit high-speed passenger rail improvements.

Partnerships in Action

Texas A&M partners with the Brazos Transit District, which allows staff and students to ride for free.

Strategies

Tie Funding to Growth and Performance

Mitigating Decennial Census Impacts on Rural and Urban Transit

Census data is used to determine population, land area, and urbanized area designations, which are updated at the federal level on a decennial basis. These factors are used for allocating state and federal funding by formula for RTDs and for small and large UTDs. Urbanized area designations typically occur two years following the date of the census, impacting the next FY's allocations among program sub-recipients.

As transit providers move between designations due to census changes and as overall state population continues to increase, state per capita funding levels are impacted. To mitigate these impacts and to keep per capita funding levels at the same level across transit providers, additional state public transportation funding sources are required.



Photo Source: Paseo Southwest Area Regional Transit District

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Increase Funding Levels and Tie to Growth and Performance

Applying economic indexing to existing revenue sources will ensure funding keeps pace with inflation and changing economic conditions. By supporting changes to federal funding programs, advocating for increased funding levels, and applying economic indexing, funding can be secured to make transit a viable trip option for more users.

Tying federal funding to per capita levels allows funding to be spread evenly across states and would eliminate the huge disparity that currently exists in federal formula programs. It would also allow fast growing states greater flexibility in responding to growth.

Along with these efforts, prioritizing safety, ridership, and resiliency improvements in state discretionary funding will further ensure that funds are allocated to maintain transit infrastructure and service. Furthermore, expanding access to active transportation options and micromobility can support optimized funding for multimodal systems, making transit a more comprehensive and integrated mobility solution. Collaboration with stakeholders can guide the development of customer satisfaction measures that align with community needs.

Strategies

Potential Initial Actions

Sustaining current transit services encompasses many elements. However, the strategies discussed in this section identify several potential implementation actions:

- Expand shared and cooperative training programs between transit agencies
- Develop a reporting structure that streamlines and identifies each transit district and agency's projected expenditures and anticipated revenues
- Create a mechanism to support the creation of shared procurement agreements (including legal considerations)

While these strategies encompass many elements and require coordination from various levels of government and transit operators, two potential initial implementation actions were identified:

- Convene a work group to identify and research opportunities to update policy and regulations to allow more flexible spending
- Establish a community of practice focused on sharing best practices for innovative financing options



Photo Source: Dallas Area Rapid Transit

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Texas Transit Forward

Implementing the Plan

Delivering a world-class transit system requires moving the *Texas SMTP 2050* vision and strategies from concept to reality. Building on the strategies and potential initial actions, six Initial Priority Steps are identified to begin implementation and build a strong foundation for realizing *Texas SMTP 2050*. These Initial Priority Steps are intended to continue the momentum developed during the creation of this plan and address a single strategy or bridge multiple strategies identified in the plan. Figure 7-1 below highlights how the six Initial Priority Steps were developed.

Figure 7-1. Initial Priority Steps Identification Process



The Initial Priority Steps will be implemented collaboratively as follows:

- **TxDOT-led** steps will be led and organized by TxDOT.
- **TxDOT-facilitated** steps will be led by other agencies or organizations, with TxDOT facilitating by assisting in the progress of identified goals and action items, and at times providing limited resources.
- **TxDOT-supported** steps are also led by others, with TxDOT supporting by providing limited resources.

Initial Priority Steps



1. Establish a Community of Practice (CoP) to address small urban and rural transit challenges (TxDOT-led)
2. Develop a statewide transit network and hub plan (TxDOT-led and -facilitated)
3. Develop flexible statewide transit planning and design guidelines (TxDOT-facilitated)
4. Develop success metrics, enhance and broaden data collection, and develop consistent reporting (TxDOT-facilitated)
5. Identify options to increase flexibility of funding sources and identify new and innovative funding sources to maintain and expand transit (TxDOT-supported)
6. Formalize a plan for regular outreach and education on the benefits of transit (TxDOT-led and -facilitated)

Establish a Community of Practice to Address Small Urban and Rural Transit Challenges

TxDOT-led

TxDOT will work with RTDs and small UTDs, stakeholders, and TxDOT districts to identify other experts who can commit time to helping these transit agencies synergistically address common concerns, provide leadership, support funding opportunities, and provide other resources.

RTDs and small UTDs have limited staff and available funding to support community needs. Additionally, staff skillsets, availability, and funding constraints often prevent these transit districts from adopting the latest technological advancements. While increased collaboration and partnerships will help, these agencies are so focused on day-to-day issues that they may not have the resources needed to take advantage of these opportunities. Increased support can help connect RTDs and small UTDs to share research, responsibilities, best practices, procurement needs and opportunities, and other tools.

The team assigned to this Initial Priority Step will focus on fostering collaboration and partnerships through the following activities:

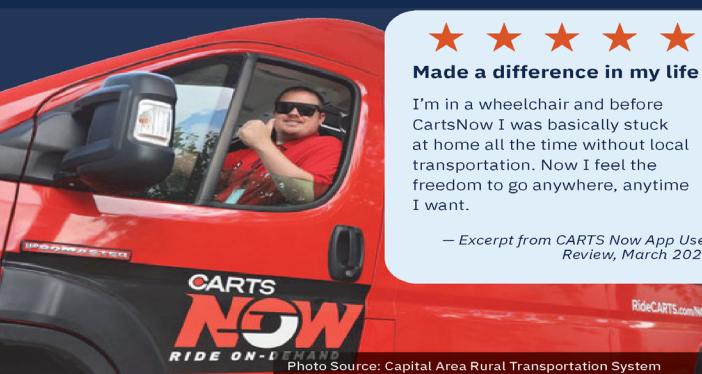
- Developing a CoP to support RTDs and small UTDs—this CoP would include sharing best practices and leveraging joint purchasing, training, research and development, and other strategies to help improve agency operations and fiscal responsibility
- Increasing cross-agency and multi-modal collaboration
- Enhancing TxDOT division and district coordination

TxDOT will work with RTDs and small UTDs, stakeholders, and TxDOT districts to identify other experts who can commit time to helping these transit agencies synergistically address common concerns, provide leadership, support funding opportunities, and provide other resources.

Success Stories:
CARTS Now Microtransit

In 2020, CARTS launched CARTS Now, a microtransit service, in Bastrop, Texas. Riders use a mobile app or contact a call center to request a ride from a CARTS Now van or electric vehicle.

According to a 2020 Austin American-Statesman article, the service was made possible through funding from TxDOT, the Lone Star Clean Fuels Alliance, and a U.S. Department of Energy grant. CARTS also partnered with Electric Cab of North America to include the electric vehicles as part of the microtransit service.^[52] In 2023, a Community Impact article noted that CARTS extended the service to communities beyond Bastrop and has plans to extend even farther to include additional subdivisions and unincorporated areas.^[53]



Made a difference in my life

I'm in a wheelchair and before CARTSNow I was basically stuck at home all the time without local transportation. Now I feel the freedom to go anywhere, anytime I want.

— Excerpt from CARTS Now App User Review, March 2024

Photo Source: Capital Area Rural Transportation System

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Develop a Statewide Transit Network and Hub Plan

TxDOT-led and -facilitated

A statewide transit network and hub plan led by TxDOT will provide a framework for improved mobility and connectivity that provides Texans with an accessible and seamless way to travel across Texas without a car. The network and hub plan should identify:

- Key corridors needed to connect priority transit destinations statewide
- Key hub locations providing local, regional, and first- and last-mile connections
- Transit priority corridors within each region where transit treatments to improve safety, speed, and reliability should be considered in the planning, design, and construction processes

Each of these identified elements should align with local transit agency plans.

With the continued expansion of micromobility options and traditional pedestrian and bicycle access, the network and hub plan should emphasize the need for first- and last-mile access to the transit network. Additionally, the plan should consider locating hubs and transit corridors along accessible routes. Park-and-ride and drop-off facilities will continue to play a role in transit access and should also be considered with the hub plan.

TxDOT will facilitate the development of a statewide seamless payment and trip planning app that draws on the framework of the statewide transit network and hub plan. This universal app will improve transit connections and facilitate coordinated travel throughout the state.

Transit Hubs

Transit hubs support the integration of local, regional, and statewide modes by gathering multiple transit and transportation options into a single facility. With thorough planning, such hubs make it possible for transit users to make seamless trips from one place to another. A user could, for example, drive to a facility with a park-and-ride feature and then take their local bus to a transit hub facility before transferring to an ICB service like Greyhound. With effective design and service planning, transit hubs can give Texans expanded and more efficient travel options.



Photo Source: Brownsville Metro

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Develop Flexible Statewide Transit Planning and Design Guidelines

TxDOT-facilitated

TxDOT will facilitate a process which will build on work already underway by the TxDOT Design Division, and the work done for the SATP related to the planning and project development processes. This Initial Priority Step will include engagement with transit districts; local agencies, including transit agencies, municipalities, and regional planning organizations; and research partners. This focused engagement will help develop planning process improvements and design guidelines—both of which should incorporate research, best practices, and stakeholder input.

Planners and developers play a key role in transit-enabled land use and infrastructure design. While every project location is unique, it is important to set standards for transit design, particularly when projects exist within public rights-of-way. Creating common language and expectations around transit and land use planning will help facilitate improved safety, security, and traveler comfort.

TxDOT Roadway Design Manual

TxDOT recently updated its Roadway Design Manual (November 2024), which includes a new chapter on transit design. This chapter discusses the importance of considering transit vehicles throughout the roadway design process, including the management, funding, and coordination of facility design and construction.^[54]

The need to accommodate transit goes beyond the basic connectivity and mobility considerations of traditional roadway design and involves community collaboration, more inclusive stakeholder representation, and a contextualized approach to community planning. Roadway design for transit vehicles must integrate passenger vehicles, trucks, pedestrians, bicyclists, and other micromobility options in a manner that enhances safety and supportive development.



Photo Source: Sun Metro

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Develop Flexible Statewide Transit Planning and Design Guidelines (cont.)

TxDOT-facilitated

How Is the Transit Planning Process Integrated?

Transit strategies can only be achieved through coordination with agencies at local, regional, and statewide levels. This requires collaboration among a broad range of organizations, including TxDOT, MPOs, regional planning organizations, transportation management associations, COGs, local MTAs, rural and urban transit districts, and other agencies. Just as regional plans must consider local planning efforts, statewide planning must integrate with regional and local efforts so that Texas transit can achieve greater connectivity. Texas SMTP 2050 brings Texas transit operators and partners to the same table to develop a collaborative framework for an integrated multimodal planning and service delivery process.



Photo Source: Dallas Area Rapid Transit

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Develop Success Metrics, Enhance and Broaden Data Collection, and Develop Consistent Reporting

TxDOT-facilitated

Solutions often involve monitoring infrastructure and reporting from established transit metrics. Various federal, state, and local reporting requirements and standards exist for transit metrics. FTA's NTD, for example, has a large set of national transit requirements.^[55] Other national standards—such as those for General Transit Feed Specification, FTA, and Federal Highway Administration grants—provide additional metrics for success.^[56]

At the state level, TxDOT currently tracks performance on two levels: one set of codified metrics that address state performance measures related to strategic goals and one set that addresses the federal NTD requirements, including transit asset management.^[57] Most Texas transit agencies also abide by unique local reporting requirements set by local MPOs, MTAs, RTDs, and UTDs. Performance metrics are used to meet federal and state reporting requirements, support grant applications, and identify improvement needs.

Going forward, success should also be measured by a combination of traditional performance-based and people-centric goals. This means advancing a financially sustainable and rider- and human-centered approach to measuring success, outcomes, and financial investments. Importantly,

these measures should also align with or evolve existing policy to create a streamlined approach while supporting and improving federal reporting standards. In addition to people-centric goals, metrics should be refined to consider the impact of transit on businesses and the local and overall Texas economy.

Building on current methods, TxDOT—with partner support—will facilitate an effort to streamline the reporting structure, including providing additional information on performance and future needs. Activities should include:

- Creating metrics focused on “movement of people” for use in transportation planning projects
- Further developing metrics that focus on the impacts of transit on business, the Texas economy, and community value
- Streamlining the reporting process by using the latest technology and best practices to reduce reporting time while adding additional metrics
- Updating the reporting structure to better convey the importance of transit in Texas

Success Stories: Colorado State Rail Plan

Improved planning and performance measures through the Colorado State Rail Plan made the Colorado Department of Transportation eligible for increased federal funding while further supporting passenger rail users and those impacted by rail services.^[58]

Identify Options to Increase Flexibility of Funding Sources and Identify New and Innovative Funding Sources to Maintain and Expand Transit

TxDOT-supported

Implementing the Texas SMTP 2050 vision requires significant additional funding, more efficient use of existing funding, and collaboration between agencies. To enable this, it is important to identify new sources of non-traditional and local funding to diversify the revenue supporting transit. Moving forward, flexible funding would allow agencies to invest in emerging technologies, work across jurisdictional boundaries, and develop new types of transit services. To advance this effort, TxDOT will identify non-TxDOT entities to lead a team that:

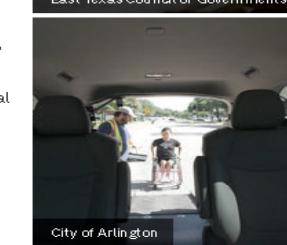
- Works with key agencies to help identify and reduce or remove funding restrictions that prevent transit agencies from leveraging their funding to the highest and best use
- Identifies and develops new sources of funding—including non-traditional sources, innovative partnerships, and local funding—at all levels to diversify the revenue supporting transit



East Texas Council of Governments



Lubbock - CITIBUS



City of Arlington



Corpus Christi Regional Transportation Authority



Capital Area Rural Transportation System



Dallas Area Rapid Transit

Formalize a Plan for Regular Outreach and Education on the Benefits of Transit

TxDOT-led and -facilitated

Transit is an integral part of the Texas economy and impacts lives across the state. Sharing how transit fits into the overall transportation network and addresses critical transportation needs will help build support for long-term investment in transit infrastructure and operations.

To tell the transit story, there must be continued research on the impacts and benefits of transit on people, communities, businesses, tourism, and the overall economy. Data helps paint a picture of how transit impacts people's lives and supports economies at the local, regional, and state level. Going beyond data by sharing user, operator, and business experiences is also foundational to telling the transit story. Finally, as transit is one of the tools to help people overcome poverty, age in place, and access opportunity, sharing how transit supports our society's vulnerable populations is important for building support for an integrated multimodal transit system for Texans from all walks of life.

TxDOT will lead this Initial Priority Step and build upon the public awareness campaign efforts undertaken as part of Texas SMTP 2050. This effort must be continually coordinated with a regular planned activity calendar focused on transit within TxDOT's outreach program. Activities TxDOT can use to build on Texas SMTP 2050's public awareness campaign and outreach efforts include:

- Continuing to collect rider, operator, and business transit stories, especially those showing how transit expands access to opportunities
- Utilizing existing tools and developing new ways of measuring how transit benefits the statewide economy and local communities
- As part of a regular, ongoing program, sharing information with the public and local governments via newsletters, social media, and partnership building activities

What Transit Brings to Texas

Job Growth

Austin's CapMetro Red Line saw a 62% increase in local jobs and a 154% increase in high-paying jobs since its opening in 2010.^[59]

Economic Benefit

Every \$1 invested in transit provides \$5 in economic returns.^[60]

Greater Mobility

Each weekday, Texans travel more than 4 million miles on public transit systems.^[61]

Cost-Effective Transportation

Switching from car travel to public transit can save individuals about \$1,000 a month in cities like Dallas and Houston.^[62]

Ability to Efficiently Accommodate Growth

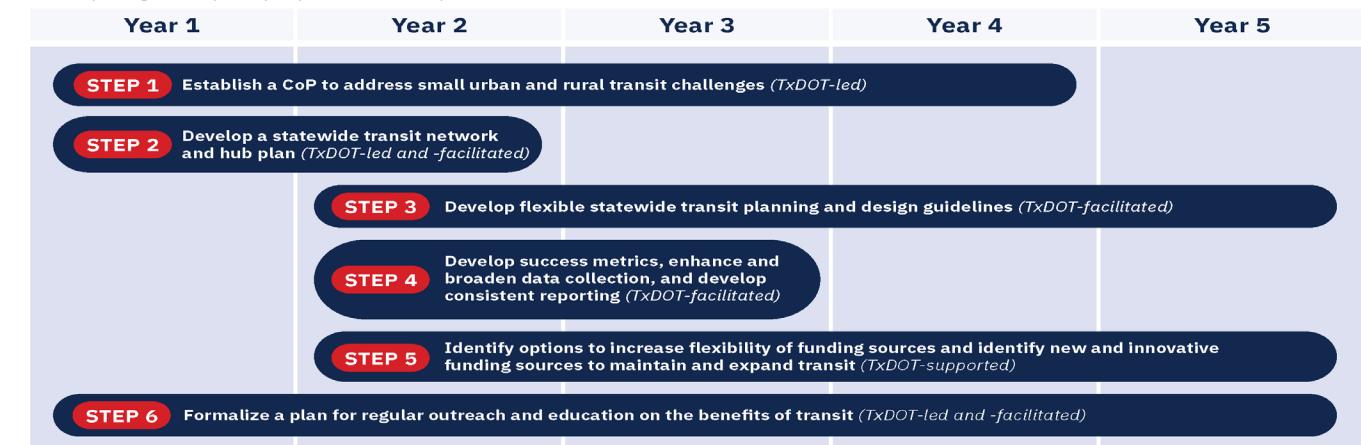
By 2050, Texas' population is expected to grow by 40% from 2020 U.S. Census levels.^[63]

Success Stories: Transit-focused Social Media Campaign

Building on successful initial public outreach, TxDOT created social media outreach materials, including a video that shared the importance of transit in Texas and provided information about Texas SMTP 2050.

Planning Horizon: When Will the Plan Be Updated?

As Initial Priority Steps move forward, the plan will be updated every 5 to 8 years to keep up with the latest trends, technology, and needs. Below is a schedule for completing the six priority implementation steps.



Measuring Progress

While the plan itself will be updated every five to eight years, progress will be measured on each of the Initial Priority Steps, as well as any other Texas SMTP 2050 activities more frequently. A regular report to Public Transportation Advisory Committee will be provided at least twice a year to demonstrate progress toward each Initial Priority Step. As the agency guiding the plan, TxDOT will provide regular updates to its partners semiannually. Each step will have specific milestones, products, and deliverables that will be monitored. Additionally, as Implementation Priority Step 4 (Develop success metrics, enhance and broaden data collection, and develop consistent reporting) is completed, a defined regular reporting structure will be developed that provides progress on key metrics. These progress reports will be provided publicly to facilitate transparency in the ongoing efforts to improve transit in the state.

Realizing the Texas SMTP 2050 Vision

Texas SMTP 2050 is a foundational document for the future state of transit in Texas. Therefore, fully implementing plan strategies and recommendations will span several planning horizons. Each subsequent version of the SMTP will require coordination with transit providers, transit stakeholders, internal staff, and external partners. Although the initial implementation steps set the path for future multimodal transit system improvements, the plan will be reevaluated on a routine basis to ensure that subsequent action steps build upon initial actions. Through a comprehensive, coordinated, and continuous statewide transit planning approach, the Texas SMTP 2050 vision will be fully realized.



Photo Source: Denton County Transportation Authority

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