

Workshop -- Determining Purpose and Need for Vulnerable Communities in the Megaregions

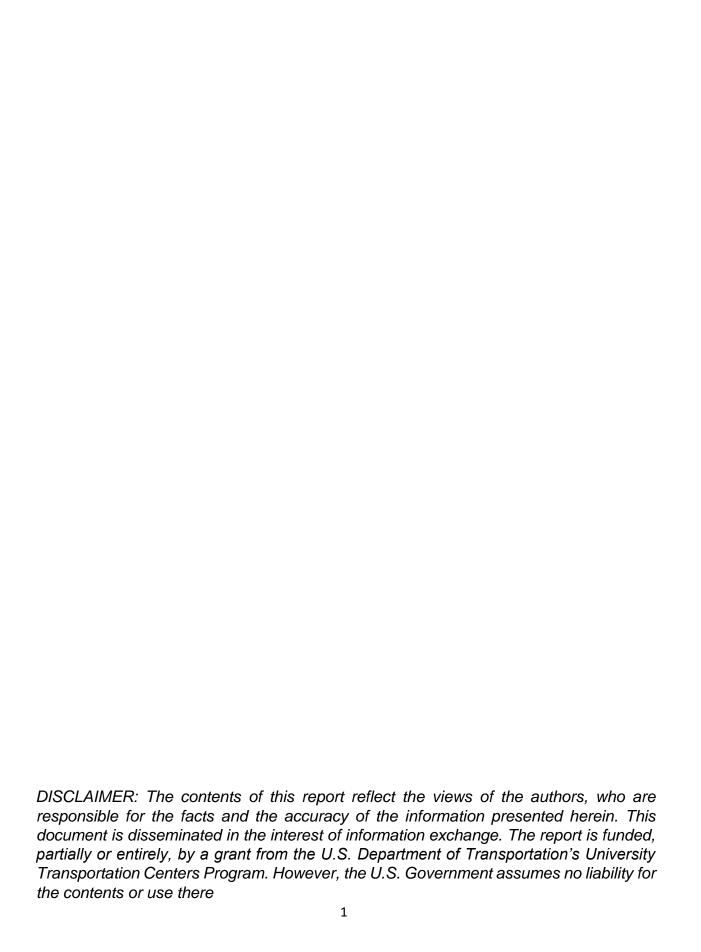
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This workshop provided academicians and practicing professionals with a forum to discuss						
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EXECUTIVE SUMMARY

Texas Southern University's Center for Transportation Training and Research invited several transportation professionals and academicians to an open discussion on vulnerable communities in the Texas megaregions. As urban areas within megaregions continue to expand, less attention is given to rural and vulnerable interstice cities and communities. The megaregions discussion focused on the Texas Triangle and Gulf Coast megaregions. Houston Galveston Area Council hosted the site for the virtual event; Dr. Carol Lewis, Emeritus Director of the Center for Transportation Training and Research (CTTR) provided opening comments and set the stage for the meeting's discussion. Elements of the on-going research were considered and discussed:

- Ms. Lisa Loftus-Otway presented the current challenges and possible opportunities and avenues to implement equitable megaregion planning in Texas.
- Dr. Carol Lewis presented research that has been conducted on vulnerable communities along US 290 W and IH 10 East from Houston to Austin and Houston to the state-line, respectively.
- Dr. Gwendolyn Goodwin presented research on health, medical, and transportation equity within vulnerable communities in the megaregions.

Attendees participated in two break session to discuss posed questions. The fundamental question for the first breakout session was whether vulnerable communities in rural areas within the megaregions should have better transportation connections to the urban areas. The second session sought to examine the medical needs for rural communities and the sufficiency of existing transportation options, supporting the need for connection of rural areas to urban areas within the megaregions.

Consensus from the breakout sessions found that communities in rural areas within the megaregions should be better connected to the urban areas. MPOs would be the ideal platform for megaregion planning, but federal regulation limits their capacity to consider areas outside their jurisdiction, causing megaregions to be divided, somewhat isolated and without an entity with public transportation oversight. Alteration to present transportation laws and need for more federal funding to support multimodal means of transportation were resounding suggestions made to enhance megaregion planning and promote equity in transportation planning.

The workshop was a profound start to discussion about megaregion planning in Texas. It initiated various considerations and suggestions, setting the foundation for upcoming workshops and future research that will benefit transportation planning within Texas megaregions.

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INTRODUCTION

Initial Workshop

On September 7, 2019 CM² (Cooperative Mobility for Competitive Megaregion) Texas Southern University (TSU) researchers sponsored local stakeholders in Winedale, TX for a full-day workshop on increasing travel options for vulnerable communities in the Texas Triangle megaregion. This previous workshop confirmed that for vulnerable communities in rural areas, factors such as cost, accessibility, and lack of internet/web access will continue to be barriers for transportation. Seeking to address these short-comings in the context of the federal *Purpose and Need* process is difficult when the *need* is simply that people *need* to get around.

Workshop participants included representatives from Brazos Valley Council of Governments, Bryan/College Station Metropolitan Planning Organization, Houston-Galveston Area Council, Harris County Rides, Capital Area Rural Transportation System (CARTS), and the Texas Central Bullet Train. The workshop concluded with a modified SWOT (strengths, weaknesses, opportunities, threats) activity, in which participants divided into groups and discussed SWOC (strengths, weaknesses, opportunities, and a call to action.) The call to action prioritized communicating with elected officials. Because most legislators represent rural areas, they are more responsive if you can tie transit issues to rural issues. Other action steps included outreach to the public sector, ensuring flexibility to move money to match transportation goals, changing public perception of rural transit, and continued collaborative engagement.

2nd Workshop Purpose and Objectives

The December 2020 workshop offered an opportunity to bring together again relevant stakeholders who are motivated to improve their decision-making processes and thus provide a better transportation foundation for rural, non-urban megaregion communities.

Background

Years 1 through 3 of CM² focused on identifying variables that indicate vulnerability of people living in the megaregion interstices (nonurban areas between the major Texas Triangle cities) and secondarily showing that transportation gaps decrease quality of living for these residents. There is diminished accessibility to heath care, employment and post high school educational institutions. The megaregion corridors have a number of communities with sociodemographic variables materially under the mean values for the rest of Texas on a number of indicators. Moreover, the transportation gap negatively impacts opportunities for wage increase and for people in these communities to advance their present conditions. Traditional MPO decision making criteria underrepresent this transportation gap as decisions are made for capital improvements that might better link these interstice communities and compared against capital improvements for urban areas. Year 2 research findings offer an approach to better address this challenge. In order for non-urban areas to better position themselves for limited transportation funding, a first step is to quantify the extent of their transportation need. This work suggests doing so with a Composite Vulnerability Index that includes typical demographic data with percent of income spent on transportation.

A TxDOT report of rural transit noted that access to jobs that are not near their homes is important for people in these communities, as is their ability to access health care, social/recreational opportunities and other life necessities (Miller, 2017). It is critical that metropolitan planning organizations and councils of government more aggressively expand and increase transportation services, accessibility and connectivity to non-urban residents as in their mission and goal statements.

US 290 Vulnerable Communities

Motivation for people to remain in non-urban communities is a great challenge. Difficult access to employment, higher education and other life qualities is known to contribute to relocation decisions. Opportunities for necessities and amenities are far more considerable in the urban areas. From the megaregional perspective, reasonably priced transportation with attractive travel time to the nearest urban area would appreciably benefit rural and non-urban residents. Background research along the US 290 corridor showed two case study block groups with a decrease in the number of residents from 2014 to 2016. They also showed high poverty levels, increasing percentages of minorities and increasing percentages of non-English speakers. These people spend a higher percentage of their incomes on transportation than their county or state counterparts. Meeting their travel needs can be given greater consideration if their vulnerability measure is given a higher consideration in the decision making process.

WORKSHOP FINDINGS

Megaregions Workshop - December 10, 2020

22 industry professionals and academicians met to discuss vulnerable communities within Texas' megaregions. The workshop was hosted by HGAC and CTTR via zoom on December 10th, 2020. Discussion focused on vulnerable populations within the Texas Triangle and Gulf Coast megaregions. The workshop featured presentations, two breakout sessions, and discussion intervals. The workshop followed the following agenda:

Welcome Remarks	Dr. Carol Lewis
Presentation I – A Perspective on Megaregional Equity from the MPO Lens	Ms. Lisa Loftus-Otway
Presentation II – Determining Purpose and Need for Vulnerable	
Communities in Megaregions	Dr. Carol Lewis

Question and Answers		
Breakout Session I – 10 minutes		
Discussion from Break Session		

Presentation III – Examining
Medical, Health and Transportation
Equity in Rural Areas of the Texas

Dr. Goodwin Gwendolyn
Megaregion

Question and Answers		
Breakout Session II – 15 minutes		
Discussion from Break Session		
Closing Remarks	Dr. Carol Lewis	

Presentations

A Perspective on Megaregional Equity from the MPO Lens.

Ms. Loftus-Otway commenced with noting that although MPOs have been posited as the best place and construct to formulate megaregion planning, there are handicaps. The handicap is that MPOs can only plan within their boundaries and have specific rules and regulations regarding actions and activities executed with the funding they receive. Therefore, MPOs need more help to be able to formulate megaregion planning. Ms. Loftus-Otway further explained that megaregion planning starts with social equity, yet, currently, there is not an equity requirement in MPO planning. Furthermore, social equity is difficult across multi-state megaregions, but easier for individual states. She suggested that federal support needs to be initiated for equity to become a priority in the MPO planning process. Ms. Loftus-Otway also mentioned that there is an opportunity to use the commerce clause, pre-emption and spending powers to justify megaregion planning, in addition to the use of interstate compacts and joint MPO initiatives. Finally, resiliency can also provide a platform to motivate the need for incorporating equity into the MPO planning and policy process.

Determining Purpose and Need for Vulnerable Communities in Megaregions

Since a statement of purpose and need is required for all transportation planning projects, how can vulnerable communities' needs be included allowing them opportunity to receive the transportation planning necessary for their non-traditional needs? In this presentation, Dr. Lewis mentioned that since the statement of need and purpose is critical, this should be the starting point in helping rural communities gain increased consideration for their transportation needs. The statement must be specific enough to allow for generation of alternatives that concisely focus on the transportation challenge. Addressing these communities' needs is important as there are increasing numbers of fringe low-income, ethnic and senior residents. The need to reduce car-dependence, economic benefit of intra and inter- city connection, livability and access opportunity for communities (jobs, transportation options, healthcare and maintenance, recreation and entertainment, social contact) is critical for continued livability. This research seeks to investigate whether there are vulnerable communities with a need for increased travel opportunities into the urban areas from the interstices in the Texas Triangle and Gulf Coast megaregions. The research features recent and future analysis of the US 290 corridor (Houston to Austin), IH10 East corridor (Houston to the Texas Border). Additional work will add data from other Texas Triangle corridors (IH 10 West, IH 45, IH 35), and IH 69 South corridor (Houston to Corpus Christie). The objective is to formulate a rubric-styled tool for planners in the rural communities to initiate a purpose and need statement for the communities' transportation needs.

MPOs within the Texas megaregions are divided and restricted to their jurisdictions. Furthermore, findings show that the triangle MPOs dedicate, at most, 5% of their transportation planning points to vulnerable communities. For this research, six variables were initially considered to represent vulnerable communities: female-headed households, non-English speaking, senior population, minority population, poverty, and households with zero automobile. Two variables, households with zero automobile and senior population, were excluded because car possession is necessary for residents in rural areas, so auto ownership was high, and the senior population that was examined was not in high poverty considering the Texas median income. The core socioeconomic variables were included in a calculation to form an index. In addition to the socioeconomic variables, *the percent of income spent on transportation* was calculated as an index and added to the sociodemographic index creating the Composite Vulnerability Index.

Presentation comments, questions and discussion

Comments:

- One of the attendees appreciated the inclusion of percentage of income spent on transportation.
- Another found that the cost of transportation is much higher in the DFW area than the research numbers, based on the Housing and Transportation Index.
 Some of the suggestions:
- One attendee suggested that, based on their findings, the variable for transportation should be households with one or fewer vehicles.
- It was also suggested that first mile/last mile connections within the megaregion be discussed.

Questions:

• An attendee inquired whether a survey had been conducted to verify whether these people want to move or connect to the city, as most research shows that majority travel within and do not want to connect to the urban areas.

Discussion:

- In response to the suggestion of using households with one or fewer vehicles as the transportation variable, Dr. Lewis explained that the variable of households with one or fewer vehicles in these communities is not considered because most households have a vehicle because they must, due to the absence of other transportation options.
- In response to the inquiry about a survey conducted to verify need of rural communities to connect to urban areas, Dr. Lewis stated that the choice to connect to cities within rural communities varies by corridor. She further explained that most people in these communities that want to connect to urban areas end up relocating to cities due to lack of transportation connection. Nevertheless, she added that there is still a need for intra-

transportation connection to provide these communities access to basic services (medical, food, social/recreation, etc.).

Examining Medical, Health and Transportation Equity in Rural Areas of the Texas Megaregion

This research was inspired through the curiosity of determining the gravity of the transportation issue if overlaid with the medical need of residents in these communities. Dr. Goodwin focused this research on counties along the IH10 E and US 290 corridors. With the current COVID-19 pandemic, findings revealed that there were no covid-19 testing sites in rural areas along the study corridors. Therefore, residents were travelling between 23 and 88 miles to reach cities for testing. This emphasizes the inequities experienced by rural communities in accessing medical services.

The research had two objectives. The first was to identify which rural groups still experience health, food, and transportation inequities when accessing needed services in their counties and/or in the urban areas. The second was to use the data collected to foster equity in collaborative planning between rural MPOs and urban MPOs, which can help rural residents in the Texas megaregion develop transportation options.

The research found that the most prevalent health concerns in rural areas include disabilities, diabetes and dialysis, doctors/mental health, lack of health insurance, and food and poverty. Below are the key findings along the study corridors.

Key findings along US 290:

- Waller county was the second most diverse, with 24% black population.
- Washington, Bastrop, and Lee counties showed higher percentages than state and
 national average levels for individuals with disabilities. Waller and Fayette counties
 showed lower percentages than the average state and national levels.
- Washington and Fayette counties had the highest percentage of households without a vehicle.
- Waller county ranked 9th in Texas for the highest diagnoses of diabetes in 2015.

Key findings along IH 10 East:

- Jefferson and orange counties indicated the highest percentages of households without a vehicle.
- Jefferson county showed the highest percentage of black population and highest factors for health disparities.
- Jefferson county had the highest percentage of poverty, high disabilities, large minority population, shortage of doctors and facilities.
- More than 20% of population in Jefferson county lived without health insurance.
- Jefferson county ranked 5th in Texas for the highest diagnoses of diabetes in 2015.

Consensus: Breakout Sessions and Responses to Questions

Three groups were made for the breakout sessions. The groups consisted of attendees from different regions of Texas and different areas of expertise/specialization. Two questions were discussed in the first session and three questions in the second session. The following sections summarize the discussions.

Breakout session I

Following Dr. Lewis' presentation, two questions were posed for discussion in this session. After 10 minutes, the attendees reconvened to share their conclusions and discussions. Below is a summary of the main discussion points from all groups.

1. Is it important to better link vulnerable residents in non-urban areas in Texas with nearby urban megaregion centers?

All the groups concluded that it was important to link residents in non-urbancommunities to megaregion centers regardless of any factors. It is also important as it connects the residents to better medical services, educational facilities, and potential employment opportunities.

2. Are we looking at the right variables? Should we add the percent income spent on transportation to the decision-making toolbox?

Attendees agreed that the inclusion of percent spent on income was an important addition. One suggested creation of a scale to calculate the percentage of income spent on transportation as it relates to low-income households as opposed comparing to the average of the state or county because of the potential for extremely high or low values to influence the median.

Breakout Session II

Three questions were posed for this session. After 15 minutes, the groups reconvened to share their question responses/discussions.

1. What are the major health concerns facing your community?

Most of the attendees agreed that diabetes, cancer, dialysis patients especially with elderly population posed the major health concerns in their communities and is increasing. Obesity, COVID-19 at the moment, and mental health were also other health concerns mentioned. Air quality was discussed to be contributing factor to the health of residents of some of these communities.

2. How far do community members drive to access needed specialty health care (dialysis, cardiology, endocrinology)?

The first group explained that initially it was a long drive to the Medical Center, but with urban sprawling, the services have moved out to satellite areas. As a result, the distance is shorter. Another group added that although specialty care is moving to the suburbs, it is insufficient. So, the distance travelled is 50-60 miles for some residents. The last group suggested 50-90 miles of travel, giving an example of many residents from the Bryan-College station area travelling to Galveston for their specialty care, a far distance.

3. Can this need be met using the current transit options (rural transit and other providers)?

All the groups agreed that there is a great need for transit options to access medical services for residents in their communities. Some counties like Chambers County do not have any transit service. Providers like American Red cross are ceasing transportation service for dialysis patients, which will create a major gap in accessing medical care. In some areas the need can be met but with limited capacity. Yet still, public transit is not an appropriate and comfortable means for people with intense health issues and compromised immune systems. The discussion yielded talk on the lack of funding to support other forms of transportation. for example, one attendee mentioned Uber Health being used in her community, but it could not be sustained due to lack of funding. Furthermore, in some communities, regardless of federal aid, it is difficult to find a local match to facilitate the transportation service. In conclusion of this discourse, Ms. Loftus-Otway suggested an adjustment in the constitutional amendment to allow MPOs and COGs to utilize a percentage of the tax from gas sales to aid these communities when they perform their planning.

WORKSHOP SUMMARY

The workshop accomplished its goal soliciting input and stimulating discussion on connecting vulnerable communities in rural areas. The discussions of this workshop can be summarized in two main points: 1) Need for improved connectivity, and 2) Need to adjust some transportation processes and law to enable greater flexibility to accommodate residents in vulnerable communities. Federal law should be adjusted to require equity in MPO transportation planning. It should also be adjusted to allow percentage of sales tax to go towards other means of transportation.

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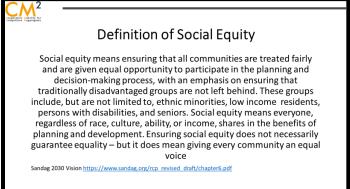
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APPENDIX 1: A Perspective on Megaregional Equity from the MPO Lens (Lisa Loftus-Otway; UT Austin CTR).





Why study this?

• Many regions across the U.S. have been conducting regional planning without formal structures

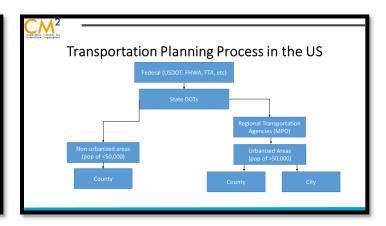
• Utilize these ad hoc alliances to use joint ownership and collaborative process to work on shared outcomes

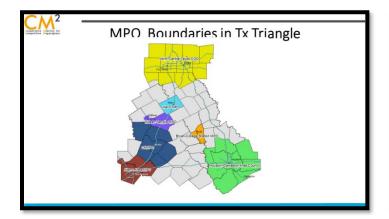
• Megaregion author's have noted consistently best place to house this is within the MPO structure

• However regulations and funding structures for MPOs are not:

• Required to include 'equity' into decision making processes

• No specific funding streams are ringfenced for 'equity' or 'equitable-decision making'





My main takeaways

• No articulated megaregion law or policy framework articulated in federal arena

• Analysis of commerce clause, pre-emption and spending powers shows these could be used to justify MR planning

• There is some latitude within existing statues and regulations to conduct megaregion activities, including processes and policies to encourage equity through use of interstate compacts, and joint initiatives MPOs, while often considered best place to house MR planning, have significant limitations

• Resiliency may provide a further platform as a raison d'être for incorporating equity into the MPO planning and policy processes

APPENDIX 2: Determining Purpose and Need for Vulnerable Communities in Megaregions (Carol Lewis; TSU CTTR)



Determining Purpose and Need for Vulnerable Communities in the Megaregions



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December 10, 2020

Determining Purpose and Need for Vulnerable Communities in the Megaregion

All EISs must contain a statement of purpose and need in accordance with 40 CFR § 1502.13.

Be specific enough to generate alternatives that may potentially yield real solutions to the problem.

Concisely focus on the primary transportation challenges that need to be addressed.

Why It Matters: Who Cares

Beyond Traffic 2045

- Increasing numbers of fringe low income, ethnic and senior residents
- Importance of existing & future challenges of planning across jurisdictional boundaries (US DOT)

Opportunities to Increase Mode Choice

 Texans use automobiles at or above 91 percent or more for commutes, which exceeds the national average of 86 percent (USDOT, FHWA, 2018)

Seamless Intercity and Intracity Connections Are Important

- Metropolitan areas have the potential to merge into a relatively continuous stretch of urbanization
- Reconsidering the geographic boundaries has potential to improve life quality for some individuals

Livability & Access to Opportunities

- Jobs
- Transportation Options
- Health Care and Maintenance
- · Recreation and Entertainment
- Social Contacts







Texas Megaregions: Triangle and Gulf Coast





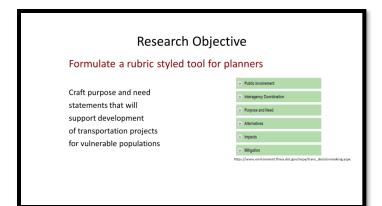
Research Question

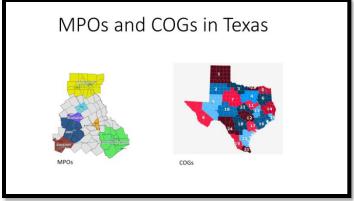
Are there vulnerable communities with a need for increased travel opportunities into the urban areas from the interstices in the US 290, IH10 East – Beaumont to Texas Border, the Triangle and Gulf Coast megaregion corridors?

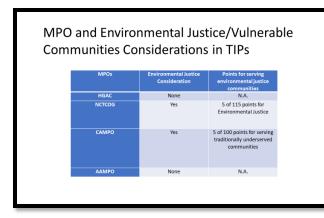


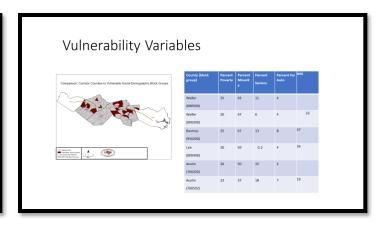


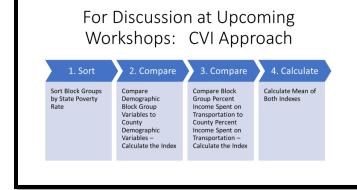


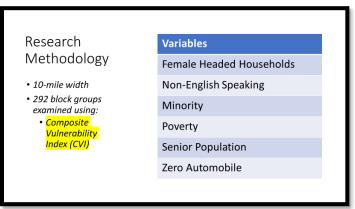








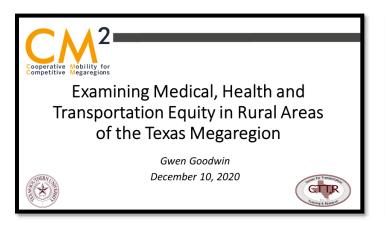


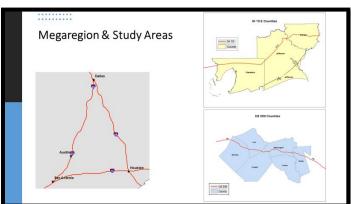


Questions for Discussion

- Is it important to better link vulnerable residents in nonurban areas in Texas with nearby urban Megaregion centers?
- Are we looking at the right variables, should we add the percent of income spent on transportation to the decision making toolbox?

APPENDIX 3: Examining Medical, Health and Transportation Equity in Rural Areas of the Texas Megaregion (Gwendolyn Goodwin; TSU CTTR)







COVID 19 testing in Megaregion: A snapshot in April 2020

- COVID-19 testing sites in Houston and Austin totaled 14 and 12 sites
- Zero (0) testing sites in rural areas west US 290 Houston to Austin
 Residents must drive between 23-62 miles to reach either city
- Zero (0) testing sites in rural areas east of Houston to Beaumont and Orange County
 - Residents must drive between 62-88 miles to reach Houston

The lack of testing sites in rural areas further emphasizes inequities experienced by rural residents seeking medical services



Key Research Objectives

The author seeks two objectives from the research:

- First, to identify which rural groups still experience health, food, and transportation inequities when accessing needed services in their counties and/or in the urban areas.
- Second, this research seeks to use the data collected to foster equity in collaborative planning between rural MPOs and urban MPOs to help rural residents in the Texas megaregion develop transportation options.



Definitions

- Disability American Community Survey asks respondents about the following difficulties: ambulatory, cognitive hearing, independent living, mental, self care, and vision
- Medical access scores Health Professional Shortage Area (HPSA) tool, which examines health professional shortages in primary care, mental, and dental services. Scores range from 1-26, with higher scores showing higher need
- Food desert United States Department of Agriculture (USDA) defines a food desert as parts of the country vapid of fresh fruit, vegetables, and other healthful whole foods, usually found in impoverished areas
- Rural Low access community USDA, defines a rural a "low-access community" when at least 500 people and/or at least 33% of the census tract's population residing more than 10 miles from a supermarket or large grocery store

 CM^2

Health Concerns in Rural Areas

- Disabilities
- · Diabetes and Dialysis
- · Doctors/mental health
- Lack of Health Insurance
- Food & Poverty

"Diabetes disproportionately impacted older adults, minorities, and the population with lower levels of education" - Texas State Data Center







Key Research Findings Along US 290 west

- Waller County as the second most diverse county, and report over 24% Black population
- Washington (15.4%), Bastrop and Lee (13.7%) counties showed percentages of individuals with disabilities higher than state and national levels, while Waller and Fayette (both under 11%) counties reported percentages lower than the state average
- Washington (5.2%) and Fayette (5.6%) showed the highest percentage of households without a car
- Among Texas counties, Waller County ranked 9th with highest diagnosis of diabetes in 2015



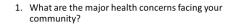
Key Research Findings Along I-10 East

- Jefferson (8.2%) and Orange (5.8%) indicated the highest zero car households
- Orange (16.4%) and Jefferson (14.1%) persons with disabilities
- Jefferson County listed the largest Black population in addition to the highest factors for health disparities.
- Jefferson's high percentages of poverty, high disabilities, large minority population, shortage of doctors and facilities poses health concerns.
- Jefferson County showed more than 20% of the total population lived without health insurance.
- Among Texas counties, Jefferson ranked 5 with diagnosis of diabetes in 2015



Three Questions about Your Community

Please answer the following questions:







- 2. How far do community members drive to access needed specialty health care (dialysis, cardiology, endocrinology)?
- 3. Can this need be met using current transit (rural transit and other providers)?

APPENDIX 4: List of Registrants

Registrants	Agency
Diana Turner	United Way Houston
Eric Lyons	Impact
Trent Berger	Metropolitan Transit Authority (Houston)
Stephanie Nellons-Paige	Nellons Paige Group, Inc.
Lisa Cortinas	Golden Crescent Regional Planning Commission
Michael Ada	Golden Crescent Regional Planning Commission
Robert Dickerson	Southeast Texas Regional Planning Commission
Chuck Wemple	Houston Galveston Area Council
Vickie Alexander	North Central Texas Council of Government
Kate Zielke	North Central Texas Council of Government
Shannon Stevenson	North Central Texas Council of Government
Lisa Loftus-Otway	University of Texas
Brenda Bustillos	Texas Department of Transportation
Lydia Ndagire	Texas Southern University
Gwen Goodwin, Ph.D.	Texas Southern University
Carol Abel Lewis, Ph.D.	Texas Southern University