

TECHNICAL MEMORANDUM

Task Report #1, Review of Statewide Perspectives from the 2017-2021 Regionally Coordinated Transportation Plans

TxDOT Project 409256-106, Review of 2017-2021 Public Transit-Human Services Transportation Plans

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This technical memorandum provides an overview of updated public transit-human services transportation plans developed and adopted by stakeholders in each of Texas' 24 planning regions. Twenty-two regions updated plans in 2017; two regions previously updated plans under a different cycle. The Texas Department of Transportation, Public Transportation Division (TxDOT-PTN) requested researchers from the Texas A&M Transportation Institute (TTI) to review all these plans. The goal of this review is to provide a statewide perspective, highlighting common themes and emerging trends occurring in planning regions across the state. TTI also examined how the regions approached the plan updates, how stakeholders were involved, the regional approaches to conducting the needs assessment, gap analysis, and resource inventories, and strategies to fulfill the unmet transportation needs of their respective regions. The report is organized as follows:

- *Introduction and Background on Coordinated Public Transportation Planning.* This section briefly introduces regionally coordinated transportation planning and describes the legislative mandate in Texas.
- *Unmet transportation needs.* This section discusses the most common unmet transportation needs and gaps in service.

Statewide Perspectives from the 2017-2021 Regionally Coordinated Transportation Plans

- *Strategies to address unmet transportation needs.* This section discusses strategies developed to address the most common unmet transportation needs and gaps in service.
- *Emerging Trends.* This section discusses emerging trends related to unmet transportation needs and gaps in services observed in the plans.
- *Observations and conclusions from a statewide perspective.* This section provides general statewide observations concerning the development process and content of the plans.

**Regionally Coordinated Transportation Planning
Statewide Perspectives from the 2017-2021 Update**

Prepared for Texas Department of Transportation, Public Transportation Division

Prepared by Texas A&M Transportation Institute

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Executive Summary

Across Texas and the United States, the increasing need for public and human services transportation continues to outstrip the funding available for several public transportation programs that the general public depends upon. Those individuals hit hardest by decreased funding are the transportation disadvantaged, commonly defined as those with limited transportation options due to disabilities, age, or income status.

TxDOT provides funding for the development of the public transit-human services transportation plans and promotes strategic partnerships among local and state agencies in each of Texas' 24 planning regions including transportation providers, transportation planning agencies, health and human services providers, workforce agencies, and others as part of Texas' decentralized approach to transportation coordination. This decentralized approach reflects a belief that plans work best if tailored for the unique sets of needs and resources in individual planning regions across Texas.

The Texas Department of Transportation, Public Transportation Division (TxDOT-PTN) requested researchers from the Texas A&M Transportation Institute (TTI) to review the coordinated plans. The goal of this review is to provide a statewide perspective, highlighting common themes and emerging trends occurring in planning regions across the state. TTI also examined how the regions approached the plan updates, how stakeholders were involved in the plan updates, the regional approaches to conducting the needs assessment and gap analysis, and strategies to fulfill the unmet transportation needs of their respective regions.

Identifying the unmet transportation needs of priority populations groups, and strategies to address these specific needs, was a key component of this plan update. The unmet transportation needs were similar regardless of region population size, service area, or region type (urban, mixed urban/rural, rural). The most common unmet transportation needs across the state are to:

- Expand and increase transportation services.
- Improve and increase coordination and collaboration.
- Increase and improve connectivity and access.
- Increase ridership through targeted outreach, marketing, and engagement.
- Determine additional funding sources.

Regional stakeholders developed strategies to address unmet transportation needs based on information collected from the regional needs assessment and transportation resource inventory. All plans included strategies to increase and expand transportation services, including:

- Increasing the span of service to include evenings and weekends.
- Providing more transportation options.
- Improving accessibility.
- Increasing special services for priority populations.

Many regions identified support for travel training and the creation of a centralized information source for transit options in order to make using transportation services more straightforward for transit riders. Many

regions also developed strategies for funding needs in their regions, such as exploring other funding sources and grant opportunities and potential partnerships to provide more cost effective services.

Emerging unmet transportation needs and gaps in services from the regionally coordinated transportation plans include urban gaps and changes in population. Demographic and economic trends point to increased demand for public transportation to support access to jobs, healthcare, services, and amenities. As stakeholders in regions move forward to implement plans for their respective areas, it is important for the stakeholders to remember that transportation coordination is an iterative process; and regions should continue to build on the plans, sharing lessons learned and best practices.

Introduction and Background on Regionally Coordinated Public Transportation Planning

Across Texas and the United States, the increasing need for public and human services transportation continues to surpass the funding available for several public transportation programs that the general public depends upon. Those individuals hit hardest by decreased funding are the transportation disadvantaged, commonly defined as those with limited transportation options due to disabilities, age, or income status.

State DOTs have a significant role in promoting state and federal mandates for comprehensive coordination of public transportation services. Coordination is mandated in Texas among transportation providers, health and human service agencies, and workforce boards by Texas Administrative Code Chapter 461. The Texas Legislature passed House Bill 3588 in 2003 which amended Subtitle K, Title 6 of the Transportation Code by adding Chapter 461 (Statewide Coordination of Public Transportation) which emphasizes maximizing the state's investment in public transportation service through coordination.

At the federal level, the Safe, Accountable, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), signed into law in 2005, required locally developed, coordinated public transportation and human services plans for many federal-aid transportation programs. Currently, a coordinated public transit-human services plan is required by the Fixing America's Surface Transportation Act (FAST) the current federal transportation bill. In addition, the Federal Transportation Authority's guidance states that regional transportation coordination plan updates occur every four years for non-compliant area and every five years from compliant areas. Consistent with federal and state requirements, the 24 planning regions in Texas developed regionally coordinated transportation plans.

The Texas Transportation Commission tasked TxDOT-PTN with assisting the 24 state planning regions in developing coordinated public transit- human service transportation plans to provide services more efficiently and effectively, reduce waste, and maximize transportation resources. Chapter 461, Section 461.004 of the Transportation Code states that TxDOT is responsible for identifying:

- Overlaps and gaps in the provision of public transportation services, including services that could be more effectively provided by existing, privately funded transportation resources.
- Underused equipment owned by public transportation providers.
- Inefficiencies in the provision of public transportation services by any public transportation provider.

Chapter 461 requires entities across the state to coordinate public transportation services funding with federal, state, and/or local funds. Texas' comprehensive regional program combines ongoing communication, collaborative problem solving, and necessary resources to produce plans and programs that will meet the traveling needs of people in Texas, in particular those most dependent on public transportation. Regions proposing projects seeking funding through various federal- and state-funded

programs must demonstrate that their project is derived from the locally developed, coordinated public transit-human services transportation plan.

TxDOT promotes strategic partnerships among local and state agencies including transportation providers, transportation planning agencies, health and human services providers, workforce agencies, and others as part of Texas' decentralized approach to transportation coordination. This decentralized approach reflects a belief that plans work best if tailored for the unique sets of needs and resources in individual planning regions across Texas.

The purpose of regionally coordinated transportation planning is to plan for a more efficient and effective network of public transportation services for people in Texas so that people can get to destinations as desired. As part of this locally-driven process, stakeholders in communities across Texas came together to develop five-year public transit-human services transportation plans for their respective parts of the state following inventories of transportation resources, comprehensive needs assessments and gap analyses in each region.

These regional plans address transportation needs for a cross-section of people in the state, including these priority population groups:

- Individuals with disabilities.
- Individuals 65 and older.
- People with low incomes.
- Individuals with limited English proficiency.
- Children.
- Veterans.
- People lacking transportation to and from employment.
- Members of the general public.

The lead agency for each region engaged these groups in the development and adoption of each plan. The process to develop and adopt these five-year plans engaged other stakeholders, too including urban and rural transportation providers, metropolitan planning organizations, regional planning commissions / councils of government, workforce development, health and human services providers, cities, counties, and institutions of higher learning. Each of the state's 24 planning regions, shown in Figure 1, has an adopted five-year public transit-human services transportation plan.

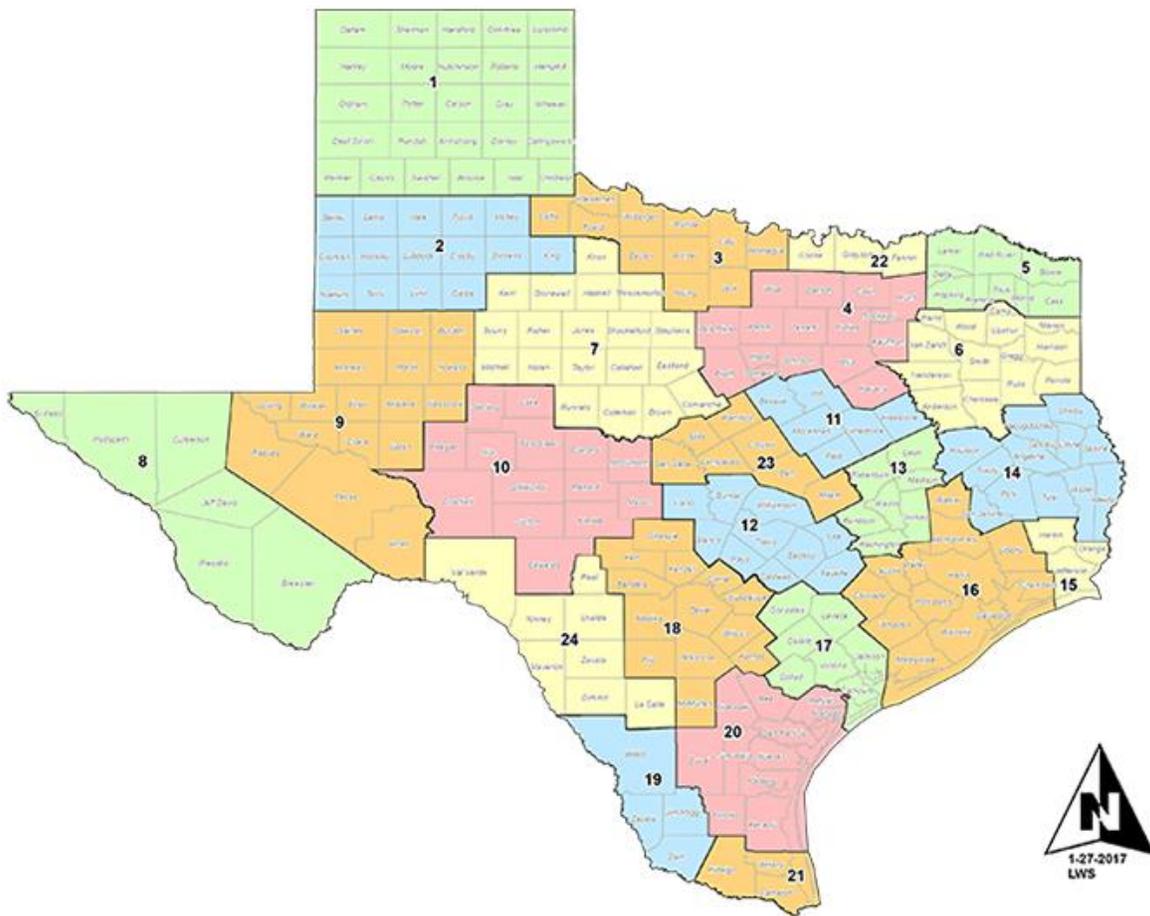


Figure 1. Map of Planning Regions, 2017. Source: TxDOT.

Each region’s plan can be found under the Texas Regions tab at <http://regionalserviceplanning.org> . This website serves as an information clearinghouse for planning regions and contains information on statewide regional planning efforts.

The goal of this review is to provide a statewide perspective, highlighting common themes and emerging trends occurring in planning regions across the state. TTI also examined how the regions approached the plan updates, how stakeholders were involved in the plan updates, the regional approaches to conducting the needs assessment and gap analysis, and strategies to fulfill the unmet transportation needs of their respective regions. The remainder of this report is organized as follows:

- *General approach used to develop the five-year plan.* This section highlights various methodologies and stakeholder engagement practices used to develop the plans.
- *Unmet transportation needs.* This section discusses the most common unmet transportation needs and gaps in service.

- *Strategies to address unmet transportation needs.* This section discusses strategies developed to address the most common unmet transportation needs and gaps in service.
- *Emerging Trends.* This section discusses emerging trends related to unmet transportation needs and gaps in services observed in the plans.
- *Observations and conclusions from a statewide perspective.* This section provides general statewide observations concerning the development process and content of the plans.

General Approach used to develop the five-year plans

Each planning region has a designated lead agency charged with the responsibility of overseeing ongoing regional transportation planning activities and including the development of adoption of an updated public transit-human services transportation plan every five years. Various types of entities serve as lead agencies including metropolitan planning organizations, councils of government/regional planning commissions, transportation providers, cities, counties, and others. Table 1 lists the lead agencies by region which managed development of the most recent plan update.

Table 1. Lead Agencies that Managed Most Recent Plan Updates, by Planning Region, 2017.

Planning Region Number	Planning Region Name	Lead Agency
1	Panhandle	Panhandle Regional Planning Commission (PRPC)
2	South Plains	South Plains Association of Governments (SPAG)
3	Nortex	Nortex Regional Planning Commission (Nortex RPC)
4	North Central Texas	North Central Texas Council of Governments (NCTCOG)
5	Ark-Tex	Ark-Tex Council of Governments (ATCOG)
6	East Texas	East Texas Council of Governments (ETCOG)
7	West Central Texas	Central Texas Rural Transit District (CTRTD)
8	Far West Texas/ Upper Rio Grande	El Paso County
9	Permian Basin	Permian Basin Metropolitan Planning Organization (PBMPO)
10	Concho Valley	Conch Valley Transit District (CVTD)
11	Heart of Texas	Heart of Texas Council of Governments (HOTCOG)
12	Capital Area	Capital Area Metropolitan Planning Organization (CAMPO)
13	Brazos Valley	Brazos Valley Council of Governments (BVCOG)
14	Deep East Texas	Deep East Texas Council of Governments (DETCOG)
15	South East Texas	South East Texas Regional Planning Commission (SETRPC)
16	Gulf Coast	Houston-Galveston Area Council (H-GAC)
17	Golden Crescent	Golden Crescent Regional Planning Commission (GCRPC)
18	Alamo Area	Alamo Area Council of Governments (AACOG)
19	South Texas	South Texas Development Council (STDC)
20	Coastal Bend	Rural Economic Assistance League, Inc. /Transportation Coordination Network of the Coastal Bend (REAL/TCN)
21	Lower Rio Grande Valley	Lower Rio Grande Valley Development Council (LRGVDC)
22	Texoma	Vacant
23	Central Texas	Central Texas Council of Governments (CTCOG)
24	Middle Rio Grande	Southwest Area Regional Transit District (SWART)

The process for updating the five-year plans varied slightly across the state. Regions began the most recent plan update in 2015, iteratively building on previous planning efforts. The 2017-2021 public transit-human services transportation plans are the third iteration since 2006. Lead agencies collaborated with diverse stakeholders to methodically identify unmet needs and strategies to address these needs. Stakeholders' categories are listed under the Stakeholder Engagement section. Most regions developed their updated plan using in-house resources of lead agencies and other partners; however some regions used consulting firms. This section describes the methodologies and the types of stakeholder engagement used to develop each of the unique plans.

All lead agencies worked with regional stakeholder committees to develop the regional transportation plan to reflect the needs of those living in local communities. Stakeholders in each region participated in a process to develop and review inventories of transportation resources, comprehensive needs assessments (especially for priority population groups), gap analyses, and strategies to address these unmet needs and gaps.

TxDOT-PTN provided planning regions with general guidance for updating the regionally coordinated plans. Guidance included a description of basic components and content needed for the plan update, but

allowed considerable latitude for each region to follow a process deemed most suitable for their respective region.

Stakeholder Engagement

Stakeholder engagement is a significant component to the regional transportation coordination planning process. A list of stakeholder groups who participated in each regional planning committee is under the Stakeholder Committees tab on the Regional Service Planning website.

Each lead agency identified and recruited essential stakeholders in the region from twelve stakeholder categories representing priority population groups, those with transportation resources and transportation planning organizations. These representatives were asked to provide letters of commitment to participate in the process to develop and approve the regional public transit-human services transportation plan during the period September 2015 through February 2017. Stakeholder groups considered essential for this planning process are:

- Representatives of public transportation providers, including recipients of 5307, 5311, and 5310 funding.
- Representatives of private transportation providers.
- Representatives of non-profit transportation providers.
- Representatives of human services providers.
- Representatives of metropolitan planning organizations.
- Individuals with disabilities.
- Individuals 65 and older.
- Individuals with low incomes or representatives of/advocates for individuals with low incomes.
- Veterans or representative of veterans groups.
- Workforce agencies.
- Advocates for children.
- Other members of the public.

Stakeholders across the state engaged in updating the regional plans through a variety of ways, including participation in surveys, workshops, public meetings, and individual interviews. The depth and breadth of stakeholder engagement varied across the regions. For example, when developing the plan for the North Central Texas region, *Access North Texas*, thousands of individuals participated in surveys, public outreach meetings, stakeholder meetings, emails, and phone calls. Over sixty public meetings were held throughout the 16-county region. Outreach events gathered over 600 attendees who shared their perspectives on transportation needs. Surveys elicited additional input; over 3,000 individuals returned surveys from throughout the region.

Transportation Resources Inventory

Stakeholders conducted an inventory of all transportation resources throughout their respective regions. The inventory was to include all agencies responsible for transportation planning in the region as well as a thorough listing of transportation providers, including public, private, non-profit, community-based, health and human services, and workforce agencies.

The regional stakeholders varied their respective approaches to the transportation resource inventory, but all of the plans included a listing of resources in the region. The majority of regions began their inventory with an inventory of existing transportation resources. Resources were verified through desktop research, emails, phone calls, or region-wide surveys.

Several regions had unique transportation resources. For example:

- In the Capital Area, the Office of Mobility Management (OMM) integrates the regional network of transit services to connect people to needed goods and services in the 10-county region. The OMM is a collaborative partnership between Capital Metro and CARTS, the urban and rural transportation providers in the region, with access to twenty-six community partners dedicated to meeting the transportation needs of senior adults, people with disabilities and veterans.
- Shared mobility services, such as transportation network companies and carsharing, appear on several regional transportation resource inventories.
- The West Central Texas Region is served by four public transit providers, three rural and one urban. The plan has detailed profiles for each provider, including an organizational chart, organizational approach, and revenue sources.
- The Panhandle region and Coastal Bend region also provide extensive details on transportation providers and agencies responsible for transportation planning in the region.

Needs Assessment and Gap Analysis

Identifying unmet transportation needs in each individual region is essential step in developing a regional plan that is relevant and strategic. The regions used a variety of approaches to conduct needs assessments, including surveys, public meetings, workshops, interviews, and transportation needs indices.

All of the regions utilized public meetings and/or workshops in order to learn about regional needs from the public perspective. Additionally, all of the regions used surveys to capture information on needs. Surveys were distributed to stakeholders through a variety of media, including web-based, paper, and telephone calls. Most regions published and delivered the surveys in English and Spanish. Many agencies distributed two surveys – one to transit riders and the other to transportation providers and representatives from social, health and human services providers. In addition to the meetings and distributed surveys, several other approaches were used across the state, such as:

- In the Panhandle region, planners conducted a strategic planning session to assist with the identification of needs, goals, objectives and strategies for their plan. The session allowed for an informal collaboration effort through equitable participation of the regional planning committee and all interested parties including the elderly, disabled, and low income. The unmet needs of the region were identified and prioritized, and the strategies to address those needs were also developed through this collaborative effort that was inclusive of all interested parties.
- In the Permian Basin region, the mobility manager rode on several routes on the urban transportation system, EZ-Rider, and with individuals who used the rural provider, TRAX, to talk to transit riders directly. This led to more practical feedback and more accurate depictions of the transportation needs in the area since they were provided directly by users of the system

- In the Gulf Coast region, stakeholder feedback was solicited through a suggestion box and toll-free number that were made available and distributed to stakeholder agencies.
- The Ark-Tex region used journey-to-work data from the Census to indicate travel patterns at a county level. This data can provide a general indication of access and mobility needs. The data revealed that there are significant out-of-region employment and health care destinations outside of the Ark-Tex region – Dallas and Tarrant counties to the west, and Shreveport, Louisiana to the east.

To enhance the needs assessments, many of the regions utilized demographic and geographic data to create a transportation need index. A transportation needs index (TNI) is used to determine the areas within a region with the highest transportation need based on economic and sociodemographic analysis. While most regions included a geospatial model/index to analyze gaps and stakeholder surveys for needs, fewer regions employed travel commute patterns or medical trip destination analyses. Planning regions that analyzed economic and sociodemographic characteristics include:

- The Gulf Coast region provided a detailed analysis that included almost all priority populations (veterans were generally included, but not specifically analyzed). The gap analysis included several TNI methods in the county and block-group level. Travel pattern analysis was also conducted that included work trips and medical trips.
- The North Central Texas region developed the Transit Access Improvement Tool (TAIT) to identify locations with certain demographic factors that may indicate a greater need for public transportation. The populations of individuals with disabilities, individuals over 65 and low-income individuals were combined with the population of zero car households in this measure. Low scores in the TAIT range indicate locations where the target populations identified above are generally at or below the regional average. Increasing TAIT scores indicate that the population of one or more of the target populations is progressively above the regional average. The TAIT does not include a population density variable because it is used to identify areas with a higher proportion but not necessarily number of individuals that may need transit service. This tool is an aid to considering public transportation needs and cannot be considered the deciding factor in decisions regarding public transportation.
- The Coastal Bend region included a detailed analysis of public transportation by analyzing the need based on demographic information and the supply based on data from transportation providers. The Transit Need Index used 2010-2014 American Community Survey 5-Year Estimates data to geographically represent areas of higher transit need. This included demographic characteristics such as population below poverty level and households with no vehicle available. Planners also developed a Transit Supply Index based on the supply level of fixed-route and demand response services. The fixed-route analysis evaluated service coverage, frequency, and hours of service and the demand response analysis (including ADA paratransit, the general public, flexible transit and vanpool) evaluated response time and hours of service. The TSI methodology was applied to all three legislatively recognized public transportation providers in the Coastal Bend region.

Most Common Unmet Transportation Needs and Gaps in Services

The regionally coordinated transportation effort is intended to aid in serving the transportation needs of the entire community, especially the priority populations who are the most dependent on public transportation. Although transportation systems across Texas provide access that is able to meet a portion of people's needs, key gaps persist and grow.

Many unmet transportation needs and service gaps were identified in the various regions. The most common unmet needs and gaps, from a statewide perspective, are the need to:

- Expand and increase transportation services.
- Increase coordination and collaboration.
- Increase and improve connectivity and access.
- Increase ridership through targeted outreach, marketing, and engagement.
- Determine additional funding sources.

Need to expand and improve transportation services

The continuing need to expand and improve transportation services for persons needing to get and from health care appointments, daily activities, places of employment, and schools was evident in all regions across the state. The following list is examples of these needs from various regions:

- Most regions – such as Alamo Area, Ark-Tex, Central Texas, Coastal Bend, East Texas, Golden Crescent, Middle Rio Grande, Permian Basin, South Texas, and West Central Texas – expressed the need to increase their span of service to include additional evening and weekend services for access to retail, social, and faith-based interests.
- Stakeholders in the South Plains, North Central, East Texas, Deep East Texas, Gulf Coast, Golden Crescent, Panhandle, South Texas, and Lower Rio Grande regions identified that transportation to and from employment centers is an unmet transportation need in their region.
- The Alamo Area and Lower Rio Grande Valley region identified the need for regular fixed-route service to meet resident's commuter, medical, and shopping needs.
- Concho Valley and South Texas indicate a need for additional transportation options from the rural areas. Rural transportation services also need to be improved for young people, with an emphasis on access to education facilities.
- Individuals with disabilities in the Far West Texas/Upper Rio Grande region noted the on-board announcements provide too little orientation, especially for hearing or visually impaired persons.

Need to increase and improve coordination and collaboration

Stakeholders in most regions identified a need to coordinate transportation services within the region, inter-regionally, among border regions, and across state borders with traditional and nontraditional

providers, and agencies and governmental entities outside of their jurisdictional boundaries. The following list provides examples of the need for increased and improved coordination and collaboration from various regions:

- Stakeholders in several regions – Alamo Area, Ark-Tex, North Central Texas, East Texas, Golden Crescent, Coastal Bend, South East Texas, Texoma, and Permian Basin – expressed the need to coordinate transportation services for veterans.
- The Heart of Texas region indicated a need to maximize coordination and use of resources between various transportation agencies, public service agencies, and stakeholders within and adjacent to the region.
- The Ark-Tex region indicated a need to coordinate between agencies to provide more direct transportation routes than provided by fixed route transit and identify opportunities.
- The Middle Rio Grande region indicated the need to coordinate with major employers and health service providers

Need to increase and improve connectivity and access

Many of the regional transportation coordination planning efforts are finding that with rapid growth and new destinations, there is a demand for inter-regional connectivity. Stakeholders need more access to regional destinations and need simplified, reliable connections. A need for transportation services that address access to regional employment clusters and transportation to medical facilities from outlying areas were often identified. The following list provides examples of the need for increased and improved connectivity from various regions:

- Many regions expressed concerns over lack of public transportation to major destinations outside the service area, such as medical facilities, major employers, social and recreational destinations, and colleges.
- Individuals with low incomes need consistent and reliable access to public transportation to access post-secondary education, work, medical, or commercial destinations.
- In the Gulf Coast region, off-peak transit connections along many high capacity corridors do not exist.
- The Alamo Area, Nortex, South Plains, and South Texas regions lack commuter service from rural areas to population and employment centers
- The Far West Texas/Upper Rio Grande region has inadequate or non-existent transportation for individuals over 65, such as limited access to senior centers, limited or non-existent availability of transportation for group activities, the lack of bus stop amenities, and the distance to fixed-route stops.

- In the Capital Area region, stakeholders identified the need for connections between adjacent transit providers within the region, as well as potential connections with systems to the south and east.
- The East Texas region indicated the need for routes that link outlying communities with larger/urban centers and centralized pickup locations.
- The South East Texas region identified a need for enhanced accessibility on buses, easy to read information and signage, and continuing support for public service agencies are factors affecting older adults and individuals with disabilities.

Need to increase ridership through targeted outreach, marketing, and engagement

A continual challenge common in most regions is simply the lack of awareness about existing services. More than half of the regions reported that lack of awareness of available services is an issue, and speculated that services provided in the region would be used if customers were knowledgeable of transportation options in the region. Many regions have worked to establish a brand and create informational pieces for the public on coordinated efforts, goals, and available services. However, one of the struggles in creating information for the public is limited resources, financial and otherwise.

The following list provides examples of the need to increase ridership through targeted outreach, marketing, and engagement from various regions:

- In the Brazos Valley region, many services go underutilized due to lack of promotion or lack of education. The plan points out that a major factor causing this issue is that riders (and potential riders) do not have the knowledge, experience, or skillset for using a particular transportation service or program, whether it be planning a trip, navigation, or entering and exiting a vehicle.
- The Panhandle, South Plains, and Texoma regions also indicated there is a lack of knowledge or understanding of existing and available transportation resources in their regions.
- The Nortex region suggests that many priority populations do not understand how to access public transit or what services are available.
- The Permian Basin region identified the need for outreach and education of existing services.
- The Heart of Texas and South Texas regions identified the need to create and utilize marketing strategies and education activities for public transit to activities to ensure community members are aware of the transportation options available to them.

Need to determine additional funding sources

Funding is a key issue across the state, as virtually all needs and gaps identified in this planning process relate to funding availability. Dependable, sustainable funding is a challenge with which most, if not all, of the regions face. Funding is stretched further as needs increase beyond currently available resources. Existing funding is inadequate to meet current transit needs in future years.

Funding issues identified in the plans include limited and reduced funding for transportation in general, the need to determine dedicated funding sources, and the ability to sustain transportation services established through specialized funding formulas. Regional plans also pointed out that funding is a barrier to providing more services to older adults, individuals with disabilities, and persons with low-incomes.

Rural transportation delivery involves a unique set of issues because origins and destinations are often a significant distance apart, creating a strain on resources. The need for affordable transportation, especially in rural areas, was also a common theme across plans. Several rural regions face challenges with having limited resources to assist handicapped individuals access public transportation

Furthermore, there are significant gaps created in the public transportation system as the result of restrictions on how one funding stream or another may be applied to riders – such as Medicaid transportation, school buses, and other client-focused transportation resources.

Strategies to address the most common unmet transportation needs

Regional stakeholders developed corresponding strategies to address unmet transportation needs based on information collected from the regional needs assessment and transportation resource inventory. This section discusses the strategies to address the most common unmet transportation needs developed by stakeholders across the state – additional transportation services, creating a centralized information hub for transportation information, travel training, outreach and education efforts, and funding and partnerships.

Additional transportation services

Enhancing existing transportation services, and adding new services, can fulfill unmet transportation needs and gaps in all 24 planning regions in Texas, such as additional services and transportation options, increasing the span of service to include evenings and weekends, improving accessibility, and increasing special services for priority populations. The following list includes examples of strategies to increase and expand transportation services from various regions:

- To meet the needs of individuals over 65 in South East Texas, the region will enhance fixed-route operations and planning, including bus operator training, incorporating population specific travel needs, and coordination with other agencies.
- West Central Texas plans to offer free/reduced cost bus passes to better serve individuals with low incomes.

- The Coastal Bend region plans to coordinate with all transportation providers to improve overall utility of services provided for riders, including the identification of frequent transit destinations to coordinate services as well as identifying opportunities for public-private partnerships with transportation providers.
- Far West Texas/Upper Rio Grande region plans to explore non-traditional services, such as carsharing, for remote communities, groups of people with low-incomes, or persons who require greater flexibility than traditional buses.
- To meet the needs of individuals without transportation to employment, the North Central Texas region plans to improve access to jobs and job training from outlying areas to large employment centers in the region by providing evening and weekend services or extended service hours.
- The Panhandle region plans to establish more accessible routes and entry points for disabled individuals to access stops and pickups by engaging Wal-Mart, grocery stores, schools, and others to assist with handicapped accessible bus stops and pickups. The region plans to explore use of church vans for assistance with public transportation for people with low-incomes as well as other riders.
- The Alamo Area and South Texas regions plan to offer “shopper shuttle” services during the off-peak times to sponsors willing to support the transit system. These shuttles will target neighborhoods with high numbers of transit dependent populations and frequent destinations, such as grocery stores and medical centers. Sponsors also receive benefits through this service through advertising and increased access to businesses.
- The Brazos Valley region plans to enhance service for users with frequent medical treatment related transportation needs, including a partnership with local taxi service/ridesharing services for Medicaid recipients and other health and human service transportation.

Outreach and Education

Outreach and education are important components for lead agencies to increase awareness and knowledge of existing transportation services and resources. The following list includes examples of various strategies for outreach and education:

- The Permian Basin region plans for transit agencies to provide visitor cards for passengers who have difficulty communicating verbally.
- The South East Texas region has a multi-pronged approach to outreach and education including: aggressive marketing campaigns to inform individuals with disabilities about benefits of public transportation, culturally appropriate outreach programs used to inform the community about services, hiring staff that reflect target communities in their area, providing information in appropriate languages, providing schools with transit education seminars, and providing information on social media.

- The Panhandle region will communicate directly with individuals over 65 regarding their needs for transportation related to emergency issues, such as oxygen and hazardous situations. In addition, the Panhandle region plans to collaborate with other stakeholders and professional social marketers to develop a strategic public information campaign promoting use of public transportation services. This campaign will target specific priority population groups and will incorporate promotion of a cell phone Application to be developed and customized for prioritized groups.
- The North Central Texas region determined that language-specific marketing may be needed to reach individuals who have limited English proficiency (LEP). This region plans to create language-specific information about services to raise the profile of public transit among the general public that would benefit from transportation services.
- The East Texas region plans to significantly increase marketing and public education both locally and regionally through targeted mailings and social media.
- The Nortex region plans to assist public transportation providers increase the public awareness of services available by providing user-friendly information in appropriate formats for priority populations, caregivers, social services, government agencies, and nonprofit organizations about programs available in North Texas.

Centralized Scheduling/Information Hub for Region

A centralized source for scheduling and information about transportation resources in both the urban and rural areas of a region can:

- Increase efficiency across the region.
- Increase accessibility for the elderly, for the disabled, and for people who require other forms of transportation.
- Streamline the process of finding the fastest, and most cost effective transportation sources.
- Potentially save the user time and money as well as give local businesses a new platform to reach its users.

The following regions listed a centralized scheduling system as a strategy to meet the unmet transportation needs of their residents: Brazos Valley, Coastal Bend, Concho Valley, North Central Texas, Permian Basin, South Plains, South Texas, Texoma, and West Central Texas.

Travel Training

Coordinated regional travel training that provides customers the tools to successfully navigate transit services was defined as a way to meet transportation needs in many regions. Brazos Valley, Concho Valley, East Texas, Middle Rio Grande, North Central Texas, South Plains, Texoma, Far West Texas/Upper Rio Grande, and West Central Texas each have strategies in their plans to develop or enhance travel training programs.

The following list describes examples of strategies to develop or incorporate travel training into efforts to increase awareness of transportation services from various planning regions:

- The West Central Texas region plans to develop a formal training program for individuals over 65 and individuals with disabilities that will provide consistent levels of training for all regional transit providers.
- The Panhandle region plans to develop a training program between employers, transportation providers, and riders to establish routes that benefit everyone, as well as target groups that need assistance.
- The North Central Texas region plans to establish and support coordinated regional travel training that contributes to customer knowledge of, awareness of, and meaningful access to public transportation options across the region.

Funding and Partnerships

Funding and partnerships for both ongoing regional planning activities and project implementation are a necessity for the coordinated plan to be a success, as well for expanding or increasing service, adding additional resources or training opportunities, and maintaining the current transportation fleet. Many regions developed strategies to address the funding needs in their regions, including:

- The Panhandle region will seek financial opportunities and establish public/private partnerships to get employees to jobs to meet needs of both individuals and companies. The region plans to research federal funding streams that may be available, explore private sector grants, and engage in discussions with legislative and agency delegations to encourage increased funding.
- The Permian Basin region plans to explore other funding sources, green energy initiatives, and potential partnerships that are cost effective in regards to service delivery. The region also plans to pursue additional funding from federal grants to promote coordination with agencies and transportation providers to help expand days and/or hours of operation.
- The Middle Rio Grande region plans to create partnerships with local area business and organizations, increase alternative sources of dedicated revenue, establish local financial support, and establish self-sufficient financial strategies and investments.
- The South Texas region plans to investigate new sources of local revenue for public transit through partnerships, sponsorships, and contracting for service. The region also plans to work with advocacy groups and other partners to secure funding to provide additional service in the region.
- The Deep East region encourages the establishment of contractual relationships between dial-a-ride, paratransit, and medical transportation providers with state and federal funding sources, health care providers, and non-profit organizations to provide transit services to the qualified elderly and disabled in the region.

- The Brazos Valley region plans to provide success stories and promote existing services to their local elected officials.
- The North Central Texas region plans to recruit influential champions for public transportation who will promote and support public transit through leadership or policy initiatives, and who will advocate for increased investment in public transit.
- The Capital Area region plans to establish formal written agreements and work with transportation service providers to adopt interagency agreements on mentoring, cost sharing, funding mechanisms and arrangements for vehicle sharing.
- The Gulf Coast regions plans to explore public-private partnerships and innovative funding options to fund transportation enhancements.

Emerging trends related to unmet transportation needs and gaps in services

Two emerging trends related to unmet transportation needs and gaps in services noted in the regionally coordinated transportation plans – urban gaps and changes in population – are discussed in this section.

Urban gaps¹

Federal and state funding is largely distributed based upon federally defined geographic areas—urbanized areas or rural areas (non-urbanized areas). For urban transit districts, the funding is based upon characteristics of the entire urbanized area. However, the service area boundary for transit providers in urbanized areas often does not match the urbanized area boundary, leaving a portion of the urbanized area without a designated transit provider. The unserved area is referred to as an urban gap. The largest gap areas are found in the major metropolitan areas. However, several smaller urbanized areas already have sizable gap areas, and those areas are likely to grow.

For example, in the Capital Area, the greatest unmet needs are in the Del Valle, Cedar Park, Lakeway, Bee Cave, Austin Colony and other communities that are outside of both Capital Metro’s and CARTS’ service areas due to a combination of very high population and no public transit service.

The Gulf Coast area plans to use local funds to leverage more state and federal dollars to address areas with transit gaps. Other funds include transportation development credits (TDC, roadway infrastructure bonds, and tolls. To combat urban gaps, this area plans to add fixed route service should be included in UZA gaps. The transit provider will have to initiate a feasibility study to determine how to configure service.

Changes in population

As the population in Texas continues to grow, people need to access transportation that will take them from suburban neighborhoods to jobs in the central business district of the city, as well as between

¹ Arndt, J., Edrington, S., Sandidge, M., Valencia, L., Jordan, J., 2011. *Sizing and serving urban gaps in Texas*. Report 0-6473-1, Project 0-6473, Project Title: Filling the Transit Gaps: Unserved Urbanized Area Populations. Performed in cooperation with the Texas Department of Transportation and the Federal Highway Administration. Published: April 2011. Accessed on July 27, 2017 at <https://static.tti.tamu.edu/tti.tamu.edu/documents/0-6473-1.pdf>.

suburban neighborhoods. In rural areas, people from all over the region have a desire to access major employers that are potentially located miles from where they live. With continues changes in populations, public transportation will be even more integral in ensuring people have access to jobs and daily needs.

Nationally, the percent of the population living in unincorporated areas has increased. This trend has been most pronounced outside of large urban areas, but has been observed in rural counties as well. Many regional plans noted a shift in population, for example:

- The Capital Area plan listed concerns about the growing senior population in rural areas and the corresponding human service needs within those areas. Recent population estimates from the ACS show that all of the counties in the region have experienced at least some population increase since 2010 – with two counties near a 20 percent increase from 2010-2014.
- In West Central Texas the proportion of the population classified as elderly is increasing dramatically.
- Continued growth in Mexico will contribute high levels of ridership in urban systems for cities in the Lower Rio Grande region - Brownsville and McAllen.
- The Alamo Area has increased population by 7 percent since 2010.
- In the Heart of Texas region, the percent of population living within cities has decreased slightly since 2000, although the most pronounced decreases occurred within the 5 rural counties. According to figures from the Waco Metropolitan Transportation Plan, the number of persons living in unincorporated areas within McLennan County should increase by over 50 percent by 2035.

Observations and Conclusions from a Statewide Perspective

This section offers observations and conclusions about the content of the plans.

Demographic and economic trends point to increased demand for public transportation to support access to jobs, healthcare, services, and amenities. Coordination across agencies, service providers, and other sectors within the region and with adjacent regions promotes the most efficient use of available resources, is in the best interest of serving customers, and can eliminate the duplication of services. Increasing awareness of existing transportation resources can aid in coordination efforts as well. Integration and improvement of public transportation systems in Texas requires ongoing collaboration and community engagement. The regional transportation coordination efforts attempt to do more with less money, so the regions need to have a good understanding of revenues, expenditures, and available funding streams.

Individuals with disabilities, persons 65 and older, people with low incomes and other priority population groups are often the most vulnerable and most dependent on public transportation services. Therefore, it is imperative that regions routinely and meaningfully engage representatives of these groups as well as employers and agencies who serve them to develop viable solutions for addressing their unmet transportation needs. Identifying the unmet transportation needs of priority populations groups, and strategies to address these specific needs, was a key component of this plan update. Although all plans mention older adults, persons with low incomes, and individuals with disabilities, not all plans are explicit in laying out how transportation needs of these vulnerable populations will be addressed; all regions identified needs and strategies to address the needs of individuals with disabilities and individuals over

65; most regions listed specific needs and strategies related to veterans' transportation and individuals with low income; even fewer plans listed strategies to address the unmet transportation needs of individuals with limited English proficiency or for individuals without transportation to work; very few plans addressed the unmet needs of children.

Although this review focused on the content of the most recent regionally coordinated transportation plans, rather than the actual plan document itself, the documents varied greatly across the state. Some regions created plans with elaborate graphics, while others opted for a simple word document. Some regions, like the Panhandle region, organized their plans more efficiently, making it easier for the reader to identify the needs of the regions and their corresponding strategies. The North Central Texas region organized the chapters of their plan by county and provided demographic analysis, transit needs assessments, stakeholder engagement information, prioritized strategies, and transit services alternatives for each. In other regions, it seemed as though the strategies were buried in the text, or did not correspond with an identified unmet transportation need at all. In future plan updates, regions may consider streamlining content and create specific sections to address needs, gaps, and strategies for priority populations.

As stakeholders in regions move forward to implement plans for their respective areas, it is important for the stakeholders to remember that transportation coordination is an iterative process; and regions should continue to monitor progress of their plans and build on the plans, sharing lessons learned and best practices.