Access North Texas

*Regional Public Transportation
Coordination Plan for North Central Texas*

What is NCTCOG?

The North Central Texas Council of Governments is a voluntary association of cities, counties, school districts, and special districts which was established in January 1966 to assist local governments in **planning** for common needs, **cooperating** for mutual benefit, and **coordinating** for sound regional development.

It serves a 16-county metropolitan region centered around the two urban centers of Dallas and Fort Worth. Currently the Council has **237 members**, including 16 counties, 169 cities, 21 independent school districts, and 31 special districts. The area of the region is approximately **12,800 square miles**, which is larger than nine states, and the population of the region is over **6.5 million**, which is larger than 38 states.

NCTCOG's structure is relatively simple; each member government appoints a voting representative from the governing body. These voting representatives make up the **General Assembly** which annually elects a 15-member Executive Board. The **Executive Board** is supported by policy development, technical advisory, and study committees, as well as a professional staff of 306.
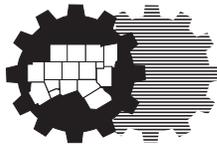
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NCTCOG's Department of Transportation

Since 1974 NCTCOG has served as the Metropolitan Planning Organization (MPO) for transportation for the Dallas-Fort Worth area. NCTCOG's Department of Transportation is responsible for the regional planning process for all modes of transportation. The department provides technical support and staff assistance to the Regional Transportation Council and its technical committees, which compose the MPO policy-making structure. In addition, the department provides technical assistance to the local governments of North Central Texas in planning, coordinating, and implementing transportation decisions.

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Chapter One
Executive Summary

Access North Texas is the public transit-human services coordination plan for North Central Texas and includes prioritized public transportation strategies for each of the region's sixteen counties. It addresses the transportation needs of older adults, individuals with disabilities, low-income individuals and others with transportation challenges. This plan is required by both federal and state legislation and it will inform funding decisions for federal and state transit programs that focus on transit-dependent populations. The Texas Department of Transportation (TxDOT) designated the North Central Texas Council of Governments (NCT-COG) as the lead agency to prepare this plan and Access North Texas supports state goals to increase efficiencies in public transportation service.

The plan was developed locally and collaboratively through the participation of transportation providers, transit customers, advocates, local government representatives and health and human service agencies. Demographic and travel data analysis served as a starting point to identify public transportation needs, gaps in service and resources available to address those shortcomings. Public and stakeholder meetings, often supplemented with surveys and phone calls, brought to life important issues for every county and shaped the strategies for enhanced or expanded transit services outlined in Access North Texas.

Some transportation needs and gaps in service were common across the diversity of the region's transportation providers and residents. Conversations highlighted the need to improve transit services at the local level through strong partnerships among transit supporters and pro-

viders, to increase awareness of existing transit services and to leverage resources that support additional transit services. For many customers with transportation challenges, improving the ride and wait times of current services can improve the feasibility and likelihood of using of transit for everyday trips.

The need for improved transit services at the regional level was also shared. Customers and advocates need more access and streamlined access to regional destinations and need simplified, reliable connections among the region's wide variety of transit services. In particular, transportation services that address access to regional employment clusters from outlying areas and other enhancements that would facilitate access to jobs and job training were often identified.

The plan also supports the continuation of existing transit services for transit-dependent populations and implementation of regional coordination projects already underway such as the taxi voucher program for individuals with disabilities. There was support for centralized information about transit options in order to make using those services more straightforward for transit riders. Coordinated regional travel training that provides customers the tools to successfully navigate transit services was defined as a way to meet transportation needs in the region.

Many who participated in the planning process wanted to continue the discussion and assessment of public transportation through coordinating committees, planning studies and ongoing communication among stakeholders, the public and transportation providers. Through-

out the region, customers and transportation providers agreed that influential champions for public transportation who will promote and support public transit are needed.

Partnerships among local governments, social and human service organizations and transportation providers are the first step to implement many approaches outlined in Access North Texas. Over the next four years, Access North Texas supports and will serve as a framework for improvements to transportation services for those most in need as they travel in their communities and the region.

Chapter Two
Introduction

Access North Texas is a plan to better coordinate the delivery of transportation services and increase efficiencies in public transportation, community transportation and human service transportation. It is focused on better serving older adults, individuals with disabilities, low-income individuals and other groups with transportation challenges as they travel in the 16-county North Central Texas region. The plan summarizes a significant amount of information and while it cannot address every public transportation need in North Central Texas, it provides a firm foundation to enhance and improve public transportation. As an update to the Regional Public Transportation Coordination Plan completed in 2006, Access North Texas assesses transportation needs, documents available resources, identifies strategies that address those needs and prioritizes implementation activities over the next four years.

Throughout the region, transportation links people to employment, community services, life-saving medical care and life-enriching activities. For many, transportation is a simple task between life's activities. For those without transportation options, everyday activities are not easily accessible and are sometimes impossible. This plan was created to meet federal and state requirements for coordinated planning to eliminate waste and generate efficiencies that will enable increased levels of transportation service for those who need it most.[1] Federal, state and local agencies invest significant funding in transit across the region and this plan informs funding recommendations for service.

Strategies for public transportation service included in Access North Texas can make a difference in people's lives. Available and accessible transportation can support access to jobs and education, life-saving medical services and other life sustaining activities. A 2008 study from Dr. J. Joseph Cronin, Jr. at Florida State University explored the return on Florida's investment in transportation services for transportation disadvantaged populations such as older adults, individuals with disabilities and low-income individuals.[2] The study found that investment in transportation for these populations yielded both direct and indirect benefits for the state. When individuals are able to use transit to access preventive medical care, other subsidized costs for assisted living or hospital stays can be avoided. In the Florida case, if one percent of transit trips result in the avoidance of a hospital stay, the payback to the state is $11.08 for each dollar of investment in transit. Funding for transportation that enables an individual to work, even part time at minimum wage, returns $5.71 for each dollar of transit service investment based on reduced welfare costs. Beyond that basic return, the wages earned by that worker are returned to the state through sales tax and other revenues as the worker spends money in the community. The study documents similar returns on investment for transportation to educational and job training programs ($5.85 per dollar invested in transit) and for life-sustaining trips ($4.62 per dollar invested) that enable individuals to live independently, including trips to pay bills and to shop for clothing, medications, personal services and other essen-

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1   See Appendix A: Plan Requirements.
2   Cronin, Jr., Dr. J. Joseph; "Florida Transportation Disadvantaged Services: Return on Investment Study," March 2008. http://tmi.cob.fsu.edu/roi_final_report_0308.pdf, accessed April 26, 2013.

tial goods and services.

Public transportation also plays a role in economic development, enhances the quality of life in communities and regions, helps reduce congestion and contributes to improved air quality. The Texas A&M Transportation Institute's 2012 Urban Mobility Report[3] released in December 2012 highlights the mobility benefits that public transportation service provides to all travelers in the region, not just transit customers. In very large urban areas, including the Dallas-Fort Worth area, public transportation reduces travel delay for the region as a whole, especially in the peak period. Public transportation reduced 721 million hours of delay on average in large urban areas across the country in 2012. If public transportation service were eliminated, delay for all travelers would increase by 24% or more.[4]

Increased delay is costly, reducing the region's productivity and creating negative environmental effects. This plan outlines strategies that will enhance and coordinate commuter transportation as well as public transportation to life-sustaining and life-enriching activities. When implemented, these strategies will eliminate waste, generate efficiencies and continue progress toward reducing air pollution in the region.

The North Central Texas Council of Governments (NCTCOG) served as the lead agency for this regional public transportation coordination plan. Within the 16-county area outlined below, NCTCOG is responsible for planning in a variety of forms, which includes transportation planning. The agency also coordinates transit service and conducts short and long term planning for service.

16-County North Central Texas Region

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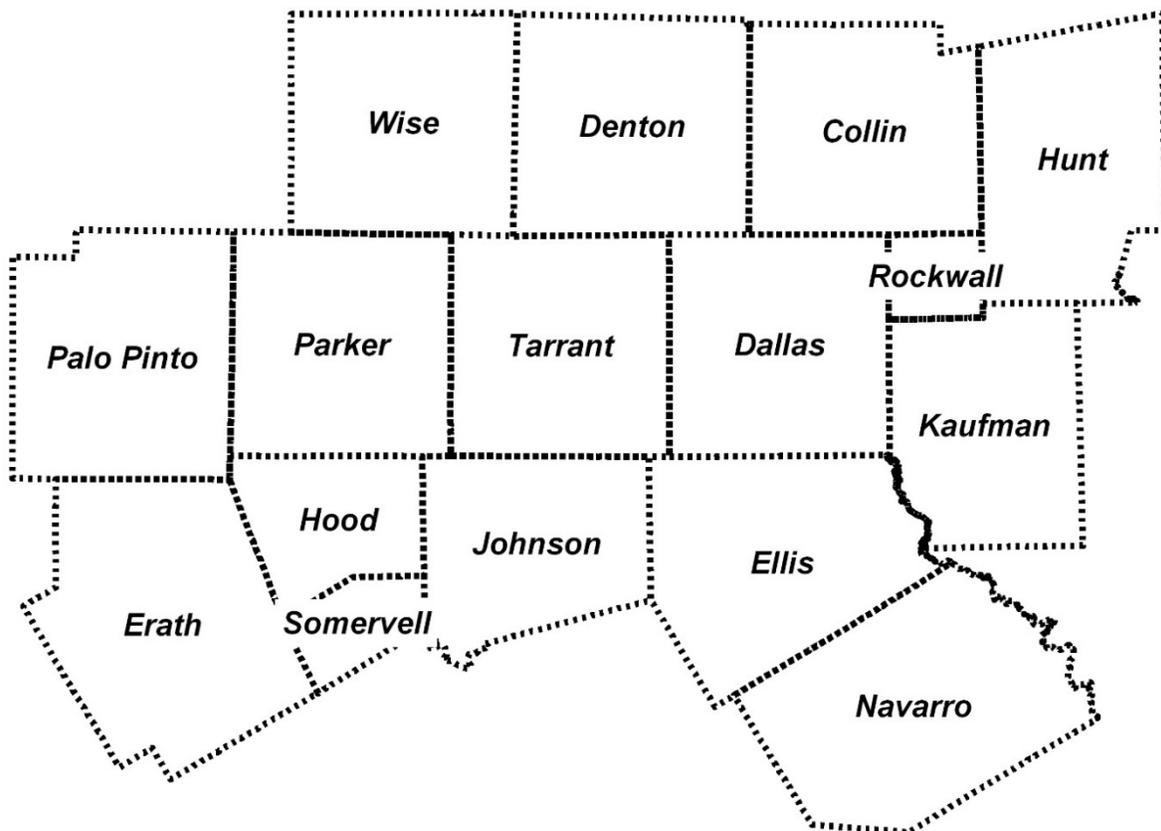
3   http://mobility.tamu.edu/ums/, accessed June 21, 2013.
4   2012 Urban Mobility Report, "Appendix B: Mobility Benefits from Public Transportation Service,"
        http://d2dtl5nnlpfr0r.cloudfront.net/tti.tamu.edu/documents/mobility-report-2012-appx-b.pdf, accessed June 21, 2013.

The plan is not based on a top-down approach and does not dictate requirements for service and activities. Since Access North Texas kicked off in January 2012, thousands of individuals were contacted to participate and share their perspectives and thousands participated in surveys, public outreach meetings, stakeholder meetings, emails and phone calls. These conversations, along with data collection and analysis, have led to the prioritized strategies included in this plan, for the region and each county.

Throughout the region, Access North Texas evolved through a process that began with identifying transportation needs, gaps in service and resources available in each county. A wide variety of data was collected and analyzed to identify those factors and provide a foundation for the plan. The table below outlines some of the key data collected.

Demographic data	Population and population density
	Older adult population
	Young population
	Population of individuals with disabilities
	Low-income population
	Zero car households
	Minority population
	Limited English proficiency population
	Veteran population
Transit trip generator data	Major employers
	Social service locations
	Government locations
	Medical facilities
	Education and job training locations
	Major retail or commercial concentrations
Transportation resources data	Transportation providers and services
	Regional corridors
	Unique transportation resources
	Notable commuter patterns
	Existing planning efforts that identify transit needs

To integrate data analysis with real-world circumstances and to select prioritized strategies for each county, NCTCOG staff interacted with individuals from cities and counties across the region in a variety of ways, reaching out to thousands of the region's residents. Over sixty meetings were held, bringing together hundreds of stakeholders with a variety of perspectives including workforce, aging, disability, housing, local government, public transportation and veterans. Outreach events gathered

over 600 attendees who shared their perspectives on transportation needs. Surveys solicited additional input; over 3,000 individuals returned surveys from throughout the region. Participants identified and prioritized strategies that address transportation needs and gaps in service in the region.

Each chapter of this plan highlights prioritized strategies and additional strategies that may be pursued if resources are available over the next few years. Priorities include a wide range of strategies such as new or improved services as well as communication and awareness initiatives. Locally-developed plans that address public transportation are also referenced in Access North Texas because these locally-developed plans may include public transportation strategies consistent with Access North Texas. Each chapter of this plan outlines how partners and stakeholders will pursue and monitor implementation of strategies developed through Access North Texas or outlined in locally-developed plans. Extensive supporting documentation for outreach and data analysis conducted during Access North Texas is included in an appendix for each geographic area. Supporting documentation will be housed online at www.accessnorthtexas.org and will serve as a reference for ongoing discussions and future planning and implementation.

With the completion of this Access North Texas planning document, implementation work is already underway. Partners throughout the region are beginning to implement strategies in the plan and through regional and local support over the next four years, a wide variety of agencies and individuals will continue to build partnerships, to collaborate and to discuss transportation challenges that are always evolving.

Chapter Three

Access North Texas In the Region

The Plan Process

For Access North Texas, each of the 16 counties in the region is unique and the planning process and outcomes for each are described more fully in the following chapters. The general process of data collection and analysis, stakeholder and public outreach and strategy prioritization was tailored to each county based on staff support available, the level of involvement of local partners and concurrent planning efforts taking place during Access North Texas. The strategies outlined in this chapter for the region as a whole were synthesized from the region-wide results of stakeholder input and data analysis.

Public Transportation Needs, Gaps in Service and Resources

In addition to data collection and outreach conducted as part of Access North Texas, North Central Texas Council of Governments (NCTCOG) staff developed a tool that incorporates the primary focus populations of this plan (older adults, individuals with disabilities and low-income individuals) into one measure to highlight potential transit needs across the region.

Transit Access Improvement Tool

The Transit Access Improvement Tool (TAIT) was developed to identify where populations

that may have a greater need for access to public transportation are located in the 16-county North Central Texas region. It 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. As such, it was not created to specify the level of transit service that would be appropriate for an area and it does not designate where service should go. As one aspect of data analysis in Access North Texas, combined with public input and additional data, the TAIT informed the discussion of priorities for public transportation. This chapter provides a regional level summary of the TAIT and more information can be found in Appendix B5.

The TAIT designates a score for each U.S. Census block group in the region based on four variables: percent of population that is low-income, has a disability, is over 65 and has zero cars.[1] Scores for each variable are assigned to block groups in the region based on a comparison to the Regional Average (RA). The population of low-income individuals, people with disabilities, and people over 65 were scored using the same scoring designation (Table 1). If a variable was less than or equal to the RA it was assigned a score of 1, greater than the RA and less than or equal to 1.33 times the RA had a score of 2, greater than 1.33 times RA and less than or

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equal to 1.66 times the RA had a score of 3. Any variable that was greater than 1.66 times the RA and less than or equal to 2.00 times the RA had a score of 4 and anything greater than 2.00 times the RA was designated a score of 5. The three scores for percent low-income, percent disabled, and percent over 65 are multiplied to obtain a TAIT score of 1 to 125.

Next, each block group was assigned a score ranging from 0-15 depending on the percent zero car households as compared to the RA (Table 2). Areas where zero car households were less than or equal to the RA were assigned a score of 0, greater than the RA and less than or equal to 1.33 times the RA had a score of 6, greater than 1.33 times RA and less than or equal to 1.66 times the RA had a score of 9. Percent zero car households greater than 1.66 times the RA and less than or equal to 2.00 times the RA had a score of 12 and anything greater than 2.00 times the RA was designated a score of 15. The zero car household scores were added to the number obtained from multiplying percent below poverty, percent disabled and percent over 65, giving the TAIT a scoring range of 1 to 140.

Region-wide, the largest clusters of high potential need for public transportation are located in Tarrant County and Dallas County. In Tarrant County, the greatest need appears clustered

Table 1. TAIT Scoring Designation

Score	Percent Below Poverty Line, Disabled or Over 65
1	≤ Regional Average (RA)
2	> RA and ≤ 1.33 X RA
3	> 1.33 X RA and ≤ 1.66 X RA
4	> 1.66 X RA and ≤ 2.00 X RA
5	> 2.00 X RA

Table 2. TAIT Scoring Designation: Zero Car

Score	Percent Zero Car Households
0	≤ Regional Average (RA)
6	> RA and ≤ 1.33 X RA
9	> 1.33 X RA and ≤ 1.66 X RA
12	> 1.66 X RA and ≤ 2.00 X RA
15	> 2.00 X RA

in south Fort Worth with moderate needs also indicated in the rest of Fort Worth and Arlington. Dallas County's greatest need are located in the southern portion of the city of Dallas, and extending toward the northern portion of Ellis County. TAIT scores in the counties surrounding Tarrant County and Dallas County had primarily low to moderate scores. Many of the cities located in these counties had clusters of populations with high potential need for public transportation, but some rural and unincorpo-

2010 North Central Texas 16-County TAIT Scores

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

	1 - 3
	4 - 10
	11 - 20
	21 - 30
	31 - 40
	41 - 60
	61 - 80
	81 - 100
	101 - 120
	121 - 140
	Zero Car Scores 1-15
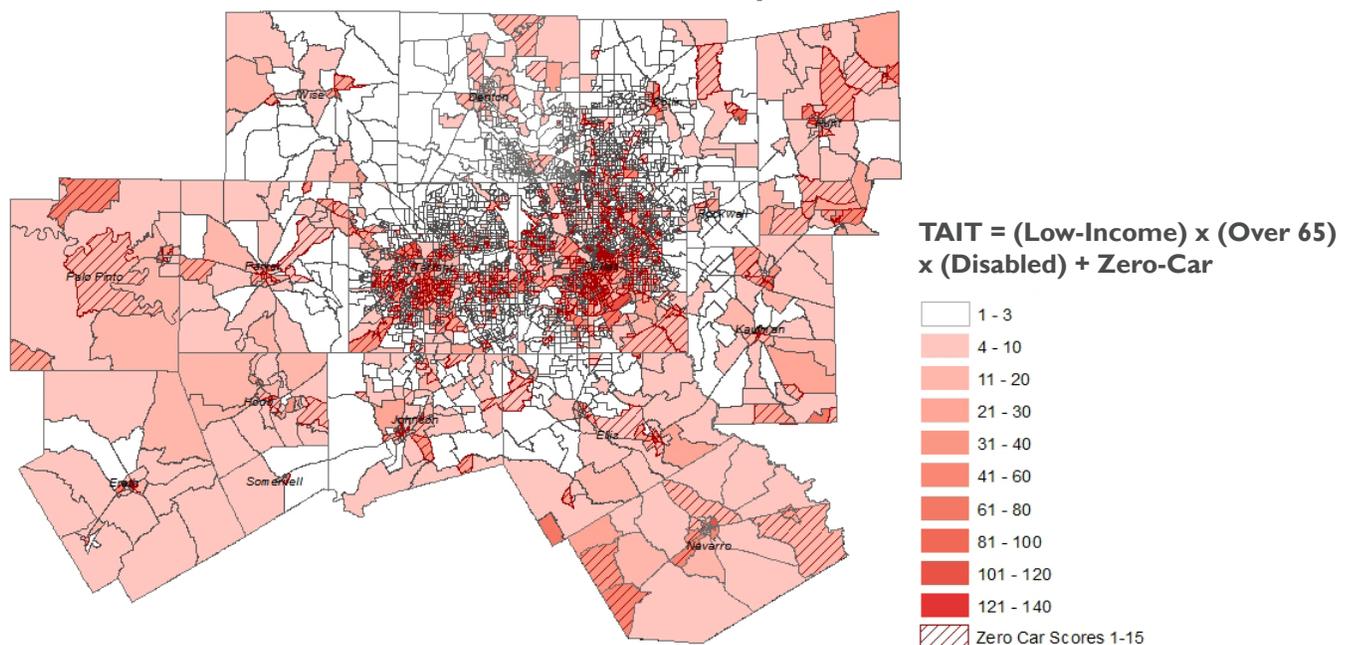
rated areas in the farther reaches of the region exhibited high potential need for transportation service. For example, in Navarro, Hood, and Palo Pinto Counties, almost every block group included high proportions of the population in the key indicator populations of low-income individuals, persons over 65, individuals with disabilities and zero car households.

Strategies for Coordinated Public Transportation

Public involvement, stakeholder discussions and surveys supplemented data analysis from the TAIT described above and additional data collection outlined in subsequent chapters. Together, these activities across the 16-county North Central Texas region revealed recurring themes that transcend local and county boundaries. Strategies to address regional level needs are outlined below.

Prioritized Strategies

Strategy 1

Continue implementation of regional transportation service and coordination projects

- Implement a regional taxi voucher program to increase the affordability of shared-ride transportation across the region for individuals with transportation challenges
- Improve access to information and transportation services for veterans to address needs for access to community and Veterans Affairs services
- Implement regional vehicle-for-hire standards to facilitate access to private transportation providers in the region

Strategy 2

Coordinate and plan for seamless regional connectivity between service providers including transit authorities, other public transportation agencies and human service or community transportation providers

Strategy 3

Meet existing funding commitments for services for transportation-dependent populations

Strategy 4

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

Strategy 5

Create and maintain a centralized information resource for transportation resources in the region

Additional Strategies

- Improve access to jobs from outlying areas to large employment centers in the region and provide evening and weekend services or extended service hours to facilitate access to jobs and job training
- Expand access to regional transit facilities and services by linking various transportation services and improving the ride and wait times on transit services to increase the feasibility and acceptability of transit for everyday trips
- 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
- Establish and communicate the cost of service to potential partners and identify creative ways to secure additional local matching dollars to access federal transit funding
- Increase the variety of vehicles in transportation provider fleets to better match vehicles to the service being provided, including adding smaller, more fuel-efficient, wheelchair accessible vehicles as well as potentially seeking a waiver from 100% wheelchair-accessible vehicles while maintaining services required by the Americans with Disabilities Act
- Improve the quality and quantity of information provided by transportation agencies and establish coordination with 2-1-1 services in the region

Additional strategies that address needs identified in the planning process will be considered

between this plan and a future plan update.

Monitoring Implementation

Following plan completion, the next step is to coordinate funding and partnerships to successfully implement projects. Transportation providers, stakeholder agencies, communities and counties across the region will work to implement the strategies outlined for each county in Access North Texas and strong partnerships will be needed to facilitate the region-wide strategies outlined in this chapter. Any willing and interested parties are welcome to join the discussion and be part of the ongoing planning and implementation process. The plan recommends the formation of coordinating committees that meet on an ongoing basis for many of the region's counties. These committees will continue to assess public transportation needs, will help guide implementation of the strategies outlined in Access North Texas and will assess progress in implementing the plan over the next four years.

Chapter Four
Collin County

The Plan Process

In Collin County, prioritized strategies for addressing transportation needs and gaps in service were developed through an in-depth transportation needs assessment and planning study. This included an assessment of demographic and employment data and a travel pattern analysis. It also described existing transit services in the county. The project included public meetings and a survey to gather additional information on the needs and concerns of residents. This information was supplemented with stakeholder interviews. Government officials and staff, social service agency staff and transportation providers were contacted to discuss public transportation needs over the next few years.

Public outreach meetings were held in Collin County to gather experiences and information on public transportation from residents and transit riders. These meetings were held in October 2012, with one each in Frisco, McKinney and Plano. Over 400 mailed invitations and additional notice in online message boards, community calendars and local news reports drew approximately 130 people to the meetings. During the meetings a brief overview of the planning study process was followed by a discussion of attendees' experiences with public transportation and their perspective on transit needs and opportunities.

The survey developed for Collin County was intended to gain a more thorough understanding of the existing needs and challenges facing residents and stakeholders. Two versions of the survey sought feedback from county residents. One survey was hosted online and was focused on the general public. This survey was publicized through news outlets and online message boards and through an insert in the city of McK-

inney's water bills. The other was distributed to Collin County Area Regional Transit (CCART) riders and to many individuals affiliated with human service agencies in the county. Both surveys were available in English and in Spanish. The survey results enabled additional perspective on the data gathered through meetings, interviews and demographic analysis.

Together, demographic and travel analysis, public outreach, stakeholder interviews and survey responses led to the strategies for Collin County outlined in this chapter.

Public Transportation Opportunities, Gaps in Service and Resources

This section summarizes needs and resources identified in the county.

Demographic Highlights

Demographic data in Collin County was used to identify populations that may have high potential need for public transportation. Overall, the county experienced intense population growth between the 2000 Census and 2010 Census. Over the span of 10 years the county grew in population by nearly 60% in comparison to the region as a whole, which grew by about 23% during the same time period. Public transportation options have not changed drastically in that time, indicating that service has not kept pace with changing needs and demands. Another notable demographic is that 9% of residents in Collin County speak English less than very well. Specific concentrations of these residents were located in the eastern portion of Plano along US Highway 75 and in eastern McKinney along State Highway 121. Efforts to promote existing or new transit services should include strategies to reach this population.

Collin County has several significant concentrations of employment in areas of the county, including the largest employment area in the western section of Plano. Another large employment cluster covers the western section of McKinney. Current transportation services vary in the level of access provided to areas with the highest concentrations of employment.

Additional demographic detail is available in the Collin County existing conditions report available online at www.accesscollin.org.

Transit Access Improvement Tool

The Transit Access Improvement Tool (TAIT) was developed 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. A more detailed report on the TAIT can be found in Appendix B5.

Collin County had low TAIT scores in the majority of the county, but areas in Farmersville and in southern McKinney had high scores. Farmersville was notable for having low-income population, an over 65 population and a population of zero car households greater than two times the regional average. The area with a high TAIT score in southern McKinney had a low-income population that was just under twice the regional average. Other variables that contributed to the TAIT score in that area were an over 65 population and population of zero car households greater than two times the regional average.

Collin County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

- 1 - 3
- 4 - 10
- 11 - 20
- 21 - 30
- 31 - 40
- 41 - 60
- 61 - 80
- 81 - 100
- 101 - 120
- 121 - 140
- Zero Car Scores 1-15
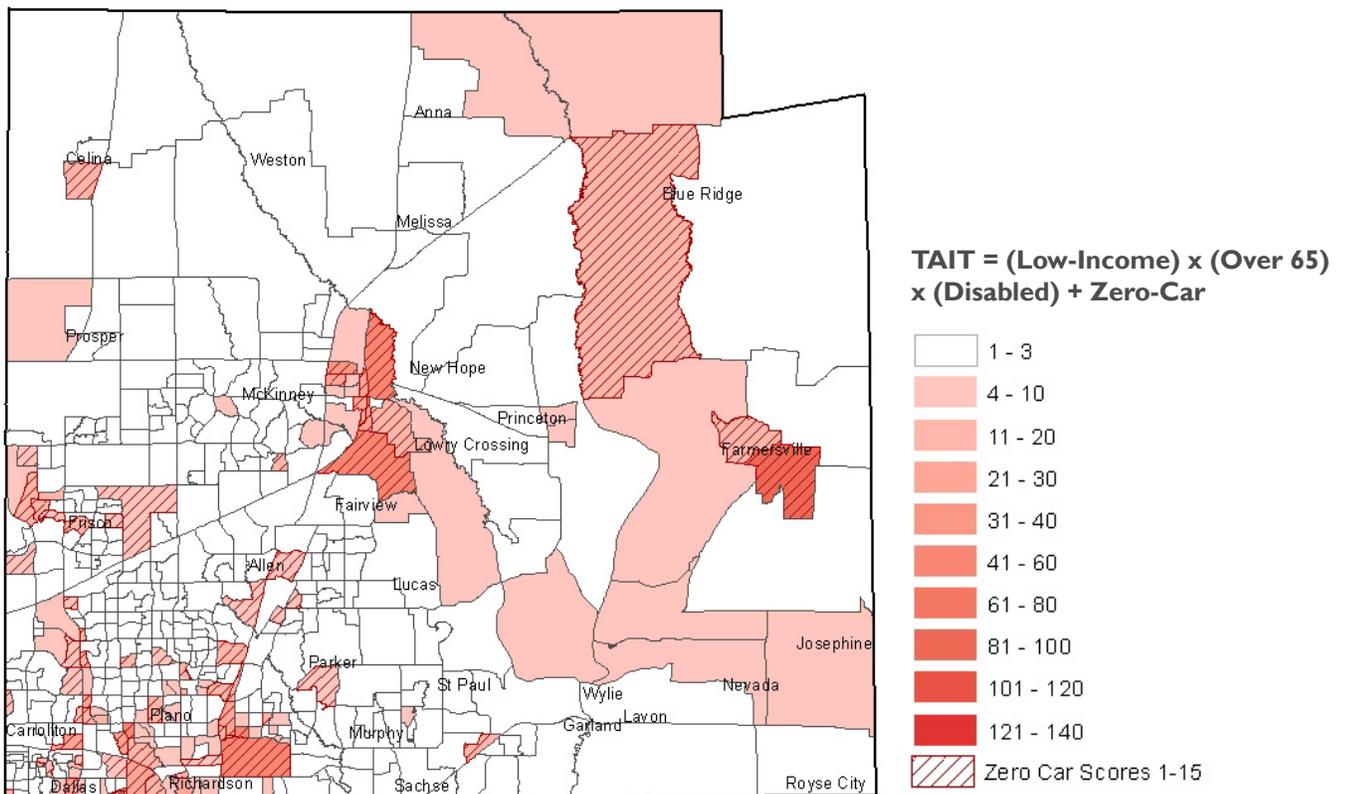
Resources

Prior to July 1, 2013, Collin County Area Regional Transit (CCART) provided limited public transportation service for all of Collin County. Service included demand response transportation for the general public throughout the county as well as two bus routes within the city of McKinney. As of July 1, CCART ceased operating public transportation and Texoma Area Paratransit System (TAPS) began operating similar services in Collin County outside of Plano. Dallas Area Rapid Transit (DART) provides a variety of public transportation services in its service area within Collin County, which includes Plano. DART transportation services include light rail, a variety of scheduled and on-demand bus service and Americans with Disabilities Act (ADA) paratransit service. DART provides support for Plano Senior Rides, a taxi voucher program for older adults in Plano. DART's vanpool program is also available to Collin County residents. Collin County is also home to small transportation services offered by churches, human service agencies, and medical facilities, though these are largely not available to the general public. Taxis and Greyhound bus lines provide some limited local and regional service options for people traveling within, to or from Collin County.

Relevant Plans and Projects

Relevant plans were reviewed to assess how this plan could be coordinated and integrated with community efforts. The city of Frisco completed a Public Transit Study in 2008, which focused on the feasibility of and need for public transportation services for Frisco residents. In 2009 the city of Allen and the city of McKinney applied for federal funding for pilot programs to link residents to DART services and enable greater access to work and local businesses. One other relevant plan is McKinney's Sustainability Plan, in draft form. The plan is focused on developing McKinney into a more sustainable city, with aspects such as increasing multi-modal transit options.

Commuter Summary

A travel analysis identified significant commute and other travel patterns of Collin County residents. Based on the analysis, around 45% of work trips generated in Collin County remained within the county, 32% of work trips traveled to north central Dallas County, 12% traveled to Irving and Coppell, and 7% traveled to southern Denton County. Plano and McKinney are communities where the majority of work trips stay within the community. Residents in cities such as Prosper, Fairview and Lucas tend to travel to adjacent communities or Dallas County for work. Public transportation options do not exist for many of these common commute routes within Collin County and links to access jobs using the regional transit system are limited.

Stakeholder Interviews

The need for improved quality and increased availability of public transportation was noted by stakeholders. Many who participated noted a need for improved transportation options for seniors, low-income residents and people with disabilities. Stakeholders noted that much of the current planning in Collin County is done exclusively for automobiles and most investments are in roads. Another concern stakeholders mentioned, though not a focus of this plan, was the lack of Dallas Area Rapid Transit (DART) rail service past the city of Plano, which limits some residents' transportation opportunities.

Key transit-specific needs included service for transit-dependent populations. Serving the needs of commuters was also among the most frequently noted service requests. Stakeholders talked about the urgency to provide transit to get people to jobs in Collin County, noting that there is not a sufficient low-wage workforce that resides within Collin County for retail and other service jobs. While McKinney is the only city north of Plano to offer local transit service, stakeholders commented on the insufficient level of transit service there. A few stakeholders talked about the value of transit service for access to baseball games, concerts and cultural activities in Dallas, and evening/social activities. Some stakeholders acknowledged that there are few bus routes today and additional funding for transit is likely to be limited. As a result, some said alternatives to traditional transit need to be

found by coordinating the few agency provided operations, as well as a way to link cities north of Plano with DART services in that city.

Stakeholders also discussed the potential for building support for transit. This included political support, with stakeholders mentioning that without political support for transportation, implementing long-term and short-term transit projects would be difficult. Several individuals discussed the need to identify and potentially pursue appropriate funding mechanisms for public transportation. In addition, stakeholders felt that justifying the return on investment is important for any public transportation service. Many noted the need for public support for any future public transportation in Collin County. Champions for public transit may be key to growing that support, especially among agencies that could use economic development funds for transit and among chambers of commerce.

Stakeholders identified focus areas for strategies. They indicated interest in reviewing and potentially changing the way transit is organized and administered in Collin County. Since these interviews took place, some changes have been made. As of July 1, 2013, CCART ceased operating in Collin County and TAPS has begun operating. Stakeholders also shared an interest in exploring non-traditional ways to deliver public transportation service, such as opportunities for taxis or private transportation providers to partner and provide public transportation. They also saw a need to increase transit ridership on existing services and implement new or expanded service. A more regional approach to transit and the importance of solutions that enhance coordination were also discussed. Lastly, stakeholders affirmed that evaluating transportation alternatives that can serve transit-dependent populations is vital. Alternatives for those vulnerable populations could also include exploration of vouchers or reduced fares for individuals who need assistance, seniors and youth riders.

Public Outreach Meetings

Comments and discussion in public outreach meetings were largely focused on the lack of public transportation within communities or between communities in Collin County. Meetings that took place in Frisco and McKinney were especially concerned with the need for local public transportation, particularly for groups with potentially limited mobility such as seniors and people with disabilities. At the McKinney meeting attendees also discussed Collin County Area Regional Transit's (CCART) route network, service hours and overall limited access to transit. Attendees to the Plano meeting noted that awareness of Dallas Area Rapid Transit's (DART) existing local services could be improved.

While local public transportation was an important topic among attendees, at all of the meetings many expressed greater concern for needed regional public transportation. Attendees noted the need for transportation to link cities within Collin County to DART. Cities described as having a particular need for regional connections included McKinney, Celina, Allen, Frisco and Wylie. Attendees emphasized that local and regional public transportation must be planned before the population grows and congestion increases in Collin County. Overall, attendees that participated in the public outreach meetings in Plano, Frisco and McKinney expressed great interest in potential transit services and transportation programs in the county.

Survey Findings

Findings from the surveys provided additional information on the needs and challenges of public transportation in Collin County. The data suggests there are very few "choice transit riders" (people who have a car but opt to use transit instead of driving) using public transit to travel locally in portions of McKinney and Plano: that transit is designed to serve people with few mobility options. Those that do use transit services appear to value their existing services and want more of them. Many note concerns about limited service hours, coverage and frequencies of fixed routes in McKinney. Existing transit users are most interested in links between Collin County cities as well as local service. Non-transit users are predominately interested in commuter services to Dallas or

connections to DART.

On the whole, transit, as a proposed service in the community, is valued even if individuals are not likely users. Many comments note that some level of service should be made available. Nevertheless, some of the comments include strong opinions opposed to transit service, with concerns raised about impacts to quality of life or concerns about non-residents traveling to Collin County. Those who support transit indicate they would use public transportation more if the transit stop were near their home and destination, and if services operated at preferred hours and frequencies. Connections to DART rail and service to localities within Collin County were oft-cited potential new services that appealed to the respondents.

Strategies for Coordinated Public Transportation

Using demographic and travel analysis and a review of existing services combined with public and stakeholder outreach, strategies that could address gaps in service were developed.

Prioritized Strategies

Strategy 1

Improve access to identified clusters of employment within Collin County, including access to jobs for low-income workers

Strategy 2

Expand access to regional job opportunities and improve links to the regional transit system focusing on opportunities to enhance coordination among services

Strategy 3

Increase ridership, improve the quality and increase the availability of services for travel within and between communities in Collin County for those with limited transportation options including older adults, low-income residents and people with disabilities

Strategy 4

Expand transportation options within the city of McKinney and improve inter-community access for communities such as Celina, Allen, Frisco and Wylie

Additional Strategies

- Explore partnerships to improve the affordability of transit including vouchers or reduced fares for individuals who need assistance, seniors and youth riders
- Identify and evaluate non-traditional ways to deliver public transportation service, including partnerships among public and private transportation providers
- Establish communication and outreach programs to improve the awareness of existing or new transportation options among limited English proficiency populations
- Identify, recruit and support influential champions for public transit to grow support for new and enhanced transit services
- Additional strategies that address needs identified in the planning process will be considered between this plan and a future plan update.

Sixteen transportation service alternatives that provide methods to implement these strategies are outlined below. Some alternatives are appropriate for all of Collin County's community types. Others are only feasible under certain conditions that may not be present in every community type or at the countywide level. The alternatives are listed below and additional descriptive information for each alternative is included in Appendix C-Collin, including the type of need it addresses, the potential market and typical service parameters.

- Volunteer Driver Program
- Mobility Management / Coordination
- Cost Sharing Opportunities
- Subsidized Taxi Program
- Carpool
- Vanpool
- ADA Paratransit / Eligibility-Based Dial-A-Ride
- General Public Dial-A-Ride
- Community Shuttle
- Express Bus / Park & Ride Service
- Limited Bus Stop Service
- Point Deviation Service

- Route Deviation Service
- Feeder / Connector Service to Fixed-Route
- Site-Specific Shuttle
- Local Fixed-Route Bus Service

All of the different types of transportation services above could be feasible in Collin County in the near term. To target appropriate services to the communities where they are likely to have the greatest impact or be most effective, these services were evaluated. The evaluation was based, in part, on relationships between community types and transit service design. For transit to be most effective, individual services must be designed to match market demand and operating environments. Five geographic groupings/designations were identified for evaluating alternatives appropriate for implementation in Collin County. These are as follows:

Countywide This classification applies to the entirety of Collin County and includes all communities and unincorporated areas.

Rural Communities This group includes Collin County cities that are neither in the Dallas-Fort Worth-Arlington Urbanized Area, nor the primary city of the McKinney Urbanized Area. (Anna, Blue Ridge, Farmersville, Josephine, Lavon, Nevada, New Hope and Weston)

Suburban / Employment Base This group includes Collin County cities that are part of the Dallas-Fort Worth-Arlington Urbanized Area and attract a significant inflow of work commuters on a daily basis. (Allen, Frisco and Plano)

Suburban / Bedroom Communities This group includes Collin County cities that are primarily residential in nature. (Celina, Fairview, Lowry Crossing, Lucas, Melissa, Murphy, Parker, Princeton, Prosper, St. Paul and Wylie)

Small Urban Community This classification applies only to the city of McKinney.

The table on the following page shows the compatibility of each service alternative with regard to the five classifications above. A white circle indicates that the service alternative is least compatible/appropriate with a classification;

a black circle shows it is most compatible/appropriate. A circle that is both black and white means that a service alternative may not be ideal for a type of community (or at the countywide level), but could be successful under certain circumstances.

Monitoring Implementation

Following the completion of the transit needs assessment and planning study for Collin County, transportation providers and local stakeholders will collaborate to determine next steps and to potentially implement selected strategies.

Further Information

Appendix C-Collin provides summary information about the menu of transit alternatives. The transit needs assessment and planning study also included funding estimates and general implementation plans for selected strategies, which are beyond the scope of this Access North Texas plan. More detail and final reports from the study will be available online at www.accesscollin.org.

Transit Service Alternatives Compatibility for Collin County

Service Alternative	Countywide	Rural Communities	Suburban / Employment Base	Suburban/ Bedroom Communities	Small Urban
Volunteer Driver Program	◐	◐	◐	◐	◐
Mobility Management / Coordination	◐	○	◐	◐	◐
Cost Sharing Opportunities	○	○	◐	◐	◐
Subsidized Taxi Program	○	○	◐	◐	◐
Carpool	●	●	●	●	●
Vanpool	◐	◐	●	●	◐
ADA Paratransit / Eligibility-Based Dial-A-Ride	◐	◐	◐	◐	◐
General Public Dial-A-Ride	◐	◐	◐	◐	●
Community Shuttles	●	●	◐	◐	○
Express Bus / Park & Ride Service	◐	○	●	◐	◐
Limited Bus Stop Service	◐	◐	◐	◐	◐
Point Deviation Service	◐	◐	◐	◐	◐
Route Deviation	◐	◐	◐	◐	●
Feeder/Connector Service to Fixed-Route	◐	◐	◐	◐	◐
Site-Specific Shuttle	○	◐	●	◐	◐
Local Fixed-Route Bus Service	○	○	○	○	◐

○ Least compatible/appropriate

◐ Could be successful under certain circumstances

● Most compatible/appropriate

Chapter Five
Dallas County

The Plan Process

Access North Texas in Dallas County builds on ongoing implementation of the previous Regional Public Transportation Coordination Plan (adopted in 2006).[1] Since 2006, transit providers, stakeholders, community leaders and transit customers have worked together to coordinate public transportation in Dallas County through the Community Transportation Network, an ongoing, collaborative effort led by the Community Council of Greater Dallas. Building on the discussion and consideration of public transportation taking place with the Community Transportation Network, the current planning process incorporated an assessment of public transportation in Dallas County and included additional data collection and analysis. An existing conditions report was prepared that documented demographics and identified geographic and social factors that may indicate a greater need for public transportation.

Since transportation needs were outlined in the 2006 coordination plan, projects have been implemented in Dallas County that address those needs and include several projects funded by Federal Transit Administration (FTA) grants from the Job Access/Reverse Commute Program, the New Freedom Program, and the Transportation for Elderly Persons and Persons with Disabilities Program. Ongoing projects in Dallas County focus on:

- Improving communication among various transportation providers,
- Educating the public about transit services that are available (dozens of options in Dallas County),
- Efficiently and effectively using time and money and
- Minimizing the impact of boundaries such as service area boundaries.

To supplement the information obtained from Community Transportation Network and other projects as well as data collected through Access North Texas, community conversations explored whether current priorities should be adjusted and to determine future priorities. A meeting in February 2013 gathered input from transportation providers, municipalities, social service agencies and health and human service agencies. To further identify priorities, a follow-up outreach meeting was held in April 2013. At that meeting, a short presentation was followed by an open discussion to hear attendees' thoughts, perspectives and experiences. These meetings were a vital part of the planning process, as they provided firsthand supplemental information from a wide variety of stakeholders. In addition, individuals provided responses to an Access North Texas survey to gather information on residents' experiences and information on transportation needs in the county. These outreach efforts, combined with ongoing planning and coordination efforts and data analysis led to the strategies included in this chapter.

Public Transportation Needs, Gaps in Service and Resources

This section summarizes transportation needs and resources in Dallas County based on the existing conditions report, public outreach and meetings. Other data analyzed in this section includes commuter patterns and local government

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1   The 2006 Regional Public Transportation Coordination Plan is available on the Access North Texas website at www.accessnorthtexas.org.

and agency plans that address public transportation.

Transit Access Improvement Tool

The Transit Access Improvement Tool (TAIT) was developed 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. A more detailed report on the TAIT can be found in Appendix B5.

In Dallas County the highest TAIT scores were located in block groups in the northern and southern sections of Dallas, as well as western Mesquite. Continuing from south Dallas into Hutchins, Wilmer and the rest of southeastern Dallas County, block groups become less densely populated, but higher TAIT scores remain. Few transit services are currently available in these areas, potentially indicating a gap in service for those with the greatest need for transportation. Another portion of the county with a continuous section of moderate to high TAIT scores extends from Irving to sections of Grand Prairie. Central sections of Duncanville, Cedar Hill, Glenn Heights, and DeSoto have notable TAIT scores, indicating the presence of populations that may have a great need for public transportation in an area with few or no transportation options.

Resources

The main public transportation provider, Dallas Area Rapid Transit (DART), serves the general public within a thirteen-city service area and provides a variety of public transportation services including light rail, scheduled and

Dallas County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

|	
☐	1 - 3
	4 - 10
	11 - 20
	21 - 30
	31 - 40
	41 - 60
	61 - 80
	81 - 100
	101 - 120
	121 - 140
▨	Zero Car Scores 1-15
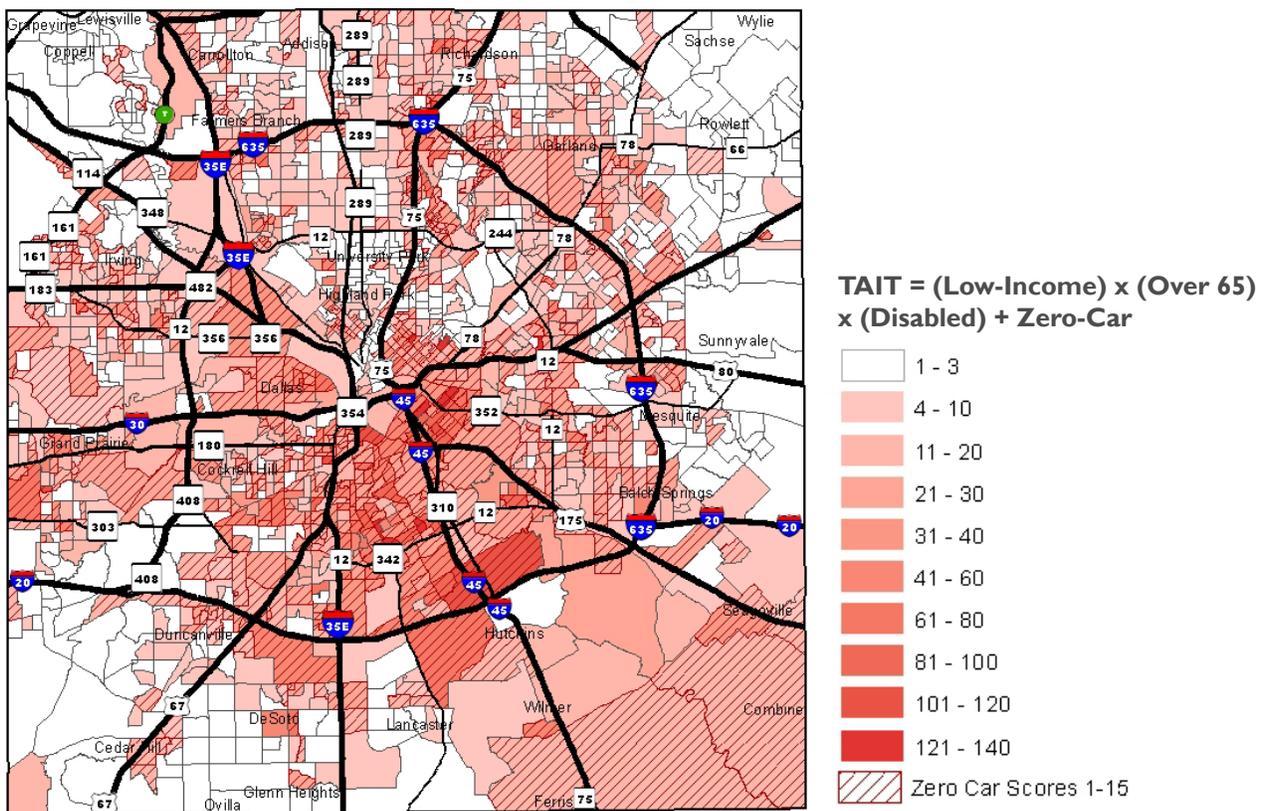
on-demand bus service, a vanpool program and Americans with Disabilities Act (ADA) paratransit service. Other transportation providers in Dallas County include The Grand Connection, serving older adults and individuals with disabilities in Grand Prairie; Mesquite Transportation for the Elderly and Disabled (MTED) in the city of Mesquite and Senior Adult Services, serving older adults and individuals with disabilities in Addison, Carrollton, Coppell and Farmers Branch. STAR Transit provides transportation in Seagoville as well as neighboring Kaufman and Rockwall Counties. Additional resources that provide or facilitate access to transportation include numerous human service and social service agencies, the Community Transportation Network and MY RIDE Dallas, United Way of Metropolitan Dallas, Goodwill Industries of Dallas, Metrocare Services (Dallas County MHMR), Urban League of Greater Dallas and North Central Texas, major employers, the North Central Texas Council of Governments (NCTCOG) and the Texas Department of Transportation. Despite the existence of a transit authority with a very large service area that provides service to the general public and transportation-disadvantaged populations and despite the existence of several smaller transit providers offering service to a defined set of eligible riders, there are gaps in transportation service throughout Dallas County, including several areas that lack public transportation, shown by the lack of shading in the figure below.

The Community Transportation Network (CTN) at the Community Council of Greater Dallas, has

Transit Services in Dallas County
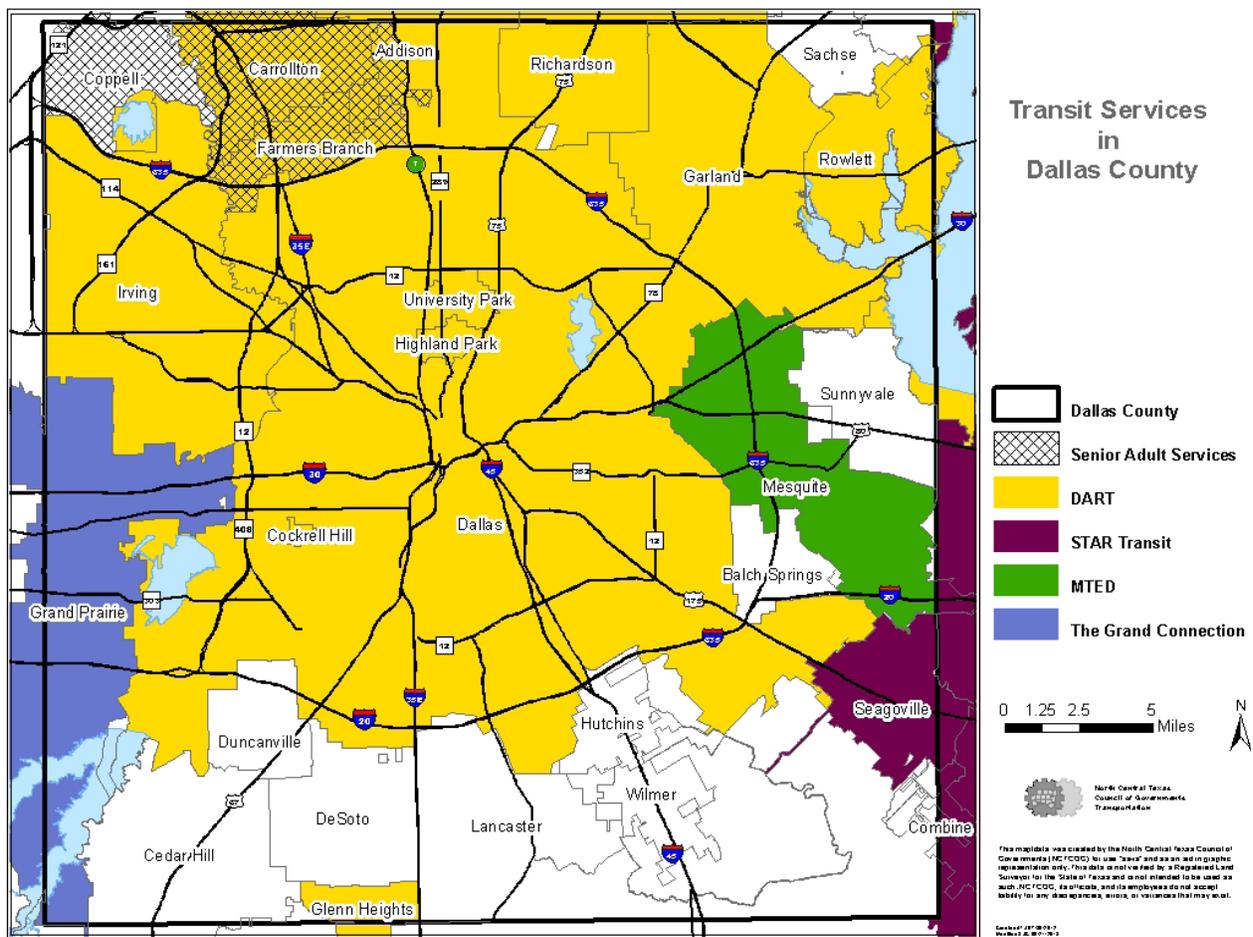
elevated the level of ongoing discussion and awareness of transportation services through bimonthly meetings with dozens of partners. They created a Get A Ride Guide pamphlet for transportation options in Dallas County and they've shared over 10,000 copies of the guide. They provide telephone and e-mail assistance for people with questions about their transportation options through MY RIDE

Dallas, available in English and Spanish. During the first quarter of 2013, the greatest portion of callers to MY RIDE Dallas were from the city of Dallas, followed by the cities of Balch Springs, DeSoto, and Mesquite. Beyond providing assistance to individuals, the MY RIDE Dallas program also provided mobility options training to 105 health and human service professionals in 2012. MY RIDE Dallas services are coordinated through a referral process from Dallas County 2-1-1 services, which are also housed at the Community Council of Greater Dallas. The Dallas Region 2-1-1 helpline maintains a comprehensive community resource database of services providing assistance that include health care, employment, educational, legal, housing, counseling, and transportation needs and other resources. Of those individuals contacting 2-1-1 for assistance with transportation, the three most common requests for public transportation assistance are for bus fare, medical transportation and local bus service. Senior ride programs and disability related transportation are also common requests.

Commuter Summary

In 2010, the zip code with the largest number of jobs was in central Dallas's 75201 zip code with 71,821 jobs. Because of the high density of jobs centered on downtown, transit is needed to link outlying workers to job opportunities there. For Dallas County as a whole, the largest portion of workers commuted less than 10 miles and the next largest portion was workers who traveled 10 to 24 miles to get to work. Greater detail on the commuter characteristics of the county can be found in Appendix C-Dallas.

Relevant Plans

Relevant plans were reviewed to assess whether Access North Texas implementation efforts could be coordinated and integrated with these community efforts. Recent plans completed by municipalities and agencies within the county that are relevant to the planning process in Dallas County include DART's 2030 Transit System Plan. The plan was completed in 2006 and focuses on the agency's future public transportation investment and development. These improvements include 77 miles of enhanced

bus service corridors and 20 miles of rapid bus service corridors to provide a higher level of service. Paratransit goals are to continue a high level of service, while incorporating technological and operational changes and transitioning customers to fixed route bus services where feasible. DART also plans to strengthen key system-wide mobility programs to support improved operations and system efficiencies; enhanced customer information, access and comfort; strengthened safety and security and increased ridership.

The city of Dallas adopted its current comprehensive plan forwardDallas! in 2006 and it includes a chapter on transportation elements. The city's plan recommends promoting a variety of transportation options and supporting an expansion of Dallas' public transit system. The city of Garland's most recent comprehensive plan, Envision Garland, was adopted in 2012. Garland's plan discusses creating a complete and efficient mobility system to serve the city's future transportation needs. Carrollton's Comprehensive Plan, written in 2003, is another plan that helps guide growth in portions of Dallas County. The plan for Carrollton includes a section on services provided by DART and ways to improve the city's current DART service. The city of Richardson's most recent comprehensive plan was adopted in 2009 and includes a section on transit outlining the city's membership in DART since DART's founding in 1983. It outlines the available rail and bus services in Richardson that provide access to the surrounding region.

Coppell's comprehensive plan was adopted in 2009 and covers several aspects of public transportation. The plan aims to create short and long term public transportation options that could improve access for non-driving older adults, children, individuals with disabilities, low-income residents and other residents. Grand Prairie's most recent comprehensive plan, written in 2008, discusses intergovernmental cooperation, referencing NCTCOG's Mobility 2035 and a need for the city to create partnerships for transportation in the region. One objective is to encourage eventual development of a regional passenger rail connection in

the city and to participate in regional and inter-jurisdictional transportation programs.

In addition, the Community Council of Greater Dallas created a Metro Mobility Summary in 2011 that outlines needs for transportation and gaps in current public transportation in Dallas County. One short-term strategy to address the needs is to identify underused vehicles and transportation resources that can be shared to increase efficiencies and fill gaps in service. Also in 2011, the city of DeSoto completed a Strategic Public Transportation Planning Study. This study's purpose was to identify current and likely future travel demand patterns in and around DeSoto. One near term recommendation of the study was to provide carpool matching assistance to DeSoto residents, indicating a need for transportation options for commuters. In 2012, the American Association for Retired Persons (AARP) produced a report focused on pedestrian infrastructure (sidewalks, signage and safety mechanisms) for older adults in Dallas County. This project emphasized the importance of having walkable streets that allow all residents to access services. It also included recommendations to improve walkability such as land use changes to locate retail shops near offices and housing within neighborhoods.

Needs Identified

Ongoing efforts have addressed some of the transportation needs in Dallas County, but data collection and public outreach identified additional needs for regional and local transportation access, as well as continued improvements to communication and education about transportation options. Public transportation needs are present throughout the diverse populations of Dallas County. In 2000, about 17% of Dallas residents were disabled and in 2010 about 17% were low-income, two populations that may rely on public transportation for daily activities.

Outreach efforts identified needs for local access such as improved access to existing DART services, especially for people who are not ADA eligible but are too frail to use traditional transit services. If smaller agencies, including community and human service agencies, will provide

transportation to meet local access needs not already met by existing providers, there is an additional need to facilitate the growth of smaller independent services. Regional access needs identified include regional connections between services at safe, secure and dependable locations and a link between Veterans Affairs facilities in Fort Worth and Dallas. Improved communication and education is needed to raise service visibility and awareness.

The February 2013 stakeholder meeting confirmed some needs identified during data collection and analysis and highlighted additional needs for transportation in Dallas County. One concern raised at the meeting is the need to identify and recruit community and political champions for transit. Champions are needed to raise the profile of transit and to advocate for increased investment in public transportation. Data analysis and meeting attendees revealed concern about the lack of transportation in southern Dallas County. The April 2013 outreach meeting also highlighted the importance of solutions that link areas without service to regional transit services and job opportunities.

Access North Texas Survey Summary

The Access North Texas transportation needs survey gathered information on residents' experiences and information on transportation needs in the county. Respondents were located throughout Dallas County, including DeSoto, north Dallas, Cedar Hill, southwest Dallas and northeast Dallas. Two-fifths of respondents were between 51 and 70 years old. Many respondents to the survey drive themselves when they travel, but two-thirds of respondents would consider using public transportation if it was available and met their needs for travel. A fifth of respondents had missed appointments in the last six months due to a lack of transportation. Respondents with barriers to transportation highlighted that transportation options are not available (a third of respondents) or that existing public transportation services take too long or require too many transfers and have limited service on nights and weekends. To facilitate increased use of public transportation, respondents indicated the most important factors were

access to a bus near their residence or destination, evening and weekend service and improved safety. Overall, respondents noted that more transportation options are needed for both local and regional transportation.

Strategies for Coordinated Public Transportation

The implementation strategies outlined below focus on the most important aspects of public transportation that stakeholders thought should be addressed in the next few years. A key aspect of the prioritized strategies below is to leverage work undertaken to coordinate public transportation since the 2006 Regional Public Transportation Coordination Plan was completed.

Prioritized Strategies

Strategy 1

Continue implementation of transportation service and coordination projects

Communication and Education

- Community Transportation Network (CTN) to host bimonthly meetings, encourage partnerships, distribute Get A Ride Guide, implement MY RIDE Dallas, implement their Strategic Communications Plan, continue work of Sensitivity Committee to improve driver sensitivity toward individuals with disabilities, continue identifying and documenting gaps in service
- Continue information-sharing partnership between CTN and 211 services
- Continue mobility training conducted by CTN and DART
- Launch one-click access to information (planned through a grant from the Veterans Transportation and Community Living Initiative) with DART as lead agency for the region
- Put orientation and mobility specialists into service for visually impaired individuals using DART services
- Continue growth in the ambassador program for transit system orientation at DART

Resources

- Coordinate job access projects for greater efficiency, including Goodwill Industries of Dallas, Urban League of Greater Dallas and North Central Texas and Metrocare Services
- Launch DART's retired vehicle program

Seamless Transportation Services

- Establish policies facilitating access to regional transportation services
- Pursue innovative technology that is common among area transit agencies

Strategy 2

Maintain a county coordinating committee to focus on ongoing transportation needs

Strategy 3

Work with agencies receiving transportation funding to explore ways to overcome access barriers caused by programmatic regulations or lack of coordination

Strategy 4

Obtain service for underserved areas and populations including:

- Municipalities in south and southeast Dallas County
- Job access for people with disabilities throughout Dallas County, including access to and within Mesquite
- South Dallas County including DeSoto, Duncanville, Lancaster; service needed within communities and to regional jobs and services
- Between Balch Springs and Mesquite
- Limited capacity in smaller systems including Grand Prairie and Mesquite

Strategy 5

Identify, recruit, educate and support influential champions for public transportation (elected officials, community leaders or business leaders) to promote and support public transit through leadership or policy initiatives and to advocate for increasing investment in public transit

Strategy 6

Create partnerships between transit agencies, municipalities and community organizations to increase the accessibility of bus stops and paths to bus and rail transit; municipal investment in

accessibility projects can further support cities' investment in public transportation

Strategy 7

Address priority regional connections including:

- A consistent and useful transportation link between the Veterans Affairs locations in Dallas and Fort Worth to address changes in the structure of the administration of Veterans Affairs benefits
- Public transportation connection to Arlington
- Identify additional priorities among potential regional transfer points
- Work towards safe and convenient transfer hubs to facilitate transfers between a range of regional services

Additional Strategies

- Plan for transportation options, additional assistance or more specialized transportation for those transit customers who are not ADA paratransit eligible but who may be too frail for regular public transportation service
- Work to create a positive reputation for transit while emphasizing the value and role of transit in the region
- Encourage innovative projects that improve transit affordability and put fares within reach for very low-income individuals and homeless individuals
- Continue to identify additional gaps in service and obtain service for underserved areas and populations, including identifying additional barriers to service and selecting projects that address specific barriers such as time and day of trips, safety and accessibility
- Explore options for services for individuals with special medical conditions that cannot use existing services

Additional strategies that address needs identified in the planning process will be considered between this plan and a future plan update.

Monitoring Implementation

Moving forward, stakeholders will partner to grow and maintain a coordinating committee to monitor the plan's implementation. Potential committee members include stakeholders that found continued conversations about improving public transportation valuable and those that may be able to provide resources and services in the county. Any willing and interested parties are always welcome to join the discussion and be part of the ongoing planning and implementation process. Ongoing committee meetings will serve to guide implementation and to assess whether progress has been made in implementing strategies.

Further Information

Further, more detailed information for Dallas County can be found in Appendix C-Dallas available at www.accessnorthtexas.org.

Chapter Six
Denton County

The Plan Process

Stakeholders worked together to develop strategies for the coordination of public transportation in Denton County. An existing conditions report was developed to document demographic information for populations that potentially have a greater need for public transportation. The existing conditions report also identified transit trip generators, employment clusters and commute patterns. The report summarized the transportation resources available in Denton County and identified local planning efforts that consider public transportation and that may be relevant to Access North Texas.

Beyond the data collection and analysis efforts described above, a public outreach meeting was held in April 2013 to further define the transportation needs and gaps in service in the county. A short presentation was followed by an open discussion to hear attendees' thoughts, perspectives and experiences. There were a total of 50 attendees at the public outreach meeting from a variety of organizations. Attendees included transportation providers, local government representatives, community advocates, religious organizations, social service agencies and health and human service organizations. Prior to the meeting, 483 organizations and individuals were contacted directly with meeting information. Stakeholders who could not attend the public outreach meeting were contacted for additional perspective on priorities in Denton County and an online survey solicited additional input.

Stakeholder and public outreach and data analysis informed the prioritized strategies included in this chapter. These strategies highlight the most important aspects of public transportation that stakeholders thought should be addressed in the near term future.

Public Transportation Needs, Gaps in Service and Resources

This section summarizes the transportation needs and resources identified in the county based on the existing conditions report, public outreach and stakeholder input.

Transit Access Improvement Tool

The Transit Access Improvement Tool (TAIT) was developed 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. A more detailed report on the TAIT can be found in Appendix B5.

Denton County's highest TAIT scores were in the city of Denton. Areas with high TAIT scores had populations of low-income individuals, individuals over 65 and persons with disabilities above the regional average. The population of residents over 65 was one of the most notable

indicators, with populations above the regional average in block groups with a high TAIT score. One block group in the western section of Denton covering parts of the University of North Texas had a zero car household rate that was greater than two times the regional average. Other areas of the county with a TAIT score above the regional average were located in in the northeastern section of the county, as well as around the city of Lewisville.

The scattered pockets of transportation need highlighted by the TAIT may be difficult to serve with traditional transit service. Populations most in need of service are both clustered within in cities as well as spread out in rural areas and in portions of communities throughout Denton County. With these demographic patterns, transit service coordination among providers will be very important to move customers between their homes and the services they need.

Resources

Resources located in the county include government, social, medical and transportation agencies and organizations. The main public

Denton County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

- 1 - 3
- 4 - 10
- 11 - 20
- 21 - 30
- 31 - 40
- 41 - 60
- 61 - 80
- 81 - 100
- 101 - 120
- 121 - 140
- Zero Car Scores 1-15
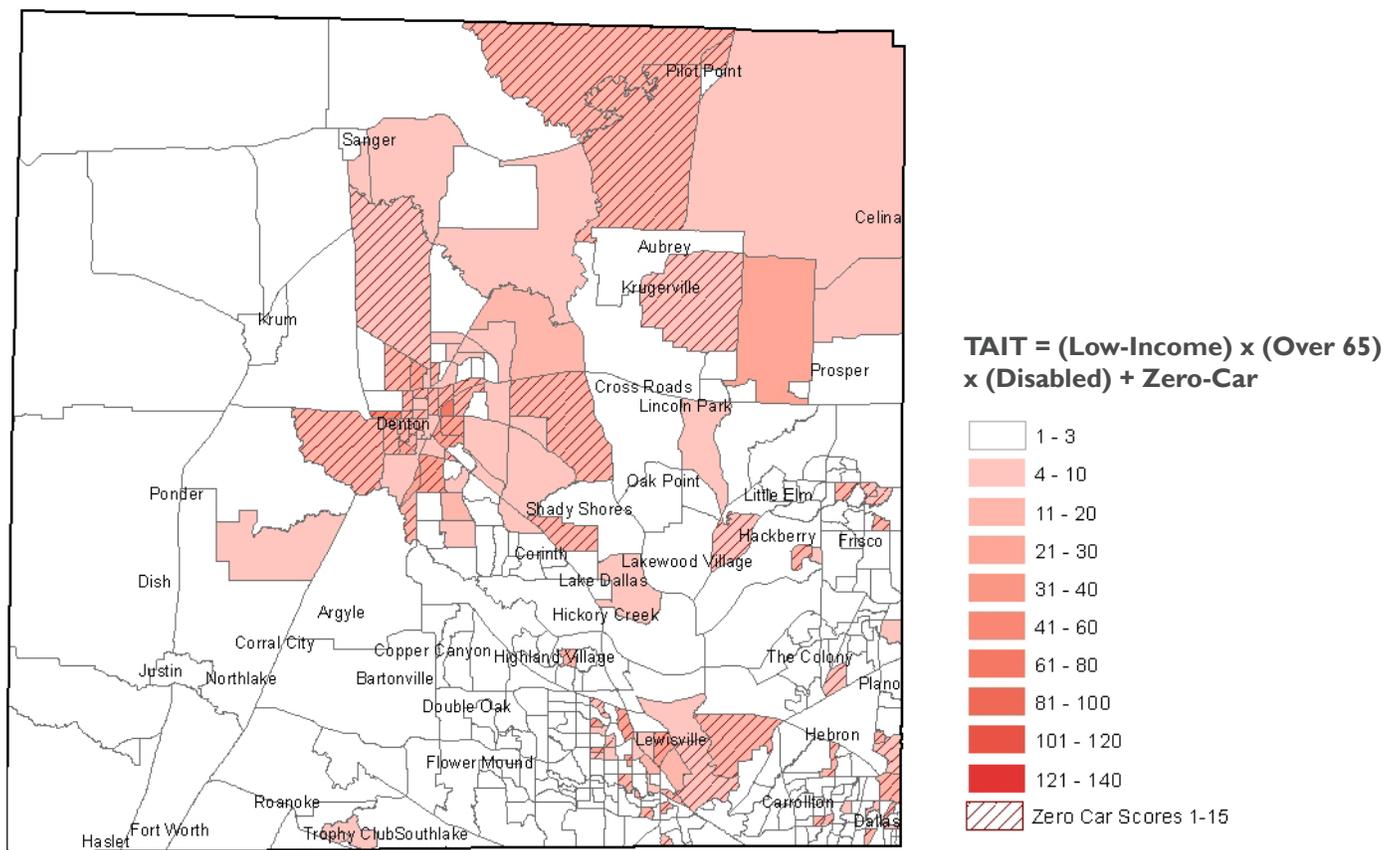
transportation provider is the Denton County Transportation Authority (DCTA). DCTA offers local bus routes with services operating in Lewisville and Denton, curb-to-curb Americans with Disabilities Act (ADA) paratransit service in Denton and Lewisville and demand-response service in Lewisville, Highland Village and Denton. Other services offered by DCTA include shuttles to North Central Texas College and the University of North Texas. Vanpools are offered through DCTA where a group of 5 to 15 individuals can commute together on a regular basis. DCTA's A-train is a 21-mile regional rail system connecting Denton and Dallas Counties. There are five A-train stations in Denton County: two in Denton and three in Lewisville. The train also interfaces with Dallas Area Rapid Transit (DART) at the Trinity Mills Station in Carrollton.

Special Programs for Aging Needs (SPAN) provides demand response public transportation service that is open to the general public in many areas of the county. They also provide transportation for

veterans to the Dallas and Fort Worth Veterans Affairs Hospitals. Other non-transportation resources available in the county that may play a key role in coordinating transportation resources are Texas Health Presbyterian Hospitals in Denton and Flower Mound, the Retired Senior Volunteer Program (RSVP) in Denton, large employers including the University of North Texas (UNT), Denton ISD, and Texas Woman's University (TWU).

Despite the variety of resources available in Denton County, there are unmet transportation needs and gaps in service in the county, including areas where individuals transitioning between services face significant barriers to travel.

Commuter Summary

In 2010, 74.6% of employed residents of Denton County were employed outside of the county. For all workers, the largest portion had a commute of 10 to 24 miles and the next largest portion traveled less than 10 miles to get to work. Commuters with local commute trips may need improvements to existing transportation services to make transit a viable choice for transportation to work. For those commuters traveling farther to access regional employment centers, transportation providers can work to establish or improve regional connections. Greater detail on the commuter characteristics of the county can be found in Appendix C-Denton.

Relevant Plans

Relevant plans were reviewed to assess whether Access North Texas implementation efforts could be coordinated and integrated with these community efforts. In 2012, DCTA completed a Long Range Service Plan that includes near-term service improvement options such as extending connections to North Central Texas College, restructuring demand response services, and investing in technology.

Since 2007, DCTA has conducted regular customer surveys to gather feedback on service delivery including amenity requests, service comments and service complaints. In 2013, respondents indicated satisfaction with DCTA's

schedule revisions that eliminated long wait times for transfers. Respondents requested improved connections with DART, improved bus and train reliability, greater affordability and improvements to bus stop and rail station accessibility and safety. Common service requests included more connections to other services, both earlier and later in the day; increased weekend, midday and night service as well as transportation that travels to Fort Worth.

The city of Denton is currently updating their comprehensive plan. The previous plan, written in 2000, has a transportation chapter with a transit goal to provide mobility and access to public transportation for the greatest number of people to the greatest number of service jobs, educational opportunities and other destinations. The city of Frisco's most recent comprehensive plan completed in 2006 recommends that a localized transit system should be considered either immediately prior to or following the establishment of a regional rail system.

Needs Identified

The public outreach meeting provided firsthand information from public transportation providers and users, citizens and other stakeholders. Needs identified in the county include regional and local transportation access, as well as needs for additional communication and education about transportation services.

In Denton County, over a quarter of the county's population is in an unincorporated or rural area, and residents in these areas need access to services located within nearby cities. A need for job access has been identified, both for residents employed in shift work beyond current public transportation service hours and to provide access to growing employment centers in the county. Access to medical care within the county is also a key issue for many residents of the county. Additionally, the need for an express service that links key destinations across Denton to improve access to health services, jobs and education was highlighted. Also, the transportation needs of a growing population of older adults in the county was highlighted as an area where new or expanded services are needed and

where further planning for future services is needed.

A need for communication and education was noted to inform the general public about transportation services available. One way to address barriers to the public's awareness of services is to cultivate new and different methods to share information such as travel training. Another discussion among attendees of the public outreach meeting concerned overcoming barriers to transportation access, which includes the need for information on transportation service in rural areas of the county and potentially a program to train staff at higher education institutions on how to use transit services. Additional planning is needed to further quantify the transportation needs of residents, including those outside of DCTA's service area, and to explore additional coordination opportunities.

Additional stakeholder discussions reiterated the need to access regional jobs and services outside of Denton County, especially for communities in the southern part of Denton County. Regional job access is a concern among commuters and unemployed individuals that need to access regional job opportunities in Dallas, Tarrant and Collin Counties. Reliable transportation schedules and connections are needed across service provider boundaries and to access regional transit services.

Access North Texas Survey Summary

The Access North Texas transportation needs survey gathered information on residents' experiences and information on transportation needs in the county. Survey respondents were from a broad age range, fairly evenly distributed between 21 and 60 years old. All survey respondents had access to a car, but a third also ride DCTA. Two-thirds of respondents indicated they were willing to use public transportation if it met their needs. Transit destinations of interest included Dallas, Denton and other cities in Denton County as well as Dallas/Fort Worth International Airport, Fort Worth and shopping destinations. Notable barriers to traveling without driving included a lack of public transportation options available for the trip, concerns

that public transportation service takes too long or requires too many transfers and limited service on nights and weekends. To make transit a viable option, respondents looked for evening and weekend service, more frequent service and access to transit services near their residence or destination. Overall, respondents noted a need for more service in Denton County and connections to the rest of the region. A more detailed report of survey responses can be found in Appendix C-Denton.

Strategies for Coordinated Public Transportation

The implementation strategies below build on the information from data analysis and public and stakeholder outreach outlined above. These strategies focus on the most important aspects of public transportation that stakeholders thought should be addressed in the next few years.

Prioritized Strategies

Strategy 1
Conduct additional planning activities to further quantify transportation needs of residents outside of the DCTA service area and define additional coordination opportunities for existing providers throughout the county

Strategy 2
Establish and maintain a county coordinating committee to focus on ongoing transportation needs

Strategy 3
Enhance connections among existing services to improve access within the county

Strategy 4
Establish or improve service to regional destinations, including employment centers and medical services in Dallas, Tarrant and Collin Counties

Strategy 5
Provide additional service in unserved areas and to underserved locations

Strategy 6
Improve awareness of services by providing

education and information, including travel training

Additional Strategies

- Create partnerships between transit agencies, municipalities and community organizations to increase the accessibility of bus stops and paths to transit

- Expand the availability and affordability of for-hire transportation (private transportation providers such as taxis) to increase options for travel

Additional strategies that address needs identified in the planning process will be considered between this plan and a future plan update.

Monitoring Implementation

Moving forward with implementation in Denton County, stakeholders including transportation providers such as DCTA and SPAN will work with local and regional agencies to implement these strategies and monitor their implementation. Any willing and interested parties are always welcome to join the discussion and be part of the ongoing planning and implementation process.

Further Information

More detailed information for Denton County can be found in Appendix C-Denton available at www.accessnorthtexas.org.

Chapter Seven
Ellis County

The Plan Process

In Ellis County, prioritized strategies for addressing transportation needs and gaps in service were developed through an in-depth transportation needs assessment and planning study. This included an assessment of demographic and employment data and a travel pattern analysis. It also described existing transit services in the county including information about the main transportation provider, Community Transit Service (CTS). In addition to demographic, travel and service data, the project included a public meeting and a survey to gather additional information on the needs and concerns of residents. This information was supplemented with stakeholder interviews. Government officials and staff, social service agency staff and transportation providers were contacted to discuss public transportation needs over the next few years.

A public outreach meeting was held in Ellis County to gather experiences and information on public transportation from residents and transit riders. The meeting was held in March 2013 in Waxahachie. Approximately 180 mailed invitations and additional notice in online message boards, community calendars and local news reports drew approximately 40 people to the meeting. During the public meeting a brief overview of the planning study process was followed by questions and comments from attendees offering their perspective on transit needs and opportunities.

The survey developed for Ellis County was intended to gain a more thorough understanding of the existing needs and challenges facing residents and stakeholders. Two versions of the survey sought feedback from county residents. One survey was hosted online and was focused on the general public. This survey was publicized through news outlets and online message boards. The other was distributed to local transit riders and to many individuals affiliated with human service agencies in the county. Both surveys were available in English and in Spanish. The survey results enabled additional perspective on the data gathered through meetings, interviews and demographic analysis.

Together, demographic and travel analysis, public outreach, stakeholder interviews and survey responses led to the strategies for Ellis County outlined in this chapter.

Public Transportation Opportunities, Gaps in Service and Resources

This section summarizes needs and resources identified in the county.

Demographic Highlights

Demographic data in Ellis County was used to identify populations that may have high potential need for public transportation. Forty percent of seniors 65 years and older report having a disability in Ellis County, indicating that this population group may need additional accommodation to use transit services. Some areas of the county have proportionally more seniors, such as Milford and Italy in the southern portion of the county, where seniors accounted for around 16% of the population. Another population group that potentially needs transportation options is youth younger than 18 years old. In Ellis County, 28.5% of the total population is under the age of 18; in the northeastern corner of the county, one area's youth population accounted for as much as 36% of the population.

Many of Ellis County's residents live and work within the county. Employment clusters are

located in the northern and central sections of Waxahachie and in Ennis. Through 2020, job growth is expected to occur throughout the county, including notable growth in the city of Venus. Options for transportation to work within Ellis County are very limited. Most workers must drive themselves or get rides from others to access jobs in the county.

Additional demographic detail is available in the Ellis County existing conditions report available online at www.accessellis.org.

Transit Access Improvement Tool

The Transit Access Improvement Tool (TAIT) was developed 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. A more detailed report on the TAIT can be found in Appendix B5.

Ellis County had moderate TAIT scores throughout the county, with high scores located in Ennis, Waxahachie, Milford and Midlothian. An area in southern Ennis had a high score based on the low-income population, over 65 population and population of zero car households that were each greater than two times the regional average. One area of Waxahachie had a high score based on a low-income population and population of zero car households that were both greater than two times the regional average. This area also had an over 65 population that was nearly twice the regional average. In

Ellis County TAIT
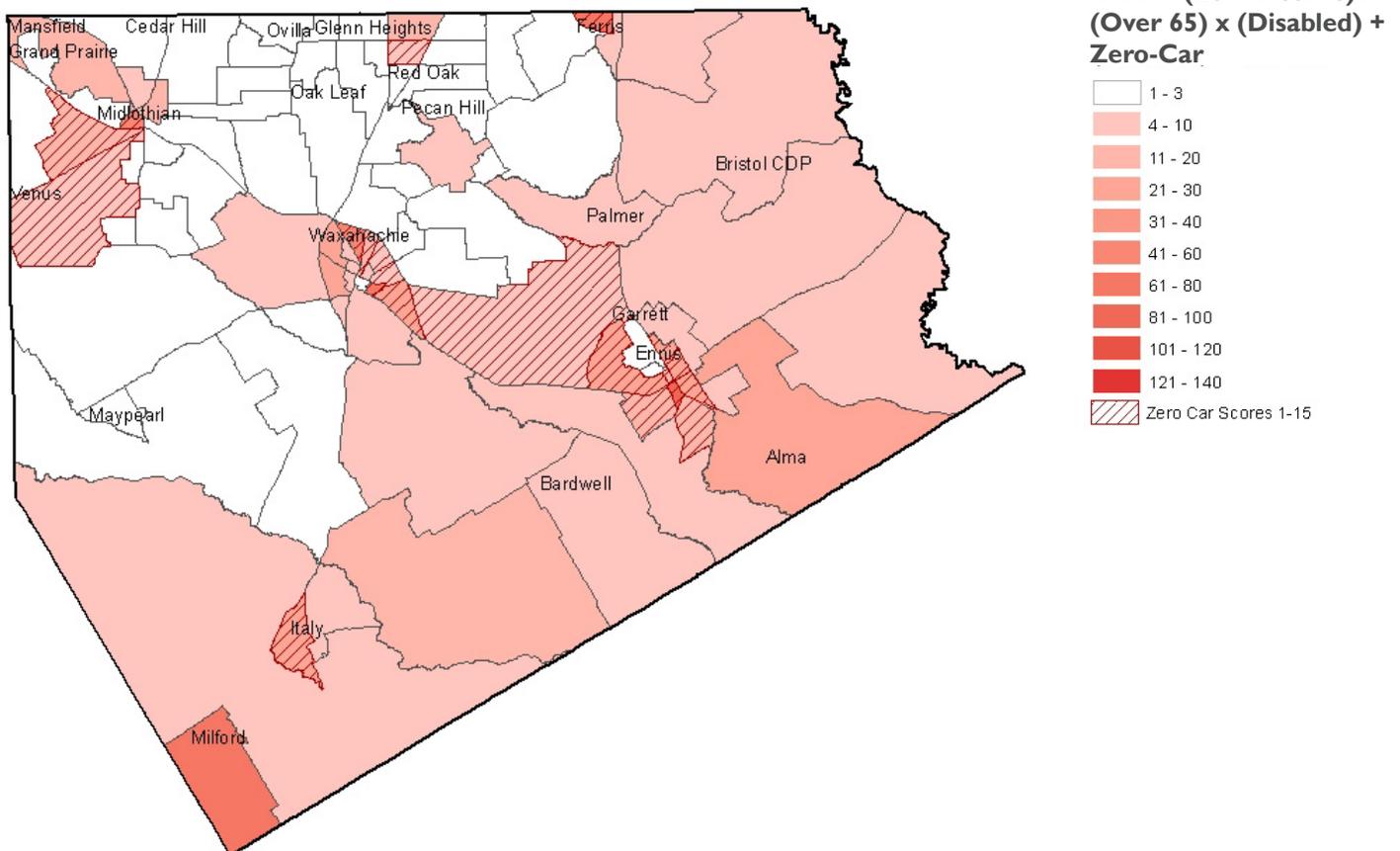
TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

- 1 - 3
- 4 - 10
- 11 - 20
- 21 - 30
- 31 - 40
- 41 - 60
- 61 - 80
- 81 - 100
- 101 - 120
- 121 - 140
- Zero Car Scores 1-15

Milford on the southern border of the county, a high TAIT score was based on significant populations of low-income individuals and individuals over 65. However, the population of zero car households in this area was not above the regional average. In central Midlothian, the TAIT score was higher than the rest of the community due to populations of older adults and zero car households that were greater than two times the regional average.

Resources

Community Transit Service (CTS) is the primary public transportation provider and operates demand response service in Ellis County from 5:00 am to 5:30 pm on weekdays. Seniors and low-income residents make up the majority of the ridership, but the service is available for anyone who needs transportation within the area. STAR Transit provides some transportation in Ellis County including Medicaid transportation and contracted service for seniors. Vanpool service for commuters traveling to regional employment destinations is available through Dallas Area Rapid Transit (DART) and the Fort Worth Transportation Authority (The T). There are twenty-three vanpools originating from Ellis County through these two programs. The closest fixed-route transit service to Ellis County is an express bus operated by DART that links the Glenn Heights park and ride, just across the county line, with downtown Dallas.

Relevant Plans and Projects

Relevant plans were reviewed to assess how this plan could be coordinated and integrated with community efforts. Red Oak, Midlothian and Waxahachie are included in longer-term plans for rail service outlined in the North Central Texas Council of Governments' Mobility 2035 plan. The city of Red Oak completed an update of its comprehensive plan in 2010, with a section focusing on transit opportunities in the city. Bus service is discussed in the plan in terms of options to provide service to residents who do not own cars or can no longer drive. Waxahachie's comprehensive plan was updated in 2007 and recommends assessing the feasibility of complementing a regional transit system with a potential internal transit system. This inter-

nal transit system would be a local system that serves the city and connects to proposed rail stations.

Commuter Summary

A travel analysis identified significant commute and other travel patterns for Ellis County. Based on the analysis, around 36% of work trips generated in Ellis County as a whole remained within the county, 8% traveled to northwest Dallas, 7% of work trips traveled to the Duncanville/DeSoto/Cedar Hill area, and 6% traveled to northeast Dallas. In Waxahachie, 32% of work trips generated in the city remain within the city, with other destinations similar to overall pattern for Ellis County but with 5% of Waxahachie workers traveling to Ennis. Midlothian's commute patterns differ significantly from Ellis County and Waxahachie. In Midlothian, about 13% of work trips are absorbed internally, Duncanville/DeSoto/Cedar Hill attracts 11% of work trips, Waxahachie attracts 9%, northwest Dallas attracts 7%, southwest Dallas attracts 6% and downtown Dallas attracts 5%. Commuters to southern Dallas County and within Ellis County lack meaningful public transit options. For those traveling to Dallas, an important link to the regional transit system is a park and ride and express commuter bus offered by Dallas Area Rapid Transit (DART) in Glenn Heights, just over the border with Dallas County.

Stakeholder Interviews

The primary issues identified most often by stakeholders included the following: a need for out-of-county public transportation service, lack of awareness of Community Transit Service (CTS), limited transportation options for transit dependent populations; a need for other transportation options, such as vanpooling and taxi service; and the need to incorporate transportation with new planned developments.

Key transit-specific needs included service for transit-dependent populations and improvements to existing transportation services, including additional service hours and fare assistance. Many stakeholders discussed the need for regional connections to Dallas. Stakeholders were in agreement that there is a need

to improve awareness of Community Transit Service's transportation options because a perception exists that service is only for seniors and people with disabilities. Language-specific marketing may be needed to reach individuals who have limited English proficiency. In addition to traveling outside the county, many stakeholders recognized the need to introduce services within the county to better connect local communities.

Stakeholders also discussed the potential for building support for transit. A notable discussion was the need for political support, with officials in some fast-growing municipalities not as concerned with public transportation. Discussions also included the topic of funding, where stakeholders noted that additional funding would be necessary to expand transit services. Stakeholders supported the concept that transit providers form partnerships with businesses to transport people to work as one way to fund additional services.

Stakeholders also identified focus areas for strategies. A long term interest of stakeholders was to bring Dallas Area Rapid Transit (DART) to Ellis County. In addition, stakeholders were interested in expanding current services and introducing new services, such as vanpooling to regional job centers. Other stakeholders were interested in evaluating different ways to provide public transportation services through partnerships with taxis or private providers. Many agreed that improving marketing efforts and awareness of existing services would benefit those who need transportation most.

Public Outreach Meeting

Comments and discussion during the outreach meeting were focused on creating a reliable transportation system that would allow people to travel locally and regionally, especially for work, education and job training. Participants were interested in park and ride options, vanpools and commuter shuttles to transit stations that would provide access to Dallas. Attendees also discussed the importance of transportation to access medical care, with one attendee noting that veterans need better access to Veterans Affairs services in Dallas. Overall, attendees

indicated that the greatest transit needs were for people commuting to work, transportation for seniors, and transit options for low-income households.

Survey Findings

Findings from the surveys provided additional information on the needs and challenges of public transportation in Ellis County. The data demonstrates that a majority of survey respondents drive themselves to destinations. For those that have used public transportation, services used include Community Transit Service (CTS) and DART rail and bus services. Those with transportation challenges note concerns about limited access to Waxahachie and Dallas, which are the two most cited places that cannot be reached due to a lack of transportation. Individuals with transportation challenges experienced limitations on their trips to medical facilities and shopping facilities.

Among those with transportation challenges, factors that would encourage the use of public transportation include transit service at a bus stop near their house or destination, transit service on evenings and weekends, better daytime transit availability and if they felt safe using public transportation. Among the general public, more would use public transportation if the bus stop had amenities, if traffic congestion worsens, and if gas prices rise. Survey respondents found a mix of services most appealing when considering new public transportation service options. These include local bus services and shuttle/express service to DART. On the whole respondents indicated that transit service is very important to their community.

Strategies for Coordinated Public Transportation

Using demographic and travel analysis and a review of existing services combined with public and stakeholder outreach, strategies that could address gaps in service were developed.

Prioritized Strategies

Strategy 1

Improve public awareness of existing and new

public transportation services, including raising awareness that services are not limited to older adults and individuals with disabilities

Strategy 2

Improve transportation options to access jobs within Ellis County, including employment locations in Waxahachie and Ennis

Strategy 3

Enhance existing transportation service, expand service hours or introduce new service within the county to better connect local communities

Strategy 4

Expand or introduce new transportation options that enable regional connections to Dallas for employment and medical services

Strategy 5

Explore local service to connect key destinations in Waxahachie, including uptown, downtown, the new Baylor Hospital (opening in 2014) and Navarro College

Additional Strategies

- Create language-specific marketing to reach individuals who have limited English proficiency
- Expand service availability for youth under age 18
- Explore partnerships to increase the affordability of fares for those most in need
- Evaluate different ways to provide public transportation services through partnerships with public and private transportation operators
- Provide transportation to Veterans Affairs services in Dallas

Additional strategies that address needs identified in the planning process will be considered between this plan and a future plan update.

Fifteen transportation service alternatives that provide methods to implement these strategies are outlined below. Some alternatives are appropriate for all of Ellis County's community types. Others are only feasible under certain conditions that may not be present in every community type or at the countywide level.

The alternatives are listed below and additional descriptive information for each alternative is included in Appendix C-Ellis, including the type of need it addresses, the potential market and typical service parameters.

- Volunteer Driver Program
- Mobility Management/Coordination
- Cost Sharing Opportunities
- Promoting Public Awareness of Transportation Options
- Subsidized Taxi Program
- Carpool
- Vanpool
- ADA Paratransit/Eligibility-Based Dial-A-Ride
- General Public Dial-A-Ride
- Community Shuttle
- Express Bus/Park & Ride Service
- Limited Bus Stop Service
- Point Deviation Service
- Route Deviation Service
- Local Fixed-Route Bus Service

All of the different types of transportation services above could be feasible in Ellis County in the near term. To target appropriate services to the communities where they are likely to have the greatest impact or be most effective, these services were evaluated. The evaluation was based, in part, on relationships between community types and transit service design. For transit to be most effective, individual services must be designed to match market demand and operating environments. Four geographic groupings/designations were identified for evaluating alternatives appropriate for implementation in Ellis County. The geographic groupings are as follows:

Countywide This classification applies to the entirety of Ellis County and includes all communities and unincorporated areas.

Rural Communities This group includes Ellis County cities that are neither in the Dallas-Fort Worth-Arlington Urbanized Area nor in the immediate area of the small cities of Waxahachie,

Midlothian and Ennis. (Bardwell, Maypearl, Pecan Hill, Alma, Garrett, Italy, Milford, Oak Leaf, Palmer and Venus)

Suburban/Bedroom Communities This group includes Ellis County cities that are part of the Dallas-Fort Worth-Arlington Urbanized Area but are primarily residential in nature with no significant employment base. (Cedar Hill, Ferris, Glenn Heights, Ovilla and Red Oak)

Small Cities This group includes the three largest cities in Ellis County, each of which has an employment base separate from the Dallas-Fort Worth-Arlington Urbanized Area. The population of Waxahachie is approximately 30,000, and of Midlothian and Ennis about 18,000 each.

The table on page 7.6 shows the compatibility of each service alternative with regard to the classifications above. A white circle indicates that the service alternative is least compatible/appropriate with a classification; a black circle shows it is most compatible/appropriate. A circle that is both black and white means that a service alternative may not be ideal for a type of community (or at the countywide level), but could be successful under certain circumstances.

Monitoring Implementation

Following the completion of the transit needs assessment and planning study for Ellis County, transportation providers and local stakeholders will collaborate to determine next steps and to potentially implement selected strategies.

Further Information

Appendix C-Ellis provides summary information about the menu of transit alternatives. The transit needs assessment and planning study also included funding estimates and general implementation plans for selected strategies, which are beyond the scope of this Access North Texas plan. More detail and final reports from the study will be available online at www.accessellis.org.

Transportation Service Alternatives Compatibility for Ellis County

Service Alternative	Rural Communities	Suburban/ Bedroom Communities	Small Cities	Countywide
Volunteer Driver Program	◐	◐	◐	○
Mobility Management/Coordination	○	○	◐	◐
Cost Sharing Opportunities	○	◐	◐	○
Promoting Public Awareness of Transportation Options	●	●	●	●
Subsidized Taxi Program	○	○	◐	○
Carpool	●	●	●	○
Vanpool	◐	●	●	○
ADA Paratransit/ Eligibility-Based Dial-A-Ride	○	◐	◐	◐
General Public Dial-A-Ride	◐	◐	●	●
Community Shuttle	◐	◐	◐	○
Express Bus/Park & Ride Service	○	◐	◐	○
Limited Bus Stop Service	◐	◐	◐	○
Point Deviation Service	○	◐	◐	○
Route Deviation Service	○	◐	●	○
Local Fixed-Route Bus Service	○	○	◐	○

○ Least compatible/appropriate   ◐ Could be successful under certain circumstances   ● Most compatible/appropriate

Chapter Eight
Erath County

The Plan Process

Stakeholders worked together to develop strategies for the coordination of public transportation in Erath County. An existing conditions report was developed to document demographic information for populations that potentially have a greater need for public transportation. The existing conditions report also identified transit trip generators, employment clusters and commute patterns. The report summarized the transportation resources available in Erath County and identified local planning efforts that consider public transportation and that may be relevant to Access North Texas. In addition, a point person committee made up of stakeholders from Erath County identified public transportation challenges in the county. Agencies and individuals invited to participate included social service agencies, health and human service agencies, public transportation providers, community advocates and residents of the county.

Beyond the data collection and analysis efforts described above, a public outreach meeting was held in June 2012 to further define the transportation needs and gaps in service in the county. A short presentation was followed by an open discussion to hear attendees' thoughts, perspectives and experiences. There were 25 attendees at the public outreach meeting from a variety of organizations. Attendees included transportation providers, local government representatives, educational institutions, medical providers, social service agencies and health and human service organizations. Prior to the meeting, 76 organizations and individuals were contacted directly with meeting information. Additional outreach via phone conversations was conducted for stakeholders that could not attend the outreach meeting, including repre-

sentatives from the Texas Department of Assistive and Rehabilitative Services in Erath County, the Greater Erath County Special Education Shared Service Arrangement and a Stephenville City Council member.

Stakeholder and public outreach and data analysis informed the prioritized strategies included in this chapter. These strategies highlight the most important aspects of public transportation that stakeholders thought should be addressed in the near term future.

Public Transportation Needs, Gaps in Service and Resources

This section summarizes the transportation needs and resources identified in the county based on the existing conditions report, public outreach and stakeholder input.

Transit Access Improvement Tool

The Transit Access Improvement Tool (TAIT) was developed 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. A more detailed report on the TAIT can be found in Appendix B5.

Throughout Erath County, there are low to moderate TAIT scores, with the highest TAIT score located in the city of Stephenville. The few areas in Stephenville that had high TAIT scores included populations of low-income individuals, persons over 65 and persons with disabilities that were above the regional average. Areas that had higher concentrations of households with zero cars overlapped with high TAIT scores in Stephenville, as well as one moderate TAIT score in Dublin. In the area northwest of Stephenville that had a low TAIT score, there was an over 65 population above the regional average, but no other variables in the area were above the regional average.

With low to moderate TAIT scores throughout the county, the data reveals that some level of transportation service to meet the needs of transportation disadvantaged individuals is likely needed throughout the county. The rural areas have dispersed populations that need transportation, though they may be more difficult to serve. Factors that may indicate transportation needs are present appear concentrated in the cities of Stephenville and Dublin.

Resources

Resources located in the county include government, social, medical and transportation agencies and organizations. Many of these resources assist county residents in daily activities in addition to advocating for a particular cause. The main public transportation provider, City And Rural Rides (CARR), serves the general public and provides shared-ride service in which passengers ride along while others are picked up and dropped off. CARR's vehicles can accommodate mobility devices. Other transportation and non-transportation resources available in the county that may play a role in coordinat-

Erath County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

	1 - 3
	4 - 10
	11 - 20
	21 - 30
	31 - 40
	41 - 60
	61 - 80
	81 - 100
	101 - 120
	121 - 140
	Zero Car Scores 1-15
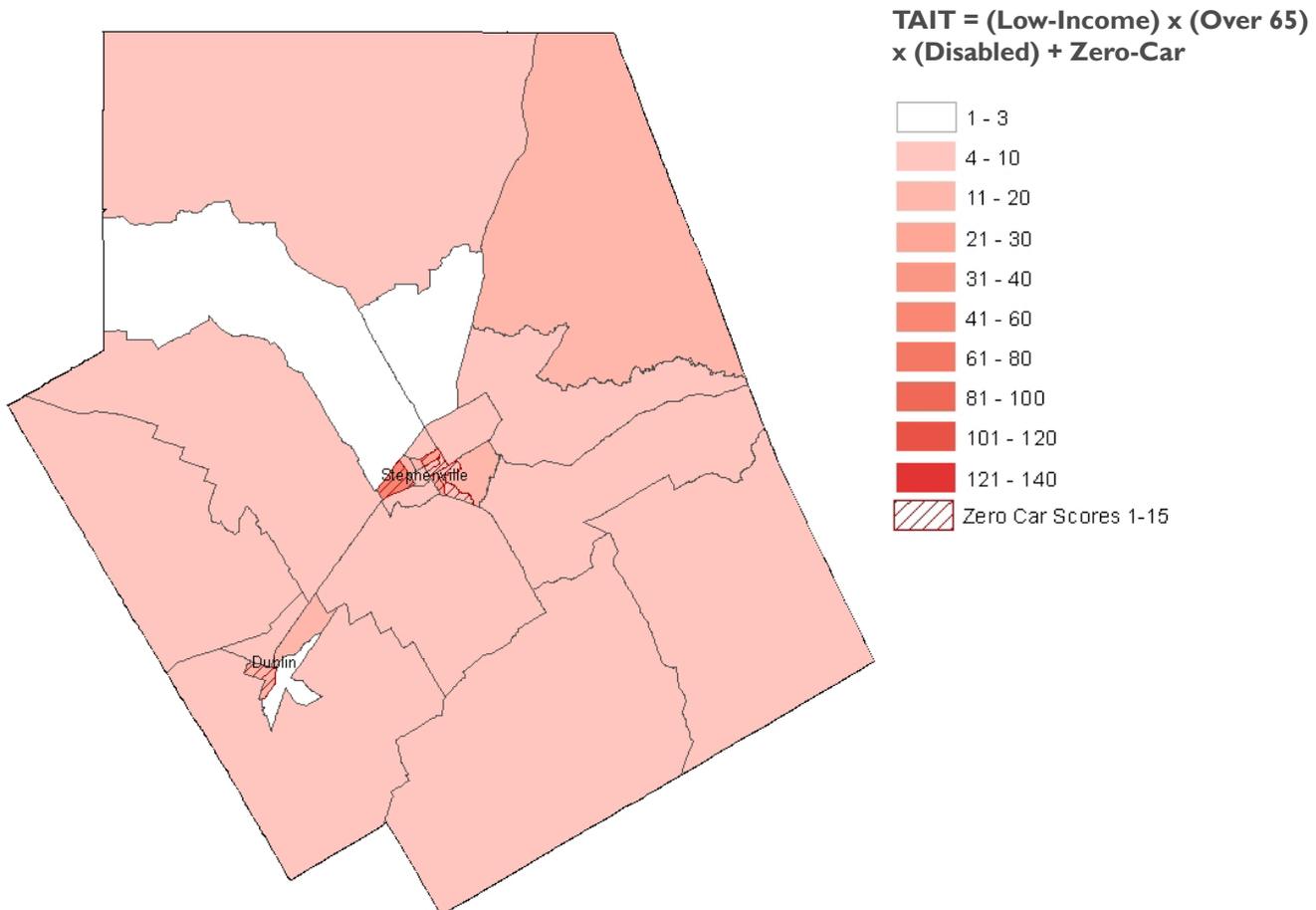
ing transportation resources are Tarleton State University, Erath County Senior Citizens, Inc. and volunteer veterans transportation services. Large employers include Walmart, Saint Gobain Abrasives and Schreiber Foods. Additional resources include Texas Health-Stephenville, a strong faith community, the North Central Texas Council of Governments and the Texas Department of Transportation.

Commuter Summary

In 2010, 49.4% of employed residents in Erath County worked outside of the county. For all workers, the largest portion had a commute of less than 10 miles. The proportion of employed residents working in the county and the short commute distances indicate a need for in-county options for transportation to work. In addition, almost one-third of the jobs in Erath County are low-income jobs, many of which have non-traditional shift times. Employees may need transportation assistance to get and keep employment. Greater detail on the commuter characteristics of the county can be found in Appendix C-Erath.

Relevant Plans

Relevant plans were reviewed to assess whether Access North Texas implementation efforts could be coordinated and integrated with community efforts. The results of the Access North Texas plan align well with the city of Stephenville's most recent comprehensive plan, completed in 2005. That comprehensive plan noted a need to continually work with transportation providers to improve public transportation.

Needs Identified

The public outreach meeting provided firsthand information about transportation needs from public transportation providers and users, citizens and other stakeholders. Needs identified in the county focused on improving existing transportation options.

Many individuals throughout Erath County have a need for public transportation, including almost one in five residents living in poverty who may need additional transportation assistance to access services. In addition, more than

one in four people have disabilities in Stephenville, Dublin and some rural areas. Both of these populations may have significant transportation barriers to address.

A discussion during the outreach meeting involved CARR's extensive service area of eleven counties, which can lead to long wait times for local service. Stakeholders also affirmed that many residents need service after hours and on weekends. Low-income workers need local transportation options to access jobs in Dublin and Stephenville. Needs include extended service hours and improved wait and ride times on existing services, which may currently be prohibitive for recurring work trips.

Other concerns raised during the public outreach meeting were the inability of residents to access medical appointments in Fort Worth and Dallas on days CARR does not travel there. Additional transportation options are also needed for job seekers as they travel to job interviews outside Erath County and for students accessing education opportunities in the region. Identified regional access needs include transportation access to regional job centers, dialysis trips to Weatherford and Granbury and a link between Stephenville and southwest and central Fort Worth.

The need for improved awareness of CARR services was also identified and included the importance of providing information about services to a significant limited English proficiency population in rural areas.

Access North Texas Survey Summary

The Access North Texas transportation needs survey gathered information on residents' experiences and information on transportation needs in the county. Forty percent of the survey respondents live in a household with a combined income of less than $1,250 a month. In addition, 35% of respondents did not have access to a car but 90% of respondents indicated a willingness to use public transportation. Respondents reported a need to travel without driving to shopping, medical, social events, out of town and church. The survey revealed the potential for additional services to meet local

and inter-community transportation needs. A more detailed report of survey responses for the county can be found in Appendix C-Erath.

Strategies for Coordinated Public Transportation

Building on the information from data analysis and public and stakeholder outreach outlined above, the implementation strategies below focus on the most important aspects of public transportation that stakeholders thought should be addressed in the next few years.

Prioritized Strategies

Strategy 1

Improve availability of connections from Stephenville and Dublin to regional destinations including medical services, job access and education

Strategy 2

Create and maintain a county coordinating committee to focus on ongoing transportation needs

Strategy 3

Decrease waiting times for public transportation from its current two-hour time window

Strategy 4

Expand service operating hours beyond 8:00 am to 5:00 pm to address community and job access needs within Erath County

Additional Strategies

- Develop a driver recruitment and retention program to address difficulties CARR faces in hiring and retaining drivers in Erath County
- Improve awareness of existing public transit services and expand opportunities for partnerships to grow transit service

Additional strategies that address needs identified in the planning process will be considered between this plan and a future plan update.

Monitoring Implementation

Moving forward with the plan in Erath County, stakeholders will work together to monitor the plan's implementation. Potential stakeholders

were identified that found continued conversations about improving public transportation valuable and those that may be able to provide resources and services in the county. Any willing and interested parties are always welcome to join the discussion and be part of the ongoing planning and implementation process.

Further Information

More detailed information for Erath County can be found in Appendix C-Erath available at www.accessnorthtexas.org.

Hood County & Somervell County

The Plan Process

Stakeholders worked together to develop strategies for the coordination of public transportation in Hood County and Somervell County. An existing conditions report was prepared to document demographic information for populations that potentially have a greater need for public transportation. The existing conditions report also identified transit trip generators, employment clusters and commute patterns. The report summarized the transportation resources available in Hood County and Somervell County and identified local planning efforts that consider public transportation and that may be relevant to Access North Texas.

Beyond the data collection and analysis efforts described above, a variety of sources were used as input in the development of strategies to address transportation needs and gaps in service in Hood County and Somervell County. Stakeholders were identified to serve on a point person committee. Agencies and individuals that were invited to participate included social service agencies, health and human service agencies, public transportation providers, community advocates and residents. The point person committee provided their input to describe the most significant transportation challenges in the area.

A public outreach meeting was held in June 2012 to further define the transportation needs and gaps in service in these counties. A short presentation was followed by an open discussion to hear attendees' thoughts, perspectives and experiences. There were a total of 22 attendees at the public outreach meeting, from a variety of organizations. Attendees included transportation providers, local government representatives, community advocates, medical service agencies, social service agencies and health and human service organizations. Prior to the meeting, 110 organizations and individuals were contacted directly with meeting information. To supplement community concerns heard at the meeting, stakeholders that could not attend the public meeting were contacted to gather additional perspective on the needs in Hood County and Somervell County, and an online survey solicited additional input.

Stakeholder and public outreach and data analysis informed the prioritized strategies included in this chapter. These strategies highlight the most important aspects of public transportation that stakeholders thought should be addressed in the near term future.

Public Transportation Needs, Gaps in Service and Resources

This section summarizes the transportation needs and resources identified in the counties based on the existing conditions report, public outreach and stakeholder input.

Transit Access Improvement Tool

The Transit Access Improvement Tool (TAIT) was developed 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. A more detailed report on the TAIT can be found in Appendix B5.

In Hood County the highest TAIT scores were in the southern section of Oak Trail Shores, but moderate TAIT scores are present throughout most of the county. In the Oak Trail Shores area, a high concentration of low-income individuals contributed to the high TAIT score and could indicate additional needs for public transportation options in that area. Areas of the county with larger populations of zero car households did not necessarily have high TAIT scores, which may indicate that transportation needs are concentrated with a subset of the population, such as older adults who no longer drive. Overall, significant populations of low-income individuals, individuals over 65 and persons with disabilities were present in almost every block group in Hood County.

In Somervell County, a smaller total population limits the ability of the TAIT to display fine-grained data. The highest TAIT score in the county was in the southern section of Glen Rose,

Hood County TAIT
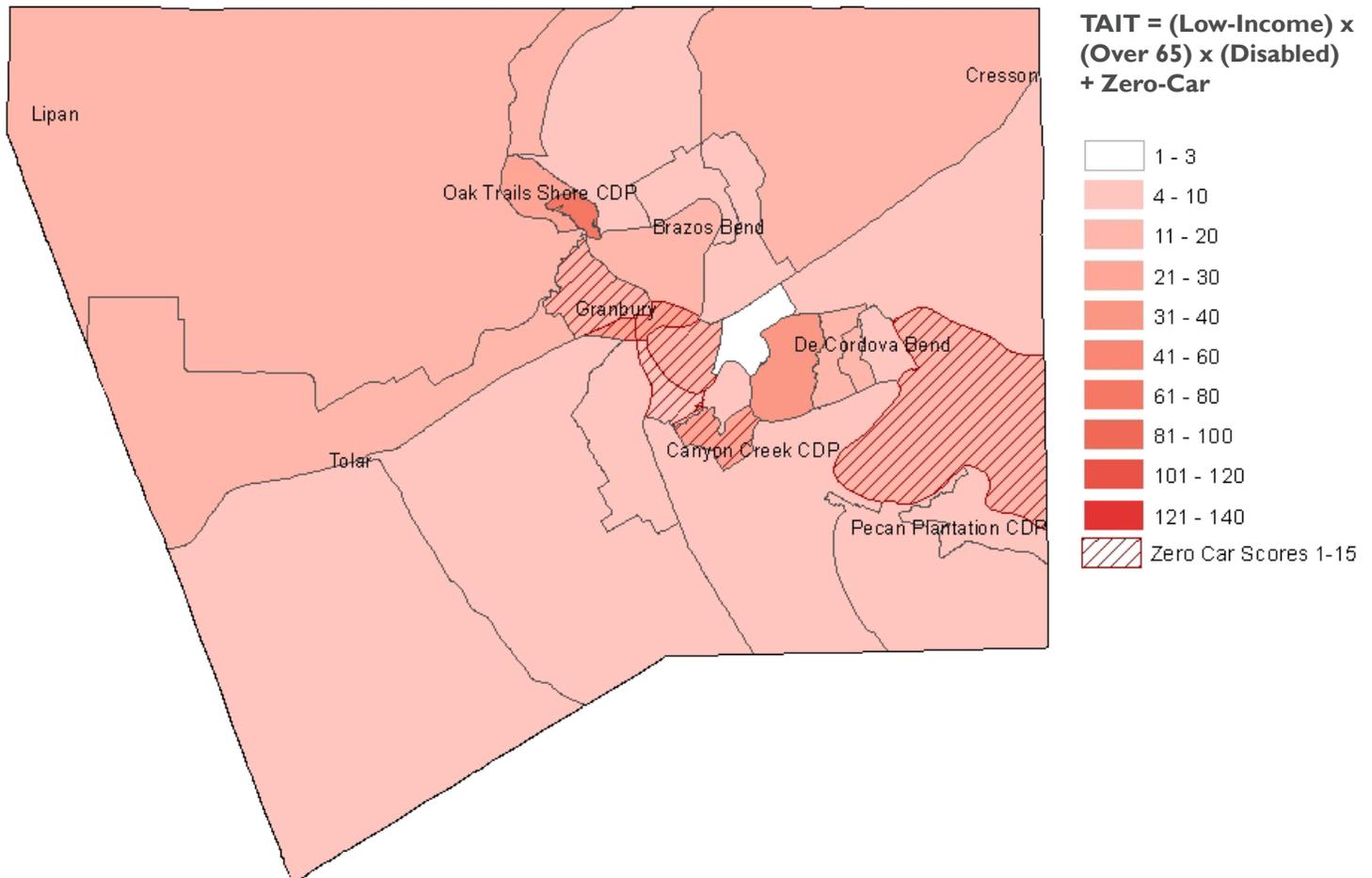
TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

☐	1 - 3
	4 - 10
	11 - 20
	21 - 30
	31 - 40
	41 - 60
	61 - 80
	81 - 100
	101 - 120
	121 - 140
▨	Zero Car Scores 1-15

where the low-income population and population of individuals over 65 contributed to a higher score. The population of households with zero cars was also notable in this section of Glen Rose. Those factors combined may indicate that the greatest need for transportation is clustered in that area of the county. For the county as a whole, the population of older adults was higher than the regional average and specialized transportation for an older population may be appropriate.

Somervell County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

	1 - 3
	4 - 10
	11 - 20
	21 - 30
	31 - 40
	41 - 60
	61 - 80
	81 - 100
	101 - 120
	121 - 140
	Zero Car Scores 1-15
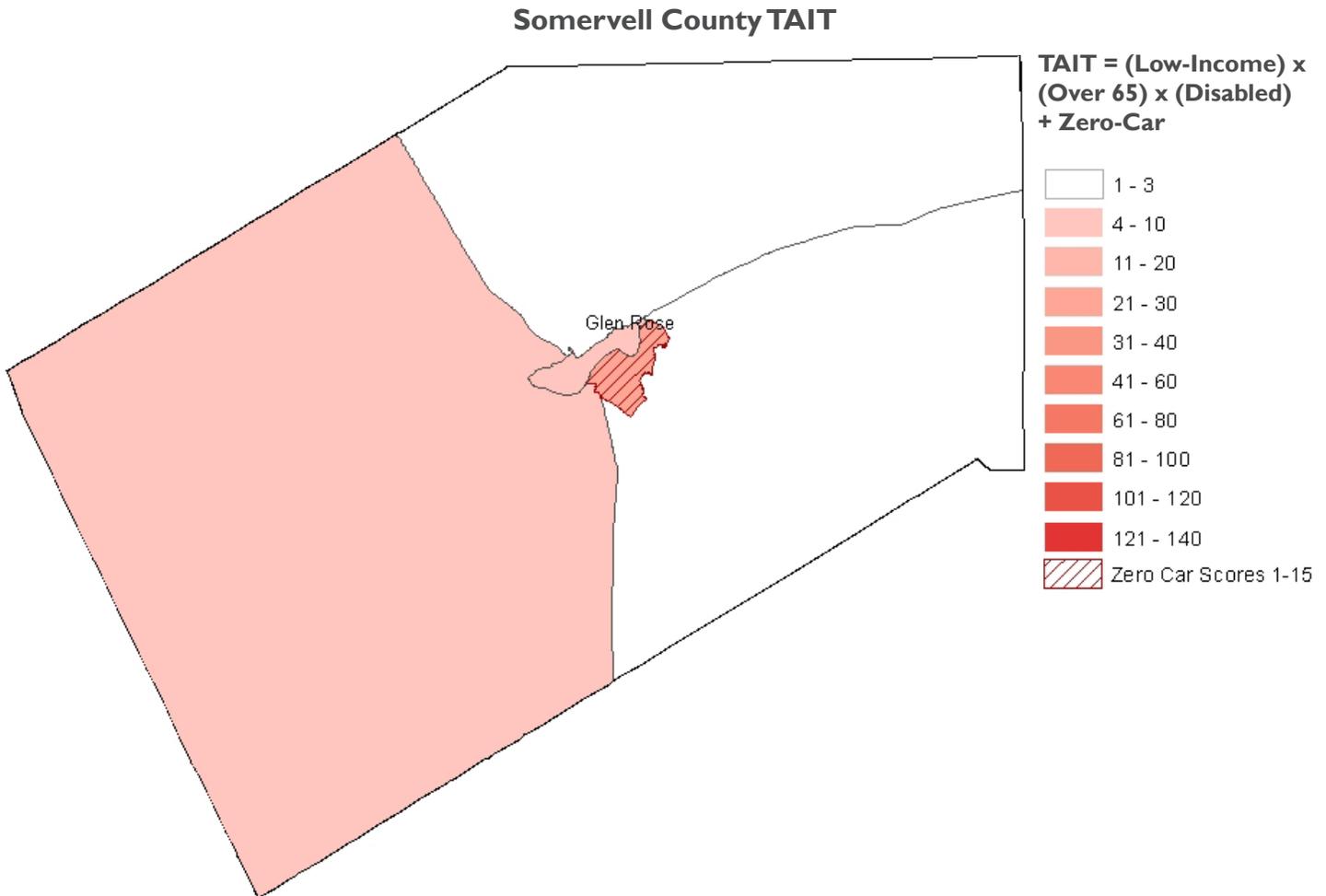
Resources

Resources located in Hood County and Somervell County include government, social, medical and transportation agencies and organizations. The main public transportation provider is The Transit System, Inc., which serves the general public and provides additional specialized services to riders. Other resources available in the county that may play a key role in coordinating and partnering to address transportation needs are the Hood County and Somervell County Committees on Aging, large employers, the Granbury Housing Authority, Glen Rose Medical Center and Hood County Veterans Services. Other resources include the North Central Texas Council of Governments and the Texas Department of Transportation. Because of the smaller geography and smaller populations of Hood County and Somervell County, creative solutions to transportation challenges will likely require the participation of a variety of community partners, including some that may not have been involved in transportation in the past.

Commuter Summary

Seventy percent of both Hood County's and Somervell County's workers commute outside their home county for work, mostly to the northeast in the direction of Fort Worth and points between. Over 30% of the workforce in each county travels more than 50 miles to get to work. Together, these two factors indicate that

there may be a need for transportation options for commuters accessing regional job centers. In Somervell County, 33% of workers travel less than ten miles to work and transportation options to access local jobs may also be needed. Greater detail on the commuter characteristics of the county can be found in Appendix C-Hood and Appendix C-Somervell.

Relevant Plans

Relevant plans were reviewed to assess whether Access North Texas implementation efforts could be coordinated and integrated with these community efforts. The city of Granbury updated its comprehensive plan in 2008. The plan describes the lack of local bus or passenger train service in Granbury and indicates that the city should monitor the need for different types of public transit service in the future.

Needs Identified

The public outreach meeting was a vital part of the planning process, as it provided firsthand information from public transportation providers and users, citizens, and other stakeholders. Needs identified in both counties focused on improved transportation options.

Populations that may need improved transportation options are present throughout Hood County and Somervell County. In Hood County, older adults account for just over 20% of the total population. The needs in Somervell County may be dispersed throughout the county as almost 70% of the population lives outside the incorporated area of the city of Glen Rose. Older adults and residents of rural areas often face significant barriers to transportation access and may need additional transportation options.

Attendees at the meeting identified local access needs for both counties. The needs highlighted included additional service that would operate beyond typical business hours to provide an option for workers whose shifts end after 6:00 pm and for workers to access jobs on the weekend. Attendees noted that low-income individuals and individuals with disabilities lack sufficient transportation options to jobs and community services.

The discussion also identified the need for transportation to access regional destinations. Specific needs included trips to Fort Worth for jobs, access to regional education opportunities and service to medical facilities in Fort Worth, Weatherford and Stephenville. Attendees affirmed that many residents of Hood and Somervell Counties need to access neighboring counties for medical, social and employment services and that current options to do so are limited.

Additional transportation challenges identified during the meeting included limited funding, lack of awareness of existing services and the need for further planning. The Transit System, Inc. and other stakeholders identified limited funding and uncertainty in state funding as challenges to expanding service. Attendees noted that improved communication and education is needed to increase public awareness and understanding of service that is currently available from The Transit System, Inc. In addition, stakeholders identified a need for further planning to focus on opportunities to improve service efficiency in Hood and Somervell Counties.

Strategies for Coordinated Public Transportation

Building on the information from data analysis and public and stakeholder outreach outlined above, the implementation strategies below focus on the most important aspects of public transportation that stakeholders thought should be addressed in the next few years.

Prioritized Strategies

Strategy 1

Increase service in Hood County and Somervell County to address access to all activities; identify funding sources

Strategy 2

Meeting of a coordinating committee to discuss ongoing transportation needs

Additional Strategies

- Improve awareness of available public transportation services

- Explore ways to make bus passes easier to use
- Coordinate more efficient transportation routes for senior center access

Additional strategies that address needs identified in the planning process will be considered between this plan and a future plan update.

Monitoring Implementation

Moving forward with implementation in Hood County and Somervell County, stakeholders including the main public transportation provider, The Transit System, Inc., will work together with local and regional agencies to implement these strategies and monitor their implementation. Stakeholders indicated a desire to meet as a coordinating committee to continue discussions and assess progress on these strategies. Any willing and interested parties are always welcome to join the discussion and be part of the ongoing planning and implementation process.

Further Information

More detailed information for Hood County and Somervell County can be found in Appendix C-Hood and Appendix C-Somervell available at www.accessnorthtexas.org.

Chapter Ten

Hunt County

The Plan Process

Stakeholders worked together to develop strategies for the coordination of public transportation in Hunt County. An existing conditions report was prepared to document demographic information for populations that potentially have a greater need for public transportation. The existing conditions report also identified transit trip generators, employment clusters and commute patterns. The report summarized the transportation resources available in Hunt County and identified local planning efforts that consider public transportation and that may be relevant to Access North Texas.

Beyond the data collection and analysis efforts described above, a public outreach meeting was held in December 2012 to further define the transportation needs and gaps in service in the county. A short presentation was followed by an open discussion to hear attendees' thoughts, perspectives and experiences. There were 23 attendees at the public outreach meeting from a variety of organizations. Attendees included transportation providers, local government representatives, community advocates, social service agencies and health and human service agencies. Prior to the meeting, 164 organizations and individuals were contacted directly with meeting information. A follow-up meeting with stakeholders that were interested in continuing discussions about the priorities in Hunt County was held in February 2013. This meeting provided additional insight concerning priorities for public transportation in Hunt County.

Stakeholder and public outreach and data analysis informed the prioritized strategies included in this chapter. These strategies highlight the most important aspects of public transportation that stakeholders thought should be addressed in the near term future.

Public Transportation Needs, Gaps in Service and Resources

This section summarizes the transportation needs and resources identified in the county based on the existing conditions report, public outreach and stakeholder input.

Transit Access Improvement Tool

The Transit Access Improvement Tool (TAIT) was developed 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. A more detailed report on the TAIT can be found in Appendix B5.

In Hunt County the highest TAIT scores were located in areas of Greenville, Commerce and the southern third of the county. These areas had higher TAIT scores than other locations of

the county because each had significant populations of low-income individuals, individuals over 65 and individuals with disabilities. The low-income population in each area with a high TAIT score was two times or greater than the regional average, indicating a potentially greater need for affordable transportation options beyond owning and operating a car. A block group in the western section of Greenville had the highest percentage of older adults in the population for the entire county. This population may need specialized transportation to meet the needs of these older residents.

Households with no vehicles available face additional transportation challenges. In areas with higher TAIT scores in Greenville and Com-

merce, the population of zero car households was twice the regional average. In rural areas, residents in households that have no vehicles available can be isolated from basic life activities including shopping, medical services and jobs.

Overall, the demographic data indicate that for most of the county, a basic level of transportation service, such as the service available through The Connection, currently operated by Senior Center Resources and Public Transit, may be needed to help those with limited transportation options access life-sustaining activities.

Resources

Resources located in the county include govern-

Hunt County TAIT
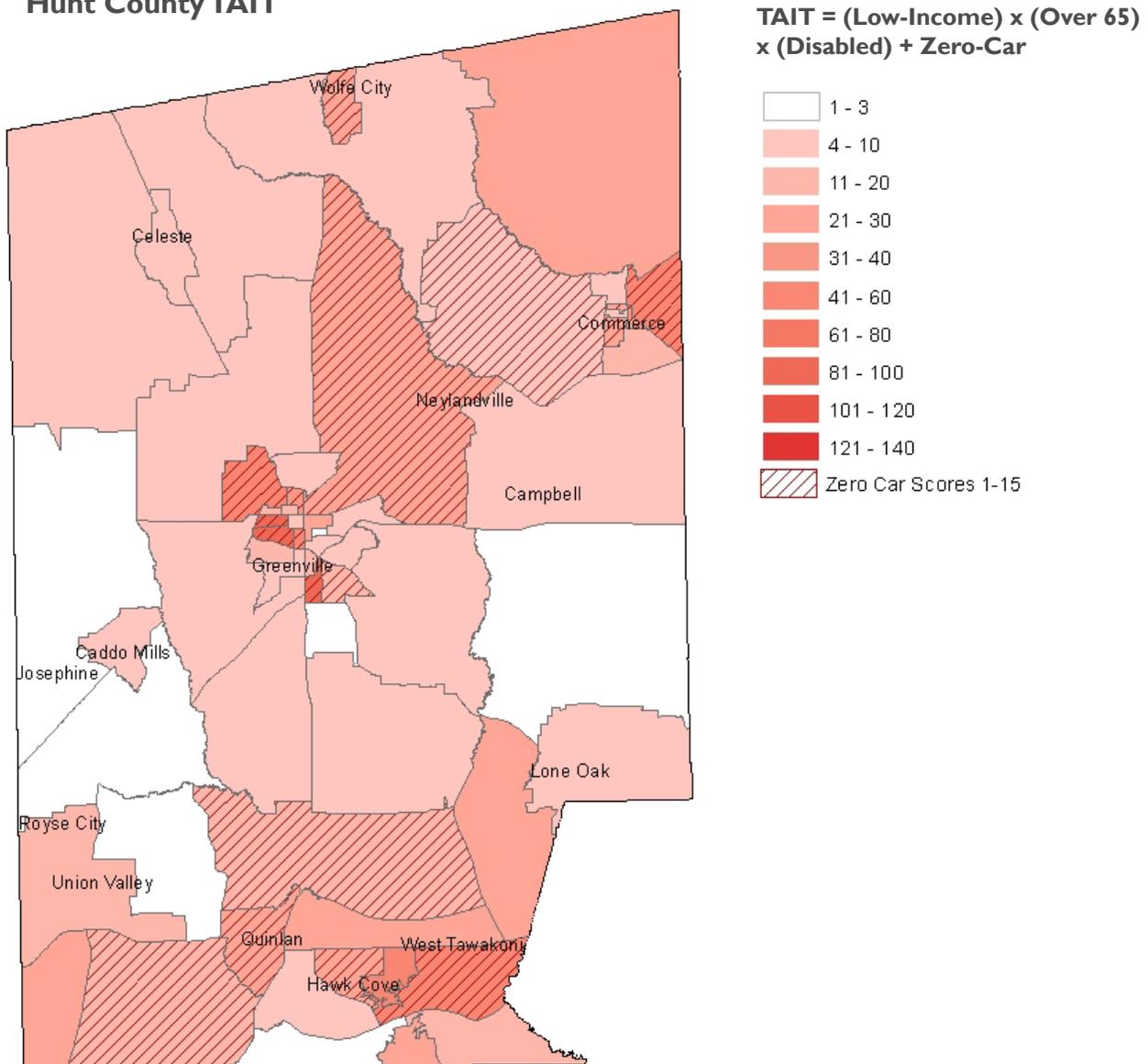
TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

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▨	Zero Car Scores 1-15

ment, social, medical and transportation agencies and organizations. The main public transportation service is The Connection, which is operated by Senior Center Resources and Public Transit. The Connection serves the general public and those with transportation challenges throughout Hunt County. Other non-transportation resources available in the county that may play a key role in coordinating transportation resources are Texas A&M University-Commerce, Paris Junior College-Greenville, the county's strong faith community, Hunt Regional Healthcare and major employers. Coordination among a variety of resources will likely be needed to address the diverse needs for transportation identified in Hunt County.

Commuter Summary

For Hunt County's residents that are employed, over a quarter travel less than ten miles to get to work. However, 55% of all workers travel more than 25 miles to get to work, primarily west toward Collin County and southwest towards Dallas. Almost two-thirds of Hunt County's over 31,000 employed residents commute out of the county for work. Transportation links to regional job opportunities may be needed for those who commute long distances to address issues commuters face such as the high cost of commuting alone, negative air quality impacts and congested roadways. Hunt County is also an employment destination for over 12,000 workers who live elsewhere in the region. Some commuter transportation needs for those traveling to Hunt County are currently served by vanpools. The reverse commute to Hunt County may be an area where additional transportation options are needed. Greater detail on the commuter characteristics of the county can be found in Appendix C-Hunt.

Relevant Plans

Relevant plans were reviewed to assess whether Access North Texas implementation efforts could be coordinated and integrated with community efforts. The most recent plan in the county is the Hunt County Transportation Plan (2012), which was prepared by the North Central Texas Council of Governments in coordination with a steering committee composed

of stakeholders in Hunt County. The public transportation aspects of the plan focused on addressing the feasibility of commuter rail in Hunt County in the future. This plan noted that a current lack of density in the county limits the feasibility of rail service in the short term. The plan compares the high density and extensive funding needed to support rail transit to services such as demand response buses. In addition, the city of Greenville updated its comprehensive plan in 2004 with a single mention of public transportation, focused on ensuring access to regional transportation infrastructure for the city's residents.

Needs Identified

The public outreach meeting was a vital part of the planning process, as it provided firsthand information from public transportation providers and users, citizens and other stakeholders. Discussions and data analysis in Hunt County focused on the need for improved transportation options throughout Hunt County and for improved communication and education efforts that would increase residents' awareness of current and new transportation services operated by The Connection. Residents that need transportation may not be aware of services currently available to link them with their communities.

Attendees at the meeting also highlighted specific needs for transportation within and between communities in Hunt County. Specifically, transportation options are needed to access jobs clustered in Greenville and Commerce. Additional or improved transportation service is needed for students located in rural areas as they pursue educational opportunities in the county. Some also indicated that weekend transportation services would be valuable for individuals working nontraditional shifts or for those who have no other way to access community services and events.

A key theme at the meeting was the need for improved access to a variety of destinations in the region outside of Hunt County. Attendees highlighted the need for a link to regional transit services such as Dallas Area Rapid Transit (DART) for workers traveling to or from the

county. Access to medical appointments in the region was also emphasized and attendees noted that some Hunt County residents are unable to access essential medical appointments in Dallas because trips are cost prohibitive.

Strategies for Coordinated Public Transportation

Building on the information from data analysis and public and stakeholder outreach outlined above, the implementation strategies below focus on the most important aspects of public transportation that stakeholders thought should be addressed in the next few years.

Prioritized Strategies

Strategy 1

Create and maintain a county coordinating committee to focus on ongoing transportation needs

Strategy 2

Establish a regional transportation link to the Dallas-Fort Worth area to allow for improved employment and medical access; enable connections with regional transportation services

Strategy 3

Improve access to education in and around Hunt County through partnerships with colleges and universities; link education sites to community services and improve access for students living in rural areas

Additional Strategies

- Explore partnerships with faith organizations in the county to maximize use of existing transportation resources and coordinate the provision of transportation service
- Improve local and county access through a reduced scheduling pickup window or through improved rider familiarity with service parameters to facilitate access to community services, medical services and jobs within Hunt County
- Increase awareness of existing services through a countywide education initiative
- Coordinate with Veterans Affairs transportation programs to improve the availability of

veterans transportation to Dallas and Bonham facilities
- Establish mobility management activities to build, grow and maintain partnerships focused on access to jobs, job training, and education in the county

Additional strategies that address needs identified in the planning process will be considered between this plan and a future plan update.

Monitoring Implementation

Moving forward with implementation in Hunt County, Senior Center Resources and Public Transit and other stakeholders will work together to address the strategies outlined above. Potential stakeholders include those that found continued conversations about improving public transportation valuable and those that may be able to provide resources. Any willing and interested parties are always welcome to join the discussion and be part of the ongoing planning and implementation process.

Further Information

Further, more detailed information for Hunt County can be found Appendix C-Hunt available at www.accessnorthtexas.org.

Chapter Eleven
Johnson County

The Plan Process

Stakeholders and North Central Texas Council of Governments staff worked together with assistance from the Texas Transportation Institute (TTI) to develop strategies for the coordination of public transportation in Johnson County. As part of a larger planning effort to develop practical, actionable recommendations for enhancing transit access, efficiency, effectiveness, safety, funding and sustainability, TTI conducted data collection and analysis that provided a foundation for strategies developed in Access North Texas. TTI produced a report documenting demographic information for populations that potentially have a greater need for public transportation. The report identified transit trip generators, employment clusters and commute patterns and summarized the transportation resources available in Johnson County.

Beyond the data collection and analysis efforts described above, two public outreach meetings were held in October 2012, one in Burleson and the other in Cleburne, to further define the transportation needs and gaps in service in the county. A short presentation was followed by an open discussion to hear the attendees' thoughts, perspectives and experiences. There were 25 attendees at the Burleson meeting and 27 attendees at the Cleburne meeting from a variety of organizations. Attendees included transportation providers, local government representatives, community advocates, social service agencies and health and human service agencies. Prior to the meetings, 154 organizations and individuals were contacted directly with meeting information. Stakeholders who could not attend the meetings were contacted for additional perspective on priorities in Johnson County.

Stakeholder and public outreach and data analysis informed the prioritized strategies included in this chapter. These strategies highlight the most important aspects of public transportation that stakeholders thought should be addressed in the near term future.

Public Transportation Needs, Gaps in Service and Resources

This section summarizes the transportation needs and resources identified in the county based on TTI's work in their planning project, additional data collection and analysis, public outreach and stakeholder input.

Transit Access Improvement Tool

The Transit Access Improvement Tool (TAIT) was developed 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. A more detailed report on the TAIT can be found in Appendix B5.

In Johnson County there were concentrations

of zero-car households scattered throughout the county, but the highest overall TAIT scores were located in Cleburne and Keene, in areas that may demonstrate a greater need for public transportation service. One area in the central section of Cleburne was notable for having an over 65 population and low-income population both greater than two times the regional average; the population of individuals with disabilities in this area was also high, at just less than two times the regional average. These three factors combined mean that many residents may have limited means to acquire transportation for themselves and may need transportation assistance.

A similar population demographic in Keene is revealed by a high TAIT score there. In that case, both the low-income population and population over 65 were greater than two times the regional average and the population of individuals with disabilities was about one and a half times the regional average. Potentially posing further transportation challenges for residents in this area, the population of zero car house-holds in the area was greater than two times the regional average. For this and all areas with significant populations of zero car households, transit services can play a vital role in connecting individuals to employment opportunities, medical care and community services.

Scattered pockets of transportation need highlighted by the TAIT may be difficult to serve with traditional transit service. Populations most in need of service are sometimes clustered in towns but also dispersed in outlying, more rural areas in Johnson County. With these demographic patterns, innovative transit services will be needed to connect customers from their homes to their communities.

Resources

Resources located in the county include government, social, medical and transportation agencies and organizations. The main public transportation provider is City/County Transportation, which serves the general public as well as older adults and individuals with disabilities. Weekday service is available throughout

Johnson County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

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81 - 100
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Zero Car Scores 1-15
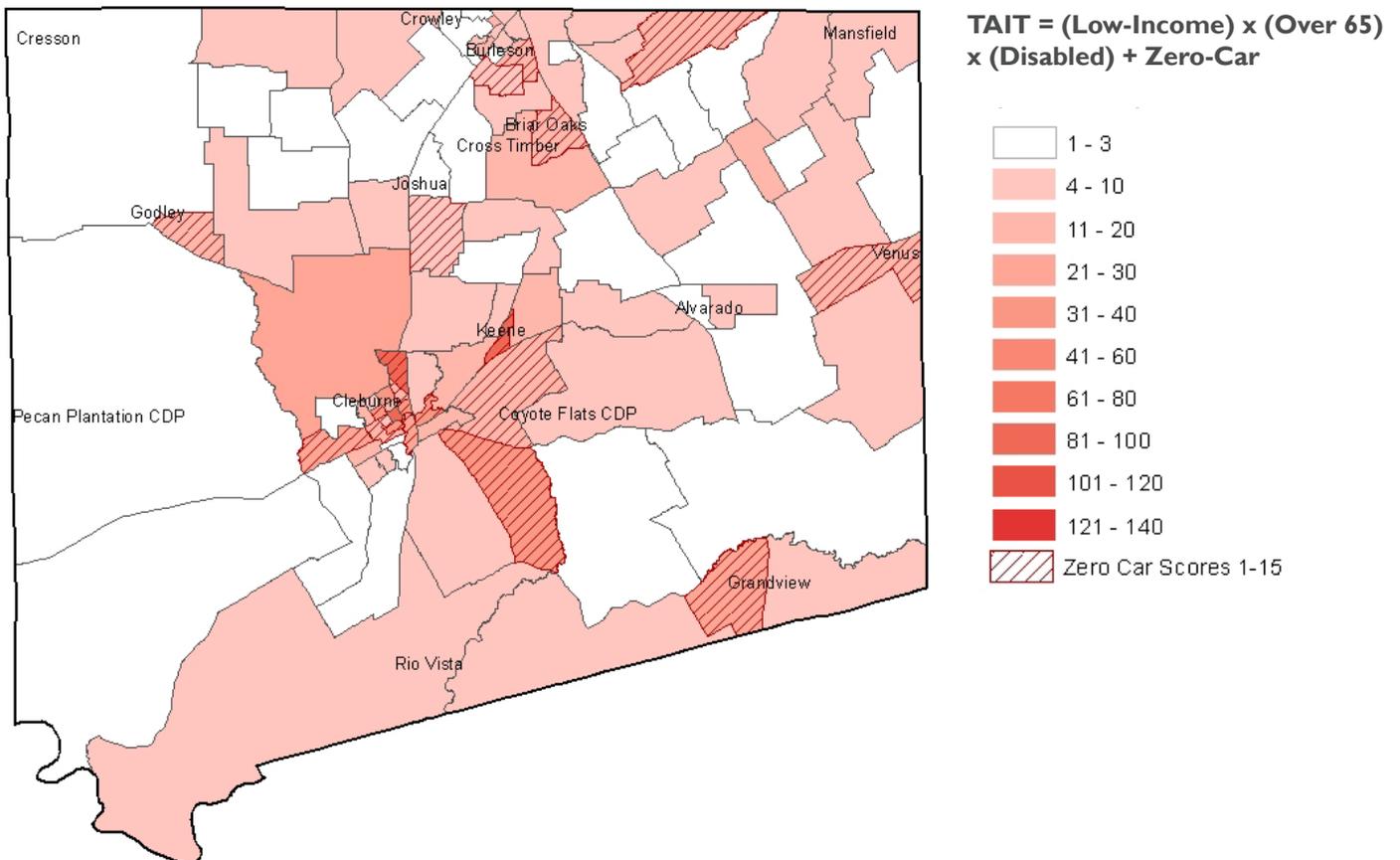
the county, with Saturday service also available in the City of Cleburne. City/County also operates a commuter route that travels to Fort Worth with stops in Cleburne, Joshua and Burleson as well as the Fort Worth Veterans Clinic and the Fort Worth Intermodal Transit Center. Other non-transportation and transportation resources available that may play a key role in coordinating transportation resources include strong local communities, chambers of commerce, major employers, school districts and the Fort Worth Transportation Authority (The T), which operates just over the border in Tarrant County. Coordination among a variety of resources will likely be needed to address the diverse transportation needs identified in Johnson County.

Needs Identified

The public outreach meeting provided firsthand information from public transportation providers and users, citizens and other stakeholders. Needs identified in the county focused on improved transportation options throughout Johnson County.

In both Burleson and Cleburne, attendees identified needs for local transportation both within communities and between communities in Johnson County. Specifically, they highlighted the need for expanded public transportation service hours during evenings and on weekends. For example, in order to get and maintain employment, employees that work non-traditional shifts need transportation beyond what is currently available. Additional hours of service for public transportation are needed for employees of many service sector jobs but are also needed by others with transportation challenges in order to access recreation activities and some medical facilities. Another locally-focused need is consistent, reliable service with an appropriate schedule serving Hill College campuses in Cleburne and Burleson to help residents access education opportunities. Thinking locally, attendees also identified a need for subsidized fares for low-income residents in their communities.

Connections to key regional destinations and

to other transit services outside of Johnson County are also needed. Attendees noted the need for improved transportation to regional destinations from border cities such as Crowley and Mansfield. Important regional destinations for the entire county include Tarrant County College, Huguley Hospital and employment training opportunities in Tarrant County. Veterans throughout the county also need access to Veterans Affairs services in both Dallas and Fort Worth.

Lastly, stakeholders identified needs related to how service is promoted and funded, focusing on ways to increase the reach of public transportation in Johnson County. For example, many perceived a need to improve communication and education about transportation options that are available. Goals would be to raise the visibility of transportation services and increase residents' awareness of City/County Transportation. Another concern raised during the public outreach meeting was the funding challenges faced by City/County transportation in its efforts to secure local matching funds that are needed to leverage federal funding. Attendees discussed some options to address the need for additional funding including potential partnerships with local governments, employers and other agencies to provide improved transit service for residents, employees and clients.

Strategies for Coordinated Public Transportation

Building on the information from data analysis and public and stakeholder outreach outlined above, the implementation strategies below focus on the most important aspects of public transportation that stakeholders thought should be addressed in the next few years.

Prioritized Strategies

Strategy 1

Create and maintain a county coordinating committee to focus on ongoing transportation needs

Strategy 2

Establish and build partnerships with cities, employers and other stakeholders in the county; explore options for additional funding to grow

transit service in the county

Strategy 3

Explore opportunities to strengthen regional transportation links into Tarrant County to allow for improved education, employment and medical access

Strategy 4

Increase awareness by educating local officials on available transit services, local demand, opportunities to leverage funding and opportunities for economic development with transit

Strategy 5

Coordinate with City/County Transit Advisory Board to further goals and objectives identified; establish collaborative methods of meeting performance measures and creating successful outcomes

Additional Strategies

- Expand service during evenings and weekends to improve access to service sector jobs, recreation activities and medical facilities
- Explore options for subsidized fares and affordable subscription services with City/County Transportation
- Coordinate with cities to incorporate transit into redevelopment and revitalization planning activities
- Increase and improve access and availability of transit service along major east/west and north/south corridors throughout the county

Additional strategies that address needs identified in the planning process will be considered between this plan and a future plan update.

Monitoring Implementation

Moving forward with the implementation in Johnson County, stakeholders including City/County Transportation will work together to address the strategies outlined above and to monitor the plan's implementation. Potential partners include those individuals and agencies that found continued conversations about improving public transportation valuable and those that may be able to provide resources to support this effort. Any willing and interested parties are al-

ways welcome to join the discussion and be part of the ongoing planning and implementation process.

Prioritized strategies will continue to be refined with information obtained during TTI's technical assistance project for City/County Transportation (tentative completion in summer 2013). Refining the strategies will involve input and participation from stakeholders, interested community members and the City/County Transit Advisory Board. Implementation of the identified strategies will be an ongoing process including partnerships and resources coordinated through Access North Texas.

Further Information

More detailed information for Johnson County can be found in Appendix C-Johnson available at www.accessnorthtexas.org.

Kaufman County

The Plan Process

In Kaufman County, prioritized strategies for addressing transportation needs and gaps in service were developed through an in-depth transportation needs assessment and planning study. This included an assessment of demographic and employment data and a travel pattern analysis. It also described existing transit services in the county, focusing on the services of the main transportation provider, STAR Transit. The project included a public meeting and a survey to gather additional information on the needs and concerns of residents. This information was supplemented with stakeholder interviews. Government officials and staff, social service agency staff and transportation providers were contacted to discuss public transportation needs over the next few years.

A public outreach meeting was held in Kaufman County to gather experiences and information on public transportation from residents and transit riders. The meeting was held in March of 2013 in Terrell. Over 170 mailed invitations and additional notice in online message boards, community calendars and local news reports drew approximately 30 people to the meeting. During the public meeting a brief overview of the planning process was followed by questions and comments from attendees who shared their perspectives on transit needs and opportunities.

The survey developed for Kaufman County was intended to gain a more thorough understanding of the existing needs and challenges facing residents and stakeholders. Two versions of the survey sought feedback from county residents. One survey was hosted online and was focused on the general public. This survey was publicized through news outlets and online message boards. The other was distributed to local transit riders and to many individuals affiliated with human service agencies in the county. Both surveys were available in English and in Spanish. The survey results enabled additional perspective on the data gathered through meetings, interviews and demographic analysis.

Together, demographic and travel analysis, public outreach, stakeholder interviews and survey responses led to the strategies for Kaufman County outlined in this chapter.

Public Transportation Opportunities, Gaps in Service and Resources

This section summarizes needs and resources identified in the county.

Demographic Highlights

Demographic data in Kaufman County was used to identify populations that may have high potential need for public transportation. As of 2010, Kaufman County's senior population represents 10.3% of the county's total population. Larger concentrations of seniors are found in the more rural northeast and southern parts of the county. Older adults in rural areas may need dependable public transportation to avoid isolation and resulting poor quality of life. Another notable demographic is that 29% of the population of Kaufman County is below the age of 18. Younger individuals who cannot drive must rely on others, including public transportation, to travel in their communities. Between 2000 and 2010, some areas of Kaufman County experienced tremendous growth, especially the city of Forney, which grew by 162% over that decade. With rapid population growth, public transportation services must adjust to keep pace with changing needs and demands.

Notable clusters of employment in Kaufman County include areas in both western and eastern Kaufman, in the southeastern section of Terrell and in Forney. Through 2020, job growth in Kaufman County is expected to occur throughout the county, but block groups in the eastern section of the county and between Terrell and Forney are forecasted to grow significantly. Current public transportation options to employment within the county are generally quite limited.

Additional demographic detail is available in the Kaufman County existing conditions report available online at **www.accesskaufman.org**.

Transit Access Improvement Tool

The Transit Access Improvement Tool (TAIT) was developed 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. A more detailed report on the TAIT can be found in Appendix B5.

Kaufman County's moderate TAIT scores are located in the central portion and eastern half

Kaufman County TAIT

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	121 - 140
	Zero Car Scores 1-15

of the county. Many areas on the western half have low TAIT scores. One notable area of the county with a high TAIT score was the southern section of Terrell. This area had populations of low-income individuals, older adults and zero car households all greater than two times the regional average. One area of southeastern Kaufman County in Mabank had a high TAIT score, with an over 65 population that was greater than two times the regional average and populations of low-income individuals and individuals with disabilities nearly two times the regional average.

Resources

The primary public transportation provider is STAR Transit, which offers demand response service available to the general public throughout Kaufman County. Demand response service is available on weekdays, generally from 8:00 am to 5:00 pm. STAR Transit also operates a trolley service in the city of Kaufman as well as Medicaid transportation. Vanpool service for commuters traveling to regional employment destinations is available through Dallas Area Rapid Transit (DART) and other regional transportation authorities, and fourteen vanpools were operating from Kaufman County in 2012.

Relevant Plans and Projects

Relevant plans were reviewed to assess how this plan could be coordinated and integrated with community efforts. The city of Forney's most recent comprehensive plan was completed in 2008 and has sections that focus on transportation. The plan recognizes the relationship between transportation and land use and proposes several mobility goals to guide development in the city, with one goal to promote alternative mobility choices. Another transportation related goal in the city's comprehensive plan recommends coordination with Dallas Area Rapid Transit (DART) to explore the possibility of extending transit service or bus service to downtown Forney. The city of Terrell's most recent comprehensive plan was written in 2002 and has a goal to optimize mobility and decrease dependency on automobiles by encouraging multi-modal alternatives. These alternatives could potentially include trolley or bus options where feasible.

Commuter Summary

A travel analysis identified significant commute and other travel patterns of Kaufman County residents. Based on the analysis, around 43% of work trips generated in Kaufman County remained within the county, 7% of work trips traveled to Mesquite, 6% traveled to northeast Dallas, and 5% traveled to Dallas' Central Business District. In the city of Kaufman, 35% of work trips are completed within the city, with other work destinations that include Terrell (10%), Kemp (6%), and Mesquite (4%). Close to 40% of Terrell's work trips are absorbed internally and other work destinations include surrounding communities in Kaufman County (10%), as well as Mesquite (6%), the northern half of the city of Dallas including the Central Business District (17%), and Hunt County (5%). The variety of commute destinations for Kaufman County workers indicate that providing public transportation to meet the diverse needs of commuters would require a combination of services for local trips, inter-community commutes and regional commutes.

Stakeholder Interviews

The primary issues identified most often by stakeholders included a need for regional connections into Dallas and concern about the lack of awareness of public transit services in Kaufman County. They also noted that there are limited transportation options for seniors, low-income residents and people with disabilities and that relying on private automobile transportation for trips to work can be particularly costly for low-income workers. Stakeholders noted that planning is done primarily for automobiles and expressed concern that the STAR Transit Trolley in Kaufman has low ridership.

Some stakeholders acknowledged that additional funding for transit is likely to be limited and therefore alternatives to traditional transit need to be found. Several stakeholders noted that there is a need at the county level to begin planning and having transportation conversations about long term transportation needs.

Public Outreach Meeting

Comments and discussion during the outreach meeting identified the need for local transit services, particularly for groups with potentially limited mobility such as seniors, people with disabilities and low-income individuals. While local transportation was an important issue during the outreach meeting, attendees also noted the need for regional transportation. Attendees discussed that many have medical appointments in Mesquite and Dallas, but the lack of affordable and convenient transportation makes access a challenge. Attendees expressed the importance of linking cities within Kaufman County and providing connections from Terrell and Forney to DART's services. Participants also noted that veterans of the county need better access to Veterans Affairs services in Dallas.

Survey Findings

Findings from the surveys provided additional information on the needs and challenges of public transportation in Kaufman County. The data demonstrates that a majority of survey respondents drive themselves to destinations, and of those that have used public transportation, STAR Transit's services (Kaufman Trolley and demand response services) and DART rail services were most commonly used. Those that use transit services note concerns about limited access to Terrell and Dallas and limited access to medical and shopping facilities.

On the whole, transit, as a proposed service in the community, is valued even if individuals are not likely users. Many respondents noted that some level of service should be made available especially for the most vulnerable members of the community such as older adults or individuals with disabilities. Factors that would encourage the use of public transportation among those with transportation challenges include transit service at a bus stop near their house and destination, better daytime transit availability, increased gas prices and more bus stop amenities. The general public would be encouraged to use public transportation if gas prices rise and if traffic congestion worsens. Survey respondents highlighted a mix of potential new public transportation services that appeal to them. Overall,

shuttle/express service to DART and bus service between cities and communities in Kaufman County were appealing. For those with transportation challenges, countywide dial-a-ride services were most appealing.

Strategies for Coordinated Public Transportation

Using demographic and travel analysis and a review of existing services combined with public and stakeholder outreach, strategies that could address gaps in service were developed.

Prioritized Strategies

Strategy 1

Improve public awareness of existing and new public transportation services

Strategy 2

Increase usage or modify service to address low ridership on STAR Transit's Trolley in Kaufman

Strategy 3

Improve access to local employment destinations in areas such as Kaufman, Terrell and Forney, focusing on options for low-income workers

Strategy 4

Increase options for local transportation within and between communities in Kaufman County for those with limited mobility, including older adults, individuals with disabilities and low-income individuals

Strategy 5

Explore opportunities for regional connections that can address needs for commuter services connecting to major employment destinations in the region and needs for affordable and accessible transportation to medical services in the region, including Mesquite and Dallas

Additional Strategies

- Maintain and improve transportation options for older adults throughout the county, including rural northeast and southern parts of the county
- Improve the availability and affordability of transportation to Veterans Affairs services in Dallas

Additional strategies that address needs identified in the planning process will be considered between this plan and a future plan update.

Fourteen transportation service alternatives that provide methods to implement these strategies are outlined below. Some alternatives are appropriate for all of Kaufman County's community types. Others are only feasible under certain conditions that may not be present in every community type or at the countywide level. The alternatives are listed below and additional descriptive information for each alternative is included in Appendix C-Kaufman, including the type of need it addresses, the potential market and typical service parameters.

- Volunteer Driver Program
- Mobility Management/Coordination
- Cost Sharing Opportunities
- Promoting Public Awareness of Transportation Options
- Carpool
- Vanpool
- ADA Paratransit/Eligibility-Based Dial-A-Ride
- General Public Dial-A-Ride
- Community Shuttle
- Express Bus/Park & Ride Service
- Limited Bus Stop Service
- Point Deviation Service
- Route Deviation Service
- Local Fixed-Route Bus Service

All of the different types of transportation services above could be feasible in Kaufman County in the near term. To target the appropriate services to the communities where they are likely to have the greatest impact or be most effective, these services were evaluated. The evaluation was based, in part, on relationships between community types and transit service design. For transit to be most effective, individual services must be designed to match market demand and operating environments. Three geographic groupings/designations were identified for evaluating alternatives appropriate for implementation in Kaufman County. The geo-

graphic groupings are as follows:

Countywide This classification applies to the entirety of Kaufman County and includes all communities and unincorporated areas.

Rural Communities This group includes Kaufman County communities with populations under 6,000. (Combine, Cottonwood, Crandall, Grays Prairie, Kemp, Mabank, Oak Grove, Oak Ridge, Post Oak Bend City, Rosser, Scurry and Talty)

Small Cities This group includes Kaufman County cities with populations over 6,000. (Forney, Kaufman and Terrell)

The table on the following page shows the compatibility of each service alternative with regard to the three classifications above. A white circle indicates that the service alternative is least compatible/appropriate with a classification; a black circle shows it is most compatible/appropriate. A circle that is both black and white means that a service alternative may not be ideal for a type of community (or at the countywide level), but could be successful under certain circumstances.

Monitoring Implementation

Following the completion of the transit needs assessment and planning study for Kaufman County, transportation providers and local stakeholders will collaborate to determine next steps and to potentially implement selected strategies.

Further Information

Appendix C-Kaufman provides summary information about the menu of transit alternatives. The transit needs assessment and planning study also included funding estimates and general implementation plans for selected strategies, which are beyond the scope of this Access North Texas plan. More detail and final reports from the study will be available online at www.accesskaufman.org.

Transit Service Alternatives Compatibility for Kaufman County

Service Alternative	Rural Communities	Small Cities	Countywide
Volunteer Driver Program	◐	◐	○
Mobility Management/Coordination	○	◐	○
Cost Sharing Opportunities	○	◐	○
Promoting Public Awareness of Transportation Options	●	●	●
Carpool	●	●	○
Vanpool	○	●	○
ADA Paratransit/Eligibility-Based Dial-A-Ride	○	◐	◐
General Public Dial-A-Ride	◐	●	●
Community Shuttle	○	◐	○
Express Bus/Park & Ride Service	○	◐	○
Limited Bus Stop Service	◐	◐	○
Point Deviation Service	◐	●	◐
Route Deviation Service	○	●	○
Local Fixed-Route Bus Service	○	◐	○

○ Least compatible/appropriate

◐ Could be successful under certain circumstances

● Most compatible/appropriate

Navarro County

The Plan Process

Stakeholders worked together to develop strategies for the coordination of public transportation in Navarro County. An existing conditions report was developed to document demographic information for populations that potentially have a greater need for public transportation. The existing conditions report also identified transit trip generators, employment clusters and commute patterns. The report summarized the transportation resources available in Navarro County and identified local planning efforts that consider public transportation and that may be relevant to Access North Texas.

Beyond the data collection and analysis efforts described above, a public outreach meeting was held in November 2012 to further define the transportation needs and gaps in service in the county. A short presentation was followed by an open discussion to hear attendees' thoughts, perspectives and experiences. There were 17 attendees at the public outreach meeting from a variety of organizations. Attendees included transportation providers, local government representatives, community advocates, social service agencies and health and human service agencies. Prior to the meeting, 142 organizations and individuals were contacted directly with meeting information.

Stakeholder and public outreach and data analysis informed the prioritized strategies included in this chapter. These strategies highlight the most important aspects of public transportation that stakeholders thought should be addressed in the near term future.

Public Transportation Needs, Gaps in Service and Resources

This section summarizes the transportation needs and resources identified in the county based on the existing conditions report, public outreach and stakeholder input.

Transit Access Improvement Tool

The Transit Access Improvement Tool (TAIT) was developed 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. A more detailed report on the TAIT can be found in Appendix B5.

In Navarro County the highest TAIT scores were in Corsicana and the western section of the county. In Corsicana, an area in the northeastern section had an over 65 population and low-income population that were both greater than two times the regional average; the pop-

ulation of individuals with disabilities in this block group was just under two times the regional average, contributing to its high TAIT score. Potentially posing further transportation challenges for residents, the population of zero car households in the area was greater than two times the regional average. For this and all areas with significant populations of zero car households, transit services can play a vital role in connecting individuals to employment opportunities, medical care and community services.

The area encompassing Dawson in the western section of the county had an over 65 population that was greater than two times the regional average, a population of disabled persons just under two times the regional average and a significant population without access to a vehicle. Throughout Navarro County, factors that may indicate greater transportation need are especially notable in areas with greater concentrations of zero car households. These areas of greatest need are both focused near the city of Corsicana and in more rural areas in the western and eastern parts of the county.

With low to moderate TAIT scores throughout the county, the data reveals that some level of transportation service to meet the needs of transportation disadvantaged individuals is likely needed throughout the county. The area in and around the city of Corsicana likely has significant transportation needs and rural areas have dispersed populations that need transportation, though they may be more difficult to serve. Transportation solutions that meet the needs of those with transportation challenges can be tailored to meet the unique characteristics of Navarro County's communities.

Resources

Resources located in the county include government, social, medical and transportation agencies and organizations. The main public transportation provider is Community Transit Service (CTS) and this agency serves the general public, older adults and individuals with disabilities throughout Navarro County. Other transportation and non-transportation resources available in the county that may play a key

Navarro County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

	1 - 3
	4 - 10
	11 - 20
	21 - 30
	31 - 40
	41 - 60
	61 - 80
	81 - 100
	101 - 120
	121 - 140
	Zero Car Sc(
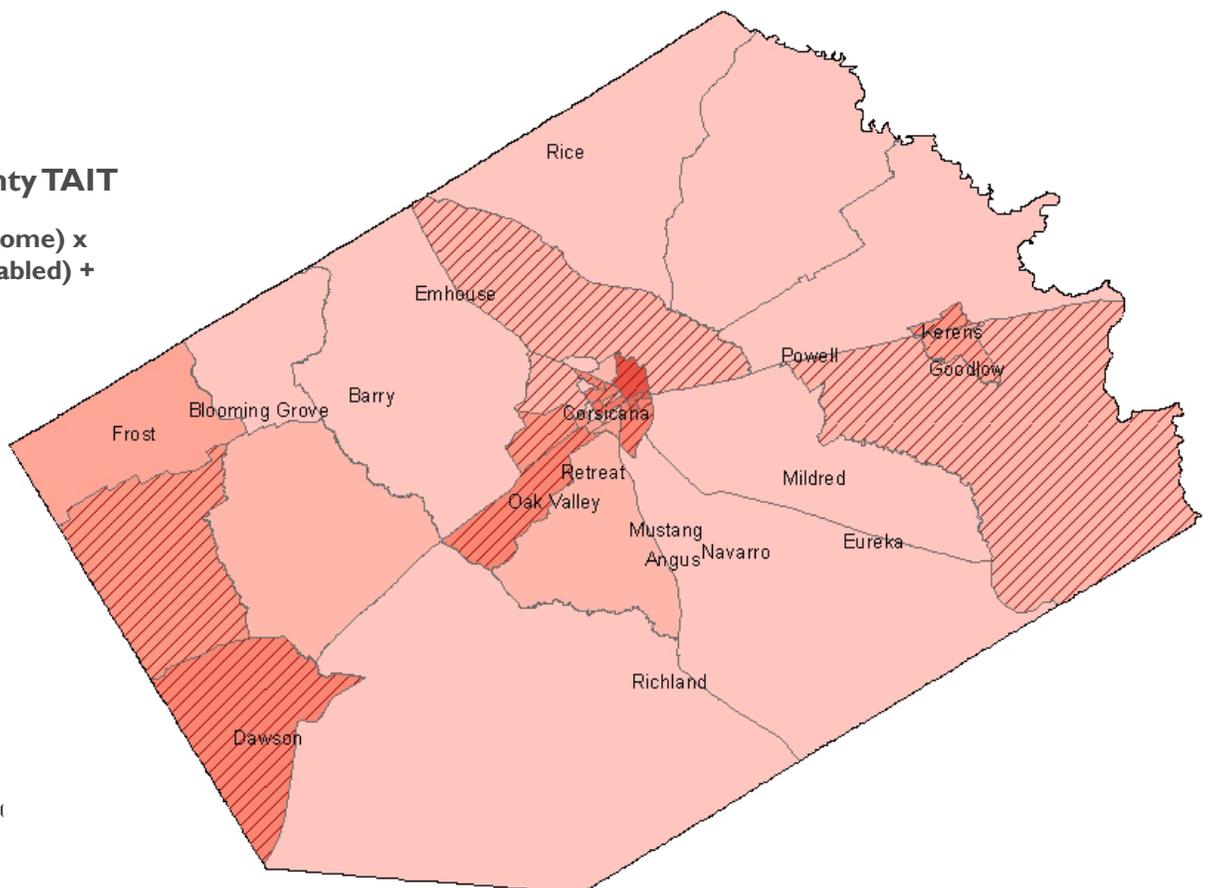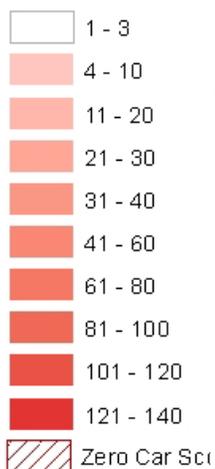
role in coordinating transportation resources are Navarro College, major employers, American Cancer Society volunteer transportation and Corsicana Regional Hospital. With limited resources and transportation options, coordination among a variety of partners will likely be needed to address transportation needs in Navarro County.

Commuter Summary

More than three in five of Navarro County's working residents commute out of the county and greater than two in five of them travel more than 50 miles to get to work. Residents commute in many directions, including a fair proportion heading northwest toward Dallas and Fort Worth as well as southwest toward Waco. Long distance commuters often look for transportation options that connect to major regional destinations as a way to reduce commuting costs. Within Navarro County, Corsicana is home to over 10,000 jobs, many of which are held by residents of the county. Commuters headed to work locally may also need reliable transportation in order to get a job and maintain employment. Greater detail on the commuter characteristics of the county can be found in Appendix C-Navarro.

Relevant Plans

Relevant plans were reviewed to assess whether Access North Texas implementation efforts could be coordinated and integrated with these community efforts. In Navarro County, the county seat of Corsicana updated its comprehensive plan in 2007. This plan included two goals related to public transportation, with the first goal to create a public transportation system that carries people between activity hubs within Corsicana. The second goal included in the plan is to establish a transit link to the Dallas/Fort Worth area.

A Navarro County Community Assessment (2008) was conducted by the Community Services Center of the University of Texas at Arlington and funded by the United Way of Navarro County. The assessment highlighted that 37% of focus groups and community leader interviews raised concerns about the sufficiency of public

transportation in the county. Residents who were surveyed for the assessment said public transportation services would be used more often if more information about service was available and if public transportation services included regular routes with bus stops and set schedules and affordable fares.

Needs Identified

The public outreach meeting provided firsthand information from public transportation providers and users, citizens and other stakeholders. Needs identified in the county focused on improved transportation options throughout Navarro County. Noted by many, the need to increase the public's awareness of Community Transit Service's transportation options through improved communication and education is an important first step to meet the transportation challenges facing Navarro County.

Attendees also clarified needs for local transportation services. They noted that students and residents need extended service hours to access education opportunities and community services. Many residents with transportation challenges, including low-income residents, need a reduced call-ahead requirement for trip scheduling in order for public transit to be a viable transportation option. Attendees noted that residents have difficulty accessing medical care in Navarro County and need increased service frequencies to access those services.

Transportation services that would address identified needs for regional connections include transportation to Waco, services enabling access to medical providers in Dallas and improved transportation to regional job centers including the Dallas area. Stakeholders focused on the need for regional job access transportation services, including possibly reviving vanpool services that had operated in the past and that benefitted Navarro County commuters and businesses.

Strategies for Coordinated Public Transportation

Building on the information from data analysis and public and stakeholder outreach outlined

above, the implementation strategies below focus on the most important aspects of public transportation that stakeholders thought should be addressed in the next few years.

Prioritized Strategies

Strategy 1

Improve local and county access through increased service frequencies or hours of service to address community and job access needs and access to medical care within Navarro County

Strategy 2

Regional transportation link to the Dallas-Fort Worth area that can allow for greater employment opportunities and connections with regional transportation services

Strategy 3

Increase awareness of existing services through a countywide education initiative

Additional Strategies

- Establish a training program that will assist first time bus riders in learning how public transportation operates and how to schedule services
- Create and maintain a county coordinating committee to focus on ongoing transportation needs

Additional strategies that address needs identified in the planning process will be considered between this plan and a future plan update.

Monitoring Implementation

Additional interest from stakeholders and transportation providers, including Community Transit Service, the main transportation provider in Navarro County, will lay the groundwork for implementation efforts. Any willing and interested parties are always welcome to join the discussion and be part of the ongoing planning and implementation process.

Further Information

More detailed information for Navarro County can be found in Appendix C-Navarro available at www.accessnorthtexas.org.

Chapter Fourteen
Palo Pinto County

The Plan Process

Stakeholders worked together to develop strategies for the coordination of public transportation in Palo Pinto County. An existing conditions report was developed to document demographic information for populations that potentially have a greater need for public transportation. The existing conditions report also identified transit trip generators, employment clusters and commute patterns. The report summarized the transportation resources available in Palo Pinto County and identified local planning efforts that consider public transportation and that may be relevant to Access North Texas.

Beyond the data collection and analysis efforts described above, a public outreach meeting was held in May 2012 to further define the transportation needs and gaps in service in the county. A short presentation was followed by an open discussion to hear the attendees' thoughts, perspectives and experiences. There were a total of 18 attendees at the public outreach meeting from a variety of organizations. Attendees included transportation providers, local government representatives, community advocates, religious organizations, social service agencies and health and human service organizations. Prior to the meeting, 146 organizations and individuals were contacted directly with meeting information. Stakeholders who could not attend the public outreach meeting were contacted for additional perspective on priorities in Palo Pinto County.

Stakeholder and public outreach and data analysis informed the prioritized strategies included in this chapter. These strategies highlight the most important aspects of public transportation that stakeholders thought should be addressed in the near term future.

Public Transportation Needs, Gaps in Service and Resources

This section summarizes the transportation needs and resources identified in the county based on the existing conditions report, public outreach and stakeholder input.

Transit Access Improvement Tool

The Transit Access Improvement Tool (TAIT) was developed 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. A more detailed report on the TAIT can be found in Appendix B5.

Overall, Palo Pinto County's highest TAIT scores were in the north central portion of the county and in Mineral Wells. Areas with high TAIT scores had populations of low-income individuals, individuals over 65 and persons with disabilities above the regional average. The population of persons with disabilities was one of the most notable indicators, with almost the entire county above the regional average for this

indicator. To serve the needs of populations that may have more significant transportation challenges than the rest of the population, transportation that is accessible and reliable will be needed to link residents to life-sustaining activities.

TAIT scores in Palo Pinto County indicate that some level of transportation need is present throughout the county. Rural areas where the population of households with zero cars is above the regional average may have populations with significant challenges to accessing jobs, medical care and community services in town. In Palo Pinto County, these rural areas of concern are concentrated in the north central part of the

county, the center surrounding Palo Pinto and the southwestern corner near Strawn.

Resources

Resources located in the county include government, social, medical and transportation agencies and organizations. The main public transportation provider is Public Transit Services (PTS). They serve the general public and provide specialized services to riders. Services include demand response curb-to-curb service on a call-in basis, deviated routes with a generalized schedule and a weekly dialysis clinic route. The PTS fleet is wheelchair-accessible and they provide Medicaid transportation services and medical transportation on a

Palo Pinto County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

	1 - 3
	4 - 10
	11 - 20
	21 - 30
	31 - 40
	41 - 60
	61 - 80
	81 - 100
	101 - 120
	121 - 140
/////	Zero Car Scores 1-15
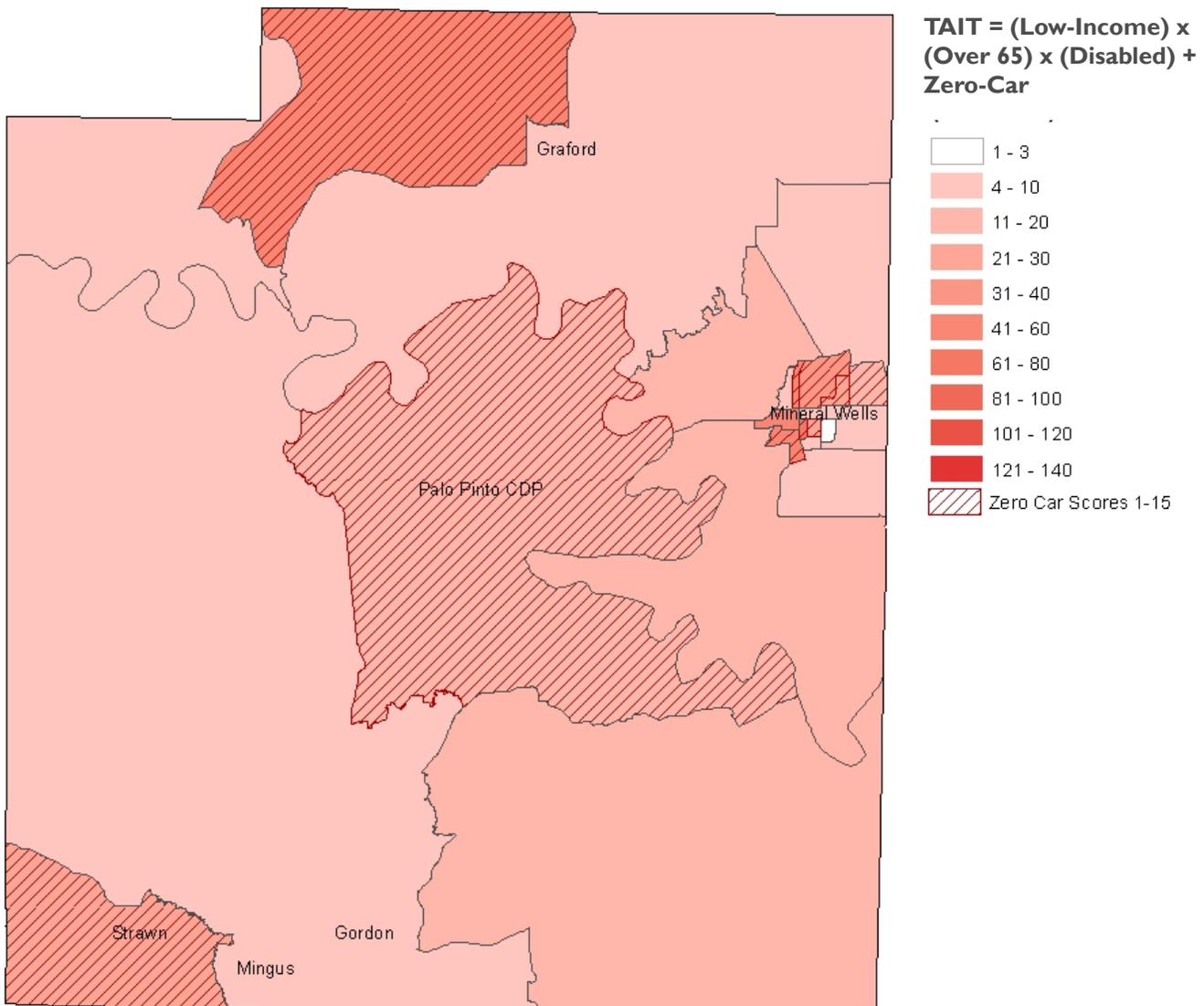
*CDP is defined as a Census Designated Place

non-emergency basis. Other non-transportation resources available in the county that may play a key role in coordinating transportation resources include the Mineral Wells Senior Center, the Mineral Wells Chamber of Commerce, large employers, Palo Pinto General Hospital, Weatherford College-Mineral Wells, VFW Post 2399 and Catholic Charities of Fort Worth. Due to the dispersed transportation needs in Palo Pinto County, coordination among a variety of resources will likely be needed to address the needs in Palo Pinto County.

Commuter Summary

Over half of Palo Pinto County's employed residents travel out of the county for work, and over a third have commutes of greater than fifty miles. Longer-distance commuters mostly travel east towards Weatherford and Fort Worth, but a significant number also travel west to dispersed job locations. Long distance commuters often look for transportation options that connect to major regional destinations as a way to reduce commuting costs. On the contrary, another two in five employed residents travel fewer than 10 miles to work. Commuters headed to work locally may also need reliable transportation in order to get a job and maintain employment. Greater detail on the commuter characteristics of the county can be found in Appendix C-Palo Pinto.

Relevant Plans

Relevant plans were reviewed to assess whether Access North Texas implementation efforts could be coordinated and integrated with community efforts. A recent study, initiated by PTS, was completed by the Texas Transportation Institute (TTI). The study focused on rural transit planning including service area characteristics, funding evaluation and a transit services assessment. The study included recommendations to create a more efficient rural transit service and ways to increase service capacity that align with the strategies included in Access North Texas.

Needs Identified

The public outreach meeting provided firsthand information from public transportation providers and users, citizens and other stakeholders. Needs identified in the county include regional

and local transportation access, as well as improved communication and education about transit service options.

Public transportation needs are present throughout Palo Pinto County, but a large portion of the county's population resides in Mineral Wells. Transportation needs are concentrated in the city of Mineral Wells, where about 17,000 of the county's 28,000 residents live. Attendees identified local access needs that include transportation service that can meet the needs of job seekers and workers who need transportation to interviews or for non-traditional work shifts. To address those needs, transportation service can be expanded beyond typical business hours and can also include early morning service in Mineral Wells. There is also a need for improved access to the rural areas of Palo Pinto County, as residents without transportation options in these areas can be isolated from community services.

Attendees also discussed the need to link Palo Pinto County's residents with regional destinations. Identified regional access needs include trips to Fort Worth for jobs, dialysis trips to Weatherford and veterans access to Fort Worth and Dallas Veterans Affairs facilities.

Several social service agencies, human service agencies and local employers indicated that they are unfamiliar with the public transit services that PTS operates, which are available to the general public. Improved communication and education efforts are needed to raise the profile of public transit among agencies and the general public that would benefit from transportation services. Targeted outreach to individuals with limited English proficiency will be an important aspect of that outreach. Overall, improved communication with the community may help transportation providers establish and grow relationships with the county's largest employers to develop needed services.

Strategies for Coordinated Public Transportation

Building on the information from data analysis and public and stakeholder outreach outlined above, the implementation strategies below

focus on the most important aspects of public transportation that stakeholders thought should be addressed in the next few years.

Prioritized Strategies

Strategy 1

Increase awareness of available public transportation services and partnership opportunities

Strategy 2

Increase outreach and education about transit services for transportation disadvantaged populations in the county, especially in the southwest corner

Strategy 3

Expand local and regional job access

Strategy 4

Identify connections to regional transit services and improve access to destinations outside the county including Weatherford and Tarrant County

Additional Strategies

- Acquire vehicles to better match vehicle size to type of service provided in order to more effectively use resources by using smaller vehicles for transporting one or two riders at a time
- Improve the customer experience and ability to partner with funding agencies, including fare card improvements
- Create and maintain a county coordinating committee to focus on ongoing transportation needs

Additional strategies that address needs identified in the planning process will be considered between this plan and a future plan update.

Monitoring Implementation

Moving forward with implementation in Palo Pinto County, the main public transportation provider, PTS, will work with local and regional agencies to implement these strategies and monitor their implementation. Any willing and interested parties are always welcome to join the discussion and be part of the ongoing planning and implementation process.

Further Information

More detailed information for Palo Pinto County can be found in Appendix C-Palo Pinto available at www.accessnorthtexas.org.

Chapter Fifteen
Parker County

The Plan Process

Stakeholders worked together to develop strategies for the coordination of public transportation in Parker County. An existing conditions report was developed to document demographic information for populations that potentially have a greater need for public transportation. The existing conditions report also identified transit trip generators, employment clusters and commute patterns. The report summarized the transportation resources available in Parker County and identified local planning efforts that consider public transportation and that may be relevant to Access North Texas.

Beyond the data collection and analysis efforts described above, a public outreach meeting was held in May 2012 to further define the transportation needs and gaps in service in the county. A short presentation was followed by an open discussion to hear the attendees' thoughts, perspectives and experiences. There were 30 attendees at the public outreach meeting from a variety of organizations. Attendees included transportation providers, local government representatives, community advocates, social service agencies, and health and human service agencies. Prior to the meeting, 146 organizations and individuals were contacted directly with meeting information. Stakeholders who could not attend the public outreach meeting were contacted for additional perspective on priorities in Parker County.

Stakeholder and public outreach and data analysis informed the prioritized strategies included in this chapter. These strategies highlight the most important aspects of public transportation that stakeholders thought should be addressed in the near term future.

Public Transportation Needs, Gaps in Service and Resources

This section summarizes the transportation needs and resources identified in the county based on the existing conditions report, public outreach and stakeholder input.

Transit Access Improvement Tool

The Transit Access Improvement Tool (TAIT) was developed 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. A more detailed report on the TAIT can be found in Appendix B5.

In Parker County the highest TAIT scores were located in areas of Weatherford and in the northeast part of the county, including Springtown. One area in southeast Weatherford and one representing Springtown had high scores because of significant populations of low-income individuals, persons with disabilities and individuals over 65. While the populations of all three of these indicators made up a greater portion of the population than was typ-

ical for the region, the population of residents over 65 was especially notable because it was greater than two times the regional average.

Several areas of the county had larger populations of zero car households that overlapped with high TAIT scores, including portions of Weatherford and areas of northeast Parker County around Reno, Sanctuary, Azle and Springtown. The population of zero car households was also notable in the western part of the county near Millsap and Cool. Regardless of age, ability or income, individuals without access to a vehicle who live in rural and suburban communities like those in Parker County may have significant challenges to accessing employment, medical care and community services in their own communities and in the region.

Resources

Resources located in the county include government, social, medical and transportation agencies and organizations. The main public transportation provider is Public Transit Services (PTS). They serve the general public and provide specialized services to riders. Services include demand response curb-to-curb service on a call-in basis, deviated routes with a generalized schedule and a weekly dialysis clinic route. The PTS fleet is wheelchair-accessible and they provide Medicaid transportation services and medical transportation on a non-emergency basis. The Parker County Committee on Aging also provides some transportation to older adults in the county. Other non-transportation resources available in the county that may play a key role in coordinating transportation resources include

Parker County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

□	1 - 3
	4 - 10
	11 - 20
	21 - 30
	31 - 40
	41 - 60
	61 - 80
	81 - 100
	101 - 120
	121 - 140
▨	Zero Car Scores 1-15
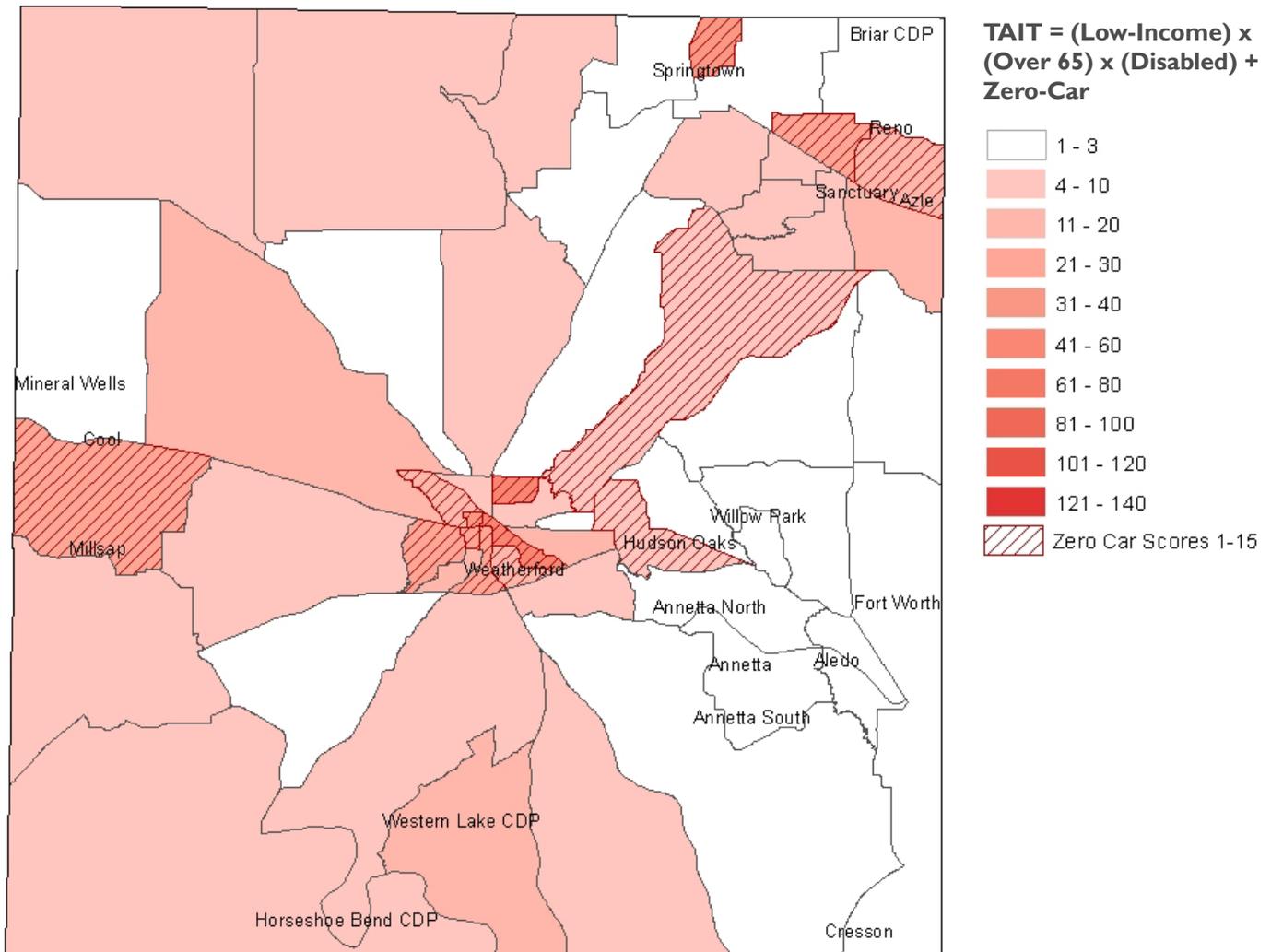
Weatherford College, the Center for Hope and Workforce Solutions of North Central Texas. Due to the diverse and significant transportation needs in communities and rural areas of Parker County, coordination among a variety of resources will likely be needed to address those needs.

Commuter Summary

Over three-quarters of Parker County's approximately 46,000 employed residents work outside of Parker County. Most workers travel east towards Fort Worth during their commutes. For all workers, one in three traveled 10 to 24 miles to work. For low-income workers earning $1,250 a month or less, one in four traveled less than 10 miles to work. The volume of commuters of all incomes that commute out of the county indicates that there may be a need for employment transportation to link Parker County workers to regional employment opportunities in Fort Worth. Low-income workers commuting locally may also need improvements to existing transportation services to make transit a viable choice for transportation to work. Greater detail on the commuter characteristics of the county can be found in Appendix C-Parker.

Relevant Plans

Relevant plans were reviewed to assess whether Access North Texas implementation efforts could be coordinated and integrated with community efforts. A recent study, initiated by PTS, was completed by the Texas Transportation Institute (TTI). The study focused on rural transit planning including service area characteristics, funding evaluation and a transit services assessment. The study included recommendations to create a more efficient rural transit service and ways to increase service capacity that align with the strategies included in Access North Texas.

Needs Identified

The public outreach meeting provided firsthand information from public transportation providers and users, citizens and other stakeholders. Needs identified in the county include regional and local transportation access, as well as needs for additional communication and education about transportation services.

Attendees identified needs for access within and between communities in Parker County. A large portion of the county's residents are concentrated in Weatherford as well as the east and northeast sections of the county and these areas demonstrate a higher demand for transportation service, including access to in-town destinations. Other local access needs for less densely populated areas of the county include increased transportation service in unincorporated areas and service that facilitates rural residents' access to jobs and services in incorporated areas. Specifically, attendees discussed the need for reliable, timely service to access social services in Weatherford. Evening and weekend service within the more densely populated areas of Weatherford, Azle, and Springtown is also needed to improve access for those with limited transportation options.

Stakeholders discussed the need for connections to regional public transportation services that would enable residents to access a variety of destinations in Tarrant County. In order to meet the needs for access to regional employment opportunities, medical care and community services, transportation providers can develop public transportation service from Parker County that incorporates reliable routes and stop locations. In particular, discussion identified the need for students and residents in northeast Parker County to access higher education, job training and employment opportunities in Tarrant County.

In all areas of the county, stakeholders noted that improved communication and education about transportation options that currently exist is needed to raise the visibility and public awareness of services available to the county's residents. With regard to transit operations, stakeholders noted that transportation providers need smaller transit vehicles that will improve fleet fuel efficiency while still maintaining access to transportation for customers in wheelchairs.

Access North Texas Survey Summary

An Access North Texas transportation needs survey gathered information on residents'

experiences and information on transportation needs in the county. Parker County was the source of eighty-one responses to the Access North Texas survey. Almost two thirds of respondents live in a household with limited income, at less than $1,250 a month. About three quarters of respondents were currently able to drive themselves, but there were also a significant portion that relied on friends or family members to transport them some of the time (48%). A few also use existing public transportation services (7%) and several walk to destinations (14%). Of all respondents, almost 70% indicated they would use public transportation if it met their needs to access locations in their communities. Respondents wanted to access both local and regional destinations such as shopping, medical services, social events, church, work and destinations in Fort Worth. A more detailed report of survey responses can be found in Appendix C-Parker.

Strategies for Coordinated Public Transportation

Building on the information from data analysis and public and stakeholder outreach outlined above, the implementation strategies below focus on the most important aspects of public transportation that stakeholders thought should be addressed in the next few years.

Prioritized Strategies

Strategy 1
Coordinate existing services in the northeast Parker County and Azle area

Strategy 2
Create and maintain a county coordinating committee to focus on ongoing transportation needs

Strategy 3
Identify and serve regional connections to Tarrant County and Wise County

Strategy 4
Grow service in the northeast corner of the county including Springtown (coordinate with existing providers)

Strategy 5
Pilot program of fixed route or trolley service in

areas with potentially high ridership

Additional Strategies
- Acquire vehicles to better match vehicle size to type of service provided and evaluate the need for every vehicle in a provider's fleet to be Americans with Disabilities Act (ADA) accessible
- Develop centralized access to information about public transportation options in the county and surrounding area through a one call or one click project coordinated among regional partners

Additional strategies that address needs identified in the planning process will be considered between this plan and a future plan update.

Monitoring Implementation
Moving forward with implementation in Parker County, local and regional stakeholders and PTS will work together on implementation. Participants will include stakeholders that found continued conversations about improving public transportation valuable and those that may be able to contribute resources to further transportation coordination in the county. Any willing and interested parties are always welcome to join the discussion and be part of the ongoing planning and implementation process.

Further Information
More detailed information for Parker County can be found in Appendix C-Parker available at www.accessnorthtexas.org.

Chapter Sixteen
Rockwall County

The Plan Process

In Rockwall County, prioritized strategies for addressing transportation needs and gaps in service were developed through an in-depth transportation needs assessment and planning study. This included an assessment of demographic and employment data and a travel pattern analysis. It also included a review of existing services, focusing on STAR Transit, the main transportation provider, and an assessment of transportation needs and gaps in service. This information was supplemented with stakeholder interviews. Government officials and staff, social service agency staff and transportation providers were contacted to discuss public transportation needs over the next few years.

In addition to demographic, travel and service data, the project included a survey to gather additional information on the needs and concerns of residents. Two versions of the survey sought feedback from county residents. One survey was hosted online and was focused on the general public. This survey was publicized through news outlets and online message boards. The other was distributed to local transit riders and to many individuals affiliated with human service agencies in the county. Both surveys were available in English and in Spanish. The survey results enabled additional perspective on the data gathered through interviews and demographic analysis.

Together, demographic and travel analysis, stakeholder interviews and survey responses led to the strategies for Rockwall County outlined in this chapter.

Public Transportation Opportunities, Gaps in Service and Resources

This section summarizes needs and resources identified in the county.

Demographic Highlights

Demographic data in Rockwall County was used to identify populations that may have high potential need for public transportation. Overall, Rockwall County residents are less likely to live below poverty. In 2010 in Rockwall County only 5.5% of the population lived below poverty while 21.4% of persons in the region as a whole had income below poverty level. Though small, the population of individuals living with lower incomes will likely have great transportation needs. Public transportation designed to meet the needs of higher-income residents may be designed quite differently.

The age distribution of Rockwall County includes a large young population, with 29% of the population under the age of 18 years old. Notable areas with large populations of young individuals were in southern Rockwall and in the northeastern section of the county, each with a population under the age of 18 comprising 36% of the total population. Younger individuals who cannot drive must rely on others, including public transportation, to travel in their communities.

Another notable demographic of the county is the overall population growth that has occurred between the 2000 Census and 2010 Census. Over the span of 10 years, the county grew in population by nearly 83% while the region as a whole grew by about 23% during the same time

period. Rockwall County experienced the fastest proportional job growth in the country between 2000 and 2010, with a 98% growth in jobs. A large portion of the county's jobs are located in the city of Rockwall (59% of the county's jobs). With rapid population and employment growth, public transportation services must adjust to keep pace with changing needs and demands.

Additional demographic detail is available in the Rockwall County existing conditions report available online at **www.accessrockwall.org.**

Transit Access Improvement Tool

The Transit Access Improvement Tool (TAIT) was developed 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. A more detailed report on the TAIT can be found in Appendix B5.

Rockwall County primarily had low TAIT scores throughout the county. The area with the highest score in the county was located in the area

Rockwall County TAIT
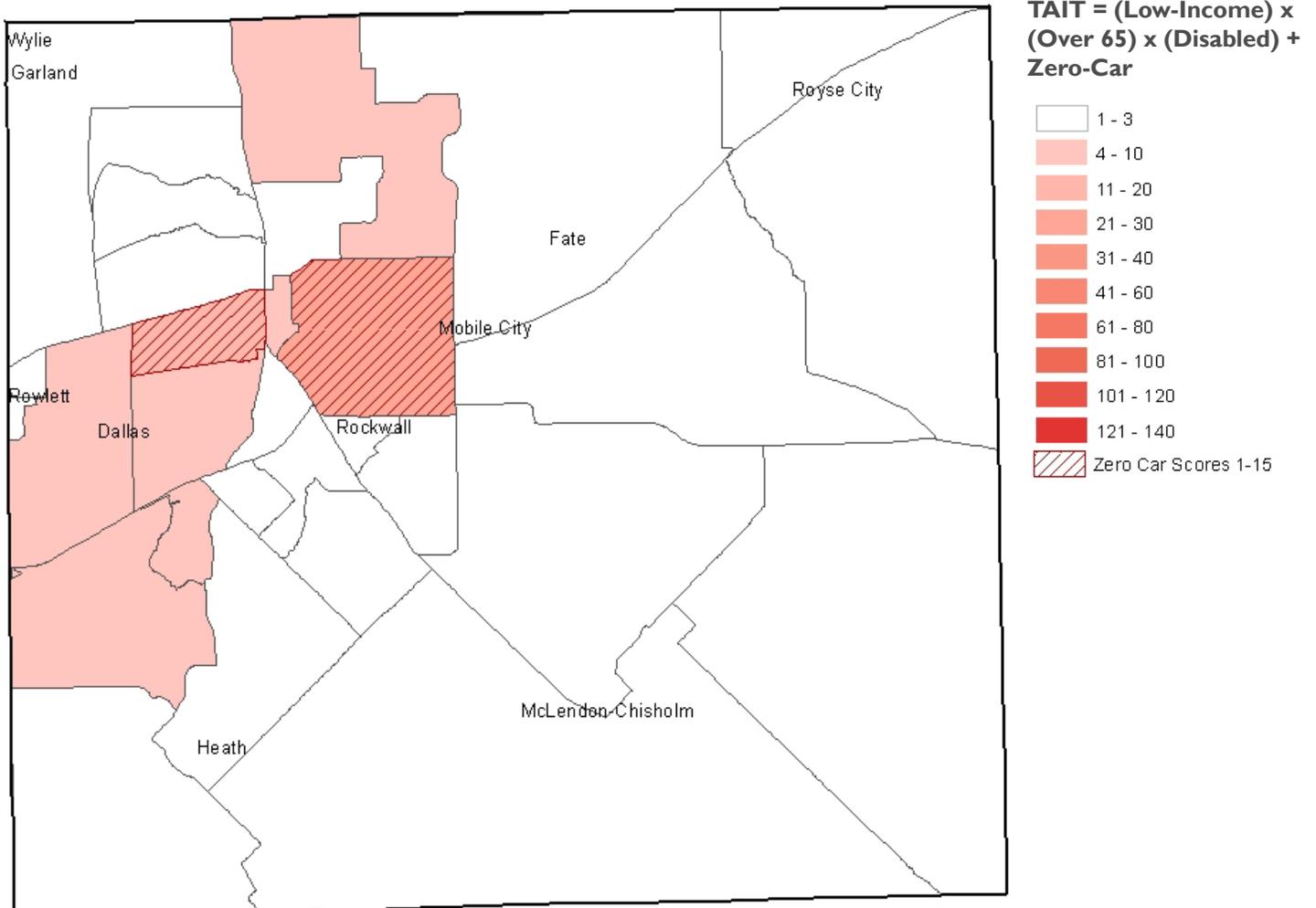
TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

	1 - 3
	4 - 10
	11 - 20
	21 - 30
	31 - 40
	41 - 60
	61 - 80
	81 - 100
	101 - 120
	121 - 140
	Zero Car Scores 1-15

between the city of Rockwall and Mobile City. In this area, the population of older adults and the population of zero car households were both greater than two times the regional average. Another area along the eastern shore of Lake Ray Hubbard included a population of zero car households that was greater than the regional average of that variable, indicating the presence of a population that may have a greater need for transportation options to access employment, medical care and community services.

Resources

The primary public transportation provider is STAR Transit, which offers demand response service available to the general public throughout Rockwall County. Demand response service is available on weekdays, generally from 8:00 am to 5:00 pm. In the city of Rockwall, demand response service is available with extended hours from 6:00 am to 6:00 pm. STAR Transit also operates Medicaid transportation in the county. Vanpool service for commuters traveling to regional employment destinations is available through Dallas Area Rapid Transit (DART) and other regional transportation authorities, although vanpools are not widely used in Rockwall County. DART also operates light rail service that terminates at the Downtown Rowlett Station on the west side of Lake Ray Hubbard in Dallas County, and some Rockwall residents may use this service to travel to regional destinations.

Relevant Plans and Projects

Relevant plans were reviewed to assess how this plan could be coordinated and integrated with community efforts. The city of Rockwall adopted its most recent comprehensive plan in 2012, which includes future transportation goals for the city. A transportation goal in the plan is to offer mutually supportive transportation choices that balance auto access with pedestrian, bicycle and transit facilities. The city of Rowlett's recently updated comprehensive plan (2011) includes a section on mobility and public transportation. The plan lays out 13 guiding principles, with the seventh principle to diversify mobility options within the city and connect activity areas.

Commuter Summary

A travel analysis identified significant commute and other travel patterns of Rockwall County residents. Based on the analysis, around 24% of work trips generated in Rockwall County remained within the county, 11% of work trips traveled to Garland/Richardson, 7% traveled to Hunt County, 6% traveled to northeast Dallas, and 6% traveled to far north Dallas. In the city of Rockwall, about 22% of work trips are satisfied internally. Because the majority of Rockwall County's workers travel to dispersed job locations in the region, variations on traditional transit solutions may be needed to meet employment transportation needs.

Stakeholder Interviews

The primary transportation issues identified most often by stakeholders included traffic congestion, particularly due to the barriers of crossing the lake and concern about the limited information and lack of awareness of existing public transportation services in Rockwall County. Several stakeholders noted that there are limited transportation options for seniors, low-income residents and people with disabilities. Many noted that planning is done primarily for automobiles and there is a priority to maintain streets and roads. Others noted that Dallas Area Rapid Transit (DART) rail service terminates on the other side of the lake in Rowlett.

Key transit-specific needs highlighted by stakeholders included service for transit-dependent populations and improved marketing and awareness of existing services. Commuter transportation was also identified as an area warranting additional study, based on conflicting views regarding the need for commuter service. Several stakeholders expressed interest in a local circulator shuttle within Rockwall and several also mentioned that there are pockets in Rockwall County where there is a need for more transportation services, such as Royse City, Blackland and Mobile City.

Stakeholders also discussed the potential for building support for transit. Many felt that it would be difficult to secure additional public funding to support transit in Rockwall County.

Stakeholders felt that finding political support for transit projects would be difficult considering cities are growing fast and elected officials are often more focused on attracting even greater growth.

Survey Findings

Findings from the surveys provided additional information on the needs and challenges of public transportation in Rockwall County. The data demonstrates that a majority of survey respondents drive themselves to destinations, and those that have used public transportation mainly have experience with DART rail and bus services and, to a lesser extent, STAR Transit. Those that do use transit services appear to value the existing services and want more of them. Dallas and Rockwall are the two most commonly cited places that cannot be reached due to a lack of transportation. Purposes of trips that were missed by riders due to a lack of transportation were trips to medical facilities, shopping facilities and religious trips.

Factors that would encourage the use of public transportation among those who have transportation challenges include service availability on evenings and weekends, better daytime transit availability, more sidewalks and crosswalks to facilitate access and more affordable fares. Among the general public, more would use public transportation if gas prices rise and if traffic congestion worsens. Potential new public transportation services that most appeal to those with current transportation challenges include local bus services, bus service between cities and communities in Rockwall County and shuttle/ express service to DART. Shuttle/express service to DART was also appealing to the general public, along with countywide dial-a-ride service. On the whole, transit, as a proposed service in the community, is valued even if individuals are not likely users.

Strategies for Coordinated Public Transportation

Using demographic and travel analysis and a review of existing services combined with stakeholder outreach, strategies that could address gaps in service were developed.

Prioritized Strategies

Strategy 1
Improve public awareness of existing and new public transportation services

Strategy 2
Increase transportation options for seniors, low-income residents and people with disabilities, including increased daytime, evening and weekend service to improve access to community destinations

Strategy 3
Identify, plan for and provide transportation options for access to regional employment opportunities

Additional Strategies

- Explore needs for transportation service to identified employment clusters within Rockwall County
- Improve the condition and availability of sidewalks and crosswalks in order to facilitate access to transit
- Explore partnerships to increase the affordability of fares for those most in need

Additional strategies that address needs identified in the planning process will be considered between this plan and a future plan update.

Sixteen transportation service alternatives that provide methods to implement these strategies are outlined below. Some alternatives are appropriate for all of Rockwall County's community types. Others are only feasible under certain conditions that may not be present in every community type or at the countywide level. The alternatives are listed below and additional descriptive information for each alternative is included in Appendix C-Rockwall, including the type of need it addresses, the potential market and typical service parameters.

- Volunteer Driver Program
- Mobility Management/Coordination
- Cost Sharing Opportunities
- Promoting Public Awareness of Transportation Options
- Subsidized Taxi Program

- Carpool
- Vanpool
- Eligibility-Based Dial-A-Ride
- General Public Dial-A-Ride
- Community Shuttle
- Express Bus/Park & Ride Service
- Limited Bus Stop Service
- Point Deviation Service
- Route Deviation Service
- Feeder/Connector Service to Fixed-Route
- Local Fixed-Route Bus Service

All of the different types of transportation services above could be feasible in Rockwall County in the near term. To target the appropriate services to the communities where they are likely to have the greatest impact or be most effective, these services were evaluated. The evaluation was based, in part, on relationships between community types and transit service design. For transit to be most effective, individual services must be designed to match market demand and operating environments. Three geographic groupings/designations were identified for evaluating alternatives appropriate for implementation in Rockwall County, although given the county's size, these distinctions may be somewhat blurred. The geographic groupings are as follows:

Rural Communities This group includes Rockwall County cities and communities that either have a population less than 2,000 or are surrounded by largely rural land use. (McLendon-Chisholm, Mobile City and Royse City)

Suburban/Bedroom Communities This group includes Rockwall County cities that are part of the Dallas-Fort Worth-Arlington Urbanized Area, are primarily residential in nature, and have a population over 6,000. (Fate, Heath and Rockwall)

Countywide This classification applies to the entirety of Rockwall County and includes all communities and unincorporated areas.

The table on the following page shows the compatibility of each service alternative with regard to the three classifications above. A white circle indicates that the service alternative is least compatible/appropriate with a classification; a black circle shows it is most compatible/appropriate. A circle that is both black and white means that a service alternative may not be ideal for a type of community (or at the countywide level), but could be successful under certain circumstances.

Monitoring Implementation

Following the completion of the transit needs assessment and planning study for Rockwall County, transportation providers and local stakeholders will collaborate to determine next steps and to potentially implement selected strategies.

Further Information

Appendix C-Rockwall provides summary information about the menu of transit alternatives. The transit needs assessment and planning study also included funding estimates and general implementation plans for selected strategies, which are beyond the scope of this Access North Texas plan. More detail and final reports from the study will be available online at **www.accessrockwall.org.**

Transit Service Alternatives Compatibility for Rockwall County

Service Alternative	Rural Communities	Suburban/Bedroom Communities	Countywide
Volunteer Driver Program	●	●	●
Mobility Management/Coordination	○	◐	○
Cost Sharing Opportunities	○	◐	○
Promoting Public Awareness of Transportation Options	●	●	●
Subsidized Taxi Program	○	◐	○
Carpool	●	●	○
Vanpool	◐	●	○
Eligibility Based Dial-A-Ride	◐	◐	◐
General Public Dial-A-Ride	●	●	●
Community Shuttle	◐	◐	◐
Express Bus/Park & Ride Service	○	◐	○
Limited Bus Stop Service	◐	◐	○
Point Deviation Service	●	●	●
Route Deviation Service	◐	◐	◐
Feeder/Connector Service to Fixed-Route	◐	●	○
Local Fixed-Route Bus Service	○	○	○

○ Least compatible/appropriate

◐ Could be successful under certain circumstances

● Most compatible/appropriate

Chapter Seventeen
Tarrant County

The Plan Process

In Tarrant County, prioritized strategies for addressing transportation needs and gaps in service were developed through an in-depth transportation needs assessment. This included analysis of a wide variety of data such as demographic and geographic factors of transit-dependent populations and an analysis of major activity centers in the county. It also summarized existing transit services in the county including services provided for seniors, people with disabilities and low income individuals. In addition to demographic and service data, interviews with key stakeholders in Tarrant County, outreach meetings and focus groups provided additional information about transportation needs and community concerns. Data analysis and community input was further supplemented by an online and paper survey distributed at key locations and meetings throughout the county.

Approximately 30 stakeholder interviews were conducted in December 2012 and January 2013 to learn more about the major transportation needs in Tarrant County. Interviewees included elected officials, local government staff, human service providers, transportation providers and others familiar with transportation needs in the county. A series of public outreach meetings were convened in February 2013 to learn more about transportation challenges and needs. Focus groups were also held, bringing together transportation service providers and social service providers. The focus groups confirmed the most significant transportation needs in the county.

A survey supplemented other outreach efforts and outlined the existing needs and challenges facing residents and stakeholders. The survey could be completed online or downloaded and returned via mail. Surveys were announced through approximately 35 press releases, as well as through distribution at social service agencies, meetings and at intercept locations.

Together, demographic analysis, public outreach, stakeholder interviews and survey responses led to the strategies for Tarrant County outlined in this chapter.

Public Transportation Opportunities, Gaps in Service and Resources

This section summarizes needs and resources identified in Tarrant County.

Demographic Highlights

The demographics and community profile of Tarrant County focused on the distribution and density of transit dependent populations to help better understand the travel needs of residents. Activity centers, major employers, colleges and universities and medical facilities were also mapped to develop a more holistic view of the county. Between 2012 and 2020, Tarrant County's population is expected to grow from 1.8 million to 2.1 million people. Furthermore, population growth is anticipated in outlying suburban and rural areas where current transit service is limited or nonexistent.

High concentrations of populations that may have limited mobility options and a higher propensity to use public transit services are located in the central areas of Fort Worth as well as southern and northwestern portions of the city. Likewise, Richland Hills, Haltom City, Sansom Park, Arlington, the White Settlement-Westworth Village area and the Azle-Pelican Bay area show similar characteristics. About 14% of all residents in Tarrant County live below the poverty level. Pockets of poverty exist through-

out the county, but are concentrated in portions of Fort Worth and Arlington, as well as smaller communities, including White Settlement, Haltom City and Sansom Park.

In some communities, a high proportion of residents are older adults. More than 20% of the population is age 65 or older in some parts of Benbrook, Pantego, Hurst and Dalworthington Gardens. The population of seniors in Tarrant County is not homogenous. There are new retirement communities comprised of higher-income seniors who may be able to rely exclusively on private transportation options. In older, lower-income communities, many adults have aged in place and have a greater likelihood of needing public or agency-provided transportation services.

Many colleges and universities, especially those in Fort Worth, are served by transit, but several Tarrant Community College campuses are not. Many medical facilities and dialysis centers are served by the Fort Worth Transportation Authority (The T) in Fort Worth. However, in Arlington and several cities in the northeast, including North Richland Hills, Bedford, Euless and Grapevine, medical facilities and dialysis centers are not served by transit.

Additional demographic detail is available in a transportation needs assessment report at www.accesstarrant.org. Demographic and major destinations data suggests that needs are diverse and a variety of strategies may be needed to address those needs.

Resources

There are a myriad of transportation services in the county. The Fort Worth Transportation Authority (The T) operates 34 bus routes throughout its service area that includes the cities of Fort Worth, Richland Hills and Blue Mound. The T also operates paratransit service called Mobility Impaired Transportation Services, or MITS. MITS provides door-to-door service for disabled persons who meet eligibility guidelines within The T's service area. Through a partnership with Dallas Area Rapid Transit (DART), The T also provides the Trinity Railway Express (TRE), a commuter rail line between downtown

Dallas and downtown Fort Worth. The ten TRE stations include several park-and-ride facilities along the heavily traveled Highway 183/121 corridor.

There are also specialized demand response services for older adults, persons with disabilities and low income individuals. Providers serving seniors only include Senior Citizen Services of Greater Tarrant County (SCS), Mid-Cities Care Corps, SeniorMovers, and Social Transportation for Seniors (STC). Providers serving people with disabilities and seniors include Call A Ride of Southlake (CARS), Northeast Transportation Services (NETS), Handitran, The Grand Connection, and Tarrant County Transportation Services (TCTS). Providers serving eligible low-income individuals include Catholic Charities of Fort Worth, HEB Transit, and Ride2Work. Catholic Charities of Fort Worth provides medical transportation and LogistiCare coordinates Medicaid transportation for eligible clients. The figure on page 17.3 depicts many of the transportation services available in Tarrant County.

Several projects underway around the county also serve as resources for access to transportation, including MY RIDE Tarrant, Tarrant RIDES and the Tarrant Riders Network. MY RIDE Tarrant is a program established to provide a one stop resource for information on transportation options available in Tarrant County. Tarrant RIDES is a one-year demonstration project that links eligible individuals with affordable transportation through a sponsoring agency. Tarrant Riders Network is a coalition comprised of stakeholders in Tarrant County that have a vested interest in improving public transportation options within the county. The vision of the coalition is "to ensure customer and rider focused transportation options that meet the needs of all."

Despite the variety and complexity of services available in Tarrant County, gaps in service exist due to factors such as eligibility and geographic limitations. Opportunities for improved coordination among transportation providers also exist where providers serve transit-dependent populations in similar geographies.

Medicaid Transportation and Catholic Charities/WHEELS service (both medical and non-medical) are countywide/regional services and are not shown on map.

GIS Data Sources: NCTCOG, Tarrant County, The T (the FWTA), DART

N

0 5 Miles

— Fort Worth Transportation Authority (FWTA)/The T Routes

The T's Mobility-Impaired Transportation Service (MITS) = Blue Mound, Fort Worth, Richland Hills

— Trinity Railway Express Line (TRE)

Specialized Services

Grand Connection = Grand Prairie

Handitran = Arlington + 1.5 miles outside city limits

HEB Transit = Bedford, Euless, Hurst

Northeast Transportation Service (NETS) = Bedford, Euless, Grapevine, Haltom City, Hurst, Keller, North Richland Hills

Ride2Work = Arlington, Bedford, Euless, Hurst

Senior Citizens Services of Greater Tarrant County (SCSTC) = Arlington, Fort Worth, Grapevine, Mansfield, White Settlement

Tarrant County Transportation Services (TCTS) = Azle, Benbrook, Everman, Mansfield, Saginaw, Sansom Park, Westworth Village, Forest Hill, Crowley, Kennedale

Specialized Services by City:

Arlington - Handitran, Grand Connection, Ride2Work, STSTC
Azle - TCTS
Bedford - HEB, NETS, Ride2Work, MCCC
Benbrook - TCTS
Blue Mound - MITS
Colleyville - MCCC
Crowley - TCTS
Dalworthington Gardens - Handitran
Euless - HEB, NETS, Ride2Work, Handitran (partial)
Everman - TCTS
Forest Hill - TCTS, Handitran (partial)
Fort Worth - MITS, STSTC
Grand Prairie - Grand Connection, Handitran (partial)

Grapevine - NETS, STSTC, SeniorMovers, MCCC
Haltom City - NETS, MCCC
Hurst - HEB, NETS, Ride2Work, MCCC
Keller - NETS, MCCC
Kennedale - TCTS, Handitran (partial)
Mansfield - TCTS, Handitran (partial), STSTC
North Richland Hills - NETS, STS, MCCC
Pantego - Handitran
Richland Hills - MITS
Saginaw - TCTS
Sansom Park - TCTS
Southlake - CARS, MCCC
Watuaga - MCCC
Westlake - MCCC
Westworth Village - TCTS
White Settlement - STSTC

No Specialized Services:

Burleson, Edgecliff Village, Haslet, Lake Worth, Lakeside, Pelican Bay, River Oaks, Westover Hills

Volunteer services are not shown on map, but include Mid-Cities Care Corps (MCCC), SeniorMovers, Social Transportation for Seniors (STS), and Call A Ride Southlake (CARS)

17.3

Stakeholder Interviews

While discussions covered a wide range of transportation concerns depending on participants' involvement in and knowledge of transportation services, a number of common themes emerged.

Stakeholders identified the need for employment transportation, need for transit service options in smaller communities, need for better system coordination, need for more specialized services especially for seniors and individuals with disabilities, need for more sustainable funding for public transportation, need for a one-call center and need for improved public outreach efforts.

Stakeholders were concerned that public transit and demand responsive services are not always available when needed, primarily early morning service before 8 AM and evening service after 6 PM. Capacity constraints during peak hours are an ongoing issue as well as limited weekend service. Service to dialysis centers and the Alliance commercial and industrial sector, and service for veterans and residents living in the outlying areas of the county (White Settlement, Lakeside, Lake Worth and Haslet) were also common concerns. It was also recognized that there are other specialized population groups besides older adults, low income individuals and persons with disabilities within Tarrant County that are in need of public transit and demand responsive services. The groups noted were students, homeless persons, non-English speaking persons and at-risk students. Finally, many interviewees recognized the need to explore public/private partnerships to help solve transportation issues in the county.

Stakeholders that participated in focus groups were asked to identify locations where services are needed but not available, times when services are needed but not available, needed improvements to service quality and organizational needs where there are system and institutional limitations.

In terms of locations where services are needed, participants identified entry level job sites, dialysis clinics, the John Peter Smith Health System and other medical facilities. They also specifical-

ly identified the City of Arlington where services for the general public are not available. Stakeholders identified the need for more frequent service on bus routes, same day service for demand response trips and service to accommodate non-traditional shift times. Service quality needs identified included affordable service, trips not limited to specific purposes, improved transfers between providers and more door-to-door service. Organizational needs included better coordination of funding, establishing a single point of contact for transportation information and establishing a lead agency to implement coordination initiatives.

Public Outreach Meetings

Identified concerns and needs varied at the outreach meetings. In some locations, most seniors currently have access to a car and are able to drive themselves or their spouses to life sustaining and life enriching activities. Many however expressed their concerns for the future, and how their inability to drive due to age and medical conditions might leave them isolated in areas without transit service.

Other participants rely on the senior center van as the only transportation service available to them. They find it difficult to travel to Fort Worth for medical appointments and for shopping trips. Some seniors that use MITS hoped that it can someday serve an expanded service area.

Representatives at the Vietnamese Community Center said that many community seniors participating in the senior day care service and meal service depend on their children to take them to the center, to medical appointments and the grocery store. Since many children and other family members also work, community leaders realize that it is becoming increasingly difficult for seniors to be transported during normal business hours. Vietnamese community representatives further identified the highest needs in their community for older, disabled and low income individuals to be trips to ethnic grocery stores, medical appointments, after school programs and weekend religious services.

Survey Findings

Findings from the surveys provided additional information on the needs and challenges of public transportation in Tarrant County. Besides individuals that prefer to drive, those that do not use transportation services note that transit is not available, there is not enough information to know what services are available or that service does not operate when and where it is needed. Others do not use public transportation because they get rides from others.

Transit users ride for a variety of purposes such as shopping, medical and dental trips, followed by recreation or social entertainment. Respondents identified places they would like to access but cannot including Arlington, Fort Worth, Grand Prairie and Dallas. The most common trips that were noted as most difficult to make during weekdays and weekends included doctor visits, hospital visits and grocery shopping.

Overall, the data suggests that while the majority of respondents typically drive alone for most of their trips, public transit service is valued even if individuals are not likely users and that some transit for those who need it most should be made available. Overall improvements to transit service in terms of frequency and hours of operation would encourage people to strongly consider using public transit. Additional factors that would encourage transit use include a feeling of safety and an increase in gas prices. Other feedback highlighted the need for more cities to be served by and connected to The T and the TRE, and a great need for service improvements especially for seniors and people with disabilities.

Relevant Plans

Recent and ongoing plans in Tarrant County were reviewed to determine how this plan could be coordinated and integrated with these community efforts.

The 2010 Fort Worth Transportation Authority Strategic Plan outlines numerous action items for expanding services in the years 2010-2020. They include the expansion of commuter rail service, initiation of park-and-ride express ser-

vices, expanded bus service, developing alternative service delivery models (such as deviated fixed-route services) and expanding a bicycle sharing network.

The Planning Livable Military Communities effort was initiated in 2010 by the North Central Texas Council of Governments on behalf of the communities surrounding the Naval Air Station Fort Worth, Joint Reserve Base to recommend community improvements that are compatible with base operations. A portion of this study focuses on public transportation needs and it will identify existing services available to get residents and military personnel to life enriching and life sustaining destinations, as well as strategies to increase the availability of transportation in the study area.

Strategies for Coordinated Public Transportation

Transportation has been identified as a top priority for Tarrant County in recent years. Due to the county's exponential growth, numerous transportation options, and various resources to provide and coordinate transportation for individuals in Tarrant County, it is a challenge to effectively meet the needs of all transit dependent individuals.

Using demographic and travel analysis and a review of existing services combined with public and stakeholder outreach, strategies that could fill those gaps were developed.

Prioritized Strategies

Strategy 1
Improve coordination among transportation providers that serve transit-dependent populations in similar geographies

Strategy 2
Coordinate ongoing efforts to establish and expand a one-call center for transportation options

Strategy 3
Address gaps in service due to eligibility

Strategy 4
Establish or enhance transportation service in

geographies with limited or no transportation options including outlying areas of the county such as White Settlement, Lakeside, Lake Worth and Haslet as well as the Alliance area and dialysis centers

Strategy 5

Expand the availability of transportation options in the early morning, in the evening and on weekends

Strategy 6

Expand employment transportation for low-income individuals without transportation options

Strategy 7

Establish service for veterans without transportation options to facilitate access to Veterans Affairs locations and community services

Strategy 8

Increase public awareness of new and enhanced transportation services, including enhanced outreach to individuals with limited English proficiency

Additional Strategies

- Improve the availability of transportation options during peak hours when services are constrained by high levels of demand
- Explore additional specialized services to serve the needs of students, homeless persons and non-English speaking persons
- Explore opportunities for public/private partnerships as a way to address gaps in service
- Additional strategies that address needs identified in the planning process will be considered between this plan and a future plan update.

Twenty-three transportation alternatives that provide methods to implement these strategies are outlined below. The alternatives for consideration were grouped into four categories: mobility management, transit service, public-private service and personal alternatives. The alternatives are listed below and additional descriptive information for each alternative is included in Appendix C-Tarrant, including the type of need it addresses, the potential market

and typical service parameters.

- Mobility Management
- Cost sharing/leveraging of funding
- Joint procurement of vehicles and equipment
- Raise public awareness of transportation programs
- Transportation voucher program
- Travel navigation/information and referral
- Trip brokerage
- Uniform service policies
- Volunteer driver program
- Transit Service
- ADA paratransit /eligibility-based dial-a-ride
- Community shuttle
- Express bus/park & ride service
- Feeder/connector service to fixed routes
- General public dial-a-ride
- Limited-stop bus service
- Local fixed-route bus service
- Point deviation service
- Route deviation service
- Public-Private Service
- Site-specific shuttle
- Subscription bus services
- Vanpool
- Personal Alternatives
- Carpool
- Non-motorized transportation

All of the different types of transportation alternatives identified above could be feasible in Tarrant County in the near term. To target the appropriate services to the geographic areas where they are likely to have the greatest impact, all of the above services were evaluated, but with particular attention given to older/established urban, suburban and rural communities where people are aging in place, where new immigrants have changed community dynamics, and where major employment and other activity centers are located. Four geographic groupings were identified for evaluating alterna-

tives appropriate for implementation in Tarrant County. The groupings are as follows:

Countywide This classification applies to the entirety of Tarrant County and includes all communities and unincorporated areas.

Fort Worth This group includes the city of Fort Worth and areas where the Fort Worth Transportation Authority provides service.

Arlington/Grand Prairie This group includes the cities of Arlington and Grand Prairie.

Rural and Suburban This group includes all the rural and suburban portions of Tarrant County outside of Fort Worth, Arlington, and Grand Prairie.

The table on page 17.8 shows the compatibility of each service alternative with regard to the four classifications above. A white circle indicates that the service alternative is least compatible/appropriate with a classification; a black circle shows it is most compatible/appropriate. A circle that is both black and white means that a service alternative may not be ideal for a type of community (or at the countywide level), but could be successful under certain circumstances.

The highest scoring alternatives at the countywide level are listed below. They will be considered as preferred alternatives that could be implemented in the immediate term.

*   Raising public awareness of transportation programs
*   Travel navigation/information and referral
*   Establishing uniform service policies among providers
*   Developing or expanding volunteer driver programs and driver reimbursement programs
*   Implementing community shuttles
*   Use of vanpools
*   Investing in pedestrian amenities to promote non-motorized alternatives

Several other alternatives were also identified

as high scoring and are considered to be "second-tier alternatives," suggesting they could be implemented in some communities, but not in others, or they may require longer-term efforts for successful implementation. These are as follows:

*   General public dial-a-ride
*   Transportation voucher programs/fare reimbursement
*   Joint procurements
*   Trip brokerage
*   Point deviation service
*   Site-specific shuttles
*   Carpool

Monitoring Implementation

Following the completion of the transit needs assessment for Tarrant County, transportation providers and local stakeholders will collaborate on next steps and to implement preferred strategies.

Further Information

Appendix C-Tarrant provides summary information about the menu of alternatives developed to better coordinate services for transit dependent individuals. General implementation plans and financial assessments for preferred strategies beyond the scope of Access North Texas and the final report from the transportation needs assessment will be available online at www.accesstarrant.org.

SERVICE ALTERNATIVES	Countywide	Fort Worth/ The T	Arlington-Grand Prairie	Rural and Suburban*
A. Mobility Management Strategies				
Cost sharing/leveraging of funding	◐	◐	◐	◐
Joint procurement of vehicles, equipment and insurance	◐	◐	◐	◐
Raise public awareness of transportation programs	●	◐	●	●
Transportation voucher program/Fare reimbursement	◐	◐	●	◐
Travel navigation/information and referral	●	●	●	●
Trip brokerage	◐	◐	◐	◐
Uniform service policies	●	◐	●	●
Volunteer driver program/Driver reimbursement program	●	◐	◐	◐
B. Transit Strategies				
ADA paratransit/eligibility-based dial-a-ride	◐	●	●	●
Community shuttle (also includes potential for dialysis shuttle)	●	●	●	●
Express bus/park & ride service	○	○	○	○
Feeder/connector service to fixed routes/TRE	◐	●	◐	◐
General public dial-a-ride	◐	○	●	●
Limited-stop bus service	◐	●	◐	◐
Local fixed-route bus service	○	●	●	◐
Point deviation service	◐	◐	●	●
Route deviation service	◐	◐	●	●
C. Public-Private Strategies				
Site-specific shuttle	◐	◐	◐	◐
Subscription bus services	○	○	◐	○
Vanpool	●	●	●	●
D. Personal Strategies				
Carpool	◐	●	●	◐
Non-motorized alternatives	●	●	◐	◐

*Rural and suburban portions of Tarrant County outside Fort Worth, Arlington and Grand Prairie

○ Least compatible/appropriate   ◐ Could be successful under certain circumstances   ● Most compatible/appropriate

Chapter Eighteen

Wise County

The Plan Process

Stakeholders worked together to develop strategies for the coordination of public transportation in Wise County. An existing conditions report was prepared to document demographic information for populations that potentially have a greater need for public transportation. The existing conditions report also identified transit trip generators, employment clusters and commute patterns. The report summarized the transportation resources available in Wise County and identified local planning efforts that consider public transportation and that may be relevant to Access North Texas.

Beyond the data collection and analysis efforts described above, a public outreach meeting was held in April 2012 to further define the transportation needs and gaps in service in the county. A short presentation was followed by an open discussion to hear the attendees' thoughts, perspectives and experiences. There were 35 attendees at the public outreach meeting from a variety of organizations. Attendees included transportation providers, community advocates, local government representatives, social service agencies and health and human service agencies. Prior to the meeting, 103 organizations and individuals were contacted directly with meeting information. Stakeholders who could not attend the public outreach meeting were contacted for additional perspective on priorities in Wise County.

Stakeholder and public outreach and data analysis informed the prioritized strategies included in this chapter. These strategies highlight the most important aspects of public transportation that stakeholders thought should be addressed in the near term future.

Public Transportation Needs, Gaps in Service and Resources

This section summarizes the transportation needs and resources identified in the county based on the existing conditions report, public outreach and stakeholder input.

Transit Access Improvement Tool

The Transit Access Improvement Tool (TAIT) was developed 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. A more detailed report on the TAIT can be found in Appendix B5.

In Wise County the highest TAIT score was in the central portion of the county in southeast Decatur. There were also higher TAIT scores in the city of Bridgeport and in the southern portion of the county near Boyd and Newark. The area of Decatur with the highest TAIT score had a significant population of individuals greater than 65 years old. Older adults with transportation challenges may need specialized services to

help them access needed medical care and community services.

The population of individuals with limited income is notable in those areas with the highest TAIT scores located in Bridgeport and Decatur. These areas also include substantial populations of zero car households and persons with disabilities. Living without access to a vehicle in addition to potential mobility-limiting factors of age, ability or income means that it may be very difficult for some residents to access needed employment opportunities, medical care and community services.

Wise County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

☐	1 - 3
☐	4 - 10
☐	11 - 20
☐	21 - 30
☐	31 - 40
☐	41 - 60
☐	61 - 80
☐	81 - 100
☐	101 - 120
☐	121 - 140
⧄	Zero Car Scores 1-15

Resources

Resources located in the county include government, social, medical and transportation agencies and organizations. The main public transportation provider is Texoma Area Paratransit System (TAPS), which serves the general public, older adults and individuals with disabilities with demand response curb-to-curb service on a call-in basis. The Wise County Committee on Aging also provides limited transportation to older adults in the county. Other non-transportation resources available in the county that may play a key role in coordinating transportation resources include the United Way of Wise County, local government, major employers and Weatherford College-Wise County. Coordination among a variety of resources will likely be needed to address the needs for transportation identified in Wise County.

Commuter Summary

Of the over 21,000 employed residents of Wise County, almost two thirds travel out of the county for work. One in three commuters travel

between 25 and 50 miles to work, most heading southeast toward Fort Worth and a smaller number traveling east toward Denton County. Commuters traveling longer distances may need transportation options that connect to regional employment opportunities to help manage their commuting costs. Greater detail on the commuter characteristics of the county can be found in Appendix C-Wise.

Relevant Plans

Relevant plans were reviewed to assess whether Access North Texas implementation efforts could be coordinated and integrated with these community efforts. The Wise County Criminal Justice Plan was completed in 2005. Though not focused on transportation, the plan acknowledges that a lack of public transportation throughout Wise County is a barrier to employment and community involvement. The Decatur Long Range Master Plan, completed in 2004, outlines goals to create a more sustainable future. One of the chief goals is to develop policies for various transportation modes that will increase safe access to employment centers, community services, retail, commercial and recreational areas and educational facilities.

Needs Identified

The public outreach meeting provided firsthand information from public transportation providers and users, citizens and other stakeholders. Needs identified in the county generally focused on improved transportation options for Wise County residents as they travel locally and in the region. However, stakeholders first highlighted the need to improve public awareness of existing services through communication and education efforts. They noted the lack of visibility and lack of correct information about existing public transportation services provided by TAPS.

Local access needs were discussed in terms of improvements to existing services that would better enable residents to access services and employment. For many, service beyond typical business hours is needed in order for public transportation to serve as a viable option for employment, shopping and medical care. For existing customers, a reduction of very long trip times and smaller scheduled pickup window for service would address a need for consistent service. Many stakeholders noted that those most in need of transportation services travel from throughout the county to mental health services, probation appointments and medical services in Decatur.

Attendees discussed the need for access to regional destinations and links to regional transit services. Many saw that transportation service across political boundaries can be a challenge if boundaries serve as an artificial barrier. However, the need to access regional employment opportunities and medical care necessitates overcoming this barrier. Among the regional destinations important to Wise County residents are employment centers and regional transit services in Tarrant County and Denton County, medical facilities in Fort Worth and Dallas and the state hospital in Wichita Falls.

Strategies for Coordinated Public Transportation

Building on the information from data analysis and public and stakeholder outreach outlined above, the implementation strategies below focus on the most important aspects of public transportation that stakeholders thought should be addressed in the next few years.

Prioritized Strategies

Strategy 1

Improve medical access

Strategy 2

Establish connections to regional transit services in Denton County
and Tarrant County

Strategy 3

Improve public awareness and visibility of available service

Strategy 4

Establish and maintain a county coordinating committee to focus on ongoing transportation needs

Strategy 5

Increase evening and weekend service

Additional Strategies

- Establish consistent and effective driver recruitment and retention programs for public transportation services to address difficulties in retaining drivers for vehicles in Wise County
- Provide travel training for older adults or individuals with disabilities to learn how to use public transportation

Additional strategies that address needs identified in the planning process will be considered between this plan and a future plan update.

Monitoring Implementation

Moving forward with implementation in Wise County, local and regional stakeholders, including TAPS, will partner and work together to implement strategies in the plan and monitor their implementation. Potential participating stakeholders were identified based on those that found continued conversations about improving public transportation valuable and those that may be able to provide resources and services in the county. Any willing and interested parties are always welcome to join the discussion and be part of the ongoing planning and implementation process.

Further Information

More detailed information for Wise County can be found in Appendix C-Wise available at www.accessnorthtexas.org.

Dallas/Fort Worth International Airport

The Plan Process

In the area of Dallas/Fort Worth International Airport (DFW Airport), strategies for addressing transportation needs and gaps in service were developed through an in-depth transit service planning study. The study evaluated the effectiveness of existing and planned transit options to meet the future mobility needs of employees working at the airport or in the airport's immediate vicinity. Outside the scope of Access North Texas, the study also explored the needs of air travelers and other visitors to the airport.

To identify needs and strategies to address those needs, the process included travel and demographic data analysis, identification of transportation services and a peer review of airports served by rail transit to identify factors that influence the extent to which airport employees use transit to get to work. Ultimately, the study identified challenges and opportunities for expanding transit coverage for airport employees and airport-area employees. These strategies for public transportation are outlined in this chapter.

Public Transportation Opportunities, Gaps in Service and Resources

This section summarizes information about transportation resources for airport employees and for airport-area employees and observations about public transportation needs.

Resources

A variety of transportation services connect workers to jobs in and around DFW Airport. This section summarizes those resources for airport employees working at the airport and for airport-area employees that either work on airport property (not in the terminals) or in the airport's immediate vicinity.

Airport employees reside throughout the region, as shown in the figure on the following page. DFW Airport does not have a single centralized gateway through which employees access the airport. Instead, the airport has developed a range of specialized shuttle services to address the mobility needs of various user groups. Transportation services that serve airport employees now and in the near future include:

- Employee Shuttles
- Remote Parking Shuttles
- DFW Airport-Trinity Railway Express (TRE) Shuttle
- Dallas Area Rapid Transit (DART) Orange Line to DFW Airport (December 2014)
- Fort Worth Transportation Authority (The T) TEX Rail[1]

Each airport terminal has an associated employee parking lot where employees can park for free and each lot has a free dedicated employee shuttle route. Employee shuttle ridership is much greater than any other shuttle service operated by the airport, providing more than 9,450 trips

1   Anticipated in 2016

ZIP Codes of DFW Airport Badge Holders

Num. of Employees
By Zip code

- 1 - 25
- 26 - 50
- 51 - 100
- 101 - 200
- 201 - 400
- 401 - 1,117
- – – Rail Line
- Dallas Fort Worth International Airport
- County Boundaries
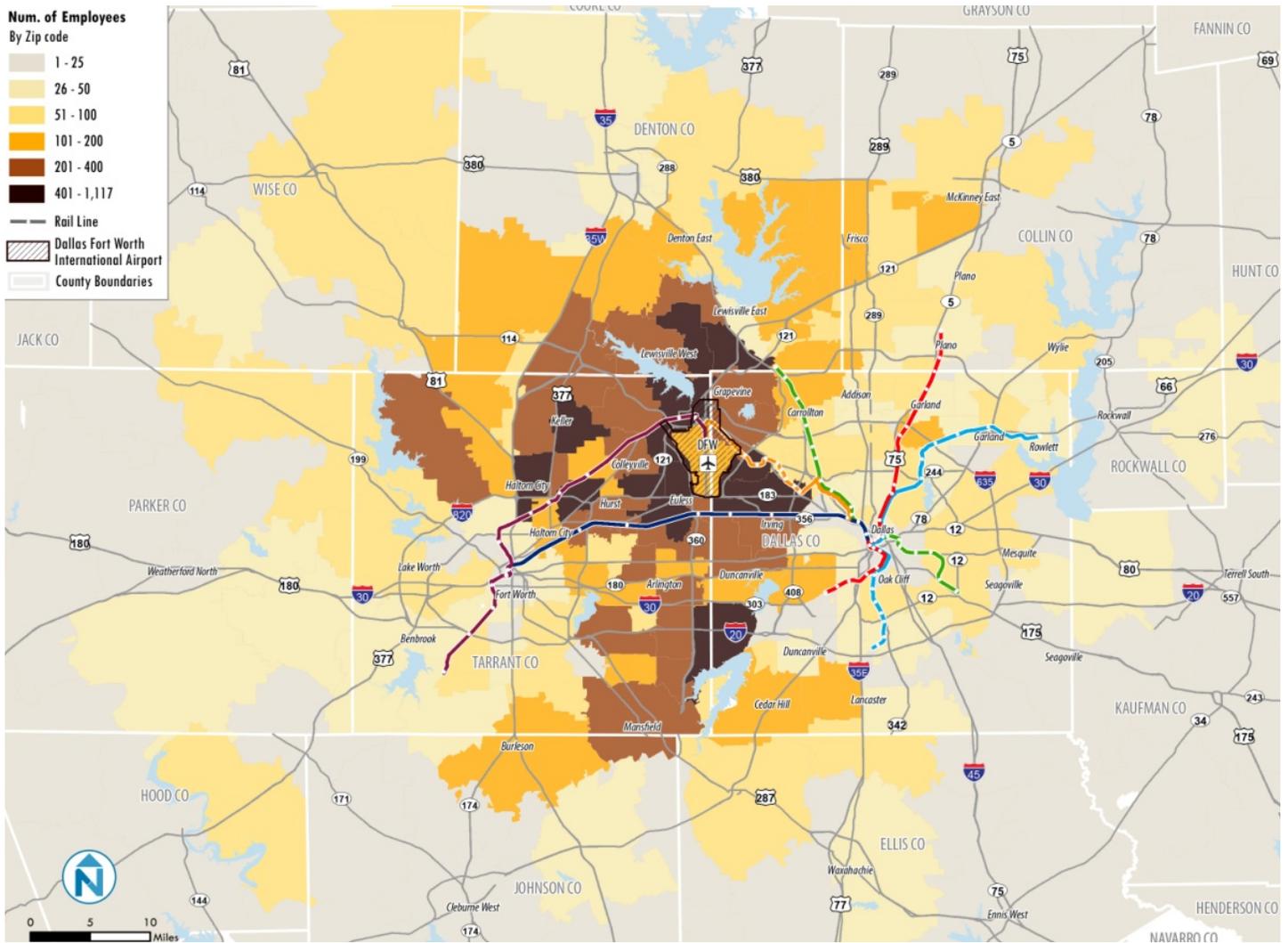
Source: DFW Airport

on a typical weekday. Trips are distributed throughout the day with three distinct peaks corresponding with shift change times (shown in the figure to the right).

The airport also operates remote parking shuttles that are designed to connect passengers arriving at remote parking lots to the terminals, but airport employees also use the shuttles to connect to other transit services at remote parking lots. Remote parking shuttle service experiences a spike

Employee Shuttle Boardings by Time of Day

Source: Ridership data from July 26, 2011 — Total Employee

in ridership at midnight that is likely due to the end of work shifts for airport employees. Ridership at other times is a mix of employees and members of the traveling public. One service that connects remote parking to regional transit service is the DFW Airport-TRE shuttle, operating between CentrePort Station on the TRE commuter rail line and DFW Airport's Remote South Parking facility.

When it opens in late 2014, DART's Orange Line to DFW Airport will offer a useful new travel option for airport employees who commute using DART services. The T's TEX Rail line is expected to provide a regional link for employees and travelers from southwest Fort Worth to the north end of the airport in 2016.

Airport-area employees work at thousands of jobs located on airport property (but not in the terminals) and surrounding the airport. A variety of transportation resources are available to meet the needs of these employees including:

- TRE Commuter Rail and DFW Airport-TRE Shuttle
- The T Route 30
- DART Orange Line to Belt Line Station
- DART Route 408, Route 500, Route 509 and Route 510

Many employment opportunities are clustered near the TRE CentrePort Station south of the airport and employees benefit from the link to the airport facilitated by the DFW Airport-TRE shuttle. The T operates Route 30 in the DFW Airport vicinity. This route serves as a circulator service for major institutions and employers in the CentrePort area during weekday peak periods. The route links CentrePort Station and the CentrePort area through service on a West Loop, Amon Carter Loop (which serves American Airlines headquarters) and East Loop.

DART also operates services in the vicinity of DFW Airport, including locations on airport property as well as nearby airport-related employers. Route 408 is a daily crosstown route serving the DFW Airport Remote South Parking lot and the DFW Airport Rental Car Center. The route also connects to the TRE at South Irving Station, to DART's Green Line at Southwestern Medical District/Parkland Station and to several residential areas in Irving. DART's Orange Line currently terminates at Belt Line Station in north Irving just outside the airport's perimeter. Route 500 links the Belt Line Station to DFW Airport, nearby airport hotels and the TRE's CentrePort Station. This route will be discontinued when the Orange Line extension to the

airport is completed in December 2014. Route 509 serves the Belt Line Station and businesses to DFW Airport's northeast side with weekday service. Route 510 serves the Belt Line Station and businesses to DFW Airport's east side with weekday service.

Public Transportation Needs

While robust regional rail service is anticipated over the next few years, this service does not address needs for access to employment sites that are on airport property but outside of the central terminal area. The last mile connection—the movement of passengers from a transit station to their final destination—is especially challenging due to limited pedestrian options in the vicinity of the airport. Several large employers, including FedEx, LSG Sky Chefs, Aviall and UPS, are located on airport territory outside of the terminal area. For employees of these businesses, the extension of TEX Rail and the Orange Line to Terminals A and B will have limited value unless last mile connections are established.

Employees working in one of DFW Airport's terminals or at locations served by the airport's existing shuttle services (car rental facility, remote parking facilities, on-airport hotels) have little trouble reaching their workplaces once they are onsite at the airport. However, for those who live outside of DART's or The T's service area, accessing airport employment is currently a challenge. As the airport moves to new headquarters at Southgate Plaza south of the airport in the next few years, transit services will need to be modified to ensure continued transportation access for employees whose workplaces are located at the new headquarters.

About 23% of the nearly 283,000 trips that begin or end at DFW Airport on any given weekday are employees traveling to or from work. The greatest concentration of commuters making airport-related work trips are in districts outside DART's service area. An analysis of home zip codes for DFW Airport employees reveals that 58% of airport employees live in zip codes that are not in close proximity to transit. The opening of TEX Rail will put an estimated

54% of current airport-area employees within reasonably close proximity of a regional rail line, compared to 32% with the completion of the Orange Line.

Serving the dozens of employers scattered around DFW Airport with traditional fixed route bus service is impractical for several reasons. The airport covers an area of more than 18,000 acres, with numerous office parks, warehouses and industrial zones lining Airfield Drive, which forms an almost complete loop around DFW Airport. These developments are spaced miles apart in some cases, and many are set back quite a distance from Airfield Drive. Most importantly, unlike the terminal area where travelers and employees combine to create a constant flow of shuttle passengers, potential passenger activity along Airfield Drive is limited to shift change times.

For employees traveling to the airport, a regional rail station can serve as the first step in using transit to get to work. Transit stations that serve airport destinations may have paid parking that prohibits overnight parking in order to manage parking demand. However, employees that work shifts that span more than one calendar day are penalized by pricing that is assessed by calendar day. As shown in the figure below, a portion of current transit users work overnight shifts and would be deterred from using transit if pricing is assessed by calendar day.

Shift Times of Current Transit Users
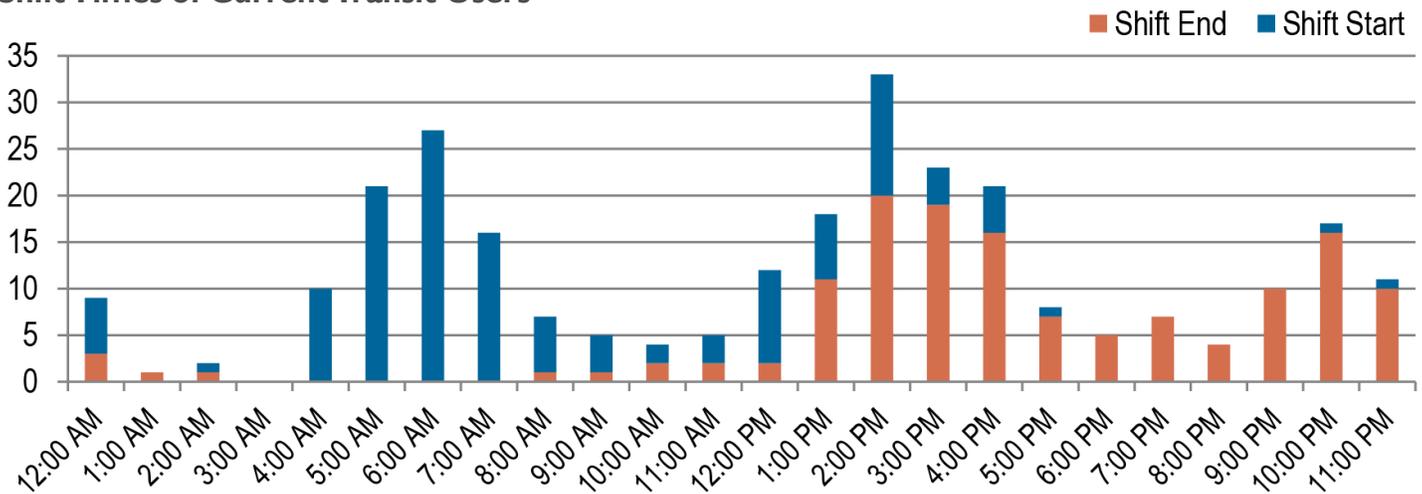
Source: 2012 User Intercept Survey conducted by Nelson/Nygaard and Team Bettter Block

Strategies for Coordinated Public Transportation

Using demographic and travel analysis, the peer review and an analysis of public transportation services, the study's assessment of transportation needs identified strategies to address those needs. The strategies outlined below include those that are feasible in the near term future.

Strategy 1

Explore feeder transit service from cities with significant populations of airport employees, including Grapevine, Southlake, Colleyville, Bedford and Euless, to facilitate access to airport employment

Strategy 2

Explore partnerships for site-specific shuttles to serve major employers and institutions in and around the airport and to connect these destinations to rail stations or transit centers

Strategy 3

Implement parking policies at transit stations that assess prices by 24-hour periods to encourage transit use by employees who work shifts that span two calendar days

Strategy 4

Maintain a last-mile connection between DFW Airport and CentrePort Station on the TRE line

and establish a new connection to Southgate Plaza when complete to serve employees

Strategy 5

Encourage employees to use transit through enhanced transit information and through discounted passes, including options such as an employee transit pass subsidy, deeply discounted passes provided through an employer or allowing employees to purchase passes with pre-tax dollars

Further Information

More detailed information about the Dallas/ Fort Worth International Airport Transit Service Planning study will be available at **www.accessnorthtexas.org** when it is complete.

Appendix A
Plan Requirements

A coordinated public transit-human services plan is required by the Moving Ahead for Progress in the 21st Century Act (MAP-21), the current federal transportation bill. Furthermore, coordination is mandated in Texas among transportation providers, health and human service agencies and workforce boards by Texas Administrative Code Chapter 461. In North Central Texas, The North Central Texas Council of Governments (NCTCOG) is the designated lead entity responsible for preparing and maintaining the region's public transportation coordination plan.

Access North Texas provides a framework for project selection according to the requirements and guidelines described below for federal and state funding programs.

Federal Coordination Requirement

Current federal surface transportation legislation, the Moving Ahead for Progress in the 21st Century Act (MAP-21), requires a locally developed, coordinated public transit-human services transportation plan. This type of coordination plan has been recommended or required for various programs since 2004, when President Bush signed Executive Order 13330 on Human Services Transportation Coordination, and since August 2005, when the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) was signed into law.

Projects funded with federal grants from the Enhanced Mobility of Seniors and Individuals with Disabilities Program (Section 5310) of MAP-21 must be included in a locally developed, coordinated public transit-human services transportation plan that was developed and approved through a process that included participation by seniors; individuals with disabilities; representatives of public, private, and nonprofit transportation; human services providers and other members of the public. Projects funded with Section 5310 grants must also, to the maximum extent feasible, be coordinated with transportation services assisted by other federal departments and agencies, including any transportation activities carried out by a recipient of a grant from the Department of Health and Human Services.

In addition, projects funded with federal grants from years prior to Fiscal Year 2013 in two additional programs, the Job Access and Reverse Commute Program (Section 5316) and the New Freedom Program (Section 5317) must be derived from that locally developed, coordinated public transit-human services transportation plan.

Proposed federal guidance for other transit funding programs included in MAP-21 recognizes that projects funded with Urbanized Area Formula (Section 5307) Program funds, including new or continuing job access and reverse commute projects, are not required to be developed through this coordinated planning process. However, the Federal Transit Administration encourages recipients to continue to use the coordinated planning process to identify and develop job access and reverse commute projects for funding under Section 5307, as amended by MAP-21. Access North Texas includes a broad approach to coordinating public transportation that considers general public transportation and services for transit-dependent populations that could be funded by the Federal funding programs outlined above.

State Coordination Requirement

House Bill 3588, enacted by the 78th Texas Legislature in 2003, requires the coordination of public transportation in the State of Texas. Specifically, Article 13 of the legislation created Chapter 461 of the Texas Transportation Code, entitled "Statewide Coordination of Public Transportation," which requires the coordination of public transportation services funded with federal, state or local funds.

Chapter 461 cites the multiplicity of public transportation providers and services, coupled with a lack of coordination between state oversight agencies, as generating inefficiencies, overlaps in service, and confusion for consumers. The focus of Chapter 461 is the statewide coordination of transportation funding and resources among the Texas Health and Human Services Commission, Texas Workforce Commission, and the Texas Department of Transportation. The intent is to ensure that the benefits of the state's public transportation resources are maximized through the coordination of services. The goals of coordination are to eliminate waste in the provision of public transportation services, to generate efficiencies that will permit increased levels of service, and to further the state's efforts to reduce air pollution.

These statewide planning requirements are reflected in coordinated public transportation planning that occurs at the regional level within the boundaries of each of the 24 Council of Governments regions. Each region prepares a public transportation coordination plan to submit to the Texas Department of Transportation highlighting transportation needs, gaps in service and strategies for coordination to address those gaps in service and needs.

Regional Public Transportation Coordination Plan (2006): Summary and Status

In 2006, the North Central Texas Regional Public Transportation Coordination Plan was created and adopted through a process led by the North Central Texas Council of Governments (NCTCOG) and with participation from individuals representing transportation providers, health and human service organizations, workforce boards, advocacy groups, transit customers and the business community. The plan emphasized coordinated delivery of transportation services throughout the 16-county North Central Texas region and encouraged increased efficiencies in public and human service transportation to better serve older adults, people with disabilities, low-income individuals and other groups with transportation challenges. The policy focus areas of the 2006 Regional Coordination Plan were:

- Improved communication and education

among transportation providers and with the public
- Efficient use of resources
- Seamless transportation services for customers

The plan included broad, regional strategies to implement these policies that have had a direct impact on transit service provision since the plan was adopted. Several projects have been completed. Some strategies are ongoing or currently under development; these projects have been identified as a continuing priority by participants in Access North Texas. A few strategies from the 2006 plan were identified as needing further evaluation to determine if the project is feasible and still needed.

More information about each strategy is summarized below.

Communication and Education

Strategy	Status
Create Transportation Provider Inventory (TPI) based "pamphlet" to distribute throughout the region in libraries, community centers, senior centers, workforce centers, etc.	Ongoing
Establish a standing Regional Transit Operations Work Group with smaller subgroups of those "that touch you."	Ongoing
Develop a regional customer education program to address how to read schedules, identify the bus, pay the fare, etc.	Under development
Update Existing Transportation Provider Inventory (TPI) and make more visible on NCTCOG website and link from other transit agency websites.	Under development
Create a GIS-based website to map routes throughout the region and across jurisdictional boundaries.	Further evaluation
Develop recommendations for common reservation, scheduling, and dispatch practices throughout the region.	Further evaluation
Establish a regional point of contact to access transportation services.	Further evaluation

Resources

Strategy	Status
Coordinate alternative fuel requirements for new vehicles (e.g., move to emission-based standards).	In place
Develop standardized vehicle specifications for suggested use classifications.	In place
Identify underutilized vehicles that can be shared to increase overall efficiencies.	Ongoing
Coordinate long-term funding to expand service provision (e.g., Medicaid, etc.).	Ongoing
Encourage regional, rather than local taxi cab certification/registration.	Under development
Establish a coordinated capital asset management plan to centralize vehicle disposition and replacement.	Further evaluation

Seamless Transportation Services

Strategy	Status
Develop regionally accepted certification for clients eligible under the Americans with Disabilities Act. and Develop common application/certification process among ADA providers.	In place
Develop a linked system of common transfer points between transit providers.	Ongoing
Eliminate idle wait times for providers crossing jurisdictional boundaries by coordinating with other providers (e.g., trips to the airport).	Ongoing
Develop regional policies to support integrated services across jurisdictional boundaries.	Ongoing
Encourage cost-sharing agreements between providers to transport clients to/from other jurisdictions.	Ongoing
Eliminate service gaps both within and between service areas.	Ongoing
Provide service where no service exists or is limited (e.g., expand Job Access).	Ongoing
Eliminate overlap between service areas.	Ongoing
Coordinate rates and fares for similar services.	Ongoing
Coordinate payment collection, such as by a universal fare card.	Ongoing
Develop a common ID card for users.	Further evaluation
Develop standardized eligibility standards (e.g., definitions of older adults and individuals with disabilities).	Further evaluation

Communication and Education

A short-term strategy was to update and increase the visibility of the Transportation Provider Inventory (TPI), an online resource of transportation options for the region that is housed on NCTCOG's website. Extensive updates to the TPI took place in 2008 and the web interface was also enhanced at that time. Though the TPI was updated in 2008, the time- and labor-intensive process to keep it up to date limits the usefulness of this resource. Work to find a viable way to provide online information about up-to-date regional transportation options continues and is included as a strategy in Access North Texas.

The plan also included a strategy to create a TPI-based "pamphlet" to distribute throughout the region. With rapidly changing service and provider information, this resource has not been created at the regional level. Stakeholders in 2006 also planned to tailor the TPI pamphlet to appropriate audiences in particular locations. In the last few years, two county-based programs have emerged that provide services above and beyond that concept: MY RIDE Tarrant and MY RIDE Dallas. The MY RIDE programs provide transportation options counseling for available transportation resources in Tarrant County (www.myridetarrant.org) and Dallas County respectively. MY RIDE Dallas, led by the Community Council of Greater Dallas' Community Transportation Network (CTN) has also printed and distributed a pamphlet with transportation options information for Dallas County called the "Get A Ride Guide" and made it available online at www.myridedallas.org.

Another short-term strategy was to establish a standing Regional Transit Operations Work

Group with smaller, focused sub-groups. Challenges associated with successfully establishing the committee following the 2006 plan included defining the committee's composition, determining content to be shared and establishment as an official subcommittee to the Regional Transportation Council (RTC). Through Access North Texas, renewed emphasis has been placed on the need for ongoing conversations at a more localized level and these are included in Access North Texas.

To help clients acquire information on available transportation options, the 2006 plan recommended development of a customer education strategy on how to read schedules, identify the bus and pay the fare. This medium-term strategy may be difficult to implement in a region with an extensive variety of providers. For example, finding the appropriate program that could be used for Dallas Area Rapid Transit and for service providers in rural areas is challenging because of the vast differences in available services. However, this continues to be a priority for customers and stakeholders in the region and this strategy has been updated and is included in Access North Texas.

The 2006 plan addresses the issue of multi-jurisdictional boundaries with a medium-term strategy to create a Geographic Information Systems (GIS) based website to map routes throughout the region and across jurisdictional boundaries. This type of project requires extensive resources to undertake, and the region continues to move forward by coordinating aspects of this project with other initiatives to improve communication. Further phases of a project of this type can potentially address a need to access reservation, scheduling and dispatch practices through one point of contact for services throughout the region.

Resources

The 2006 plan included a short-term strategy to encourage regional certification, rather than local certification, for taxi cabs and for hire vehicles. The Regional Vehicle For Hire Work Group has been established and the region continues to move forward with this strategy following the successful implementation of a limo pilot project for Super Bowl XLV in 2011.

In terms of identifying underutilized vehicles that can be shared to increase overall efficiencies in the region, some planning has taken place since 2006 and additional focus on this strategy has been included in Access North Texas.

A medium-term strategy in the 2006 plan would coordinate the region's resources by establishing a capital asset management plan to centralize vehicle disposition and replacement. NCTCOG has made progress on this strategy through cooperative procurements that have been conducted on behalf of several of the region's smaller transportation providers. Having standardized vehicle specifications in this procurement enables the reallocation of resources as needed when service provider circumstances change.

One of the 2006 strategies was aimed at coordinating long-term funding to expand service provision, including coordination with funding for Medicaid Transportation. Changes in the administrative structure of Medicaid Transportation in this region continue to evolve and transportation providers continue to coordinate services and funding to the extent feasible at all times. In addition, many transportation providers continue to have difficulty securing local funds to match federal funds. Access North Texas and other planning efforts continue to seek creative ways to leverage funds for expanding service.

The 2006 plan also included strategies aimed at coordinating alternative fuel requirements for new vehicles with the intent to establish emission-based standards rather than mandating a particular fuel type. Past regulations for propane-fueled vehicles caused providers problems related to the cost of operating and maintaining those vehicles. As a result of the 2006 regional coordination efforts and statewide identification of the need to modify the policy, the Texas Department of Transportation (TxDOT) eliminated the fuel requirement. NCTCOG continues to use a fuel-neutral approach for air quality standards.

Seamless Transportation Services

A short-term strategy that has been completed since the 2006 plan was developing a regionally accepted certification for clients eligible under the Americans with Disabilities Act (ADA). Full regional certification is difficult because of concerns surrounding the sharing of client data. However, reciprocal ADA Paratransit recognition has been formalized among the region's transit authorities: Dallas Area Rapid Transit (DART), the Fort Worth Transportation Authority (The T) and the Denton County Transportation Authority (DCTA).

Smaller transportation providers across the region have a variety of eligibility requirements and inconsistent definitions of older adults and individuals with disabilities. While the 2006 plan identified a need to standardize eligibility requirements among the region's providers, recent efforts have focused on improving awareness of service requirements to facilitate eligible riders' access to services.

With the goal of providing seamless transportation, the 2006 plan included a short-term strategy to develop a linked system of transfer points between transit providers. As a result of the coordination planning efforts, The T and the city of Arlington's Handitran service created safe and practical transfer points at The T's bus stops and Trinity Railway Express (TRE) stations. This strategy remains a priority for the region and is included in Access North Texas. Related strategies from the 2006 plan included eliminating wait times for providers crossing jurisdictional boundaries by coordinating with other providers and developing regional policies to support integrated services across jurisdictional boundaries. Access North Texas continues to encourage these strategies through increased coordination and dialogue among transit providers.

To streamline the services of various transit providers, a short-term strategy was to coordinate rates and fares for similar services. DART, The T and DCTA have coordinated fares for fixed route, paratransit and rail services. A regional fare allows access to all buses and trains re-gardless of provider. It remains a challenge to coordinate fares as riders transfer from smaller public transit systems or community transportation providers.

Strategies to eliminate service gaps within and between service areas; to provide service in areas where no service exists or is limited and to avoid duplication of services were part of the 2006 plan. NCTCOG has worked with partners throughout the region to identify and document existing service gaps and federal transit funding has been awarded to address these gaps. NCTCOG has encouraged and supported Job Access and Reverse Commute (JARC) and New Freedom (NF) projects in areas with little or no service. JARC is a program administered by the Federal Transit Administration (FTA) that addresses challenges faced by low-income persons to obtain and maintain employment. Its aim is to transport these individuals to jobs located in suburban areas from inner city, urban or rural neighborhoods. NF is a program through the FTA that provides tools for persons with disabilities to overcome existing barriers to integrate into the workforce and society. Fifty projects have been awarded since 2007 under these two funding programs. Challenges remain: local and community support has been limited for new transit services and integrating new service with existing services and providers can be difficult.

Coordination and cooperation among transit providers with a focus on coordinated payment collection among transit providers was included in the 2006 plan. DART, The T and DCTA continue to coordinate as the agencies pursue mobile ticketing.

Stakeholders in 2006 included a strategy to encourage cost-sharing agreements between providers to transport clients to or from other jurisdictions. This approach provides one means to implement strategies identified in Access North Texas and can serve as a useful tool to achieve strategies outlined in this plan.

Regional Plans and Access North Texas

Individuals and communities in the North Central Texas region and in surrounding regions have created transportation, transit and regional coordination plans that provide a framework for Access North Texas that links this plan to longer term plans in the region and to nearby geographies. Within North Central Texas, stakeholders have laid out a vision for transportation in upcoming decades. The outcomes of Access North Texas are part of the foundation for that vision to come to life. In the near term, Access North Texas also provides an opportunity for coordination among regions. Each region within Texas prepares a public transportation coordination plan like Access North Texas. Plans from adjacent regions that include strategies to address transportation access to the North Central Texas region are summarized following the information below about regional plans in North Central Texas.

Regional Plans in North Central Texas

Access North Texas focuses on near-term strategies to achieve efficiencies in transportation and coordinate resources. It identifies and supports improvements today that carry our region forward to the vision established by longer-term plans such as Mobility 2035 and North Texas 2050.

Mobility 2035 is the 12-county[1] Metropolitan Transportation Plan (MTP) prepared by the North Central Texas Council of Governments (NCTCOG) through the Regional Transportation Council, which serves as the Metropolitan Planning Organization for the region. Mobility 2035 focuses on future transportation needs and investments. Elements of this plan include long term goals that are similar to short term goals of Access North Texas such as improving the availability of transportation options. Another goal is to assure all communities are provided access to the regional transportation system and planning process. Public transportation policies of the plan were established to further a seamless multimodal transit system and to encourage and reward a comprehensive, coordinated and cooperative approach to providing public transportation that will maximize existing transportation resources. Visit **www.nctcog.org/trans** for up to date information on the region's MTP.

North Texas 2050 is a plan for the 16-county North Central Texas region that seeks to increase public awareness of projected growth, educate about the implications of growth, understand options for accommodating growth and create a forum for discussion. Vision North Texas, the group that produced North Texas 2050, is a private, public and academic partnership created to serve as a forum for important issues of growth and development. The plan addresses the future of transportation, land use and development, housing, the environment, health and many other issues paramount to a livable and successful regional future. The plan included leaders and experts that created a

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[1]   Collin, Dallas, Denton, Ellis, Hood, Hunt, Johnson, Kaufman, Parker, Rockwall, Tarrant and Wise

vision for a preferred future and a practical set of actions achieve the vision. The plan's "Action Package" identifies tools and techniques needed to achieve the vision for the region. Throughout, the plan highlights regional coordination and collaboration. Vision North Texas also includes a long-term assumption of bus service throughout the region. Visit www.visionnorthtexas.org for up-to-date information about ongoing activities related to North Texas 2050.

Public Transportation Coordination Plans: Adjacent Regions

A regional public transportation coordination plan is required by the State of Texas in each Council of Governments region. Its purpose is to streamline overlapping service by public transportation providers into a more efficient operating system. The state's goal with this requirement is to provide as many transportation options as possible with the resources available by supporting partnerships between transportation providers and service organizations. Access North Texas, the North Central Texas region's plan, was created alongside plans for adjacent regions, many of which include links to transportation services and destinations in this region.

Regionally Coordinated Transportation Plan: Texoma Region #22, December 2011

The Texoma Region is comprised of three counties along the Texas and Oklahoma border, north of the NCTCOG region. These three counties are Cooke, Grayson and Fannin. The main transportation provider is Texoma Area Paratransit System (TAPS), providing service to the general public, older adults and persons with disabilities. The lead agency for creating this plan was the Texoma Council of Governments.

The plan's authors include a section that discusses unmet needs and inefficiencies in service. This section notes that a connection from Van Alstyne (in Grayson County) to medical services in Collin County may be needed. There are several transit links currently available between the Texoma region and the North Central Texas region. TAPS operates Tex Express service from Grayson County to Dallas Area Rapid Transit's

Parker Road rail station in Plano (Collin County). TAPS also provides shuttle service to Dallas's two largest airports.

East Texas Regional Transportation Coordination Plan, 2011

The East Texas region is located east of the North Central Texas region and is comprised of 14 counties including Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Rusk, Smith, Upshur, Van Zandt and Wood. Transportation providers in the East Texas region include Tyler Transit, Longview Transit, GoBus and NDMJ Transportation. Tyler Transit serves the city of Tyler with demand response, subscription and fixed route service. Longview Transit serves the city of Longview with demand response and fixed route service. GoBus is operated by the East Texas Council of Governments and provides primarily demand response service and a deviated fixed route service in the city of Marshall. NDMJ Transportation is a taxi service based out of Tyler, which primarily serves the city of Tyler and Smith County with transportation services that accommodate all citizens.

The plan was created through a cooperative effort of the Longview and Tyler Metropolitan Planning Organizations. U.S. Department of Veterans Affairs (VA) representatives from the VA North Texas Health Care System in Dallas participated in the planning process in East Texas to discuss and emphasize the important link between the VA hospitals in Dallas and Tyler.

Regionally Coordinated Transportation Plan 2011: West Central Texas Region 7

The West Central Texas region is located west of the NCTCOG region and is comprised of 19 counties including Brown, Callahan, Coleman, Comanche, Eastland, Fisher, Haskell, Jones, Kent, Knox, Mitchell, Nolan, Runnels, Scurry, Shackelford, Stephens, Stonewall, Taylor and Throckmorton Counties. City and Rural Rides (CARR) was the lead agency in the development of the 2011 plan. Transit providers located in the region include CityLink, Double Mountain Coach (DMC), SPARTAN Public Transporta-

tion and CARR. CityLink provides fixed route, ADA Paratransit and demand response evening service within the city of Abilene to the general public, persons with disabilities and older adults. DMC serves Knox, Kent, Stonewall, Haskell, Throckmorton, Fisher and Jones Counties. DMC provides demand response service and Medicaid trips through a contract with CARR. SPARTAN Public Transportation serves Scurry and Mitchell Counties with demand response service. CARR provides demand response, wheelchair-accessible service to the general public in Brown, Callahan, Coleman, Comanche, Erath, Eastland, Nolan, Runnels, rural Taylor, Shackelford and Stephens Counties. Public transportation in Erath County is provided by CARR, as indicated here, but Erath County is part of the North Central Texas region and therefore included in Access North Texas. Planning and outreach in Erath County for Access North Texas was coordinated with participation from CARR.

Transit riders travel outside of the West Central Texas region to destinations in the Dallas-Fort Worth area and in Stephenville (Erath County). Residents in Comanche County and the city of Comanche have twice-weekly service covering the 34-mile trip to Stephenville in Erath County provided by City and Rural Rides. Those who travel from Comanche County to Stephenville access medical services, shopping destinations or other activities.

The plan outlines goals for City and Rural Rides in the next five years, including possibly extending an existing Job Access/Reverse Commute project into additional rural counties, which could include Erath County. The plan also discusses an option to evaluate the need for a multi-modal facility in Erath County.

Heart of Texas Regionally Coordinated Transportation Plan, July 2011

The Heart of Texas region is located south of the NCTCOG region and is comprised of Bosque, Falls, Freestone, Hill, Limestone and McLennan Counties. Transportation providers in the region include Waco Transit and the Heart of Texas Rural Transit District (HOTRTD). Waco

Transit provides fixed route bus service within the city of Waco, the Baylor University Shuttle and ADA Paratransit services. HOTRTD coordinates demand response rural transportation services through the use of subcontractors. The Heart of Texas Council of Governments served as the lead agency to develop the Heart of Texas region's plan.

The plan's section analyzing unmet transportation needs and inefficiencies discusses a destination analysis of residents of the Heart of Texas Region. The destination analysis includes locations in North Central Texas such as Corsicana, Dallas and Fort Worth, which are significant destinations due to the many services and employment opportunities in these cities.

Regional Vanpool Analysis

Introduction

Three transit authorities in the North Central Texas Council of Governments (NCTCOG) region operate vanpool programs to meet commuter transportation needs that are not served by traditional transit services. Vanpools are shared-ride transportation using a sponsored van and are typically used for long-distance commutes to reduce commuting costs compared to driving alone. This report summarizes information about the vanpool programs operated by Dallas Area Rapid Transit (DART), the Fort Worth Transportation Authority (The T) and the Denton County Transportation Authority (DCTA). The data includes the number of vanpools, van size (number of seats) and the counties of origin and destination as of July 2012. There were 404 total vanpools among the three transit authorities with a combined 4,726 seats available. The table below summarizes the origin and destination counties for all vanpools in the region, regardless of provider.

Table 1. Vanpool Origin and Destination

	Destination										
Origin	Collin	Dallas	Denton	Ellis	Hunt	Johnson	Somervell	Tarrant	Counties North of the Region	Counties South of the Region	Total
Collin	6	41			3				3		53
Dallas	11	31			9			14			65
Denton	7	18			1			3			29
Ellis		18	1	1							20
Hood		4						5			9
Johnson		14					1	9		1	25
Kaufman	1	12						1			14
Palo Pinto								1			1
Parker		5						10			15
Rockwall		1									1
Tarrant	1	60	1		1	1	4	29		2	99
Wise		1	2					4			7
Counties North of the Region	7	15	22					8			52
Counties South of the Region		2						4			6
Counties East of the Region	1	6	1								8
Total	34	228	27	1	14	1	5	88	3	3	404

Vanpools by Provider

DCTA

DCTA provides a total of 6 vanpools. A majority of the vanpools were destined for Dallas County (4 vanpools). Of those vanpools traveling to Dallas County one originated from Collin County and 3 from Denton County. Other DCTA vanpools include one to Denton County from Montague County north of the NCTCOG region and one to Tarrant County from Dallas County. There were 55 total seats in DCTA's vanpools, all using 8-passenger vans with the exception of the Montague County to Denton County van, which had 15 seats.

The T

The T provides 200 vanpools enabling transportation for up to 2,044 commuters. Dallas and Tarrant Counties were the main destinations for these vanpools, with 108 vanpools destined for Dallas County and 79 destined for Tarrant County. The remaining 13 vanpools traveled to Bosque, Denton, Hunt, Johnson, McLennan and Somervell Counties. Vanpools originated from throughout the region and the largest portion originated in Tarrant County (93 vanpools). Another notable origin county was Johnson County, which had 25 vanpools traveling to Dallas County and Tarrant County for the most part. Three quarters of The T's vanpools are 9-passenger vans. The program also includes 12-, 14- and 15-passenger vans as well.

Table 2. Vanpool Origin and Destination by County: The T

	Destination								
Origin	Dallas	Denton	Hunt	Johnson	Somervell	Tarrant	North	South	Total
Dallas	7		1			7			15
Denton	4								4
Ellis	11					3			14
Hood	4					5			9
Johnson	14				1	9		1	25
Kaufman	2								2
Palo Pinto						1			1
Parker	5					10			15
Tarrant	56	1	1	1	4	28		2	93
Wise	1					4			5
North	1	1				8			10
South	1					4			5
East	2								2
Total	108	2	2	1	5	79		3	200

DART

DART provides 198 vanpools enabling transportation for up to 2,627 commuters on a daily basis. A large portion of DART's vanpools traveled to Collin, Dallas and Denton Counties. Dallas County was the destination for 116 vanpools, Collin County was the destination for 34 vanpools and another 24 terminated in Denton County. DART's remaining 24 vanpools were destined for Ellis, Grayson, Hunt, and Tarrant Counties. The most common origin counties were Collin County (52 vanpools) and Dallas County (49 vanpools). Almost three quarters of DART's vanpools use 15-passenger vans and almost one quarter use 8-passenger vans. Just seven of DART's vanpools operate with 12-passenger vans.

Table 2. Vanpool Origin and Destination by County: DART

Origin	Destination							Total
	Collin	Dallas	Denton	Ellis	Hunt	Tarrant	North	
Collin	6	40			3		3	52
Dallas	11	24			8	6		49
Denton	7	11			1			19
Ellis		7	1	1				9
Kaufman	1	10				1		12
Rockwall		1						1
Tarrant	1	4				1		6
Wise			2					2
North	7	14	20					41
South		1						1
East	1	4	1					6
Total	**34**	**116**	**24**	**1**	**12**	**8**	**3**	**198**

Vanpools by County

Collin County

Collin County had 34 vanpools destined for it and 53 vanpools that originated from it. There were 482 vanpool seats that traveled into Collin County and a total of 709 seats that originated from the county. Of the seats destined for Collin County, 151 seats originated in Dallas County, 98 in Denton County and 90 seats originated from both Collin and Grayson Counties. The remaining seats came from Fannin, Kaufman, Rains and Tarrant Counties. Of those seats originating in the county, 529 traveled to Dallas County and the remaining seats were destined for Collin, Grayson and Hunt Counties.

Dallas County

Dallas County had 228 vanpools destined for it and 65 vanpools originated there. There were 2,601 vanpool seats destined for Dallas County and 775 vanpool seats originating there. Vanpool seats destined for Dallas County originated in Tarrant County (605 seats), Collin County (529 seats) and those that traveled within Dallas County (340 seats). The remainder of vanpool seats destined for Dallas County originated in Cooke, Denton, Ellis, Fannin, Grayson, Henderson, Hill, Hood, Johnson, Kaufman, Parker, Rockwall, Van Zandt and Wise Counties. Look-ing at the destinations of Dallas County commuters using vanpools, a large portion of those that originated in Dallas County stayed within the county (340 seats). Other destinations for Dallas County vanpools included Collin County (151 seats), Hunt County (135 seats) and Tarrant County (149 seats).

Denton County

Denton County had 27 vanpools destined for it and 26 vanpools that originated in the county. Vanpool seats destined for Denton County totaled 392 seats and 303 seats originated in the county. Seats destined for Denton County came from Cooke County (203 seats), Montague County (72 seats) and Grayson County (45 seats). The remainder of vanpool seats destined for Denton County originated from Cass, Ellis, Tarrant, and Wise Counties. Vanpool participants that live in Denton County commuted to Dallas County (190 seats), Collin County (98 seats) and Hunt County (15 seats).

Ellis County

Ellis County had one vanpool destined for it (8 seats) and 23 vanpools (256 seats) that originated from the county. The vanpool destined for Ellis County also originated there. A majority of vanpool commuters that live in Ellis County were traveling to Dallas County, accounting for

206 vanpool seats. The remainder of seats that originated in Ellis County was destined for Denton, Ellis and Tarrant Counties.

Erath County

Erath County did not have any vanpools that originated in or traveled to the county.

Hood County

Hood County did not have any vanpools traveling into the county, but had 9 vanpools that originated from the county. The vanpools that originated in Hood County had 84 seats, of which 45 seats traveled to Tarrant County and 39 seats were destined for Dallas County.

Hunt County

Hunt County had 14 vanpools (204 seats) destined for the county, but did not have vanpools that originated there. A majority of those vanpools originated from Dallas County, which accounted for 135 seats, and 45 seats came from Collin County. The remaining seats destined for Hunt County came from Denton and Tarrant Counties.

Johnson County

Johnson County had one vanpool destined for it and 25 vanpools that originated from the county. There were 9 seats that traveled to Johnson County from Tarrant County. Of the 273 seats that originated in Johnson County, 153 seats were destined for Dallas County, 102 seats commuted to Tarrant County and the remaining seats traveled to Bosque and Somervell Counties.

Kaufman County

Kaufman County did not have any vanpools destined for the county and had 14 vanpools (189 seats) that originated from it. The majority of vanpool commuters traveling from Kaufman County traveled to Dallas County (166 seats) and the remaining vanpools were destined for Collin and Tarrant Counties.

Navarro County

Navarro County did not have any vanpools that originated from or were destined for the county.

Palo Pinto County

Palo Pinto County did not have any vanpools destined for the county and one vanpool originated there. This vanpool, destined for Tarrant County, was a 9-passenger van.

Parker County

Parker County had no vanpools destined for it and had 15 vanpools that originated from the county. Vanpools that originated in Parker County had 147 seats. Of these seats, 90 were destined for Tarrant County and the remaining 57 seats went to Dallas County.

Rockwall County

Rockwall County did not have any vanpools destined for it and had one vanpool that originated from the county. The one vanpool that originated from Rockwall County had 15 seats and traveled to Dallas County.

Somervell County

Somervell County had 5 vanpools destined for it and did not have any vanpools originating in the county. The 5 vanpools destined for Somervell County accommodated 45 seats, with 36 seats originating in Tarrant County and 9 originating in Johnson County.

Tarrant County

Tarrant County had 88 vanpools destined for it and 99 vanpools that originated from the county. Of the 904 seats destined for the county, 299 were commuters traveling within Tarrant County. Vanpool commuters headed to Tarrant County were often from Dallas County (149 seats) and Johnson County (102 seats). The 99 vanpools originating in Tarrant County had 1,012 total seats. A majority of the seats traveled to Dallas County (609 seats) or traveled within Tarrant County (299 seats as referenced above). The remainder of vanpool commuters that originated in Tarrant County traveled to Collin, Denton, Hunt, Johnson, McLennan and Somervell Counties.

Wise County

Wise County did not have any vanpools that traveled to it and had 7 vanpools that originated

from the county. Vanpools that originated from the county had 87 seats. Destination counties for these seats include Tarrant County (48 seats), Denton County (30 seats) and Dallas County (9 seats).

Vanpools Outside the Region

Vanpools operated by DCTA, The T, and DART had origin and destination counties from a variety of locations outside the NCTCOG region. There were 6 vanpools destined for counties outside of the region accommodating up to 81 commuters. Three vanpools traveled to Grayson County (45 seats), two to McLennan County (27 seats) and one to Bosque County (9 seats).

An additional 66 vanpools accommodating up to 867 commuters originated from 11 different counties outside of the 16-county NCTCOG region. Many of these vanpools originated from Grayson County (21 vanpools, 305 seats), Cooke County (15 vanpools, 218 seats) and Montague County (12 vanpools, 141 seats). Vanpools that originated outside the NCTCOG region primarily traveled to Denton County (24 vanpools) and Dallas County (23 vanpools).

Limited English Proficiency Populations in the Region

The Limited English Proficiency (LEP) population is defined as residents who are unable to communicate effectively in English because their primary language is not English and they have not developed fluency in the English language. The LEP population numbers and percentages are calculated from the population older than 5 years, which is considered the age where children are able to read, write and comprehend the English language. To be considered as having limited English proficiency, a person must report that they speak English less than "very well." This report includes the total number of individuals reporting limited English proficiency in the 16-county North Central Texas Council of Governments (NCTCOG) region, as well as the number and percentage of individuals speaking different languages. Data for this report is from the 2006-2010 5-year American Community Survey (ACS) Estimates from the US Census Bureau. The first row of data in the table below includes the total LEP population in the region. The rows on page B4.2 provide detail about the number and proportion of individuals speaking each language compared to the total

LEP population.

In 2010 a total of 774,233 LEP individuals resided in the NCTCOG region. These 774,233 individuals accounted for 12.3% of the region's total population. Throughout the region a majority of LEP individuals who speak English less than "very well" were Spanish or Spanish Creole speaking individuals that accounted for 81.8% of the LEP population. The next largest LEP populations were those speaking several Asian languages. Vietnamese speaking individuals accounted for 4.3% of the LEP population that speaks English less than "very well," Chinese speaking individuals accounted for 2.5%, Korean speaking individuals accounted for 1.8% and another 1.1% spoke other Asian languages. The other languages spoken in the NCTCOG region reveal significant numbers of a wide variety of languages. Transit providers working to meet the needs for public transportation take into account populations of individuals with limited English proficiency in order to ensure that services are available to all residents regardless of language ability.

Language of Limited English Proficiency	Individuals	Percent of Total LEP Population
All Languages	774,233	100.0%
Spanish or Spanish Creole	633,340	81.8%
Vietnamese	33,425	4.3%
Chinese_	19,314	2.5%
Korean	13,806	1.8%
Other Asian languages	8,410	1.1%
African languages	8,334	1.1%
Other Indic languages	6,088	0.8%
Arabic	5,629	0.7%
Urdu	3,973	0.5%
French	3,816	0.5%
Laotian	3,793	0.5%
Tagalog	3,343	0.4%
Persian	3,319	0.4%
Hindi	3,229	0.4%
Gujarati	3,184	0.4%
Thai	2,543	0.3%
Russian	2,406	0.3%
Other Indo-European languages	2,153	0.3%
Mon-Khmer, Cambodian	2,140	0.3%
Japanese	2,109	0.3%
German	1,934	0.2%
Portuguese	1,529	0.2%
Serbo-Croatian	1,508	0.2%
Other Pacific languages	1,077	0.1%
Other Slavic languages	712	0.1%
Polish	594	0.1%
Italian	508	0.1%
Hebrew	468	0.1%
Greek	346	
French Creole	264	
Hungarian	240	
Other and unspecified languages	133	
Scandinavian languages	126	
Other West Germanic languages	113	
Armenian	111	
Hmong	104	
Other Native North American languages	80	
Yiddish	17	
Navajo	15	

B4.2

Transit Access Improvement Tool

Introduction

The Transit Access Improvement Tool (TAIT) was developed 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. This tool was not created to establish a level of service that would be appropriate for an area and it does not designate where service should go. Rather, it provides a visual display of populations that often need transit service. 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 TAIT was developed to identify where populations that may have a greater need for access to public transportation are located in the 16-County North Central Texas Region. The TAIT designates a score for each Census block group in the region based on four demographic variables that include percent low-income, percent disabled, percent over 65 and percent zero car. Scores for each variable are assigned to Census block groups in the region based on a comparison to the Regional Average (RA). In each block group scores were calculated for the variables based on how much higher or lower than the RA each variable is. Percent low-income, percent disabled, and percent over 65 were scored using the same scoring designation (Table 1). If a variable was less than or equal to the RA it was designated a score of 1, greater than the RA and less than or equal to 1.33 times the RA had a score of 2, greater than 1.33 times RA and less than or equal to 1.66 times the RA had a score of 3. Any variable that was greater than 1.66 times the RA and less than or equal to 2.00 times the RA had a score of 4 and anything greater than 2.00 times the RA was designated a score of 5. Once a score is designated for each variable in each block group, the three scores for percent low-income, percent disabled, and percent over 65 are multiplied to obtain a base TAIT score of 1 to 125.

Block groups in the region are then assigned a score ranging from 0 to 15 depending on the percentage of zero car households as compared to the RA. Zero car scores were obtained similar to the base variables (above), based on a comparison to the RA, but with higher scores for each block group (Table 2). If zero car households were less than or equal to the RA there was a score of 0, greater than the RA and less than or equal to 1.33 times the RA had a score of 6, greater than 1.33 times RA and less than or equal to 1.66 times the RA had a score of 9. Percent zero car households greater than 1.66 times

the RA and less than or equal to 2.00 times the RA had a score of 12 and anything greater than 2.00 times the RA was designated a score of 15. The zero car household scores are then added to the base TAIT score obtained from multiplying percent below poverty, percent disabled and percent over 65, giving the TAIT a total scoring range of 1 to 140.

Data Sources

Data used for the TAIT was available from the 2010 5-Year American Community Survey (ACS) and is based on the 16-county North Central Texas regional averages. All demographic data were from the ACS estimates except the percent disabled, which was available from the 2000 Census. The base data used to calculate TAIT scores include the percent low-income, percent disabled, percent over 65 and percent zero car households. Persons who are low-income are persons whose household income is at or below the Department of Health and Human Service poverty guidelines. Age 65 and over is anyone over the age of 65. Persons with disabilities includes any civilian, non-institutionalized individual over 5 years old with at least one disability. Zero car households are households that do not own a car.

In addition to base data used to calculate TAIT scores, there are additional layers of information available for visual analysis. These overlays allow for further analysis of several population characteristics. Overlays include density, which is the number of persons per square mile and shows where concentrations of the population are located. Age 14 and under was included to represent residents under the age of 14 (who cannot drive). The minority population overlay data is comprised of all races other than White/Non-Hispanic. Races include African American, American Indian/Alaskan Native, Asian, and Hawaiian/Pacific Islander, other and two or more races. 'Non-Hispanic' races are included to avoid double counting. Total minority ethnicities include persons of Hispanic origin.

Regional TAIT

Region-wide, the largest clusters of high potential need for public transportation are located in

Table 1. TAIT Scoring Designation

Score	Percent Below Poverty Line, Disabled or Over 65
1	≤ Regional Average (RA)
2	> RA and ≤ 1.33 X RA
3	> 1.33 X RA and ≤ 1.66 X RA
4	> 1.66 X RA and ≤ 2.00 X RA
5	> 2.00 X RA

Table 2. TAIT Scoring Designation: Zero Car

Score	Percent Zero Car Households
0	≤ Regional Average (RA)
6	> RA and ≤ 1.33 X RA
9	> 1.33 X RA and ≤ 1.66 X RA
12	> 1.66 X RA and ≤ 2.00 X RA
15	> 2.00 X RA

Tarrant County and Dallas County. In Tarrant County, the greatest need appears clustered in south Fort Worth with moderate needs also indicated in the rest of Fort Worth and Arlington. Dallas County's greatest needs are located in the southern portion of the city of Dallas, extending toward the northern portion of Ellis County. TAIT scores in the counties surrounding Tarrant County and Dallas County had primarily low to moderate scores. Many of the cities located in these counties had clusters of populations with high potential need for public transportation, but some rural and unincorporated areas in the farther reaches of the region exhibited high potential need for transportation service. For example, in Navarro, Hood and Palo Pinto Counties, almost every block group included high proportions of the population in the key indicator populations of low-income individuals, persons over 65, individuals with disabilities and zero car households.

2010 North Central Texas 16-County TAIT Scores

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

- 1 - 3
- 4 - 10
- 11 - 20
- 21 - 30
- 31 - 40
- 41 - 60
- 61 - 80
- 81 - 100
- 101 - 120
- 121 - 140
- Zero Car Scores 1-15
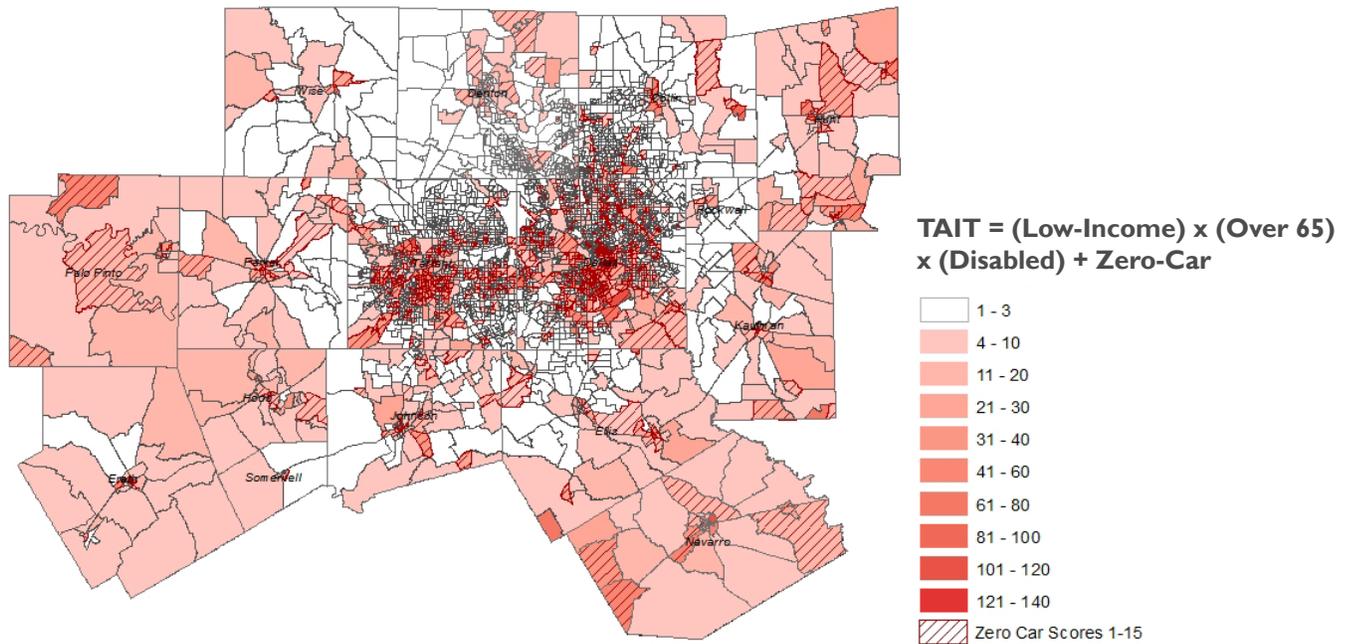
Density Overlay

The density overlay variable in the TAIT may help begin a discussion of appropriate types of public transportation service based on population density. For example, Wise County has a density throughout a majority of the county that could be appropriate for a rural service design for public transportation. Low population density in Wise County may also necessitate less frequent trips between cities in the county. In addition, a rural county such as Wise will likely have fewer large destinations within the county and will have travel patterns outside the county to regional destinations. A more populated area such as Tarrant County has more locations that may be appropriate for transit with an urban service design based on population density.

2010 North Central Texas 16-County Regional Density

**Block Group Density:
Persons per square mile**

- 1: Rural Service Design
- 2
- 3
- 4
- 5: Urban Service Design
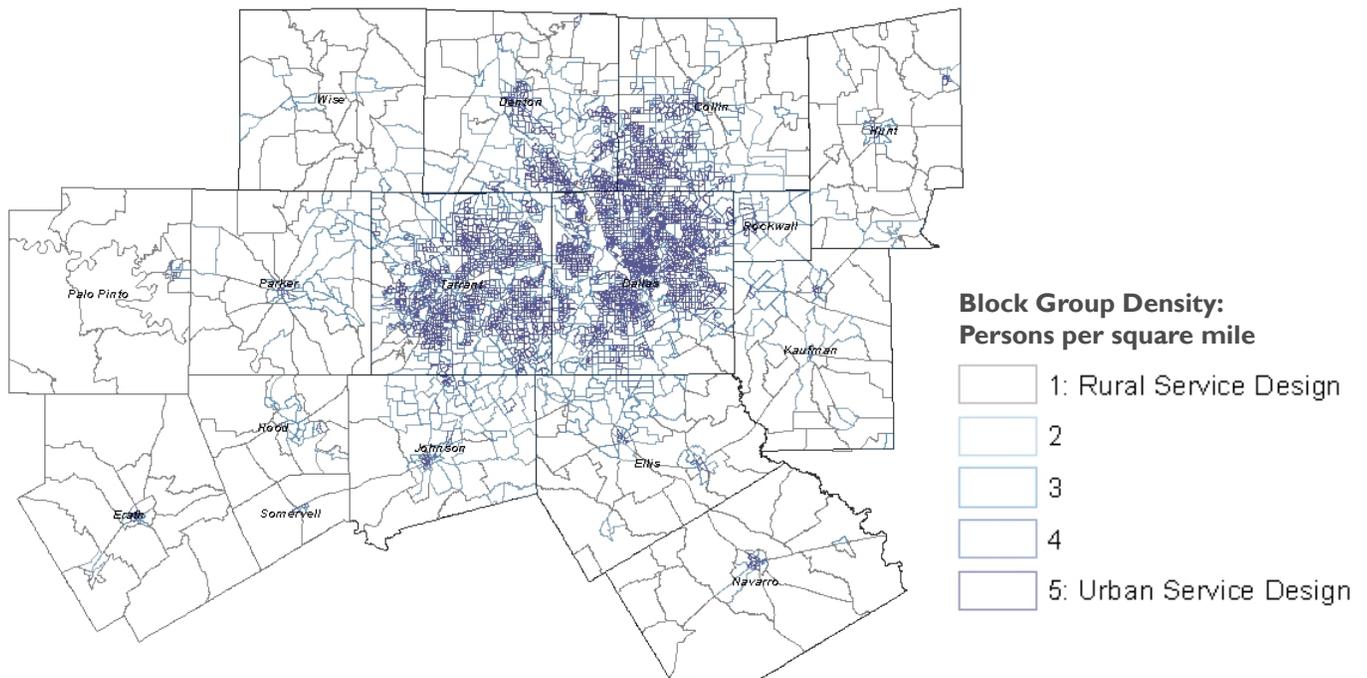
Under 14 Overlay

Included in the TAIT was an under 14 overlay to allow for additional analysis of where public transportation needs are present for younger residents of the region who cannot drive. Percentages of the under 14 population are not only high among urban counties in the region, but also in many of the rural counties.

2010 North Central Texas 16-County Regional Under 14

Percent Under 14

	0.00 - 22.05
	22.06 - 40.00
	40.01 - 60.00
	60.01 - 80.00
	80.01 - 100.00
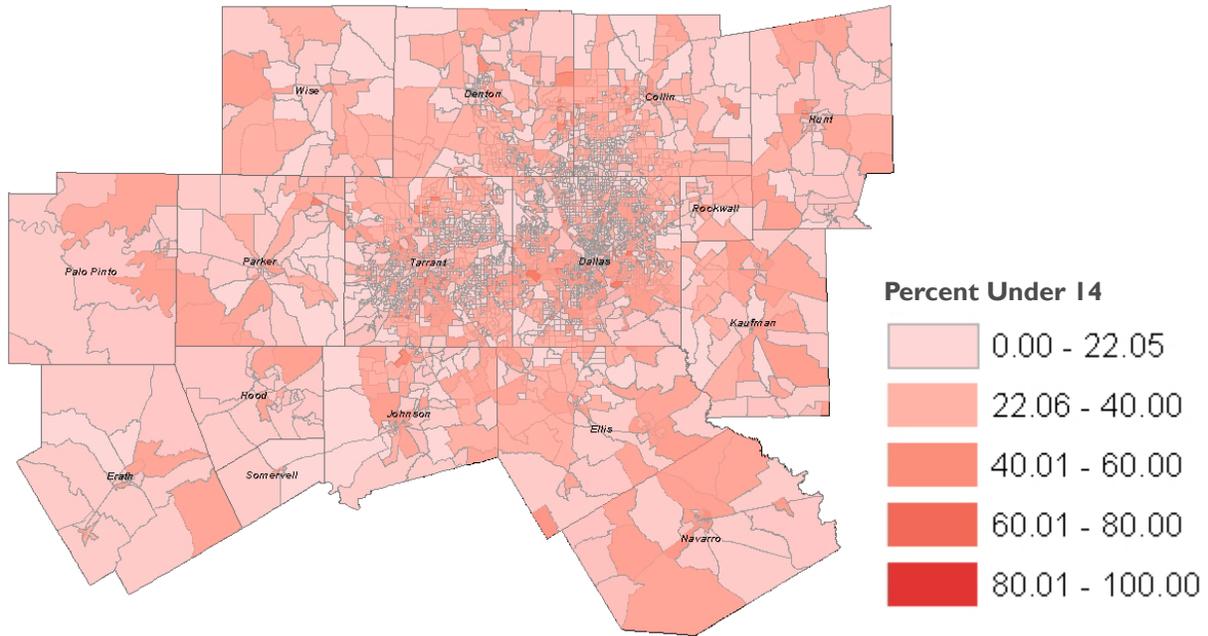
Minority Overlay

A minority overlay was also included in the TAIT to provide the ability to analyze minority groups in the possibility they may overlap with block groups that have a higher TAIT score. Block groups with higher percentages of minority groups were primarily located in Tarrant and Dallas Counties, with a large presence in the southern portion of Dallas County. There are smaller percentages of the minority population in the surrounding rural counties, but the minority population is over 47.64% of the population, the regional average, in a few block groups in almost every county in the region.

2010 North Central Texas 16-County Regional Minority

Percent Minority

|	
	0.00 - 47.64
	47.65 - 60.00
	60.01 - 70.00
	70.01 - 85.00
	85.01 - 100.00
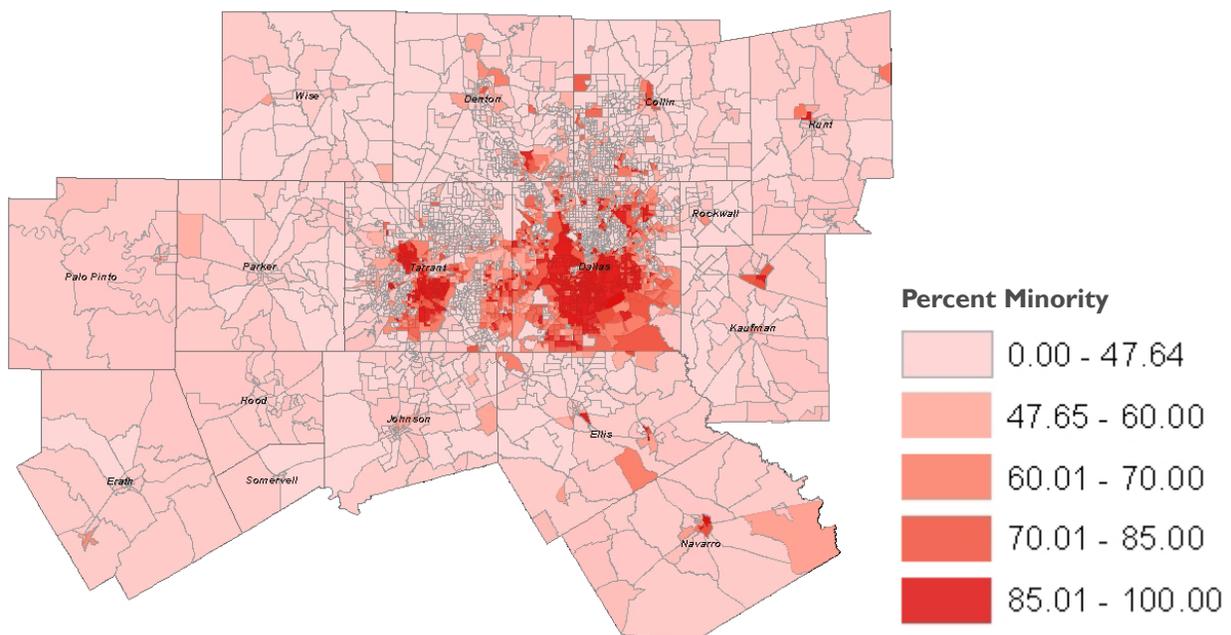
County-Level Analysis
Collin County

Collin County had low TAIT scores in the majority of the county, but areas in Farmersville and in southern McKinney had high scores. Farmersville was notable for having low-income population and over 65 population greater than two times the regional average and a population of zero car households greater than two times the regional average. The area with a high TAIT score in southern McKinney had a low-income population that was just under twice the regional. Other variables that contributed to the TAIT score in that area were an over 65 population and population of zero car households greater than two times the regional average.

Collin County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

|	
	1 - 3
	4 - 10
	11 - 20
	21 - 30
	31 - 40
	41 - 60
	61 - 80
	81 - 100
	101 - 120
	121 - 140
	Zero Car Scores 1-15
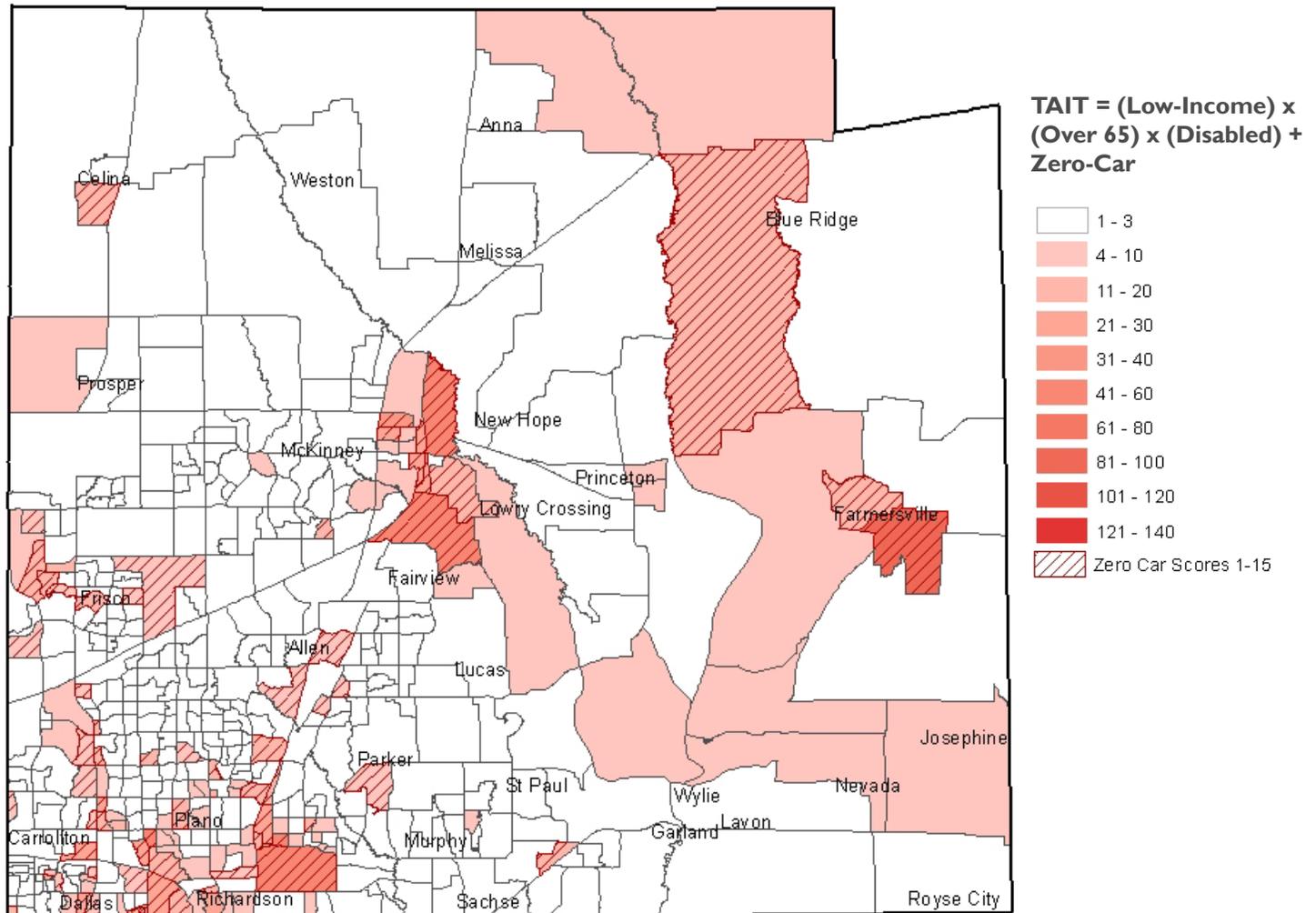
Dallas County

In Dallas County the highest TAIT scores were located in block groups in the northern and southern sections of Dallas, as well as western Mesquite. Continuing from south Dallas into Hutchins, Wilmer and the rest of southeastern Dallas County, block groups become less densely populated, but higher TAIT scores remain. Few transit services are currently available in these areas, potentially indicating a gap in ser-

vice for those with the greatest need for transportation. Another portion of the county with a continuous section of moderate to high TAIT scores extends from Irving to sections of Grand Prairie. Central sections of Duncanville, Cedar Hill, Glenn Heights, and DeSoto have notable TAIT scores, indicating the presence of populations that may have a great need for public transportation in an area with few or no transportation options.

Dallas County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

|	
☐	1 - 3
	4 - 10
	11 - 20
	21 - 30
	31 - 40
	41 - 60
	61 - 80
	81 - 100
	101 - 120
	121 - 140
▨	Zero Car Scores 1-15
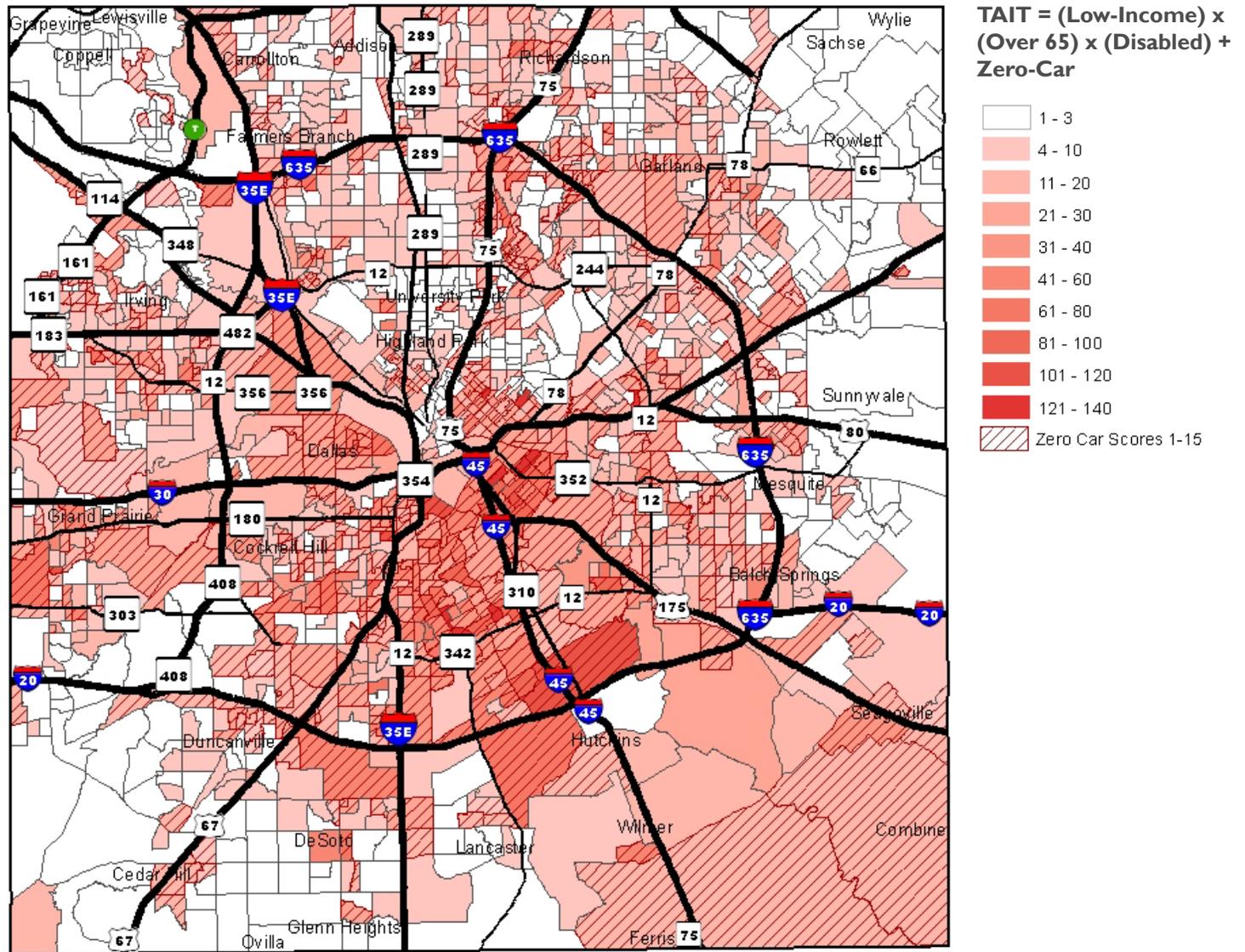
Central Dallas County

In the central section of the county there are a few block groups that account for some of the highest TAIT scores in Dallas County. Located between U.S. Highway 75 and State Highway 78 are two small block groups northeast of downtown Dallas with high TAIT scores. These scores were high based on the populations of low-income individuals, individuals over 65, persons with disabilities, and zero car households that were greater than twice the regional average. East Dallas had two block groups located between U.S. Highway 80 and U.S. Highway 175. These block groups also had key indicator populations at twice the regional average. Another area of central Dallas County with high TAIT scores was in south Dallas, with three block groups between Interstate 35E and Interstate 45 with high scores. These block groups include all four variables of the TAIT score greater than two times the regional average. Also notable in the south central Dallas area is that almost every block group located between Interstate 35E and Interstate 45 has a significant zero car household population, with a majority of these populations at more than twice the regional average. Lower TAIT scores are seen in the cities of University Park and Highland Park, with a few block groups having moderate scores based on over 65 populations.

Central Dallas County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

|	
	1 - 3
	4 - 10
	11 - 20
	21 - 30
	31 - 40
	41 - 60
	61 - 80
	81 - 100
	101 - 120
	121 - 140
	Zero Car Scores 1-15
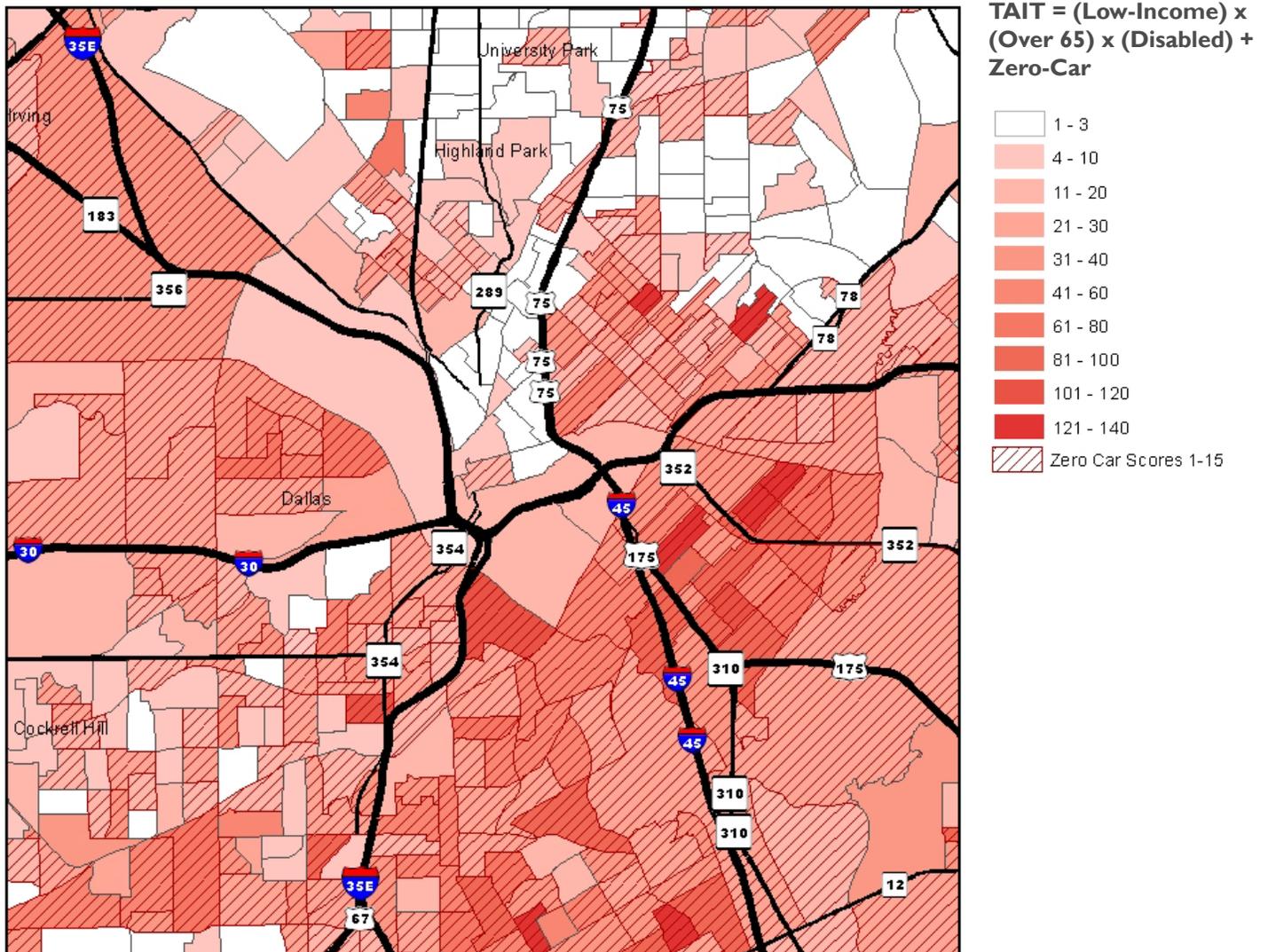
Northwest Dallas County

In the northwest portion of Dallas County there were higher TAIT scores present in numerous block groups, most notably in Irving and northwest Dallas. A block group in southern Irving located along State Highway 356 had a notable TAIT score. In this area, both the populations of persons with disabilities and zero car households were greater than two times the regional average. An area in the northwest portion of the city of Dallas located near the intersection of Interstate 635 and State Highway 354 had a higher TAIT score as well based on an over 65 population and population of zero car households both greater than two times the regional average. In the northwest corner of the county, low TAIT scores are present in the city of Coppell and the portions of Grapevine and Lewisville that are within Dallas County.

Northwest Dallas County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

|	
	1 - 3
	4 - 10
	11 - 20
	21 - 30
	31 - 40
	41 - 60
	61 - 80
	81 - 100
	101 - 120
	121 - 140
	Zero Car Scores 1-15
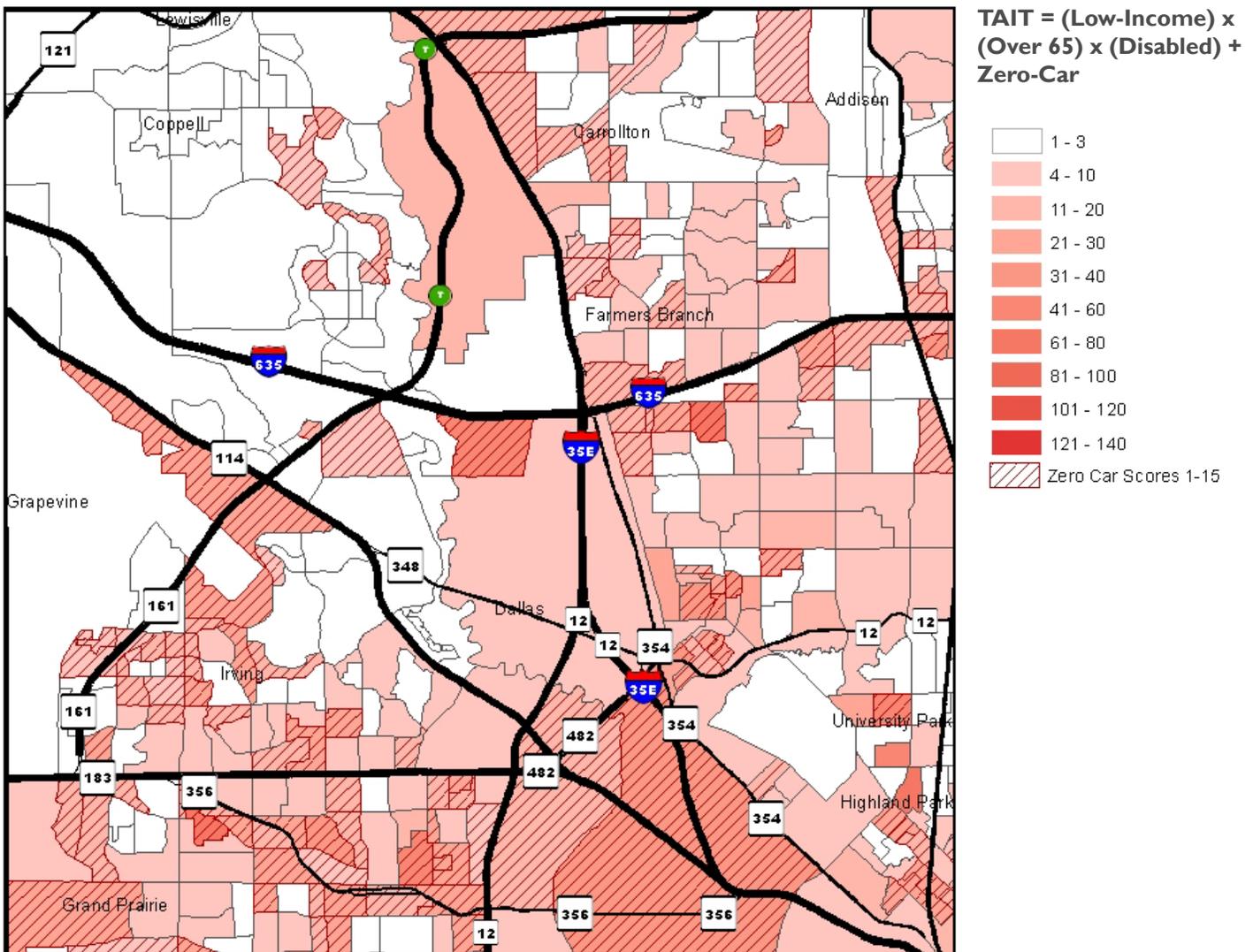
Southwest Dallas County

In the southwestern portion of Dallas County each city has a few block groups with moderate TAIT scores, but larger block groups in the area have low scores. In Grand Prairie there was a small block group that had low-income, over 65, and zero car household populations that were each greater than two times the regional average. Another variable contributing to this TAIT score was the population of persons with disabilities which was greater almost two times the regional average. Another area in southwest Dallas County with a high TAIT score was in the eastern section of DeSoto near Interstate 35E. The populations of low-income individuals, individuals over 65 populations and zero car households were greater than two times the regional average in this area.

Southwest Dallas County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

|	
	1 - 3
	4 - 10
	11 - 20
	21 - 30
	31 - 40
	41 - 60
	61 - 80
	81 - 100
	101 - 120
	121 - 140
	Zero Car Scores 1-15
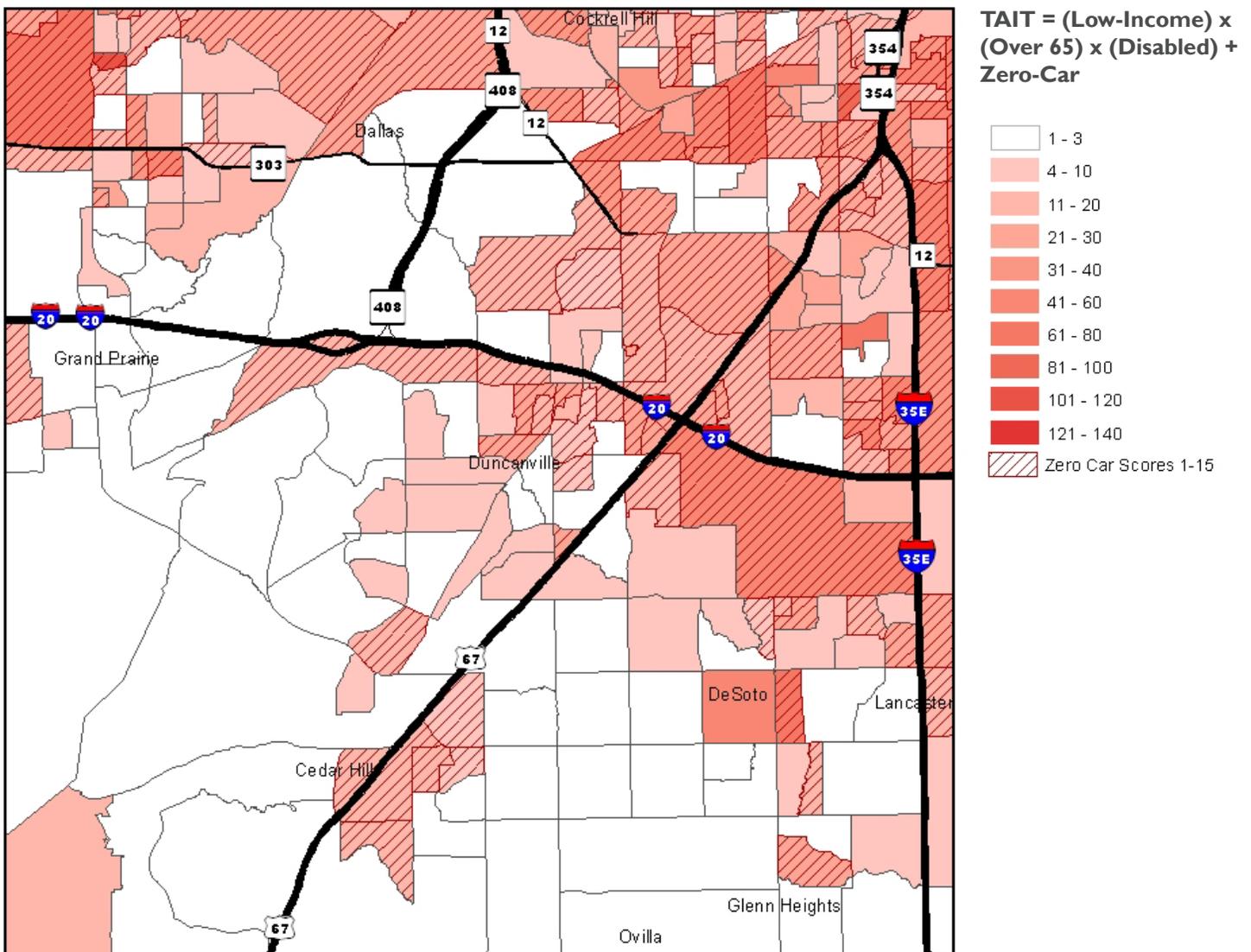
Southeast Dallas County

Southeast Dallas County has some of the largest block groups in the county and a majority of the area has moderate TAIT scores. However, higher scores are seen in the southeast section of the city of Dallas and also in northern Lancaster. In southeast Dallas at the intersection of Interstate 45 and Interstate 20 there is an area with the highest TAIT score of southeast Dallas County. This area has both a low-income population and over 65 population greater than two times the regional average. The populations of persons with disabilities and zero car households also contributed to this area's high score; both were almost two times the regional average. Another area with a high TAIT score in this portion of the county was one extending from Interstate 20 in southeast Dallas to the northern portion of Lancaster, bordering State Highway 342. This area's population of low-income individuals, individuals over 65 and zero car households are each greater than two times the regional average.

Southeast Dallas County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

|	
	1 - 3
	4 - 10
	11 - 20
	21 - 30
	31 - 40
	41 - 60
	61 - 80
	81 - 100
	101 - 120
	121 - 140
	Zero Car Scores 1-15
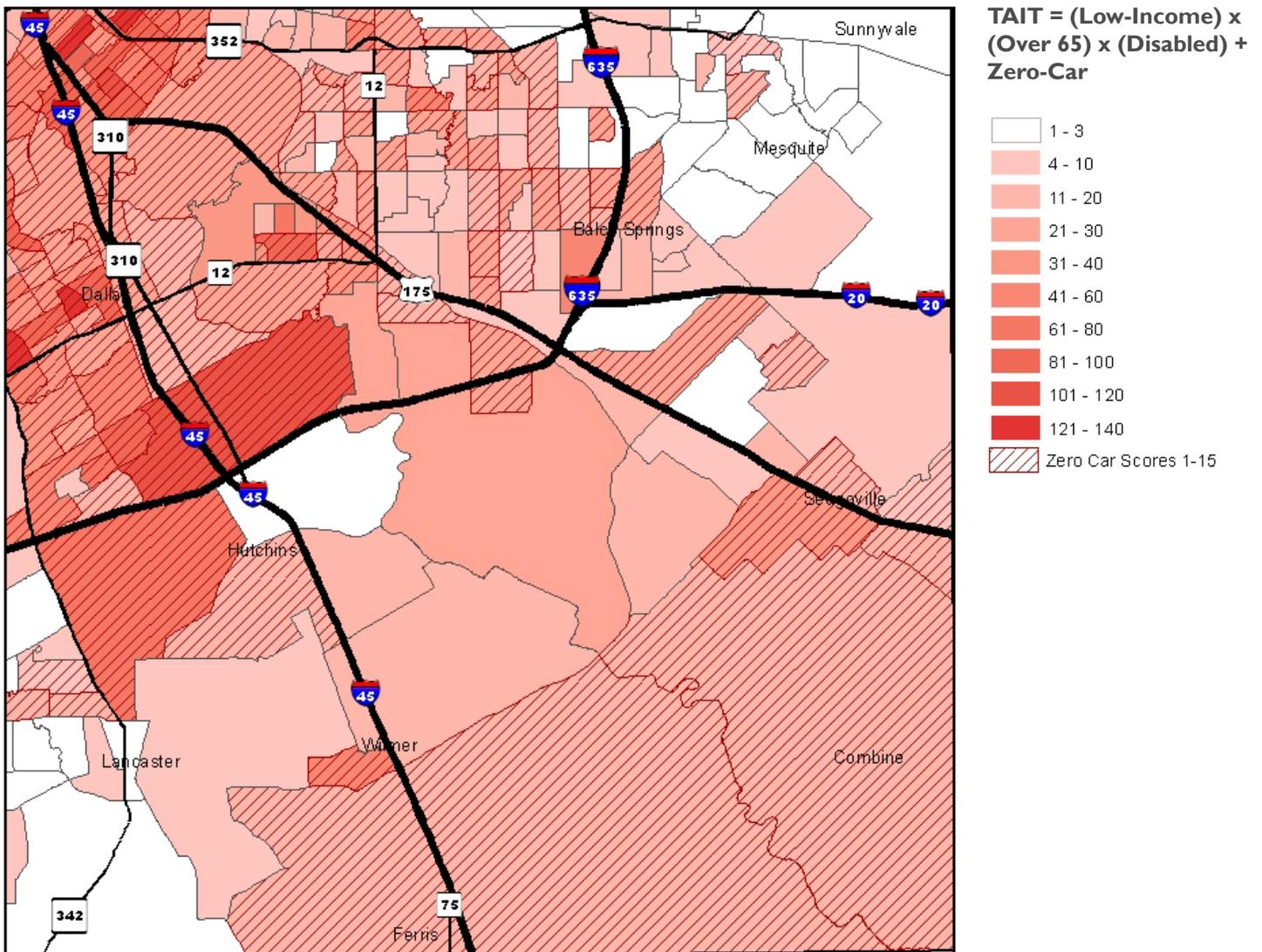
Northeast Dallas County

Northeast Dallas County has primarily low to moderate TAIT scores on the edge of the county in Rowlett, Wylie and Sachse. Higher TAIT scores are present in Richardson and Garland. The highest TAIT score in this area of the county was in Richardson along U.S. Highway 75, north of Interstate 635. In this area the populations of low-income individuals, individuals over 65 and zero car households are all greater than two times the regional average. The population of persons with disabilities in this area was also significant, almost twice the regional average. A small area of central Garland also had a high TAIT score based on a low-income population and population of zero car households greater than two times the regional average.

Northeast Dallas County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

|	
	1 - 3
	4 - 10
	11 - 20
	21 - 30
	31 - 40
	41 - 60
	61 - 80
	81 - 100
	101 - 120
	121 - 140
	Zero Car Scores 1-15
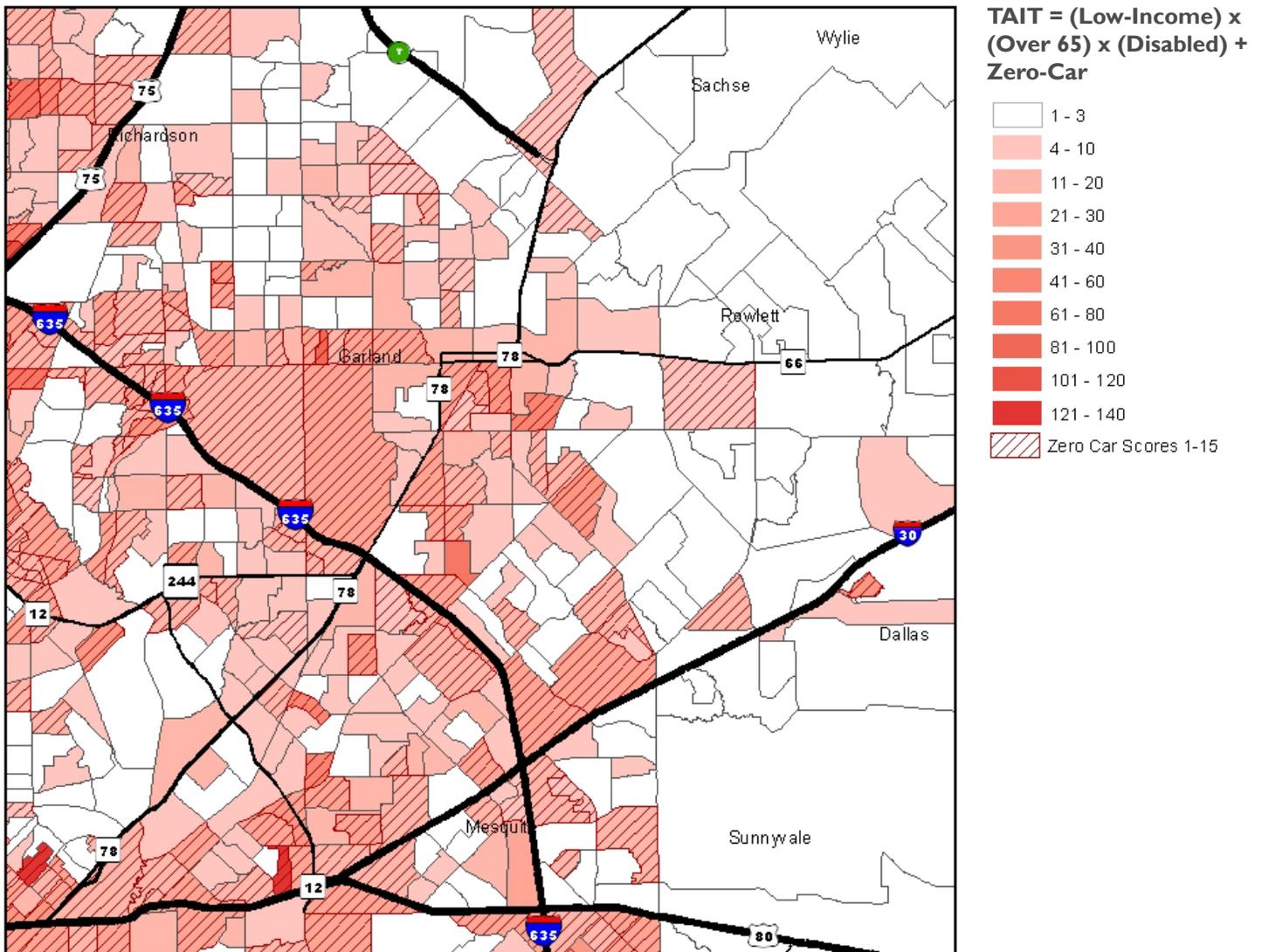
Denton County

Denton County's highest TAIT scores were in the city of Denton. Areas with high TAIT scores had populations of low-income individuals, individuals over 65 and persons with disabilities above the regional average. The population of residents over 65 was one of the most notable indicators, with populations above the regional average in block groups with a high TAIT score. One block group in the western section of Denton covering parts of the University of North Texas had a zero car household rate that was greater than two times the regional average. Other areas of the county with a TAIT score above the regional average were located in the northeastern section of the county, as well as around the city of Lewisville.

The scattered pockets of transportation need highlighted by the TAIT may be difficult to serve with traditional transit service. Populations most in need of service are both clustered within cities as well as spread out in rural areas and in portions of communities throughout Denton County. With these demographic patterns, transit service coordination among providers will be very important to move customers between their homes and the services they need.

Denton County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

- 1 - 3
- 4 - 10
- 11 - 20
- 21 - 30
- 31 - 40
- 41 - 60
- 61 - 80
- 81 - 100
- 101 - 120
- 121 - 140
- Zero Car Scores 1-15
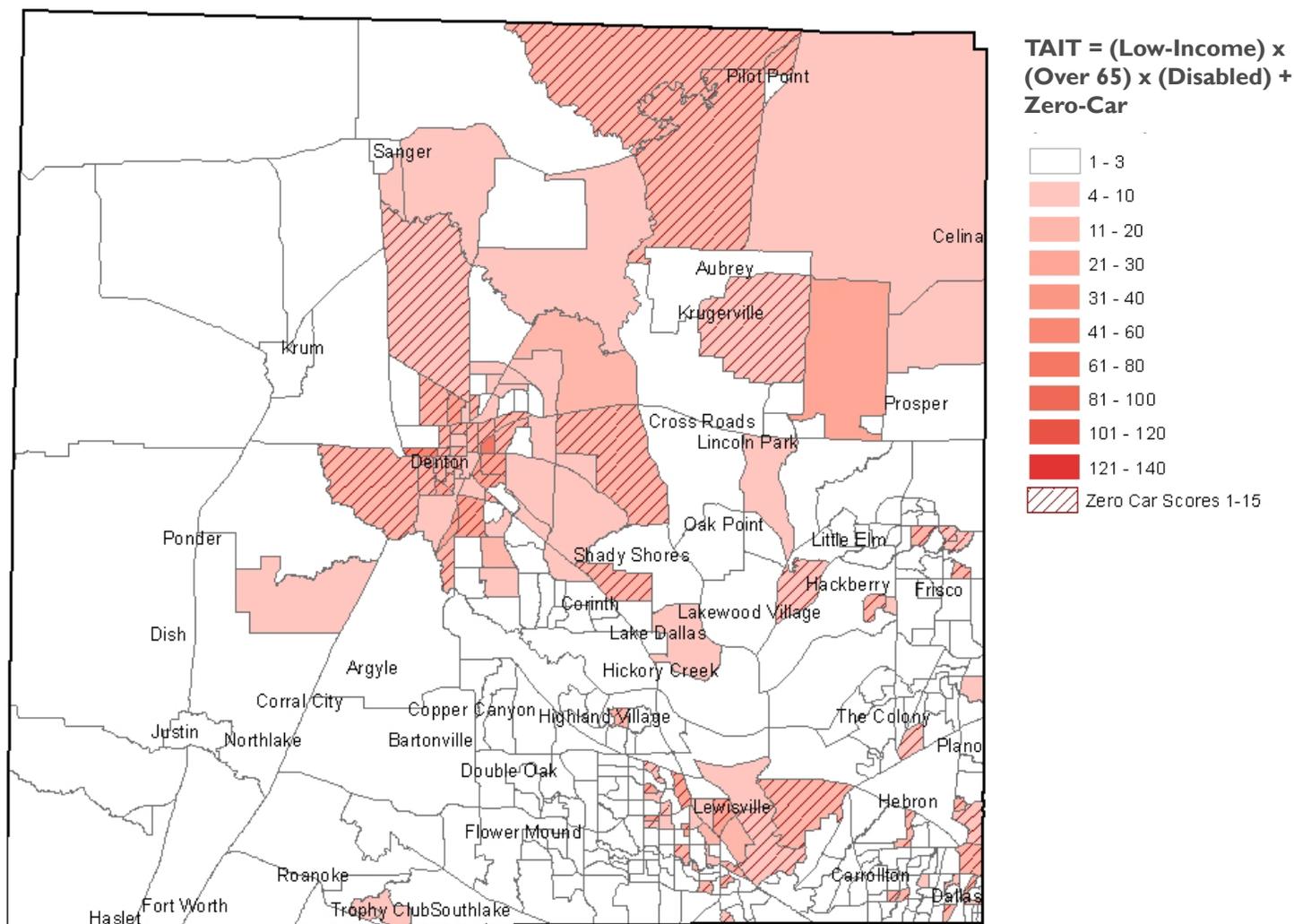
Ellis County

Ellis County had moderate TAIT scores throughout the county, with high scores located in Ennis, Waxahachie, Milford and Midlothian. An area in southern Ennis had a high score based on the low-income population, over 65 population and population of zero car households that were each greater than two times the regional average. One area of Waxahachie had a high score based on a low-income population and population of zero car households that were both greater than two times the regional aver-

age. This area also had an over 65 population that was nearly twice the regional average. In Milford on the southern border of the county, a high TAIT score was based on significant populations of low-income individuals and individuals over 65. However, the population of zero car households in this area was not above the regional average. In central Midlothian, the TAIT score was higher than the rest of the community due to populations of older adults and zero car households that were greater than two times the regional average.

Ellis County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

- 1 - 3
- 4 - 10
- 11 - 20
- 21 - 30
- 31 - 40
- 41 - 60
- 61 - 80
- 81 - 100
- 101 - 120
- 121 - 140
- Zero Car Scores 1-15
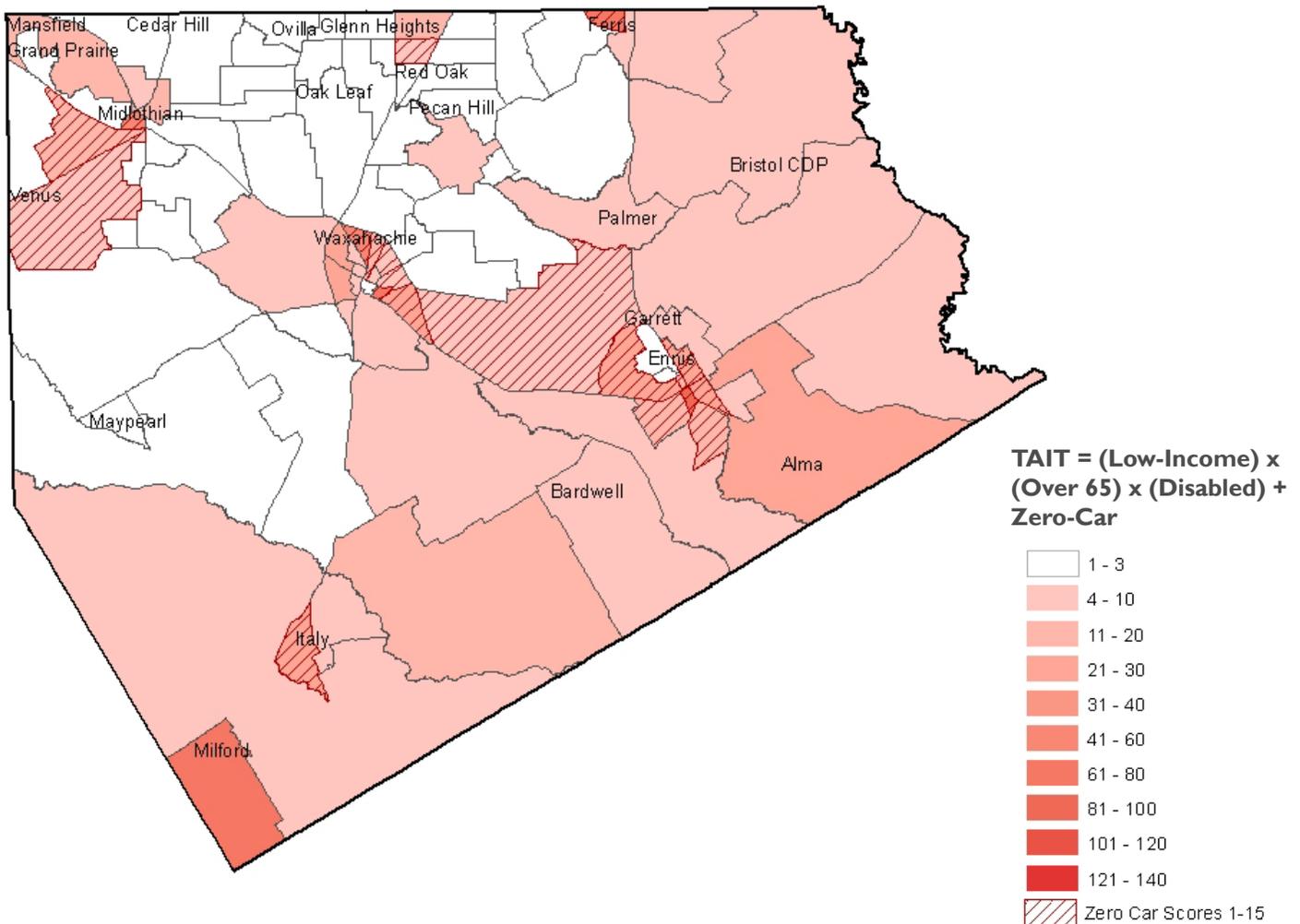
Erath County

Throughout Erath County, there are low to moderate TAIT scores, with the highest TAIT score located in the city of Stephenville. The few areas in Stephenville that had high TAIT scores included populations of low-income individuals, persons over 65 and persons with disabilities that were above the regional average. Areas that had higher concentrations of households with zero cars overlapped with high TAIT scores in Stephenville, as well as one moderate TAIT score in Dublin. In the area northwest of Stephenville that had a low TAIT score, there was an over 65 population above the regional average, but no other variables in the area were above the regional average.

With low to moderate TAIT scores throughout the county, the data reveals that some level of transportation service to meet the needs of transportation disadvantaged individuals is likely needed throughout the county. The rural areas have dispersed populations that need transportation, though they may be more difficult to serve. Factors that may indicate transportation needs are present appear concentrated in the cities of Stephenville and Dublin.

Erath County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

- 1 - 3
- 4 - 10
- 11 - 20
- 21 - 30
- 31 - 40
- 41 - 60
- 61 - 80
- 81 - 100
- 101 - 120
- 121 - 140
- Zero Car Scores 1-15
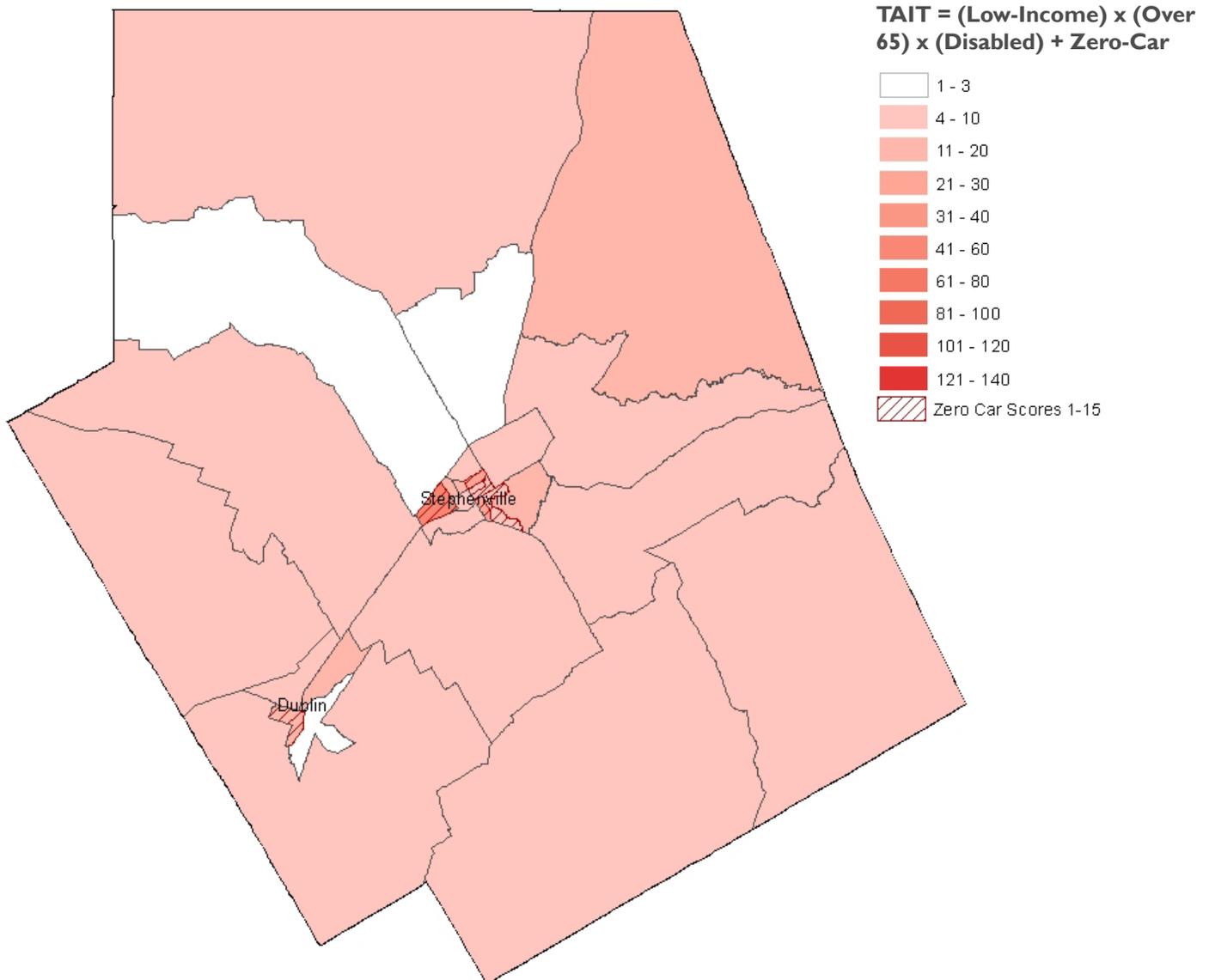
Hood County

In Hood County the highest TAIT scores were in the southern section of Oak Trail Shores, but moderate TAIT scores are present throughout most of the county. In the Oak Trail Shores area, a high concentration of low-income individuals contributed to the high TAIT score and could indicate additional needs for public transportation options in that area. Areas of the county with larger populations of zero car households did not necessarily have high TAIT scores, which may indicate that transportation needs are concentrated with a subset of the population, such as older adults who no longer drive. Overall, significant populations of low-income individuals, individuals over 65 and persons with disabilities were present in almost every block group in Hood County.

Hood County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

|	
	1 - 3
	4 - 10
	11 - 20
	21 - 30
	31 - 40
	41 - 60
	61 - 80
	81 - 100
	101 - 120
	121 - 140
	Zero Car Scores 1-15
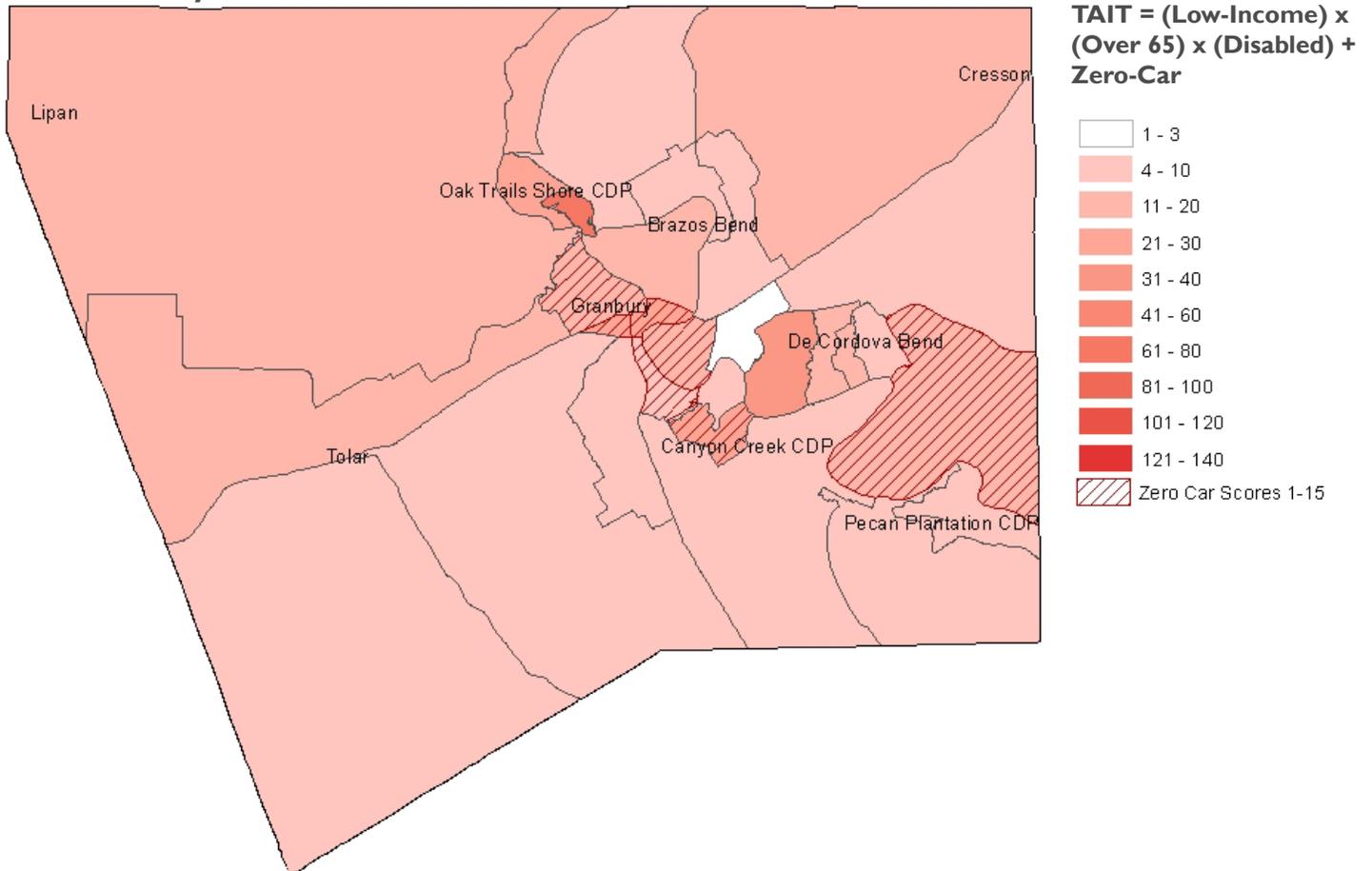
Hunt County

In Hunt County the highest TAIT scores were located in areas of Greenville, Commerce and the southern third of the county. These areas had higher TAIT scores than other locations of the county because each had significant populations of low-income individuals, individuals over 65 and individuals with disabilities. The low-income population in each area with a high TAIT score was two times or greater than the regional average, indicating a potentially greater need for affordable transportation options beyond owning and operating a car. A block group in the western section of Greenville had the highest percentage of older adults in the population for the entire county. This population

may need specialized transportation to meet the needs of these older residents.

Households with no vehicles available face additional transportation challenges. In areas with higher TAIT scores in Greenville and Commerce, the population of zero car households was twice the regional average. In rural areas, residents in households that have no vehicles available can be isolated from basic life activities including shopping, medical services and jobs.

Overall, the demographic data indicate that for most of the county, a basic level of transportation service may be needed to help those with limited transportation options access life-sustaining activities.

Hunt County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

- 1 - 3
- 4 - 10
- 11 - 20
- 21 - 30
- 31 - 40
- 41 - 60
- 61 - 80
- 81 - 100
- 101 - 120
- 121 - 140
- Zero Car Scores 1-15
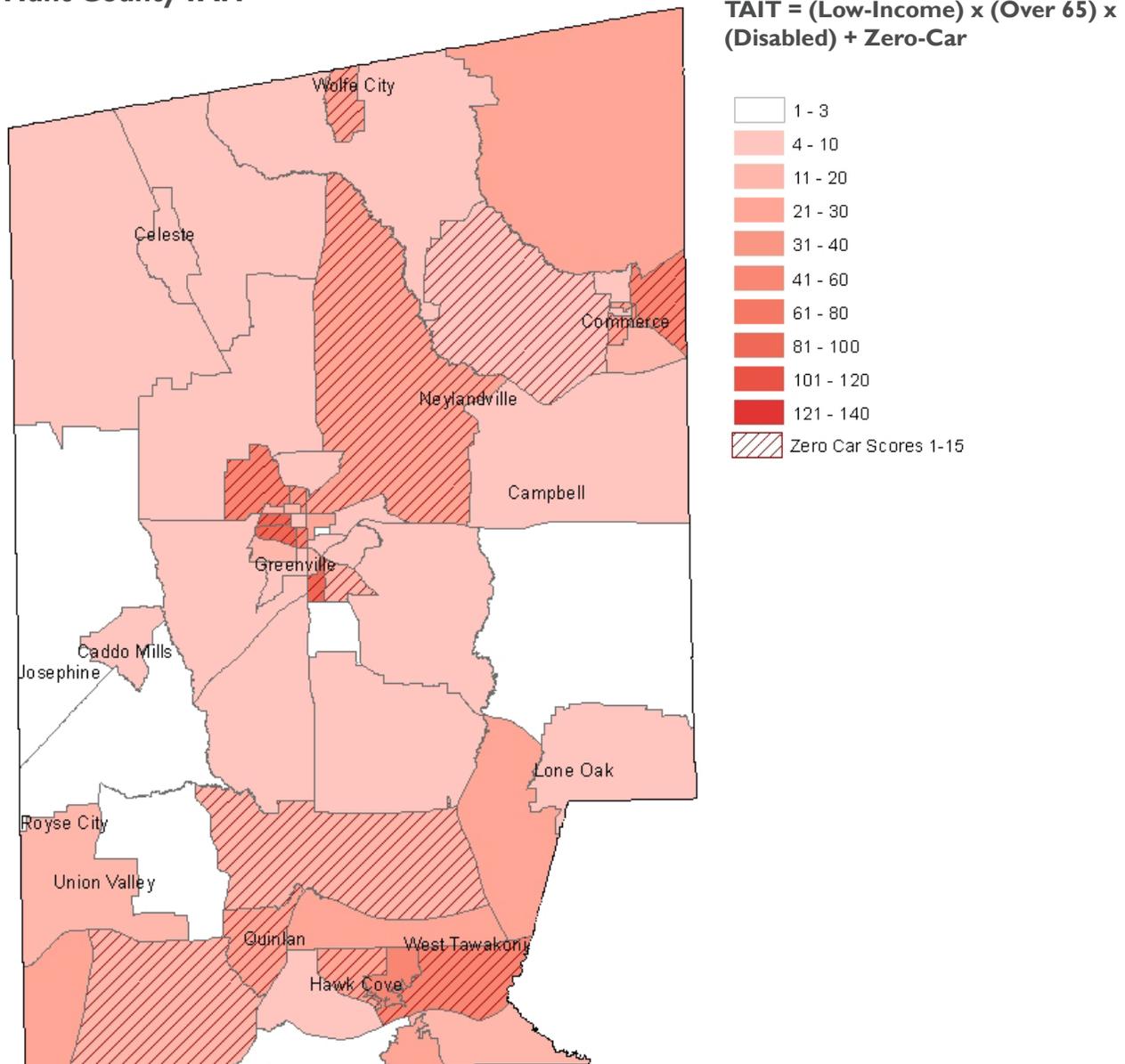
Johnson County

In Johnson County there were concentrations of zero-car households scattered throughout the county, but the highest overall TAIT scores were located in Cleburne and Keene, in areas that may demonstrate a greater need for public transportation service. One area in the central section of Cleburne was notable for having an over 65 population and low-income population both greater than two times the regional average; the population of individuals with disabilities in this area was also high, at just less than two times the regional average. These three factors combined mean that many residents may have limited means to acquire transportation for themselves and may need transportation assistance.

A similar population demographic in Keene is revealed by a high TAIT score there. In that case, both the low-income population and population over 65 were greater than two times the regional average and the population of individuals with disabilities was about one and a half times the regional average. Potentially posing further transportation challenges for residents in this area, the population of zero car households in the area was greater than two times the regional average. For this and all areas with significant populations of zero car households, transit services can play a vital role in connecting individuals to employment opportunities, medical care and community services.

Scattered pockets of transportation need highlighted by the TAIT may be difficult to serve with traditional transit service. Populations most in need of service are sometimes clustered in towns but also dispersed in outlying, more rural areas in Johnson County. With these demographic patterns, innovative transit services will be needed to connect customers from their homes to their communities.

Johnson County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

- 1 - 3
- 4 - 10
- 11 - 20
- 21 - 30
- 31 - 40
- 41 - 60
- 61 - 80
- 81 - 100
- 101 - 120
- 121 - 140
- Zero Car Scores 1-15
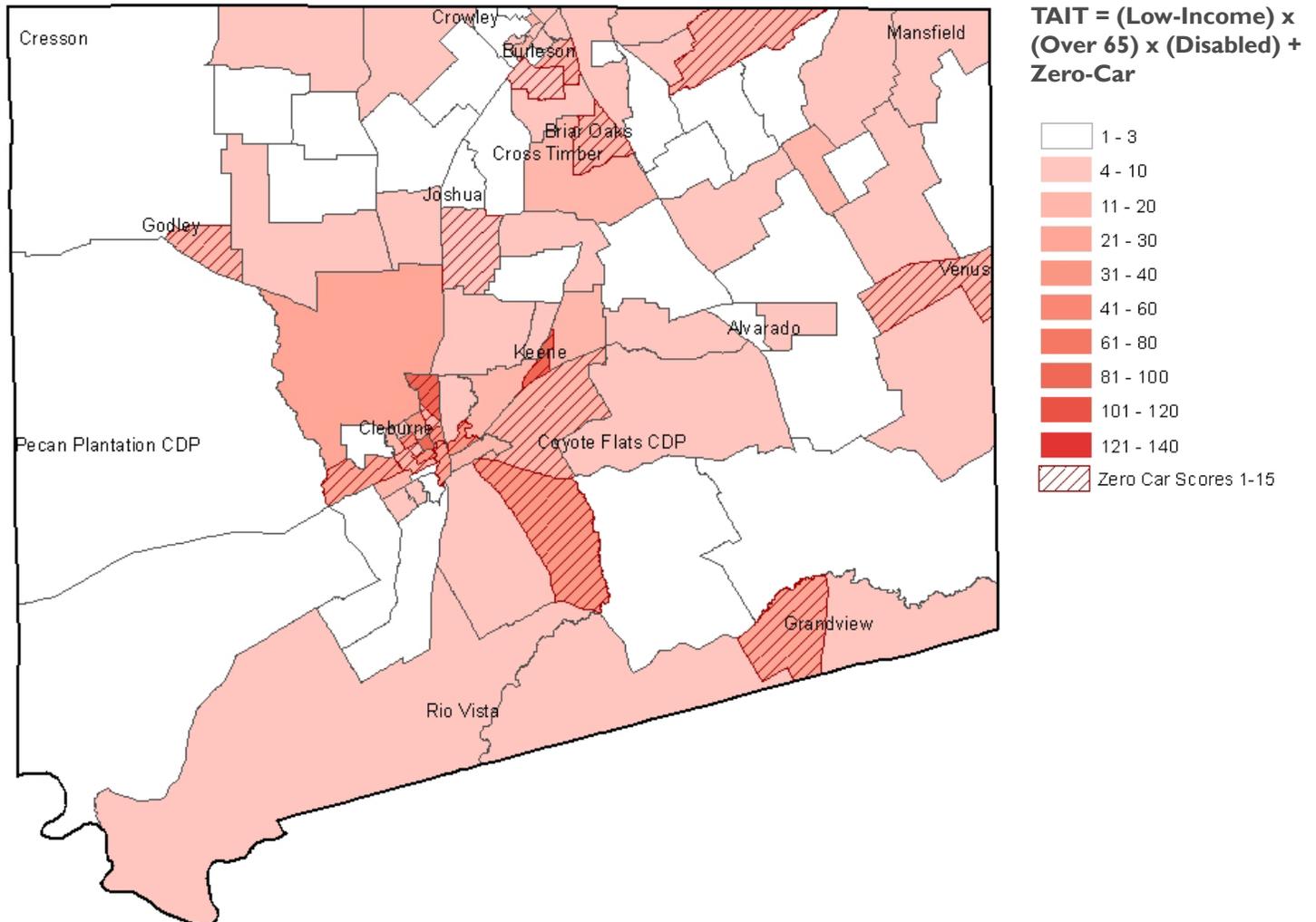
Kaufman County

Kaufman County's moderate TAIT scores are located in the central portion and eastern half of the county. Many areas on the western half have low TAIT scores. One notable area of the county with a high TAIT score was the southern section of Terrell. This area had populations of low-income individuals, older adults and zero car households all greater than two times the regional average. One area of southeastern Kaufman County in Mabank had a high TAIT score, with an over 65 population that was greater than two times the regional average and populations of low-income individuals and individuals with disabilities nearly two times the regional average in that block group.

Kaufman County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

- 1 - 3
- 4 - 10
- 11 - 20
- 21 - 30
- 31 - 40
- 41 - 60
- 61 - 80
- 81 - 100
- 101 - 120
- 121 - 140
- Zero Car Scores 1-15
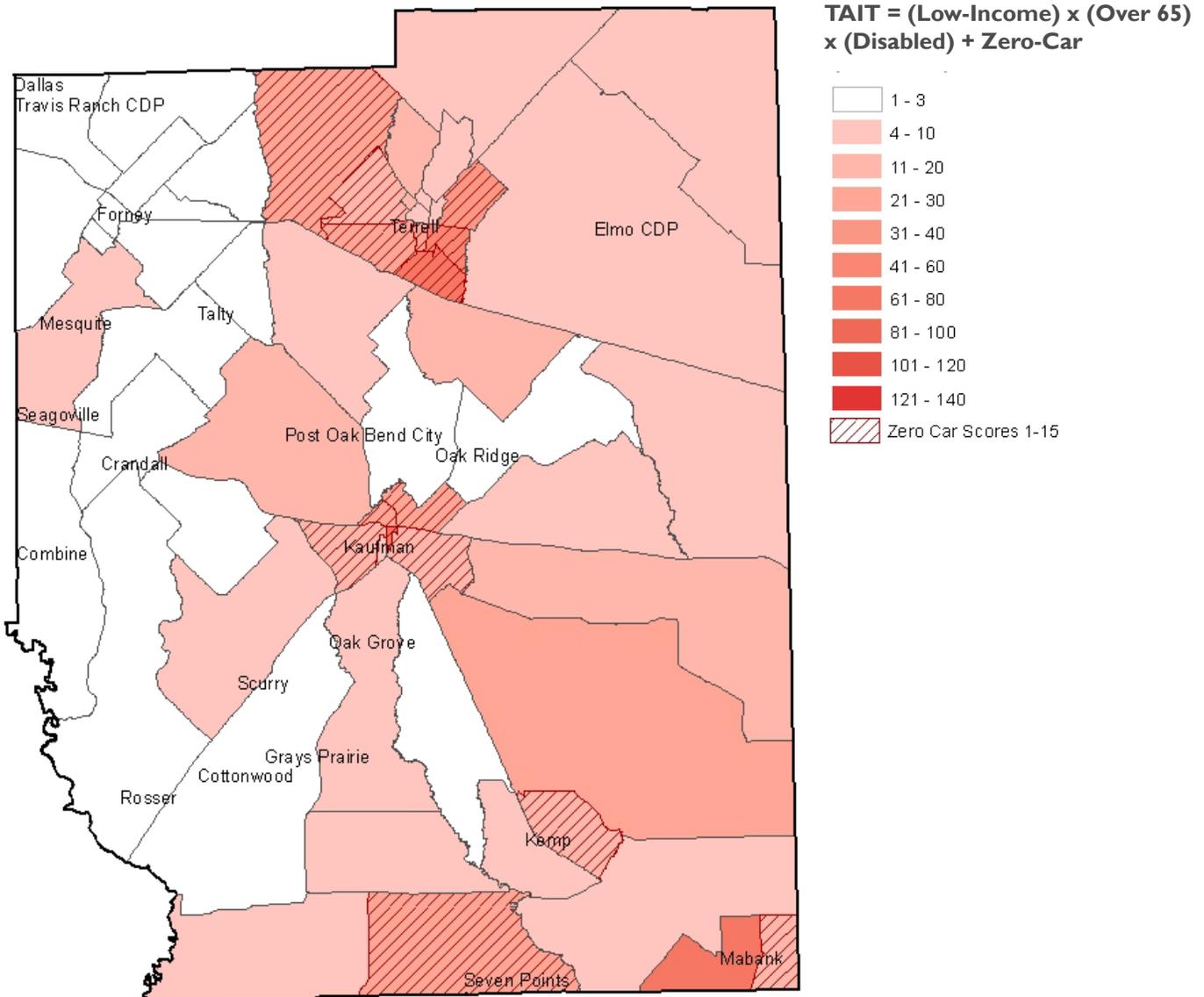
Navarro County

In Navarro County the highest TAIT scores were in Corsicana and the western section of the county. In Corsicana, an area in the northeastern section had an over 65 population and low-income population that were both greater than two times the regional average; the population of individuals with disabilities in this block group was just under two times the regional average, contributing to its high TAIT score. Potentially posing further transportation challenges for residents, the population of zero car households in the area was greater than two times the regional average. For this and all areas with significant populations of zero car households, transit services can play a vital role in connecting individuals to employment opportunities, medical care and community services.

The area encompassing Dawson in the western section of the county had an over 65 population that was greater than two times the regional average, a population of disabled persons just under two times the regional average and a significant population without access to a vehicle. Throughout Navarro County, factors that may indicate greater transportation need are especially notable in areas with greater concentrations of zero car households. These areas of greatest need are both focused near the city of Corsicana and in more rural areas in the western and eastern parts of the county.

With low to moderate TAIT scores throughout the county, the data reveals that some level of transportation service to meet the needs of transportation disadvantaged individuals is likely needed throughout the county. The area in and around the city of Corsicana likely has significant transportation needs and rural areas have dispersed populations that need transportation, though they may be more difficult to serve. Transportation solutions that meet the needs of those with transportation challenges can be tailored to meet the unique characteristics of Navarro County's communities.

Navarro County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

|	
	1 - 3
	4 - 10
	11 - 20
	21 - 30
	31 - 40
	41 - 60
	61 - 80
	81 - 100
	101 - 120
	121 - 140
	Zero Car S
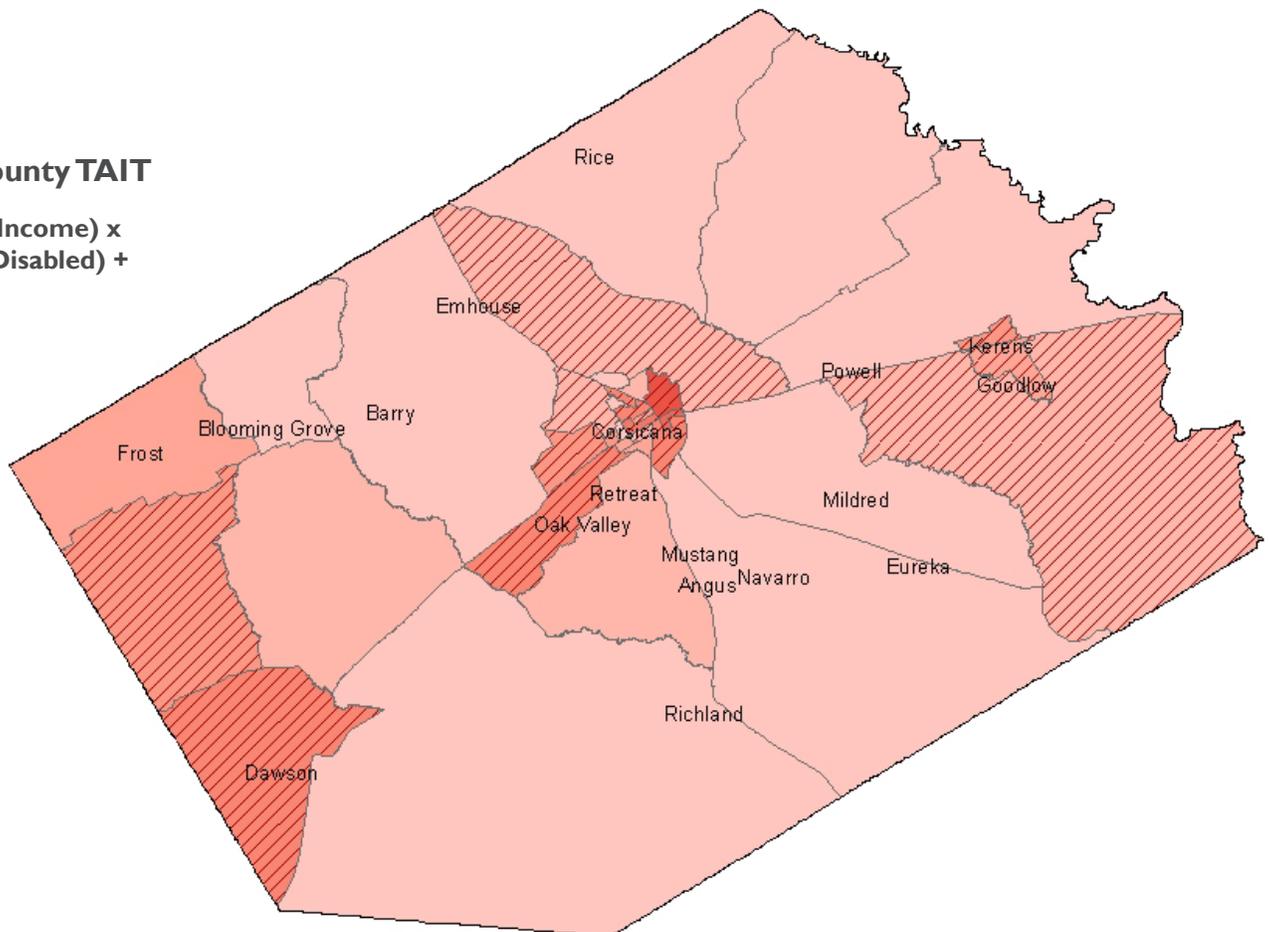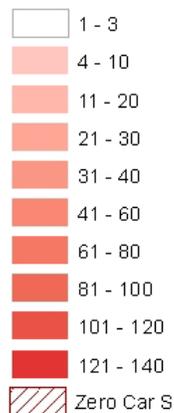
Palo Pinto County

Overall, Palo Pinto County's highest TAIT scores were in the north central portion of the county and in Mineral Wells. Areas with high TAIT scores had populations of low-income individuals, individuals over 65 and persons with disabilities above the regional average. The population of persons with disabilities was one of the most notable indicators, with almost the entire county above the regional average for this indicator. To serve the needs of populations that may have more significant transportation challenges than the rest of the population, transportation that is accessible and reliable will be needed to link residents to life-sustaining activities.

TAIT scores in Palo Pinto County indicate that some level of transportation need is present throughout the county. Rural areas where the population of households with zero cars is above the regional average may have populations with significant challenges to accessing jobs, medical care and community services in town. In Palo Pinto County, these rural areas of concern are concentrated in the north central part of the county, the center surrounding Palo Pinto and the southwestern corner near Strawn.

Palo Pinto County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

- 1 - 3
- 4 - 10
- 11 - 20
- 21 - 30
- 31 - 40
- 41 - 60
- 61 - 80
- 81 - 100
- 101 - 120
- 121 - 140
- Zero Car Scores 1-15
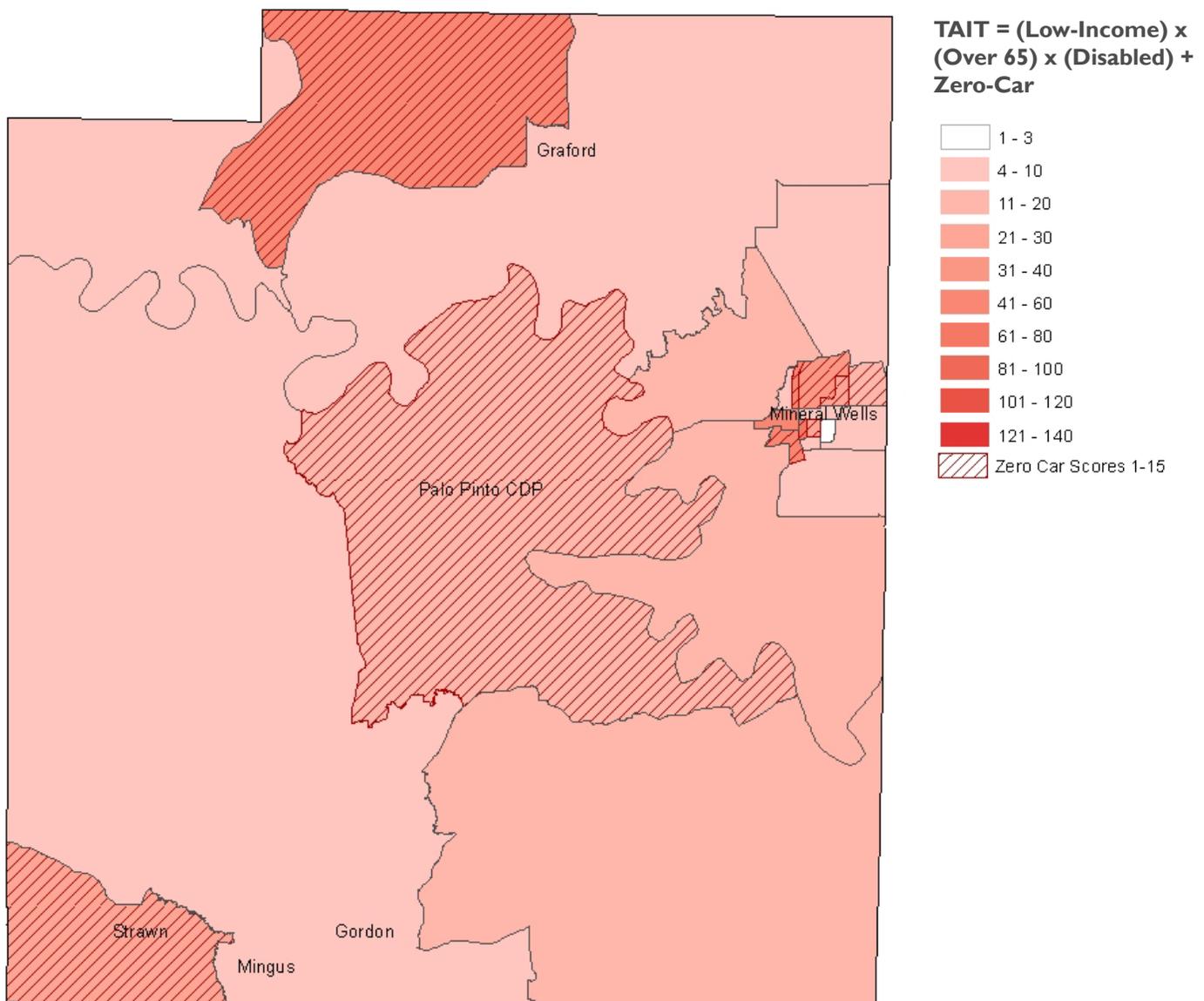
Parker County

In Parker County the highest TAIT scores were located in areas of Weatherford and in the northeast part of the county, including Springtown. One area in southeast Weatherford and one representing Springtown had high scores because of significant populations of low-income individuals, persons with disabilities and individuals over 65. While the populations of all three of these indicators made up a greater portion of the population than was typical for the region, the population of residents over 65 was especially notable because it was greater than two times the regional average.

Several areas of the county had larger populations of zero car households that overlapped with high TAIT scores, including portions of Weatherford and areas of northeast Parker County around Reno, Sanctuary, Azle and Springtown. The population of zero car households was also notable in the western part of the county near Millsap and Cool. Regardless of age, ability or income, individuals without access to a vehicle who live in rural and suburban communities like those in Parker County may have significant challenges to accessing employment, medical care and community services in their own communities and in the region.

Parker County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

|	
	1 - 3
	4 - 10
	11 - 20
	21 - 30
	31 - 40
	41 - 60
	61 - 80
	81 - 100
	101 - 120
	121 - 140
	Zero Car Scores 1-15
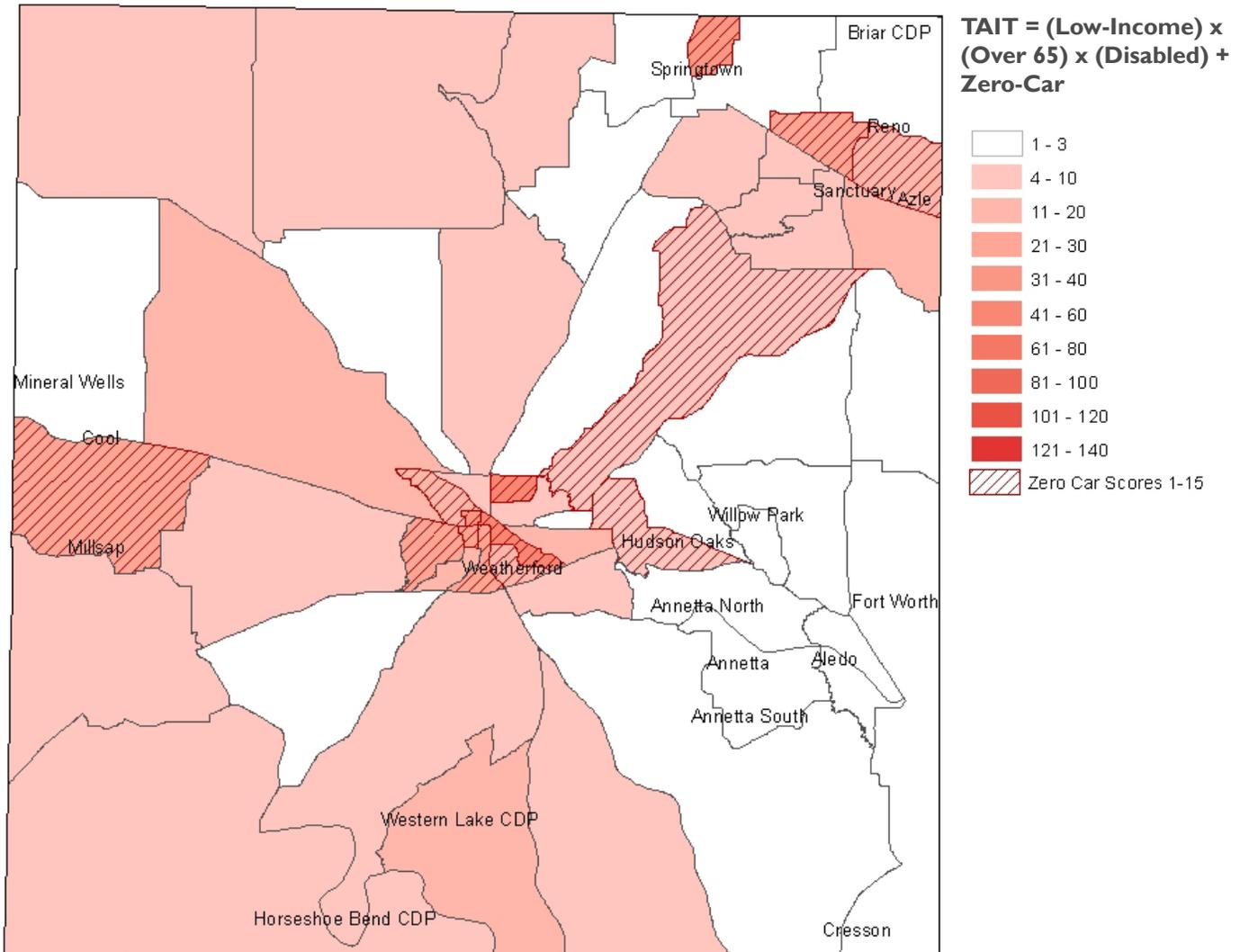
Rockwall County

Rockwall County primarily had low TAIT scores throughout the county. The area with the highest score in the county was located in the area between the city of Rockwall and Mobile City. In this area, the population of older adults and the population of zero car households were both greater than two times the regional average.

Another area along the eastern shore of Lake Ray Hubbard included a population of zero car households that was greater than the regional average of that variable, indicating the presence of a population that may have a greater need for transportation options to access employment, medical care and community services.

Rockwall County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

- 1 - 3
- 4 - 10
- 11 - 20
- 21 - 30
- 31 - 40
- 41 - 60
- 61 - 80
- 81 - 100
- 101 - 120
- 121 - 140
- Zero Car Scores 1-15
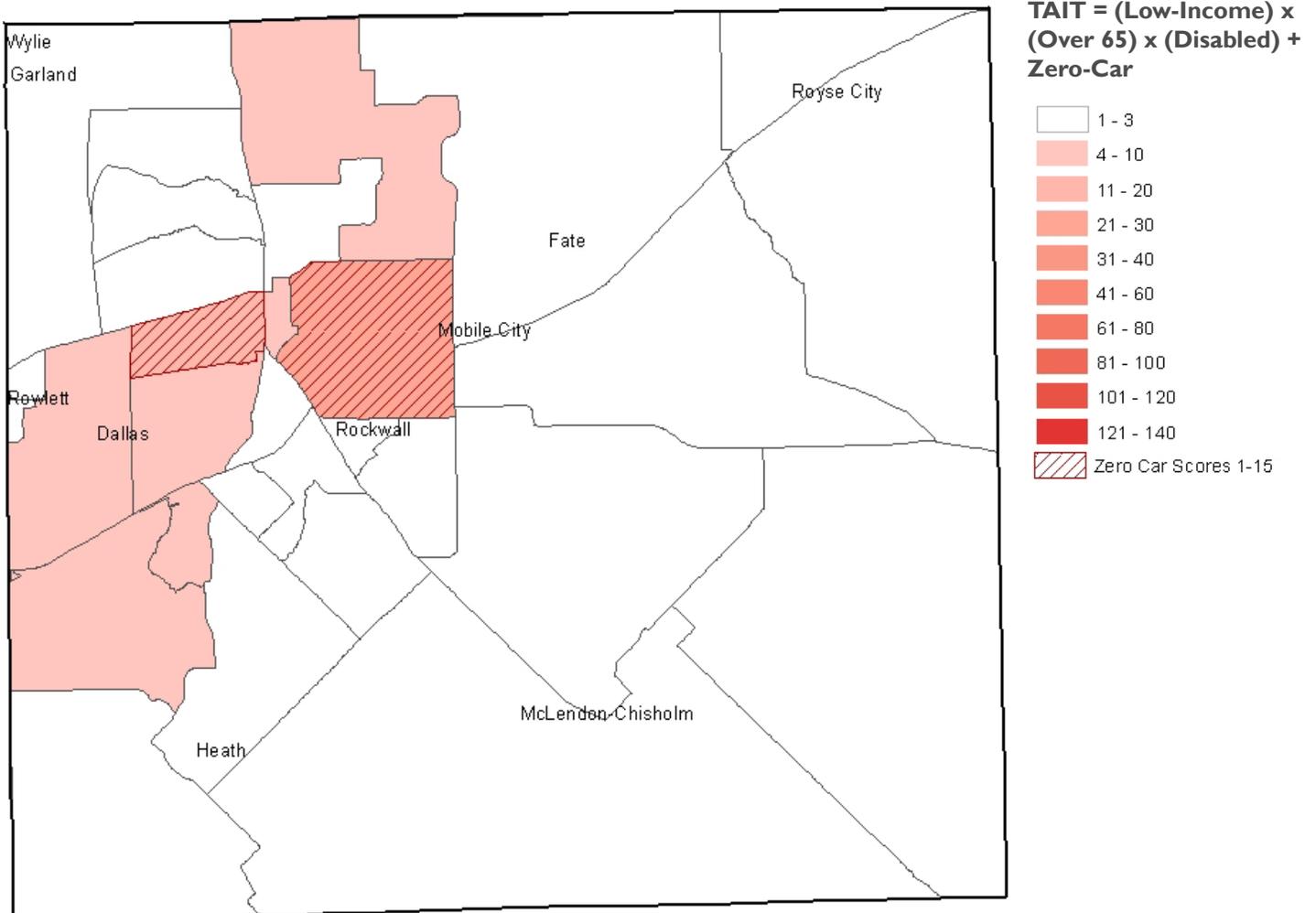
Somervell County

In Somervell County, a smaller total population limits the ability of the TAIT to display fine-grained data. The highest TAIT score in the county was in the southern section of Glen Rose, where the low-income population and population of individuals over 65 contributed to a higher score. The population of households with zero cars was also notable in this section of Glen Rose. Those factors combined may indicate that the greatest need for transportation is clustered in that area of the county. For the county as a whole, the population of older adults was higher than the regional average and specialized transportation for an older population may be appropriate.

Somervell County TAIT

Glen Rose

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

|	
	1 - 3
	4 - 10
	11 - 20
	21 - 30
	31 - 40
	41 - 60
	61 - 80
	81 - 100
	101 - 120
	121 - 140
	Zero Car Scores 1-15
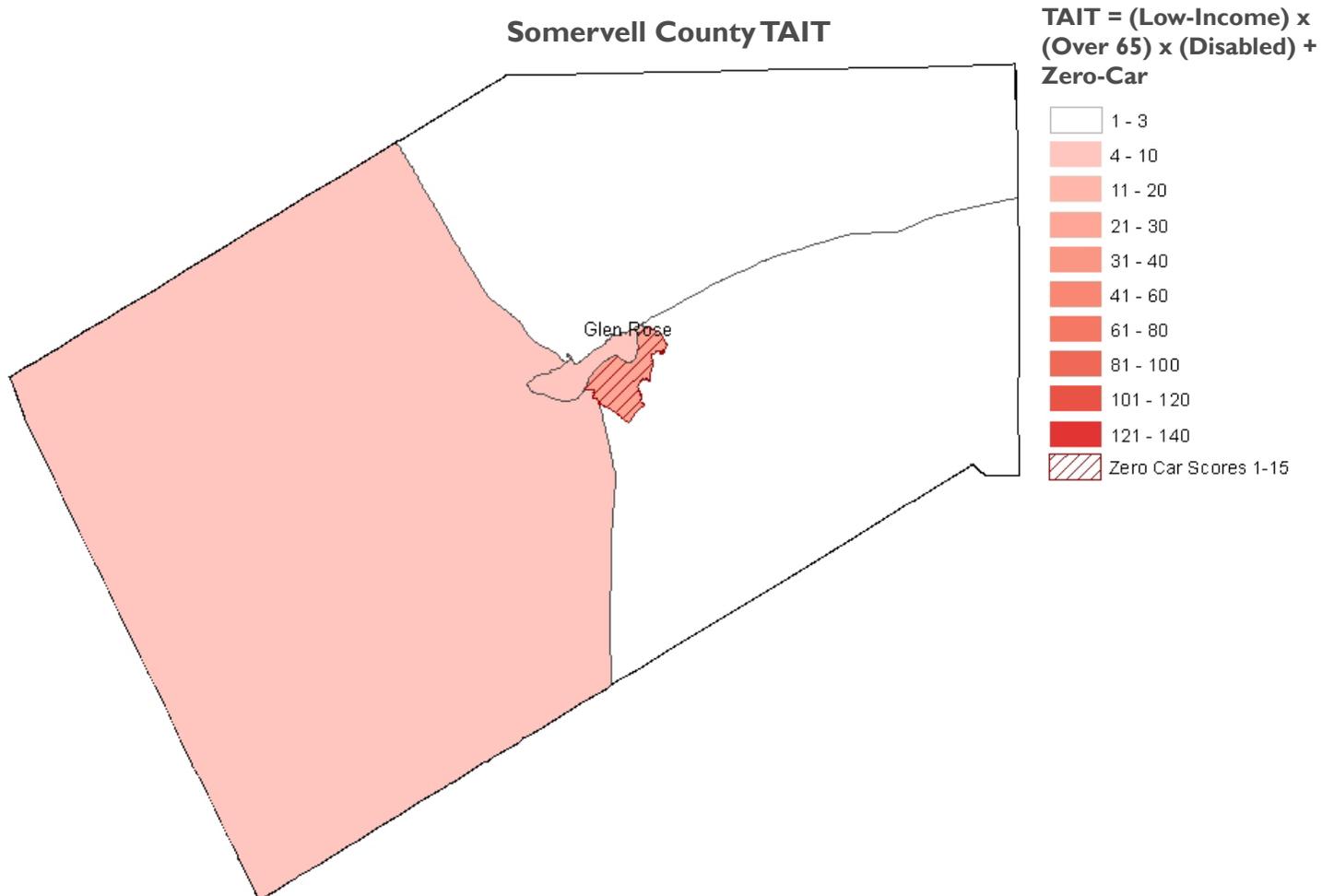
Tarrant County

In Tarrant County the highest TAIT scores were located closer to the central section of Fort Worth. A block group southwest of downtown Fort Worth had populations of low-income individuals, older adults and individuals with disabilities that were each two times greater than the regional average. This block group also had a population of zero car households that was two times greater than the regional average. Another block group with a high TAIT score was located south of downtown Fort Worth. This area's population of low-income income individuals, older adults, persons with disabilities and zero car households were all more than twice the regional average. Areas along State Highways 121 and 183 also have notable TAIT scores. Another highway that delineates areas of higher TAIT scores is Interstate 820 in the northwest section of Fort Worth and western portion of Tarrant County, with higher scores more common inside the loop. Other portions of the county with significant TAIT scores were in the city of Arlington. Between Interstate 30 and Interstate 20 in Arlington, most areas have at least a moderate TAIT score. Many areas in Arlington also have populations of zero car households greater than two times the regional average.

Tarrant County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

- 1 - 3
- 4 - 10
- 11 - 20
- 21 - 30
- 31 - 40
- 41 - 60
- 61 - 80
- 81 - 100
- 101 - 120
- 121 - 140
- Zero Car Scores 1-15
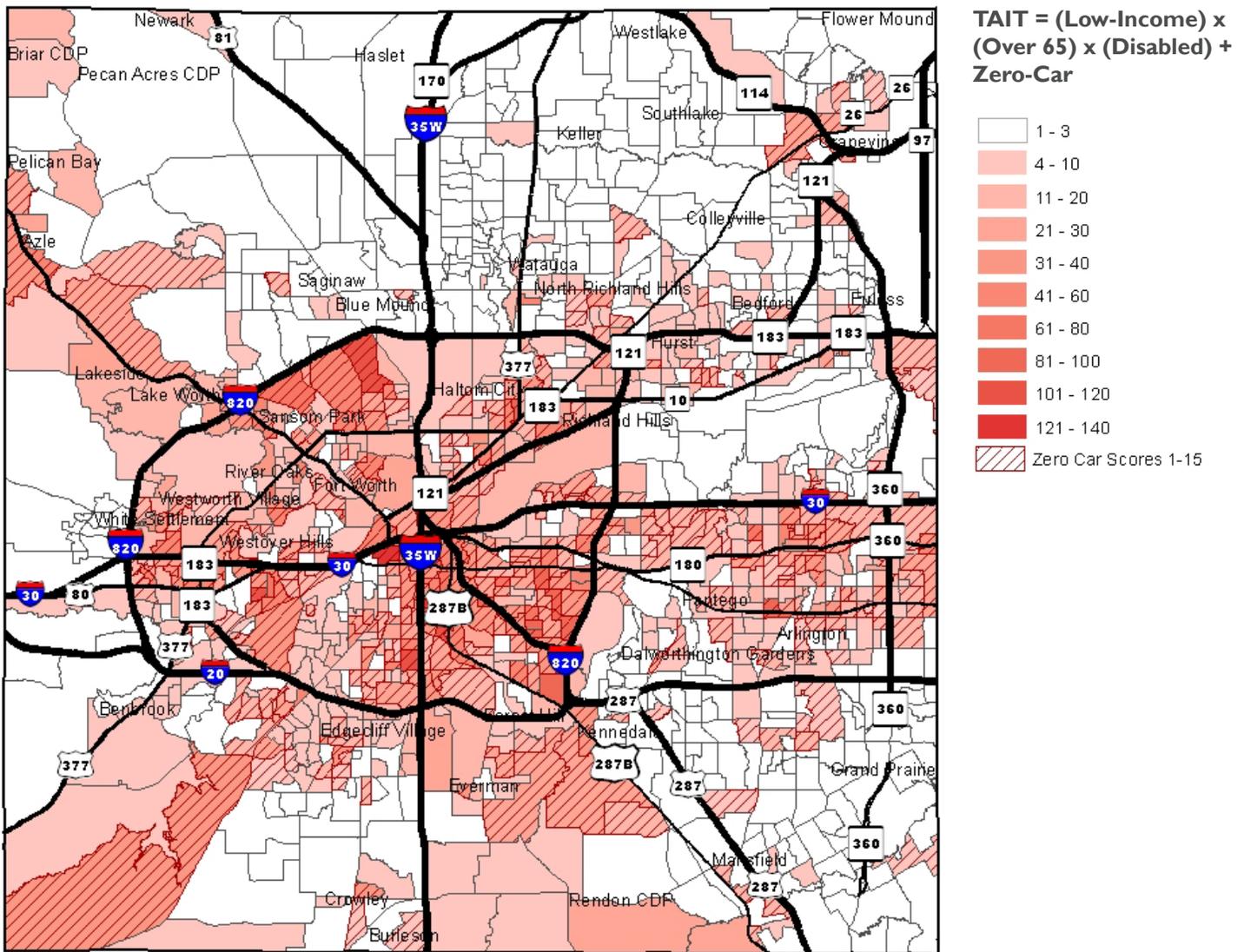
Central Tarrant County

In the central portion of Tarrant County there are only a few areas that have low TAIT scores; most of central Tarrant County includes significant populations that may have greater needs for public transportation services. Some of the highest TAIT scores are located closer to the center of Fort Worth. One area located south of the intersection of Interstate 30 and State High-

way 180 had the highest TAIT score in central Tarrant County. Another area of central Tarrant County with a high TAIT score was south of downtown Fort Worth, bordering Interstate 35W. The populations of low-income individuals, older adults and individuals with disabilities were each greater than two times the regional average and the population of zero car households was greater than the regional average.

Central Tarrant County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

- 1 - 3
- 4 - 10
- 11 - 20
- 21 - 30
- 31 - 40
- 41 - 60
- 61 - 80
- 81 - 100
- 101 - 120
- 121 - 140
- Zero Car Scores 1-15
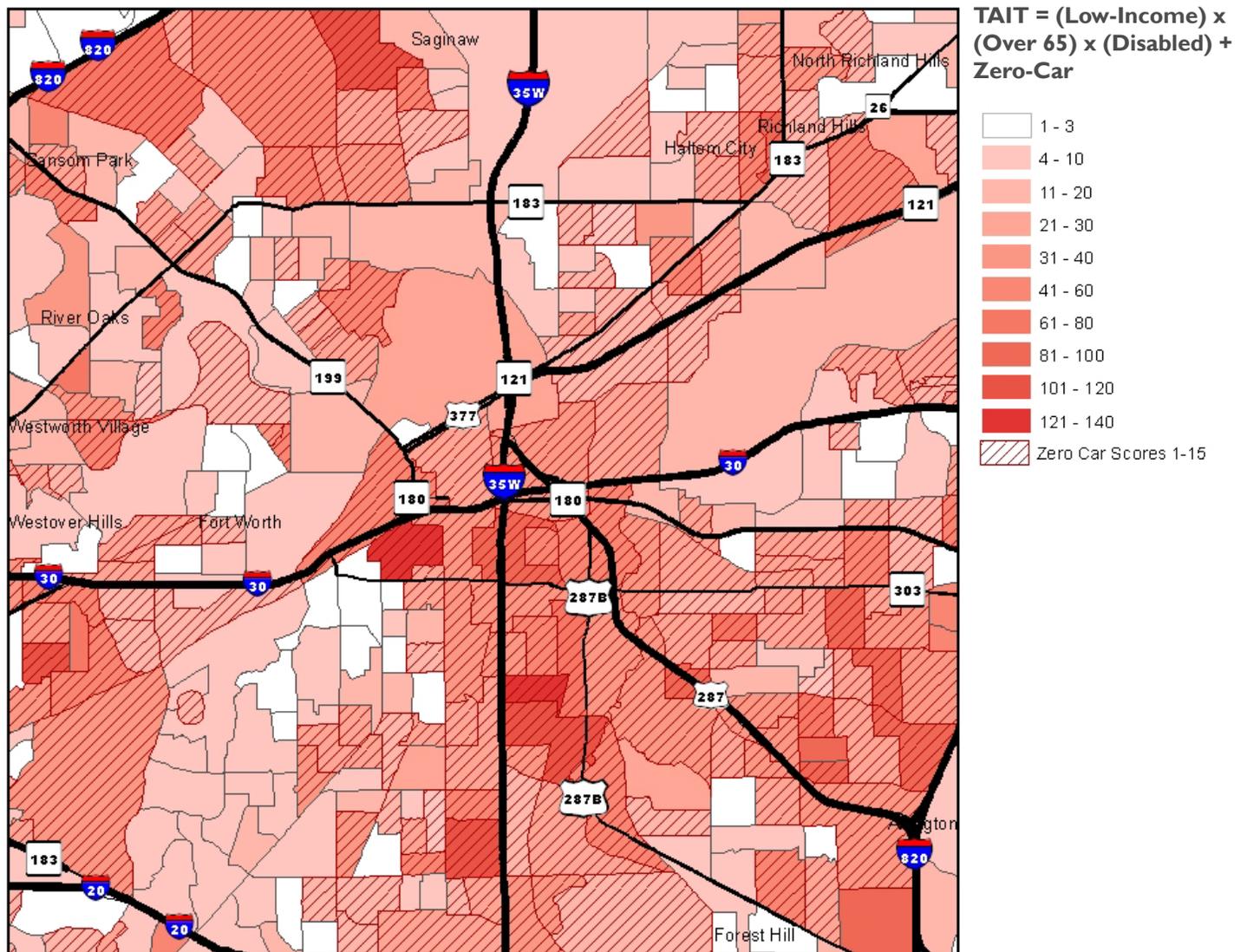
Northwest Tarrant County

In northwest Tarrant County, areas outside of Fort Worth and Azle generally have lower TAIT scores. Some of the highest TAIT scores are located in northwest Fort Worth and Azle. An area of northwest Fort Worth that is south of Interstate 820 had a high TAIT score, with populations of low-income individuals and persons with disabilities greater than two times the regional average. This area's older adult population and population of zero car households were also just under twice the regional average. Another area with a higher TAIT score was located in northwest Fort Worth, on the border of Sansom Park and south of Interstate 820. In this area, the populations of low-income individuals and zero car households was more than twice the regional average and the population of older adults was nearly two times the regional average. In Azle, an area on the eastern side of State Highway 199 also had a notable TAIT score. The most significant populations of those that may need transportation services included older adults and zero car households, both more than twice the regional average, and a population of individuals with disabilities nearly twice the regional average as well.

Northwest Tarrant County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

- 1 - 3
- 4 - 10
- 11 - 20
- 21 - 30
- 31 - 40
- 41 - 60
- 61 - 80
- 81 - 100
- 101 - 120
- 121 - 140
- Zero Car Scores 1-15
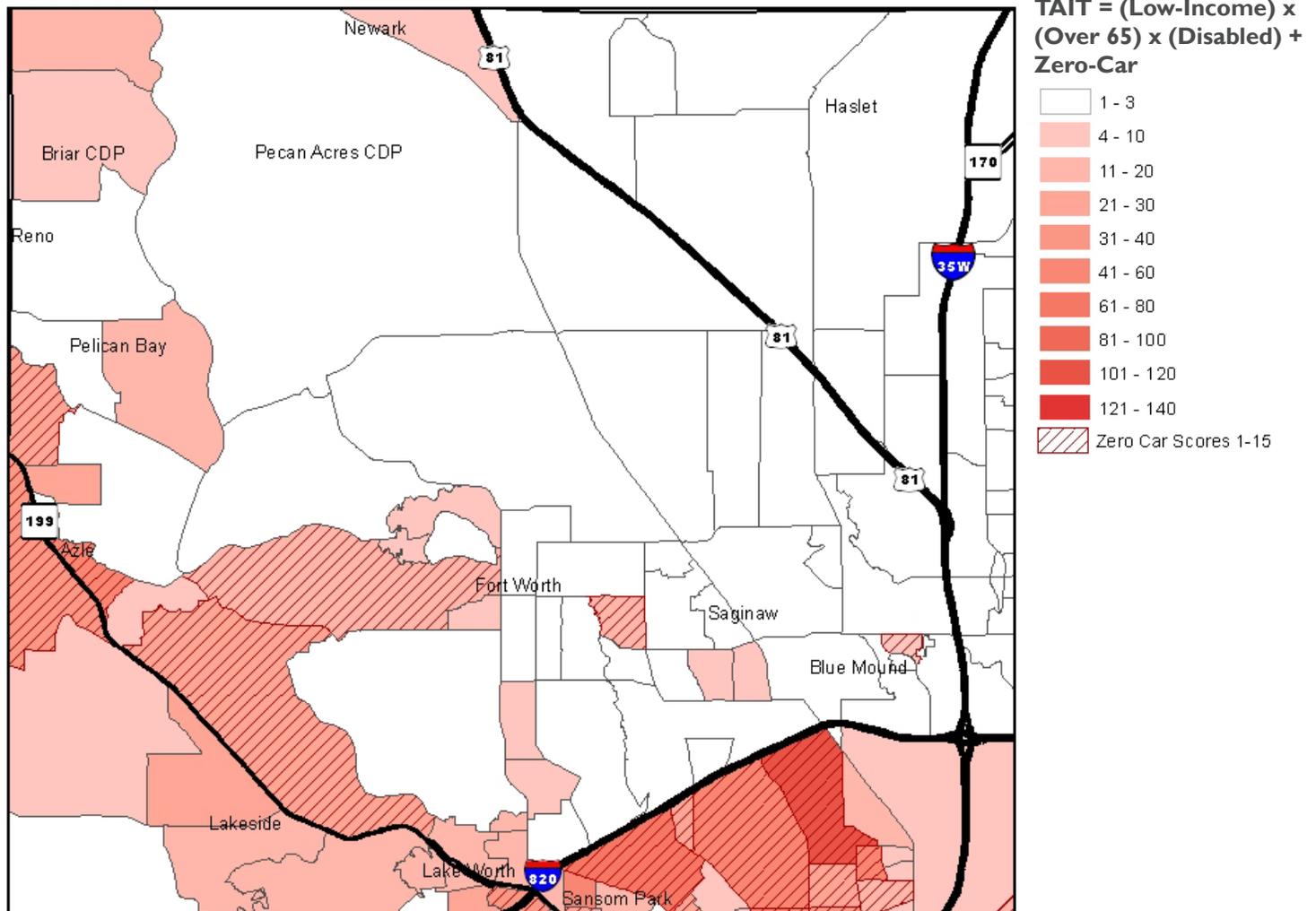
Southwest Tarrant County

In southwest Tarrant County many of the block groups outside of southwest Fort Worth have lower TAIT scores. Notable block groups with higher TAIT scores in this portion of the county are in southwest Fort Worth and in an area that includes a small portion of far southwest Fort Worth and a large unincorporated area of southwest Tarrant County. The large area representing a part of southwest Fort Worth and a larger unincorporated area of Tarrant County had populations of older adults, individuals with disabilities and zero car households that were greater than two times the regional average, though the low-income population in this area was less than the regional average.

Southwest Tarrant County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

- 1 - 3
- 4 - 10
- 11 - 20
- 21 - 30
- 31 - 40
- 41 - 60
- 61 - 80
- 81 - 100
- 101 - 120
- 121 - 140
- Zero Car Scores 1-15
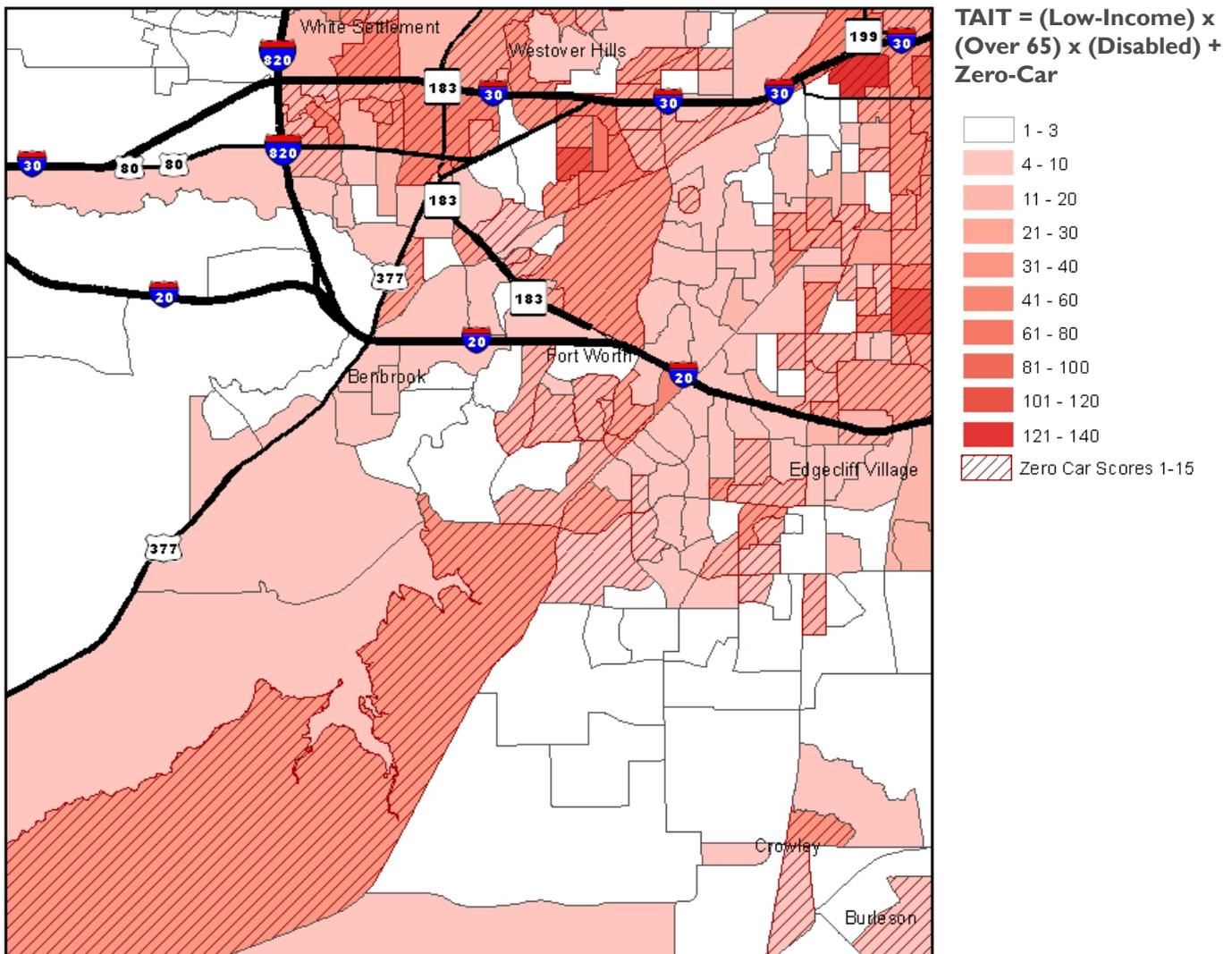
Southeast Tarrant County

In the southeast portion of the county there are low TAIT scores in Mansfield and southern Grand Prairie. Many of the high TAIT scores are located in southeast Fort Worth between Interstate 820 and US Highway 287. One of note was located in the southwestern section of Arling-ton. In this area, the populations of older adults and zero car households were greater than two times the regional average and the populations of low-income individuals and persons with disabilities were nearly two times the regional average.

Southeast Tarrant County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

Legend:
- 1 - 3
- 4 - 10
- 11 - 20
- 21 - 30
- 31 - 40
- 41 - 60
- 61 - 80
- 81 - 100
- 101 - 120
- 121 - 140
- Zero Car Scores 1-15
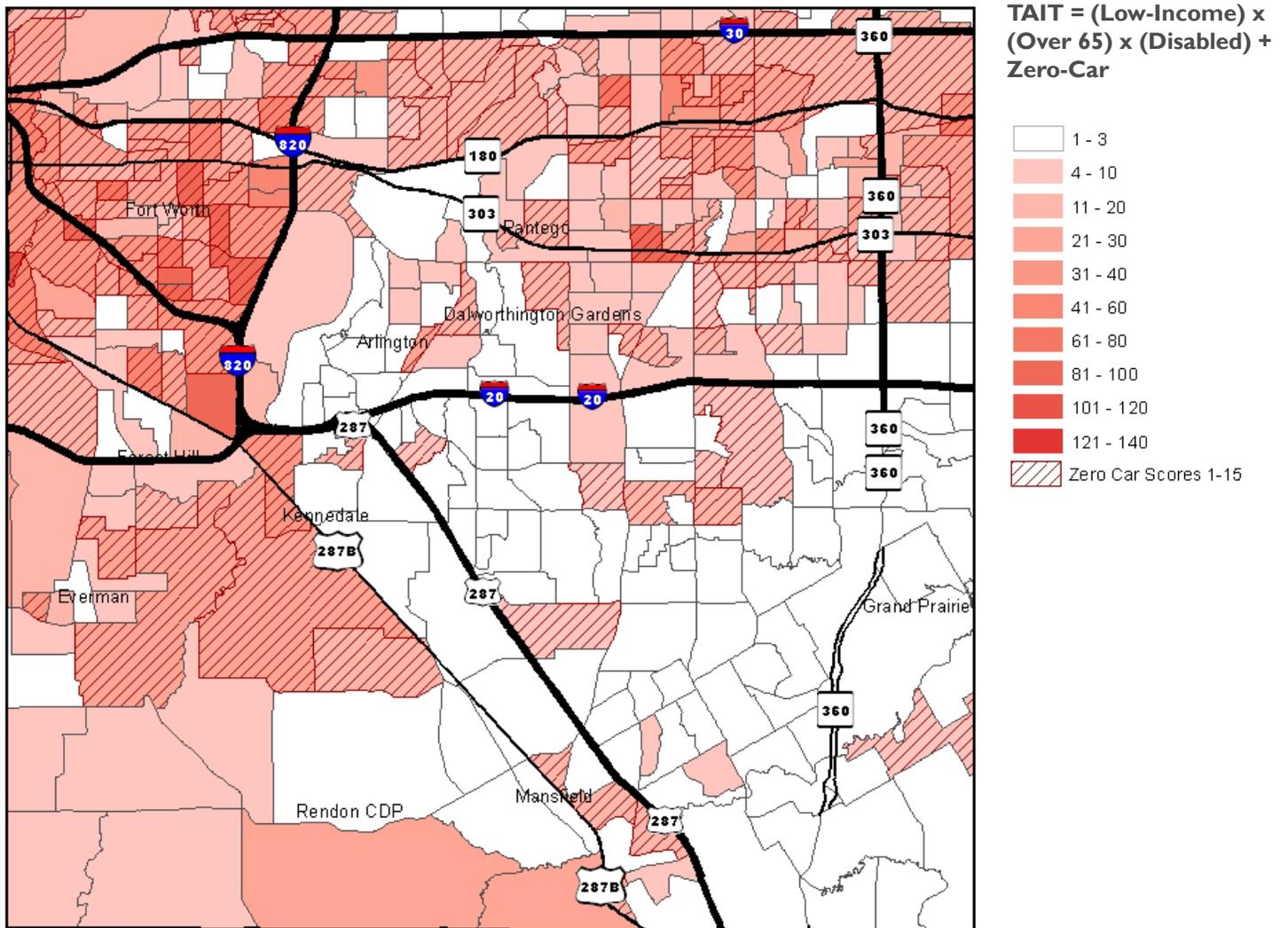
Northeast Tarrant County

Northeast Tarrant County had the largest number of block groups in the county with a low TAIT score. In addition, Dallas/Fort Worth International Airport takes up a significant area of this part of the county. Higher TAIT scores in northeast Tarrant County were located mostly in northeast Fort Worth and Haltom City. The highest TAIT score in northeastern Tarrant County was in Haltom City at the intersection of State Highway 183 and US Route 377. The population of older adults in this area was more than twice the regional average and the populations of low-income individuals and persons with disabilities populations were nearly that concentrated as well.

Northeast Tarrant County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

|	
	1 - 3
	4 - 10
	11 - 20
	21 - 30
	31 - 40
	41 - 60
	61 - 80
	81 - 100
	101 - 120
	121 - 140
	Zero Car Scores 1-15
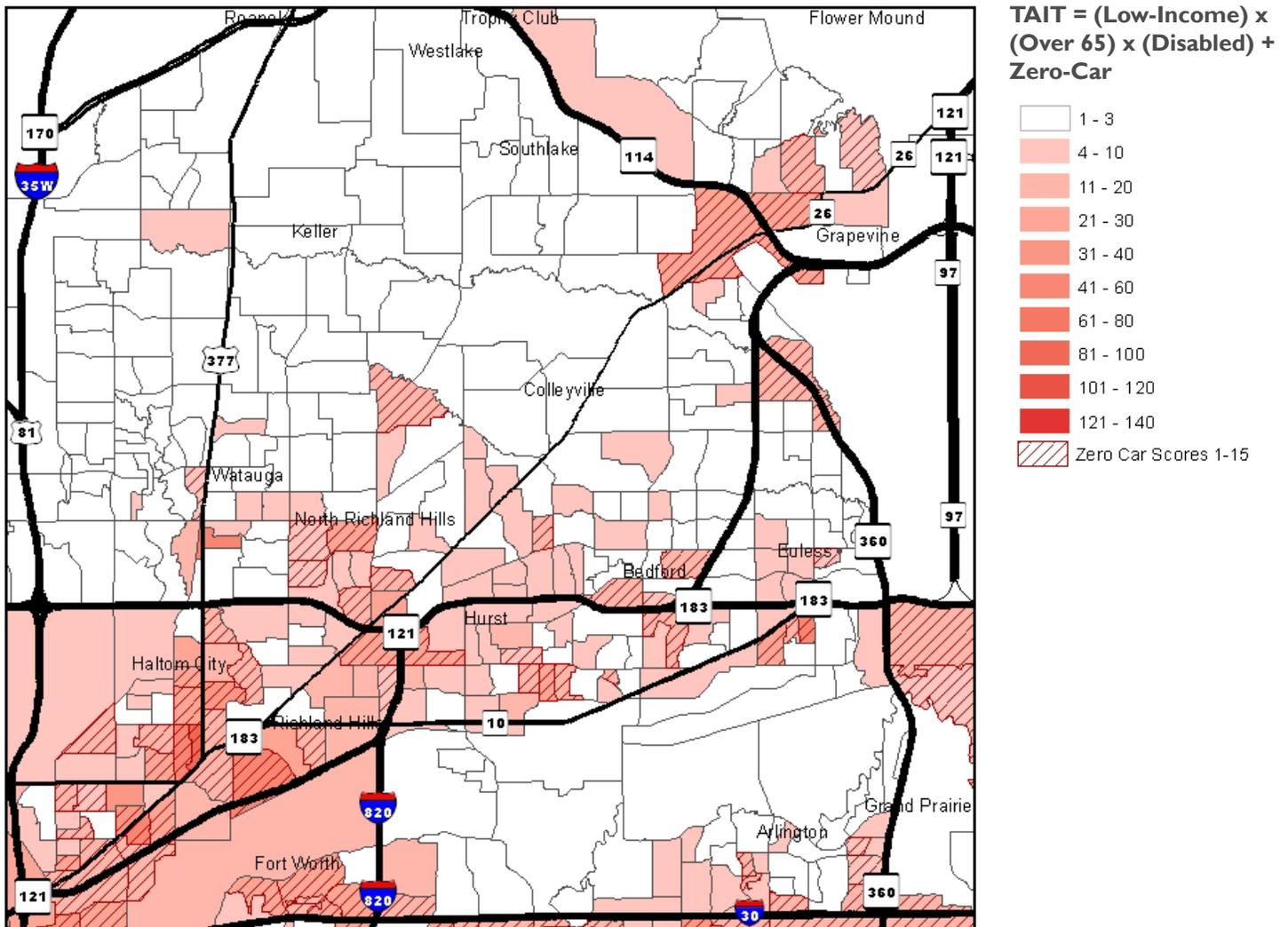
Wise County

In Wise County the highest TAIT score was in the central portion of the county in southeast Decatur. There were also higher TAIT scores in the city of Bridgeport and in the southern portion of the county near Boyd and Newark. The area of Decatur with the highest TAIT score had a significant population of individuals greater than 65 years old. Older adults with transportation challenges may need specialized services to help them access needed medical care and community services.

The population of individuals with limited income is notable in those areas with the highest TAIT scores located in Bridgeport and Decatur. These areas also include substantial populations of zero car households and persons with disabilities. Living without access to a vehicle in addition to potential mobility-limiting factors of age, ability or income means that it may be very difficult for some residents to access needed employment opportunities, medical care and community services.

Wise County TAIT

TAIT = (Low-Income) x (Over 65) x (Disabled) + Zero-Car

	1 - 3
	4 - 10
	11 - 20
	21 - 30
	31 - 40
	41 - 60
	61 - 80
	81 - 100
	101 - 120
	121 - 140
	Zero Car Scores 1-15