DeSoto County, Mississippi

# TRANSIT FEASIBILITY STUDY

## Final Report

June 2013

This document was prepared and published by the Memphis Metropolitan Planning Organization and is prepared in cooperation with or with financial assistance from all or several of the following public entities: the Federal Transit Administration, the Mississippi Department of Transportation, the Memphis Area Transit Authority, and the local governments in the MPO region.

It is the policy of the Memphis Urban Area Metropolitan Planning Organization (MPO) not to discriminate on the basis of age, sex, race, color, national origin or disability in its hiring or employment practices, or in its admission to or operations of its program, services, or activities. All inquiries for Title VI and/or the American Disabilities Act, contact John Paul Shaffer at 901-576-7130, fax (901) 576-7272; or email John.Shaffer@memphistn.gov

# Table of Contents

**Page**

**1 Introduction ..... 1-1**
Transit Feasibility ..... 1-1
**2 Existing Conditions ..... 2-1**
Previous Planning Studies ..... 2-1
Specialized Transportation Services ..... 2-2
**3 Community Profile ..... 3-1**
Overview ..... 3-1
Population ..... 3-2
Employment ..... 3-3
Population and Employment Density ..... 3-4
Transit Dependent Populations ..... 3-6
Composite Transit Propensity ..... 3-10
**4 Community Input ..... 4-1**
Stakeholder Interviews ..... 4-1
Telephone Interviews with Employers ..... 4-2
General Public Survey ..... 4-4
**5 Needs Assessment ..... 5-1**
Overview ..... 5-1
Challenges ..... 5-1
Opportunities ..... 5-1
**6 Public Transportation Service Options ..... 6-1**
Overview ..... 6-1
Volunteer Driver Programs ..... 6-2
Ridesharing, Carpooling, and Vanpooling ..... 6-3
Flex Voucher or Taxi Voucher Programs ..... 6-3
Demand Response or Dial-A-Ride Service ..... 6-4
Fixed-Route Bus Service ..... 6-5
Deviated Fixed-Route Bus Service ..... 6-5
Flex-Services ..... 6-6
Regional Bus Service ..... 6-6
***7* Potential Transit Strategies for Desoto County ..... *7-1***
Introduction ..... 7-1
Strategy 1: Mobility Management ..... 7-4
Strategy 2: Flexible Voucher Program ..... 7-5
Strategy 3: Tunica Commuter Service ..... 7-5
Strategy 4: Shelby County Commuter Service ..... 7-6
Strategy 5: Goodman Road Fixed-Route ..... 7-7
Strategy 6: Horn Lake–Olive Branch Flex Route ..... 7-9
**8 Public Transportation Funding Programs ..... 8-1**
Overview ..... 8-1
New Federal Transportation Legislation ..... 8-1
SAFETEA-LU Funding Programs ..... 8-3
MAP-21 Funding Programs ..... 8-5
**9 Recommendations and Implementation ..... 9-1**
Overview ..... 9-1
Implementation: Timeline and Funding ..... 9-2

**Appendix A DeSoto County Survey**
**Appendix B Comments Received on Draft Final Report and Response to Comments**

## Table of Figures

**Page**

Figure 3-1 DeSoto County and Communities ..... 3-1
Figure 3-3 Population Distribution ..... 3-2
Figure 3-2 DeSoto County Population Growth ..... 3-2
Figure 3-4 Employment Distribution ..... 3-3
Figure 3-5 Population Density ..... 3-4
Figure 3-6 Employment Density ..... 3-5
Figure 3-7 Distribution of Older Adults ..... 3-7
Figure 3-8 Distribution of Individuals in Poverty ..... 3-8
Figure 3-9 Distribution of Individuals without Access to a Vehicle ..... 3-9
Figure 3-10 Composite Transit Propensity ..... 3-10
Figure 4-1 Where do you currently live? ..... 4-4
Figure 4-2 Are you currently employed? ..... 4-5
Figure 4-3 If you are not employed, what is the reason? ..... 4-5
Figure 4-4 Question: If you are employed, where do you work? ..... 4-5
Figure 4-5 Have you ever used public transportation? ..... 4-6
Figure 4-6 If you have used public transportation, which service have you used? ..... 4-6
Figure 4-7 Do you regularly (at least once a week or so) leave DeSoto County for any of the following reasons? ..... 4-7
Figure 4-8 Where respondents go and for what reasons ..... 4-8
Figure 4-9 If public transportation were available in DeSoto County, where are some of the places you would like transportation to go? ..... 4-10
Figure 5-1 Key Travel Origins and Destinations Identified by Data Analysis ..... 5-3
Figure 5-2 Survey Identified Key Travel Origins and Destinations ..... 5-3
Figure 7-1 Tunica Commuter Service Strategy ..... 7-6
Figure 7-2 Shelby County Commuter Service Strategy ..... 7-7
Figure 7-3 Goodman Road Fixed-Route Strategy ..... 7-8
Figure 7-4 Horn Lake–Olive Branch Flex Bus Service ..... 7-9

Table 2-1 Existing Transportation Services in DeSoto County ..... 2-2
Table 3-1 Transit-Supportive Densities ..... 3-4
Table 4-1 Interviewed Employers ..... 4-2
Table 6-1 Transit Service Options, Key Advantages and Disadvantages ..... 6-1
Table 7-1 Overview of Service Strategies ..... 7-3
Table 8-1 FTA Funds Available for Rural Transit ..... 8-3
Table 8-2 FTA Funds Available for Urban Transit ..... 8-3
Table 9-1 Summary of Recommended Public Transportation Services Development in DeSoto County ..... 9-4

# 1 INTRODUCTION

DeSoto County is in the northwest corner of the State of Mississippi, located just south of Shelby County Tennessee and the City of Memphis, and just east of the State of Arkansas. Spatially, DeSoto County covers over 500 square miles of territory and the population includes some 162,000 individuals, most of whom live in the northern tier of the county, close to the State of Tennessee. For much of its history, DeSoto County has been a largely rural and suburban community. While this is still largely true, DeSoto County has also grown dramatically in the past several decades, nearly doubling its population since 2000. The County continues to grow rapidly, adding residents and jobs at rates of 5% and 3% annually for the past 10 years.

Rapid growth reflects DeSoto County's high quality of life, good schools, a growing local employment market and proximity to jobs in the Memphis urbanized area. As part of its rapid growth patterns, DeSoto County, together with the Memphis Urban Area Metropolitan Planning Organization (Memphis MPO) and the Memphis Area Transit Authority (MATA), is exploring the feasibility of transit service in DeSoto County. The Memphis MPO and MATA contracted with Nelson\Nygaard to consider the feasibility of developing transit services and work with County stakeholders to create a broad vision for public transportation in the County. This report presents the findings of this effort.

## TRANSIT FEASIBILITY

The objective of a transit feasibility study is to determine if and what type of transit service might be appropriate for the local community. Assessing the appropriateness of service includes evaluating and documenting existing transit needs and determining the type of public transportation service that best meets that need (if any). By understanding and documenting demand and matching it to different service types, it is possible to estimate costs and benefits associated with different actions.

The four main tasks of the DeSoto County Transit Feasibility Study, therefore, involve:

- Evaluating the need for public transportation and the particular service characteristics associated with that need (i.e. commuter services, specialized service for medical appointments, etc.). This analysis also includes the size of the need, or demand, for service.
- Developing different options for how the service can be met (i.e. matching demand and appropriate service).
- Estimating the costs and benefits associated with providing this service and recommending which (if any) services make sense.
- Identifying potential funding sources to support any of the recommended services.

# 2 EXISTING CONDITIONS

To date, there are no fixed-route public transportation services available in DeSoto County. The lack of public transportation in DeSoto County reflects a variety of factors, including that the pace of growth has been so rapid that services and infrastructures have not always kept pace with growth. The County does, however, support a few specialized transportation services and has participated in a handful of planning exercises.

## PREVIOUS PLANNING STUDIES

DeSoto County has been included in several transportation planning studies, including studies that consider the need and potential for public transportation services. In addition, several of the incorporated cities in DeSoto County have also developed planning studies for transportation infrastructure and services. The study team reviewed several of these plans and identified three that are directly relevant to this transit feasibility study:

- Coordinated Human Service Transportation Study for the Memphis Area
- I-69 Alternatives Analysis
- Memphis MPO Long Range Transportation Plan

### Coordinated Human Service Transportation Study for the Memphis Area

The federal transportation bill, Safe, Accessible, Efficient Transportation Efficiency Act – A Legacy for Users (SAFETEA-LU) passed in 2005, required communities to prepare a coordinated human service public transportation plan in order to participate in certain federal funding programs. The intent behind this planning requirement was to ensure that federal funds were used in a coordinated manner that reflected the region's prioritized needs. The federal government dictated that coordinated planning efforts include an inventory of existing services, documented needs, and gaps in service, and identified strategies to meet those needs and close gaps in transportation services.

The Memphis MPO and MATA worked together to prepare a coordinated plan in 2007. The plan was developed by a private consulting firm under the guidance and direction of the MPO, MATA, and local stakeholders. The plan adhered to the federal guidelines for coordinated planning and included an inventory of existing services, documentation of needs and gaps for service, and a prioritized list of strategies to meet needs and close gaps. The study included DeSoto County as part of the urbanized area and prepared a list of recommendations intended to help facilitate increased coordination of specialized transportation services for older adults, persons with disabilities and persons with low incomes. The plan also inventories existing service providers; this list was a key resource for identifying the existing services in operation today.

### I-69 Alternatives Analysis

Another recent study that considered the need for public transportation services in DeSoto County was the I-69 Corridor Alternatives Analysis. This study was prepared for the Mississippi Department of Transportation (MDOT) and was completed in 2011.

The I-69 Corridor Alternatives Analysis (I-69 AA), as the name implies, and broadly defined the study area to include Shelby County, Tennessee and DeSoto and Tunica Counties in Mississippi. The need for transit service reflects rapid growth in the study area, large amounts of undeveloped and underdeveloped land and an expanding network of employment and activity centers. The purpose of the I-69 AA was to figure out how an interconnected transit network could facilitate economic growth, create travel choices and support environmental and quality of life goals.

The study examined a variety of transit modes and models, including rail and bus and ultimately recommended bus rapid transit (BRT) service for the region. The recommended alternative would have developed a network of BRT routes that consisted of some service linking Tunica County with the City of Hernando in DeSoto County and more frequent service from Hernando to Memphis. The project has not been carried forward to implementation, largely because of costs. Initial costs to start the service required an estimated $20 million in capital costs and $3 million to operate the service; full build out would have increased capital costs by another $12.5 million plus $3.6 million in operating.

### Memphis MPO Long Range Transportation Plan

The Memphis MPO recently completed a long range transportation plan, Direction 2040, which developed a transportation strategy for the Memphis urbanized area, including DeSoto County. The study considered public transportation, including bus and paratransit services as well as fixed guideway systems as part of its multimodal approach. Direction 2040 offered a series of recommendations based on a set of fiscally constrained and unconstrained assumptions. Recommendations largely focused on general improvements to the MATA bus network as well as developing fixed guideway services, such as BRT and light rail. There are no specific recommendations for developing a public transportation network in DeSoto County.

## SPECIALIZED TRANSPORTATION SERVICES

As discussed, there are no fixed-route transit services in DeSoto County. There are, however, a handful of specialized transportation services that are offered as part of very specific human and health services programs (see Table 2-1). These services are not available to members of the general public, but can be used by people with specific needs.

**Table 2-1 Existing Transportation Services in DeSoto County**

| Service | Eligibility | Vehicles | Service Hours | Provider |
|---|---|---|---|---|
| **Elderly and Disabled Transportation** | Individuals aged 60+<br>Individuals with disability<br>Currently one driver is on sick leave, so limited to 'essential trips' | 1 bus<br>1 van | Monday – Friday<br>8:00 AM – 4:00 PM | North Delta Planning and Development District (funded by DeSoto County) |
| **Disabled Transportation** | Individuals with disability – most trips are to/from DeSoto Industries | 1 van | Monday – Friday | Delta Area Rural Transit System (DARTS)<br>Aaron Henry Community Health Program |
| **Veterans Transportation** | Veteran | n/a | As needed | Varies – Mostly staff at individual agencies |
| **Non-Emergency Medical Transportation** | Medicaid eligible individual traveling to/from Medicaid eligible appointment | Several providers | 24/7 | Services managed by statewide broker, provided by independent contractors |

Source: Nelson\Nygaard

## Elderly and Disabled Transportation

The most flexible of the existing services is the Elderly and Disabled Transportation Program. This service consists of a dial-a-ride program that is available to individuals over the age of 60 or who can prove they are disabled (letter from a physician or Social Security's Supplemental Income (SSI) card). The service is operated by the North Delta Planning and Development District (North Delta PDD) with vehicles purchased through Federal Transit Administration grants (FTA 5310) and operating costs paid by DeSoto County (estimated at about $400,000 - $500,000 per year). People must call ahead of schedule to reserve their trips but there is no charge to the rider. The program has two vehicles dedicated to DeSoto County and trips are roughly grouped by service type and geographic area. In every case, medical transportation is provided between 8:00 AM and 12:00 PM and shopping from 12:00 PM to 4:00 PM. Geographic grouping varies, but people living in Olive Branch, for example, schedule their trips for Mondays, while people in Hernando can travel on Fridays. In the past several months one of the drivers has been out on medical leave, meaning only one vehicle is presently available. The reduction to one vehicle means that trips are limited to essential functions, such as doctor's appointments and shopping at grocery stores.

## Disabled Transportation

DeSoto County also funds transportation for DeSoto County residents with developmental disabilities traveling to/from to a sheltered workshop in Hernando. This service is operated by DARTS, which is part of the Delta Area Rides consortium in Clarksdale. DARTS operates two vehicles and provides what is essentially school bus transportation. The service is concentrated around a couple of hours in the early morning (before 9:00 AM) and again after 1:00 PM.

## Veterans Transportation

DeSoto County has a veteran's coordinator who helps match veterans living in DeSoto County with needed services, including transportation. Most of the referrals are to other veterans organizations, such as the Veterans of Foreign Wars (VFW) or the American Legion. None of these organizations have formal transportation, but will use staff to get people rides if there are no other options. There are also a handful of transportation services available through Veterans Administration (VA) Hospital in Shelby County, but official service is limited to non-ambulatory individuals (i.e. people who are not capable of walking) traveling to see a medical provider at the VA Hospital. There is also a Disabled American Veterans organization that offers transportation through a volunteer driver program; currently there is no van assigned to DeSoto County.

## Medicaid Non-Emergency Medical Transportation (NEMT)

Medicaid provides transportation to Medicaid eligible individuals traveling to/from Medicaid eligible activities. Medicaid transportation in the State of Mississippi is provided through a statewide brokerage service that is managed by Logisticare, a private entity. Logisticare works with local providers, including cab companies to provide the trips.

# 3 COMMUNITY PROFILE

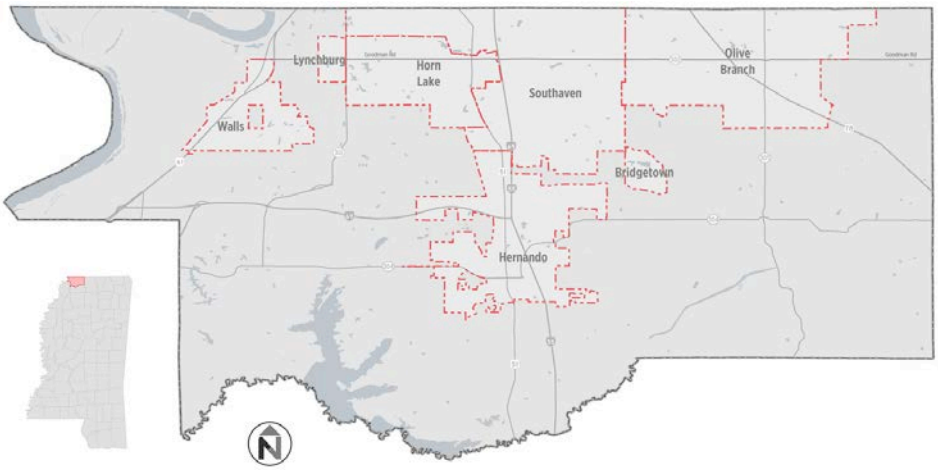
## OVERVIEW

As part of understanding the need and feasibility of public transportation services in DeSoto County, the study team prepared a community profile that evaluates community characteristics in terms of their ability to support transit service. A key aspect to assessing the demand and potential for public transportation services is developing a clear understanding of community demographics and existing travel flows. This analysis is largely quantitative and was prepared using data collected by the U.S. Census Bureau.

The analysis considers absolute population and employment together with population and employment density. Public transportation services are typically more successful in areas with higher population and employment densities, in part because high density areas have a larger market for travel. In addition, high density areas are more likely to have less parking, more congestion allowing transit to better compete with the private vehicle in terms of travel speed, reliability, and convenience. The analysis also looks at specific demographic groups that have a higher propensity to use transit, such as older adults, households without a vehicle and people with low incomes.

DeSoto County, as discussed, is located in the northwestern corner of Mississippi. While it is largely a rural and suburban community, there are five incorporated municipalities (Walls, Horn Lake, Southaven, Olive Branch, and Hernando) (see Figure 3-1). The incorporated cities are largely located along major transportation corridors; Horn Lake, Southaven and Olive Branch all lie along the Goodman Road corridor, while Hernando is located along the I-69 corridor.

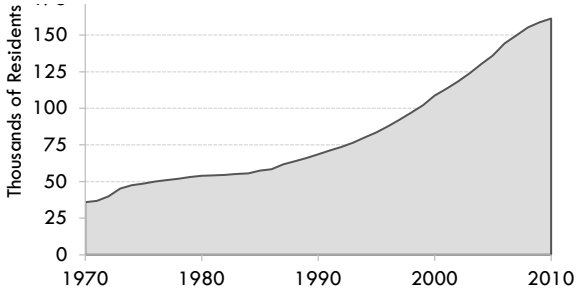
**Figure 3-1 DeSoto County and Communities**



# POPULATION

DeSoto County has 161,252 residents and is Mississippi's third most populous county. One of the unique aspects of DeSoto County is rapid growth; between 2000 and 2010, the county has experienced population growth of about 5% per year (see Figure 3-2).[1] In practical terms, this means there are more than twice as many people living in DeSoto County as there were 20 years ago.

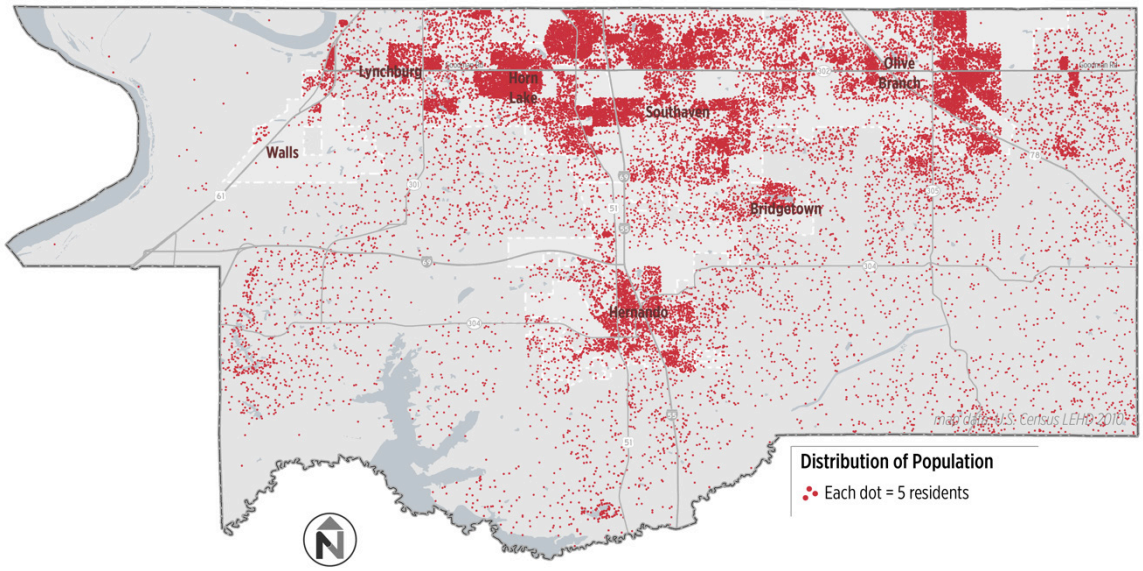
**Figure 3-2 DeSoto County Population Growth**




The distribution and density of population (see Figure 3-3) shows that the majority of DeSoto County's population is located along the Goodman Road corridor. The Goodman Road corridor runs east-west along the northern part of DeSoto County and is located some two miles south of Shelby County Tennessee.

Collectively, the four communities of Lynchburg, Horn Lake, Southaven, and Olive Branch that sit along Goodman Road account for 111,000 residents or about 69% of the county's population. Hernando has relatively high population as well, with about 14,000 residents or 9% of the county's population. This compares with the unincorporated parts of the county, which are responsible for 73% of the county's area, but is much more sparsely populated and home to only 29% of the population.

**Figure 3-3 Population Distribution**




[1] Wolfram|Alpha database, using data from U.S. Census County QuickFacts, 2010.

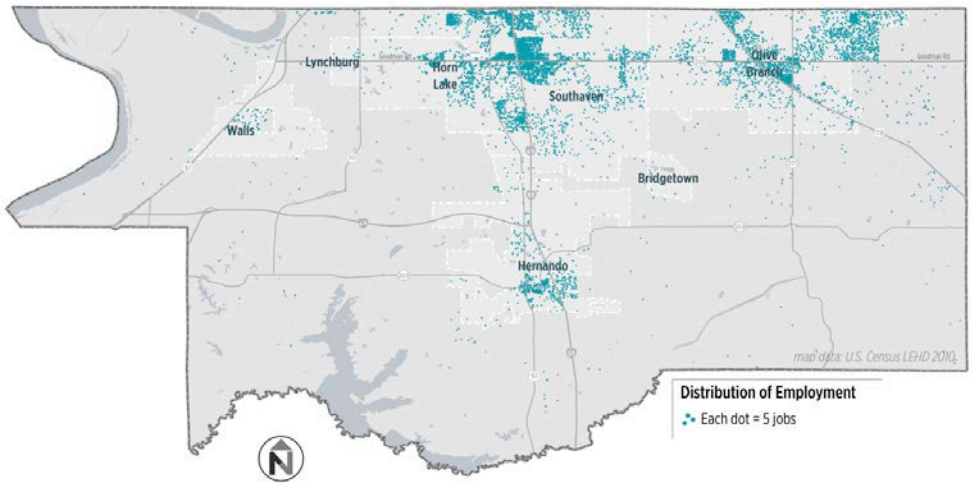
# EMPLOYMENT

One of the unique attributes of DeSoto County is its employment base. The County has the third largest workforce in the State of Mississippi, but also has one of the highest percentages of people working in other counties, primarily Shelby County. At the same time, DeSoto County's employment is growing rapidly and increased by 40% over the past seven years[2]. There are approximately 2,543 private non-farm businesses throughout DeSoto County, which collectively employ 40,717 individuals.[3] The distribution of employment is also critical to transit service design because traveling to and from work is the most frequent type of trip. Travel to and from work also represents a fairly reliable travel pattern because most people travel to and from their jobs several times a week.

The countywide distribution of employment is drawn from the U.S. Census Bureau's 2009 Longitudinal Employer-Household Dynamics (LEHD) product. The LEHD data offers the most comprehensive and detailed data on employment, but comes with two notable drawbacks: the data represents approximately 93% of all non-military employment in the United States, but excludes employees not subject to unemployment insurance. Excluded employees include federal employees, self-employed individuals, uniformed military, railroad workers, and other very small groups. Secondly, employees of employers with multiple worksites are occasionally not assigned to their correct worksite in the data, particularly in states that do not require multi-worksite reporting such as Mississippi. As a result, employees of multi-worksite employers may be incorrectly located. This may explain, for example, low employment in the Olive Branch Distribution Center.[4]

Employment in DeSoto County is heavily clustered in three areas: in Horn Lake and Southaven where I-55 and Goodman Road meet, throughout Olive Branch, and in central Hernando where Commerce Street and US-51 meet. Aside from the cluster in Hernando, the overwhelming majority of jobs are along the Goodman Road corridor from Horn Lake to Olive Branch (see Figure 3-4).

**Figure 3-4 Employment Distribution**




[2] MDOT I-69 Corridor Alternatives Analysis

[3] U.S. Census County QuickFacts, 2010.

[4] Information on the two limitations of LEHD data comes from NCHRP 08-36, Task 098 Improving Employment Data for Transportation Planning, by Bruce D. Spear at Cambridge Systematics, Inc. (2011).

# POPULATION AND EMPLOYMENT DENSITY

As discussed, population and employment density are among the most important factors that determine the success of public transportation services. As part of our work with transit systems nationally combined with data collected through academic studies, Nelson\Nygaard developed a transit-supportive density index (see Table 3-1) that indicates the minimum population or employment density required to support various levels of transit service. The table is intended as a guide to demonstrate the type of transit service that is appropriate for a given community.

**Table 3-1 Transit-Supportive Densities**

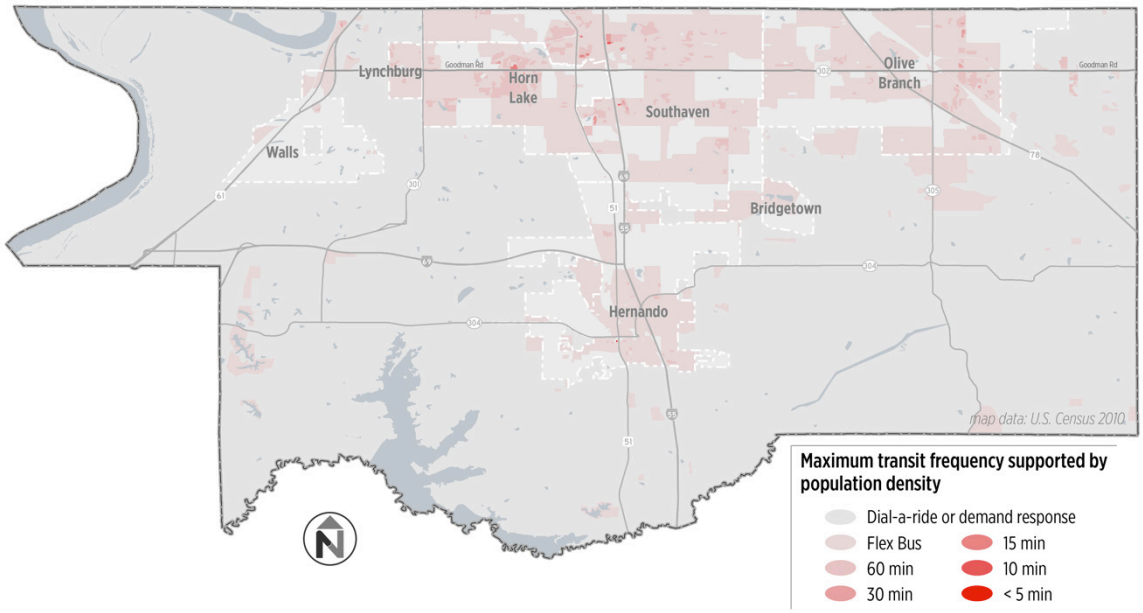
| Transit Service Level | Population / Acre | Jobs / Acre |
|---|---|---|
| Flex Bus | 0.5 | |
| Community Circulator | 2 | |
| Local Bus | | |
| 60 minute frequency | 8-16 | 4-8 |
| 30 minute frequency | 16-31 | 8-16 |
| 15 minute frequency | 31-47 | 16-24 |
| 10 minute frequency | 47-92 | 24-48 |
| <5 minute frequency | >92 | >48 |
| Bus Rapid Transit | 26-52 | >13 |
| Light Rail Transit | 31-78 | >15 |

Source: Nelson\Nygaard assembled from various sources.

## Population

DeSoto County's population density is mapped using break values from the national evidence to give an indication of how well population alone can support transit service (see Figure 3-5). Results suggest most of the county is best served by dial-a-ride or demand response service, shown by the gray shaded area. There are also some areas, largely in the incorporated cities, which have sufficient population density to support flex bus service. There are also a few hot spots of population that have sufficient density to support more significant transit service, though they are small and scattered throughout the county in a distribution that would be difficult to link together and serve effectively with fixed-route transit.

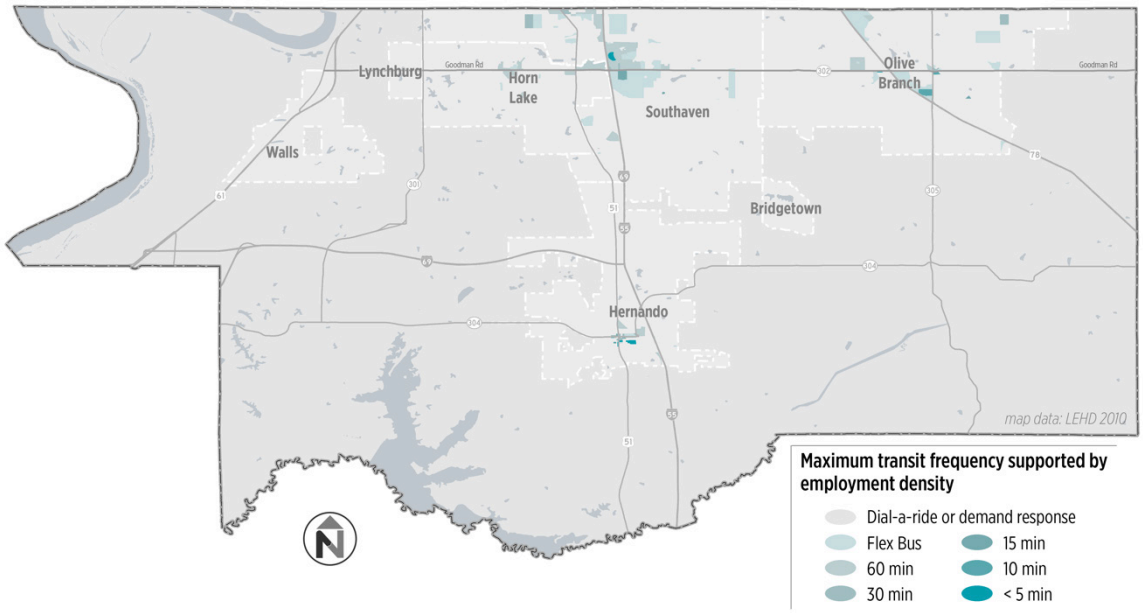
**Figure 3-5 Population Density**



## Employment Density

Consistent with population, DeSoto County's employment density was also mapped together with standards for the employment density needed to support different types of transit service. Roughly similar with population, most of the county has densities that support dial-a-ride or demand response service only (see Figure 3- 6). The most transit-supportive employment areas correlate with the three job clusters — Horn Lake and Southaven, Olive Branch, and Hernando. Outside of these clusters, there is not a sufficient density of employment to support higher level fixed-route transit service.

**Figure 3-6 Employment Density**



## TRANSIT DEPENDENT POPULATIONS

In addition to considering overall population and employment, our community profile also considered specific demographic groups. Transit planners generally develop transit services around two primary markets:

- **Discretionary riders** who have adequate resources and abilities to operate a private vehicle but who choose to use transit because it offers them comparable convenience and/or because of other personal lifestyle and value choices. Discretionary riders are also more likely to use transit for commuting purposes, or in situations where transit offers an advantage over driving, such as where parking fees are high and/or roads are congested.
- **Transit dependent riders** who use transit services because they lack access or are unable to operate a private vehicle. These riders use transit for many trips, including for travel to/from work, but are also more likely to use transit to get to medical appointments, shop, and visit friends/family.

Discretionary riders may be located anywhere within the community; the strongest markets of these riders tend to be in areas of high population and employment density (see previous discussion). On the other hand, understanding the strongest markets of transit dependent riders involves understanding the size and distribution of specific demographic groups that tend to have a higher proclivity to use transit. As part of our analysis, the special needs that may be associated with different demographic groups is considered. Older adults, for example, tend to travel during the daytime and may have special service needs, such as shorter walks to/from their bus stop. This next section examines the size and distribution of three demographic groups typically associated with a higher use of transit:

1. **Older adults —** individuals aged 65 or higher typically have high rates of transit usage. This reflects that as people become less comfortable driving as they age or are no longer physically able to drive.
2. **Low-income individuals** — individuals who are members of households considered as living in poverty as defined by the U.S. Census. Low-income individuals have high rates of transit use because they are particularly sensitive to cost and the use of transit is less expensive than owning and operating a private automobile.
3. **Individuals without access to a vehicle** — individuals who belong to a household with no access to a vehicle, who rely on transit for their mobility needs either by choice or for other reasons.

Note that there is some overlap between these groups. For example, many older adults also have low incomes and may also have limited access to a vehicle. Still, the presence of each population group is an important indicator of increased demand for public transit, and thus is presented individually.

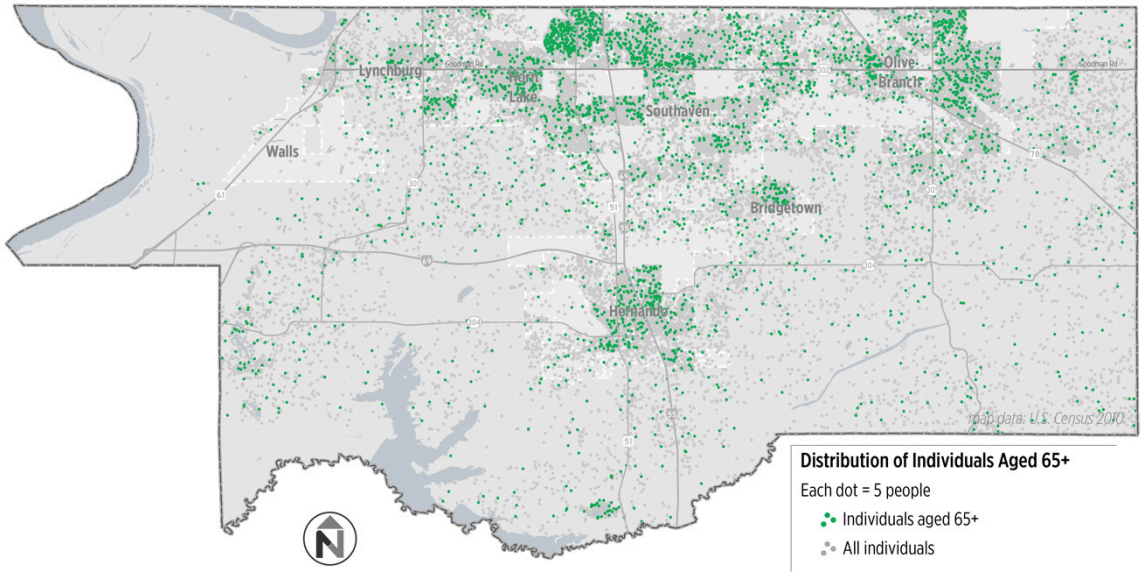
It is also worth noting that in some cases, there can be overlap between discretionary and transit dependent populations. These cases occur when individuals have a vehicle, but the trip may be expensive to take, or expensive to take frequently (i.e. long trips to work).

## Older Adults

Older adults are more likely to ride transit than the general population. This is a key market for transit, because in addition to having a higher propensity than the average, the population is increasing so dramatically. In 2000, 35 million Americans were age 65 and over. By 2010, that number had grown to 40 million Americans, or 13.0% of the total population. The Census Bureau projects this group will jump to 70 million people by 2030 and represent 20% of the total population.[5]

Between 2000 and 2010, the population of older adults in DeSoto County increased from 9,538 (5.9% of the population) to 16,341 (10.1% of the population), an increase of 71%.[6] As shown in Figure 3-7 the distribution of older adults generally tracks well with overall population with clusters throughout the communities of Olive Branch, Southaven, Horn Lake, Bridgetown, and Hernando.

**Figure 3-7 Distribution of Older Adults**




[5] U.S. Census 2010 and U.S. Census 2000.

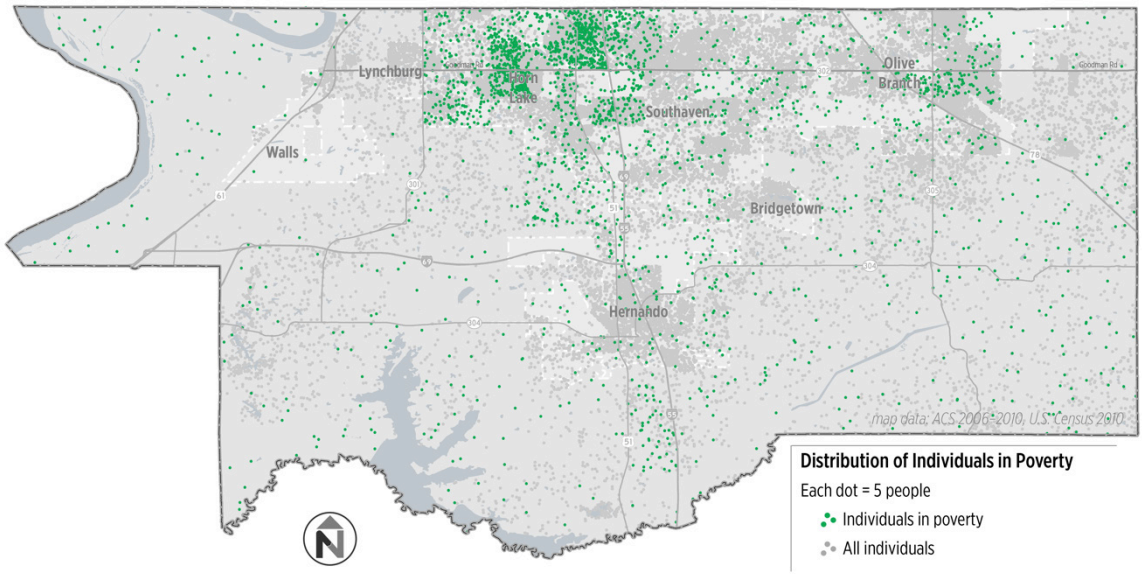
[6] U.S. Census County QuickFacts 2010 and 2000.

## Individuals in Poverty

The percent of DeSoto residents in poverty (part of households with income below poverty level as defined by the U.S. Census) increased from 7.1% in 2000 to 9.8% in 2010.[7] National experience shows that these low-income individuals have a significant propensity to use transit, which makes understanding their geographic distribution important.

Figure 3- 8 shows the distribution of low-income individuals (green dots) compared to the distribution of all residents (gray dots). The map illustrates that low-income individuals are dispersed throughout the county but exhibit a strong cluster in the Southaven and Horn Lake areas. A smaller cluster exists in eastern Olive Branch. The communities of Bridgetown, Lynchburg, and Hernando appear to have lower concentrations of low-income individuals.

**Figure 3-8 Distribution of Individuals in Poverty**



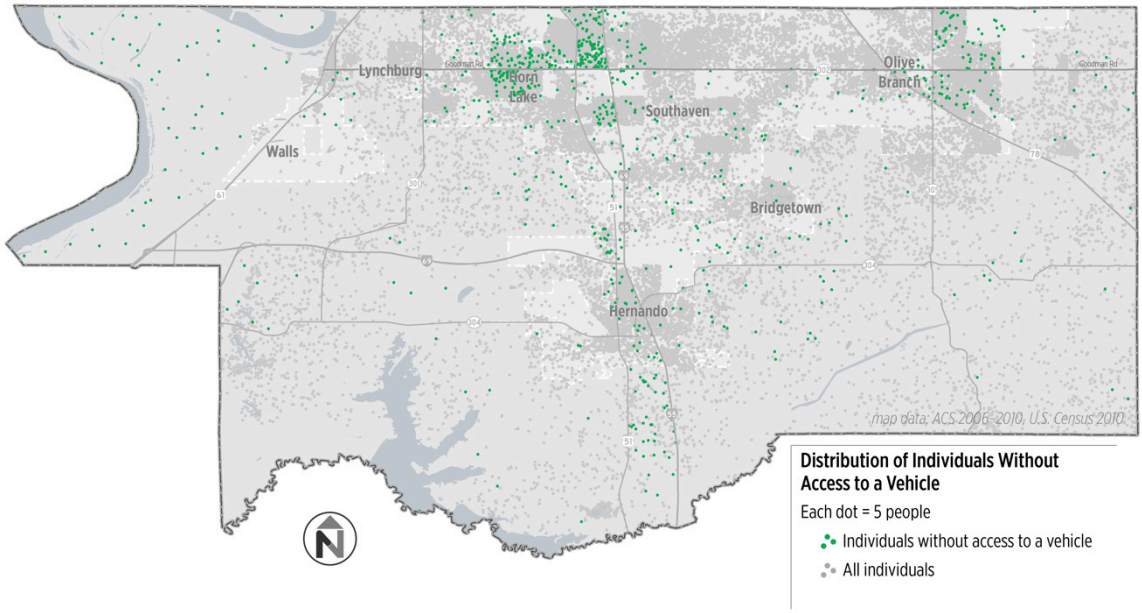

[7] U.S. Census County QuickFacts 2010 and American Community Survey 2006–2010.

## Individuals without Access to a Vehicle

For self-evident reasons, individuals without access to an automobile represent a particularly strong market for transit. In many cases, individuals do not have access to an automobile, while in others, individuals do not own a car because they choose to use transit as their primary mode of transportation. The number of individuals in this situation is not high — only 2.7% of DeSoto County households have no access to a vehicle.[8] However, their distribution is important because their propensity to use transit is so high.

Figure 3-9 shows the distribution of individuals without access to a vehicle (green dots) compared to the distribution of the general population (gray dots). Generally, the clusters of individuals without access to a vehicle tend to follow the distribution of individuals in poverty, because of the strong link between the two. Clear clusters of individuals without access to a vehicle exist in western Southaven and Horn Lake, and to a lesser degree in eastern Olive Branch.

**Figure 3-9 Distribution of Individuals without Access to a Vehicle**




[8] U.S. Census American Community Survey 2006–2010.

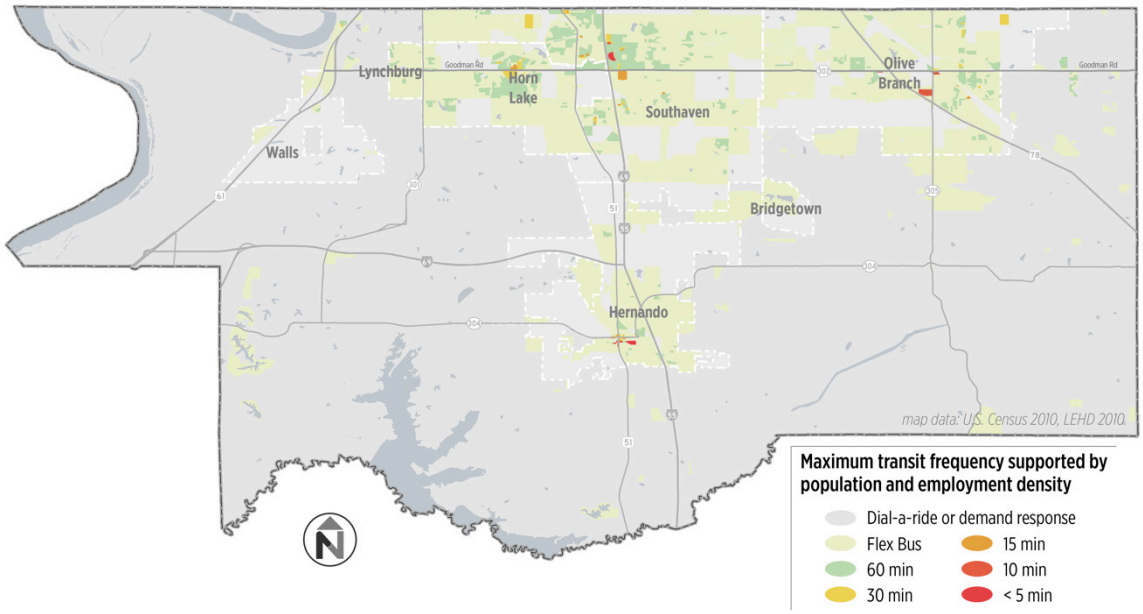
# COMPOSITE TRANSIT PROPENSITY

In order to get an inclusive picture of areas in DeSoto County that have a strong propensity to use transit, the two primary indicators of transit propensity — population and employment density — were combined to create a composite transit propensity[9]. This composite analysis assesses the density of each U.S. Census block within the county, and uses an additive formula to give credit for sufficient population and/or sufficient employment density. This composite propensity provides a very strong indication of the relative demand for transit throughout the county.

Figure 10 shows the composite transit propensity for DeSoto County. Several trends are apparent:

- Generally, most of the unincorporated areas of the county do not have densities that suggest transit service, other than dial-a-ride or demand response service, could be supported (see gray shading).
- The incorporated areas of most communities, excluding Walls, could generally support flex bus transit service.
- Some clusters of more significant transit-supportive areas exist in Horn Lake, western Southaven, Olive Branch, and central Hernando.
- Overall, the Goodman Road corridor is likely the most transit-supportive corridor in the county. The corridor spans multiple communities with relatively greater transit-supportive activity.

**Figure 3-10 Composite Transit Propensity**




[9] The composite transit analysis is purely based on population and employment density. It does not reflect specific population characteristics that may have a higher propensity to use transit.

# 4 COMMUNITY INPUT

The community profile provides a quantitative perspective on where transit service is most needed and the types of service that could be supported. As part of the feasibility study, the study team also conducted a qualitative analysis that involved talking to stakeholders, major employers and surveying DeSoto County residents about their attitudes and ideas about the need for public transportation services and how those services might be provided.

Findings from these sources, suggest a strong interest in public transit among the residents, with some mixed responses from stakeholders and employers. The majority of residents felt it is time for some type of public transportation service, although a sizeable minority expressed concerns about service productivity and costs. Some stakeholders and employers were excited about the possibility that transit is being considered and others felt equally strongly that DeSoto County does not need and are not ready for public transportation. One of the things that tied these sentiments together is DeSoto County's growth. Several of the supporters felt transit is needed to keep pace with the rapid growth while others felt that because the County has grown so quickly, residents are reluctant to see themselves as needing 'urban' services such as public transportation.

## STAKEHOLDER INTERVIEWS

A key part of the needs assessment involved speaking with stakeholders in DeSoto County and collecting their insights, opinions and preferences for transit service development. The stakeholder list focused primarily on individuals in the public sector and included representatives of social and human service organizations, planning officials and transportation service providers. The questions posed varied by individual and organization, but focused on the need for transportation services. All conversations were held in confidence, thus results presented here are generalized and not attributed to any specific individual.

Opinions about the need for public transportation service in DeSoto County varied considerably, some felt strongly that the County needs transportation service now, while others felt equally strongly that such services are premature. In cases where there was support for public transportation, support was strongest with regards to the more vulnerable parts of the population, such as older adults and people with disabilities. Key findings include:

- DeSoto County is not ready for transit. People choose to live in DeSoto County because it offers a tranquil and suburban lifestyle, which includes the freedom and flexibility of driving.
- Demand for service is well documented and much needed, especially among older adults and people with disabilities. Where service is provided, the service is over subscribed even without advertisements.
- Some social service providers say people are not able to receive services because of a lack of transportation.

- Information about the available service is limited, not always accurate and mostly available through word-of-mouth. Even people who help match clients with service are not always certain of what is available. As mentioned, agencies that provide transportation are reluctant to 'advertise' for fear of being unable to meet the demand.
- The existing specialized network of transportation is not well supported, not only in terms of information, but also staff and facilities. As discussed there is no official source of information and no single individual understands the range of options available. There is also a shortage of drivers and no covered storage facility for County funded vehicles. Maintenance is organized by the contracted service providers.
- There is a stigma about public transportation and most people in DeSoto County consider it a service for people who are economically disadvantaged.

## TELEPHONE INTERVIEWS WITH EMPLOYERS

Using a list of major DeSoto County employers provided by the DeSoto County Economic Development Council, the study team reached out to 17 employers and interviewed ten. Employer surveys were used to garner information about the number of employees for each employer, understand employee shift schedules, and identify work commute trends. The survey also asked questions about attitudes towards transit use for employees and gauged employer interest in providing financial support for public transportation for employees.

### Employer Overview

Employers interviewed employ a range of 75 to 1,900 workers. Most of the employers interviewed are in the manufacturing and distributing industry, and therefore have multiple shifts during the day — usually a morning, day, and night shift; however, the majority of employees have a work schedule that falls between 7 AM and 6 PM. None of the businesses operate during the weekend.

The average pay range for employees is between $10–15 per hour, which is an annual salary of approximately $21,000-$32,000 (given a 40-hour work week). The interviewed healthcare provider has an average pay range of $18,000-$40,000 for Medical Assistants, $17,000-$38,000 for Support Workers, $40,000-$86,000 for Nurses, and $57,000-$187,000 for Doctors.[10] Table 4-1 shows the industry, location, and number of employees for each of the interviewed employers.

**Table 4-1 Interviewed Employers**

| Product/Service | Location | Number of Employees |
|---|---|---|
| Healthcare Services | Southaven | 1,900 |
| Uniforms Manufacturing and Distributing | Olive Branch | 220 |
| Food Ingredients Manufacturing and Distributing | Horn Lake | 283 |
| Third-party Logistics | Southaven | 500 |

[10] http://www.careerinfonet.org/select_occupation

| Product/Service | Location | Number of Employees |
|---|---|---|
| Heavy Equipment Replacement Parts Manufacturing and Distributing | Southaven | 100 |
| Hardwood Lumber and Plank Flooring Manufacturing and Distributing | Horn Lake | 160 |
| Distribution of Lamps and Decorative Accessories | Southaven | 123 |
| Hospitality Products Manufacturing and Distributing | Olive Branch | 230 |
| Commercial Sectional Coolers Manufacturing and Distributing | Olive Branch | 75 |
| Components Used in Hanging Doors Manufacturing and Distributing | Olive Branch | 75 |

## Employee Commute Habits

Employers said the vast majority of their employees drive to work (95%–98%), while only 1% to 5% of employees carpool or are dropped off by friends or family members. Almost no employees walk or bike to work. Most employers were skeptical as to whether the availability of transit would shift their employees' travel behavior. Related to this, the majority of employers did not think that their companies would be willing to financially support transit service, although a few thought their company may be willing to subsidize and/or sell tickets or passes on-site.

Most businesses reported that the majority of their employees live within DeSoto County and Memphis (mostly Southern Memphis and Hernando). The second largest group of employees is commuting from the surrounding counties of Tate, Tunica, and Marshall. Two employers noted that a small number of their employees are traveling across the Tennessee border to get to work.

Employers were asked if they were aware of any challenges for their employees getting to work; the employers' responses varied. Almost half of the employers said that they were not aware of any challenges. A few noted that employees are required to have dependable transportation in order to be hired (due to inconsistent shifts), which may be discouraging applicants without adequate personal transportation. Two employers said that the cost of owning a vehicle was challenging for their employees, especially considering rising gas prices. Two employers mentioned that people who did not have their own vehicle were unable to work extra hours or shifts because they couldn't find short-term transportation, which could prevent these employees from earning additional income.

## Future Transit Use and Sponsorship

Employers were asked if they believed their employees would use transit service to commute to work if it were available. Only two employers responded that they did think their employees would use transit to give them more flexibility; these employees struggle with the logistics of carpooling not allowing them pick up extra hours and shifts. Five employers were unsure if their employees would use transit, mainly because employees are accustomed to the convenience and flexibility of driving a personal vehicle (especially in working odd hours and leaving work premises for lunch). But these employers also agreed that a few employees (those who work the regular day shift) would use transit as long as it ran along a main route and had convenient stops.

Three employers thought that their employees would definitely use transit, especially those who would like to save money and those who are currently carpooling or getting dropped off.

Employers were asked about their company's willingness to support a transit service, either through making an outright financial contribution, subsidizing employee tickets or passes, purchasing advertisement space, and/or selling tickets or pass on-site to employees. Two employers responded that they would likely be able to support transit service, by either working it into the employee benefit package or providing subsidized tickets or passes. Another employer said their company would possibly be willing to subsidize tickets or passes and sell tickets on-site. Five employers were unsure, but skeptical that their company would be willing to provide any support. Two employers said they their company would definitely not be willing to provide any form of support for their employees to use public transit.

# GENERAL PUBLIC SURVEY

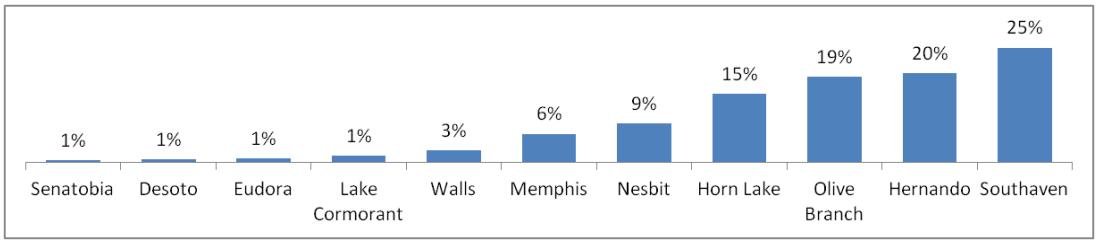
In addition to speaking with stakeholders and employers, the study team also administered an on-line survey to gather information about DeSoto County residents travel patterns and their attitudes about public transit. A copy of the survey is provided in Appendix B.

The survey was administered between December and March of 2013. At the beginning of the process, the study team worked with faith-based organizations to distribute the survey; this effort yielded about 100 completed surveys. In the beginning of 2013, the study team started to distribute the survey online, using existing mailing lists and a purchased email list. The vast majority of responses, however, came through efforts initiated by members of the Project Steering Committee, who posted the link on the DeSoto County websites, announcements on Facebook, press coverage from two local newspapers and two local television channels, plus outreach to the local AARP branch. Additionally, local officials distributed the survey link to attendees at neighborhood meetings. In total, the study team received a total of 618 completed surveys.

## Characteristics of Survey Respondents

Consistent with the population of DeSoto County, the majority of the survey respondents lived in Southaven, Hernando, Olive Branch or Horn Lake (see Figure 4-1). The sample also included respondents who live outside of DeSoto County, including Memphis, TN and Tate County, MS.

**Figure 4-1 Where do you currently live?**




Most of the survey respondents were employed full time (69%) or part-time (10%) and not employed (21%). Of those respondents who said they were not employed, almost 40% are retired, 21% did not answer as to the reason for their unemployment, and almost 20% of them are home makers, (see Figures 4-2 and 4-3). For those respondents who are employed, almost half of them

work in Memphis, while the remaining responses were from people working in Southaven, Hernando, Horn Lake, or Olive Branch (shown in Figure 4-4).

**Figure 4-2 Are you currently employed?**

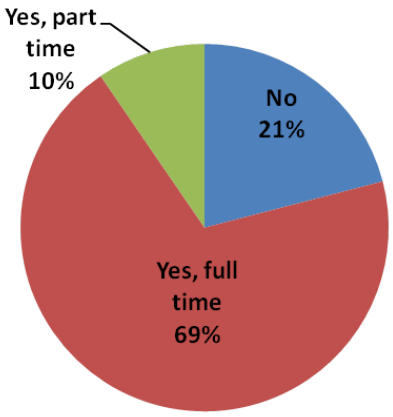



**Figure 4-3 If you are not employed, what is the reason?**

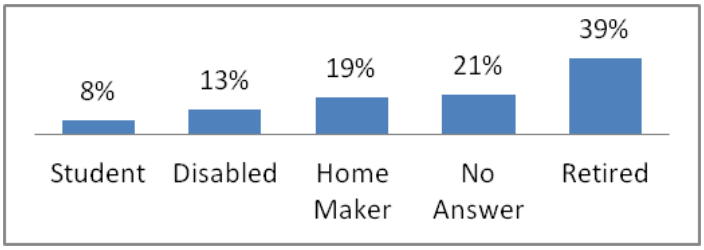
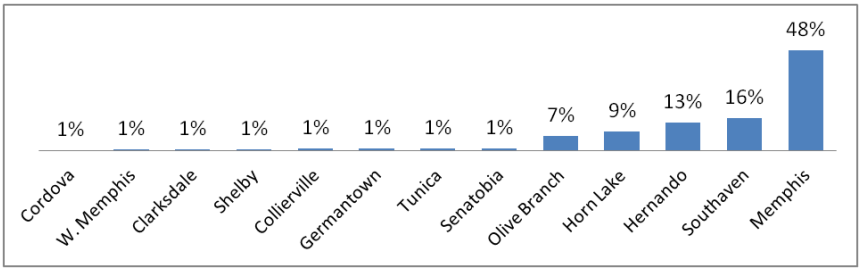



**Figure 4-4 Question: If you are employed, where do you work?**



Slightly more than half of respondents (51%) had used public transportation; the majority (66%) of these reported riding on MATA trolleys or buses (see Figure 4-5 and 4-6). The other 34% of respondents used public transit in other cities such as New York, Boston, Chicago, or Atlanta (see Figure 4-6).

**Figure 4-5 Have you ever used public transportation?**

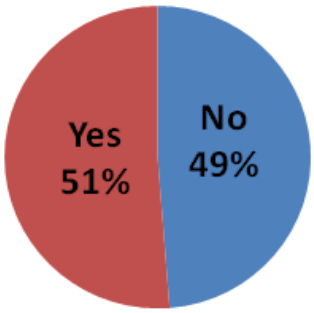
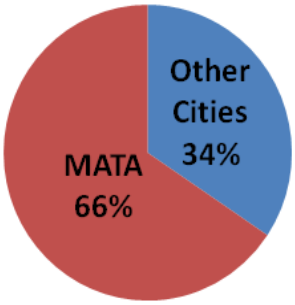
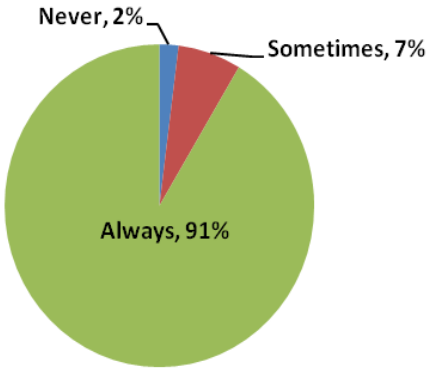



**Figure 4-6 If you have used public transportation, which service have you used?**

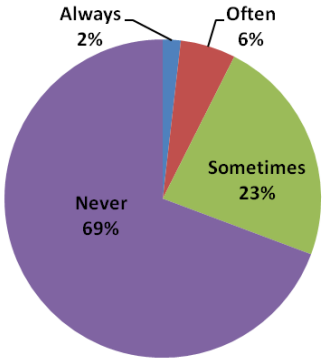



Most respondents (91%) were not transit dependent, or they "always have access to a vehicle". Another question, however, asked respondents if they have problems traveling. Most respondents (69%) answered this question that they never have problems getting to where they need to go, but nearly a quarter of respondents (23%) responded that they have problems traveling around the region some of the time. The portion of people who sometimes or never have access to a vehicle (9% combined) is roughly equivalent to the portion of respondents who often or always have trouble traveling (8%).

**Do you have access to a car?**



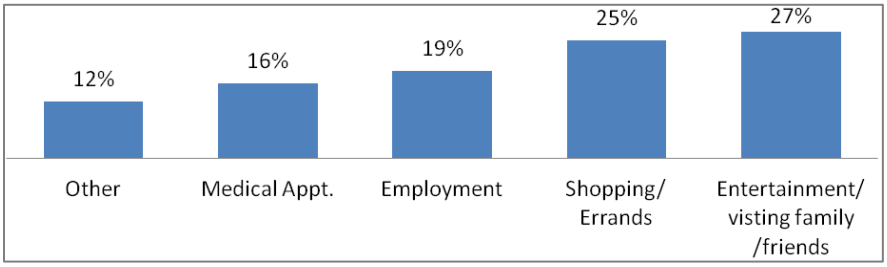

**Do you have problems traveling around the region?**



## Travel Behaviors

The travel survey included questions about travel behavior, including questions about demand for travel outside of the Shelby County, and the location and reasons for traveling overall. One question asked about reasons for leaving DeSoto County. The most popular destinations for traveling outside of DeSoto County include visiting family and/or friends (27%); shopping/errands (25%), employment (19%), and medical appointments (16%) (see Figure 4-7).

**Figure 4-7 Do you regularly (at least once a week or so) leave DeSoto County for any of the following reasons?**




The survey also included a question that asked respondents to indicate which towns they travel to for what reasons, giving them the choice of employment, shopping, medical appointment, entertainment/visiting friends/family, and school/college. Findings from this exercise are as follows (demand is shown in adjacent map and in Figure 4-8):

- Southaven was the most common destination with 24% of all trips. The most common reason for traveling to Southaven was for shopping, followed by medical trips.
- Respondents also identified Shelby County (19%) and also an important location for shopping.
- Hernando (13%) and Horn Lake (9%) also were frequently cited destinations, while Tunica (5)% and Walls (3%) also attracted a relatively high number of trips. Entertainment, and visiting family and friends was a common reason for visiting Tunica County, while entertainment and employment were important for Walls.
- Only a handful (4%) of the respondents said they traveled to get to/from school or college.

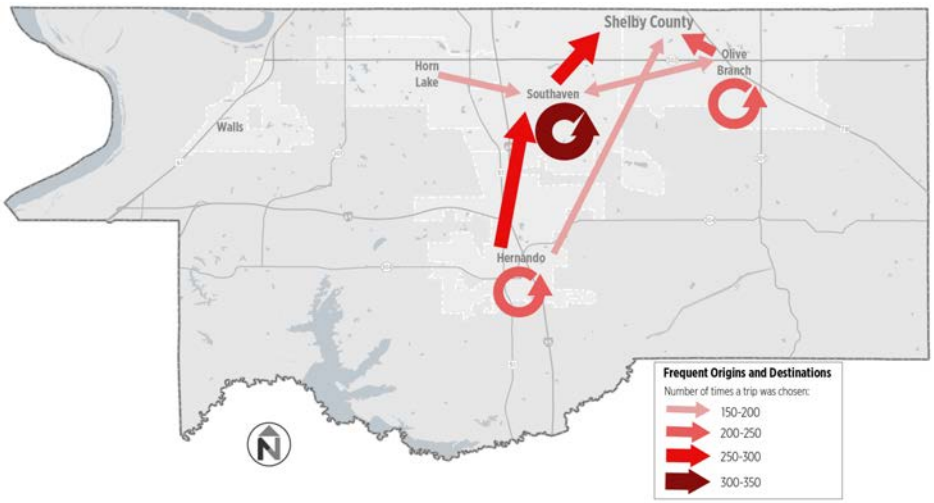


**Figure 4-8 Where respondents go and for what reasons**

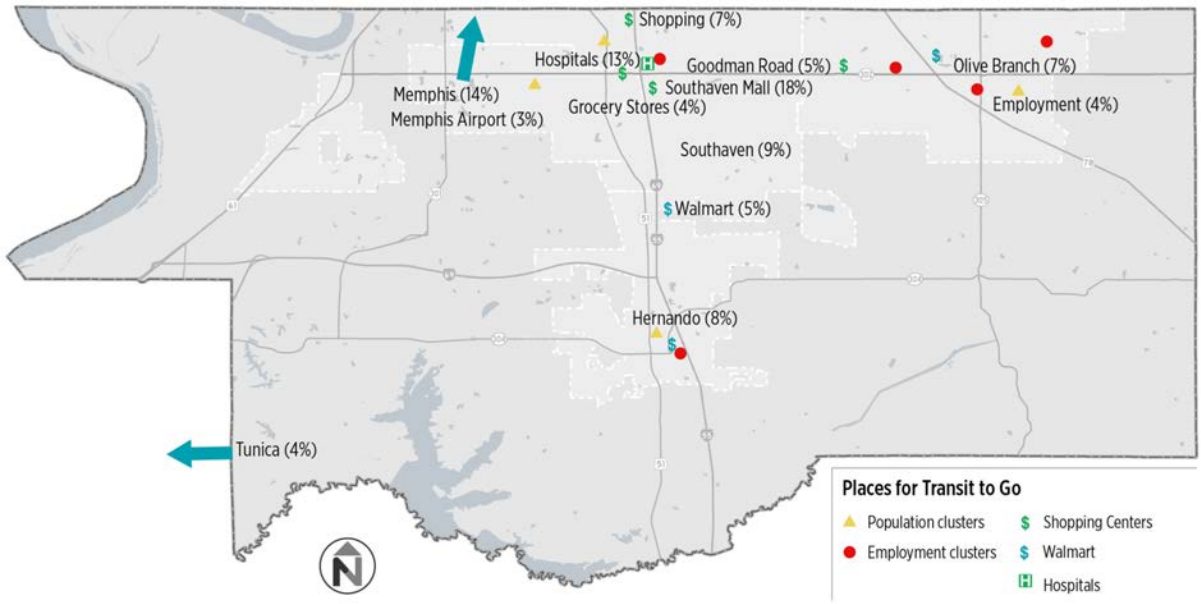
## Travel Attitudes

The survey included a question that encouraged respondents to report their attitudes about public transportation service and in particular, if it is a good idea for DeSoto County; they were also given an opportunity to explain their answer in an open ended question. 487 individuals responded to the question, with 69% of respondents saying that public transportation would be a positive thing for the region; 26% responding public transportation is not a good idea; and 5% who thought it was a good idea, but only if developed in a certain way.

- Of the people who answered this question, 69% (338 responses) responded that "Yes, public transportation is a good idea for DeSoto County. The broad categorization of the reasons for supporting public transit are:
  - Offers a general benefit to the community (35%).
  - Alleviate transportation burden on older adults, people with disabilities and people who cannot or do not drive (24%).
  - Reduce traffic congestion and help alleviate pollution (19%).
  - Help residents save money, especially with rising gas prices (14%).
  - Support people getting to work (8%).
- A minority (26% or 127 people) answered "No, public transportation is not a good idea for DeSoto County. These responses are broadly categorized as:
  - High cost relative to the benefit (57%).
  - Have a negative impact on small town character of DeSoto County (27%).
  - Not economically feasible (25%).
  - Create more traffic congestion (12%).
- A small portion (5% or 22 respondents) answered "Maybe public transportation is a good idea for DeSoto County". Of these responses:
  - Half (50%) supported public transportation is a good idea if implemented in a certain way, such as only on certain roads.
  - Another portion (34%) thought that public transportation is a good idea only if people use it.
  - A handful (16%) thought that public transportation is a good idea for certain types of people, such as older adults or people with disabilities.

The survey included a questions about where people felt public transportation should go (see Figure 4-9). The question was open-ended allowing some respondents to list specific places such as Southaven Mall (18%), Memphis (14%) while others listed more general destinations such as hospitals (13%).

**Figure 4-9 If public transportation were available in DeSoto County, where are some of the places you would like transportation to go?**



# 5 NEEDS ASSESSMENT

## OVERVIEW

Findings collected through the existing conditions analysis, review of previous studies, community profile and public and stakeholder outreach efforts suggest that there are both challenges and opportunities associated with developing public transit services in DeSoto County The following text summarizes the challenges and opportunities as they related to the need and demand for public transportation.

## CHALLENGES

- Previous studies that looked at creating public transportation services in DeSoto County were very ambitious, recommending a system that was expensive and – at the time of the study – inconsistent with community values and perceptions.
- Overall, population and employment density in DeSoto County is low. National standards suggest that there are very few areas that could support fixed-route transit service.
- DeSoto County is an automobile-oriented community with several campus style retail and employment and low density residential communities.
- Consistent with being automobile-oriented, DeSoto County also has very limited pedestrian infrastructure overall and especially along the Goodman Road corridor. Automobile oriented land forms create low density communities and the lack of sidewalks and crosswalks makes walking uncomfortable or potentially unsafe. Both of these factors undermine the potential for fixed-route transit, which requires people to walk to and from bus stops.
- While the communities along Goodman Road reflect automobile oriented development, the roadway also has the concentration of people, jobs and activities. This compares with the Town of Hernando, which is more pedestrian and transit-oriented but has a much smaller share of population and employment.
- Preliminary data from stakeholders suggests a portion of the county's leadership is not interested, or reluctant, to make an investment in public transportation.
- There is also some reluctance from the community with regards to the cost and productivity of public transportation, suggesting service might not offer sufficient value given costs to implement.

## OPPORTUNITIES

- Population and employment are heavily concentrated on the northern side of the county, particularly along Goodman Road (see Figures 5-1 and 5-2). Thus, even though densities are low overall, the population is concentrated.

- Employment and activity centers (medical, shopping and entertainment facilities) are also largely clustered along Goodman Road.
- Survey results suggest people perceive a need to get to/from the Southaven Mall and to other shopping areas, mostly congregated along Goodman Road.
- Congestion is increasing along Goodman Road, especially at peak times.
- Parts of Horn Lake and Southaven have densities (even if they are small areas geographically) that are nearly sufficient to support fixed-route transit. Parts of these communities also have significant portions of the population that are low income, aged 65 or more, or both.
- Travel is concentrated along Goodman Road. There are significant destinations along the corridor, including shopping, medical services and employment; the corridor also attracts over 100,000 daily trips.
- Southaven recently applied for – and received – grant funds to strengthen bicycle and pedestrian infrastructure in the community. Developing cycle tracks and greenways will help diversify travel choices and opportunities.
- DeSoto County funds specialized transportation services for older adults and individuals with disabilities. These services are available not well advertised, but demand is currently greater than supply.
- There are small pockets of people in DeSoto County that need transportation. The clearest opportunities are to serve the most transit dependent individuals (older adults, persons with disabilities, veterans). There are also opportunities to start to provide transit as an option for people with lower incomes and/or people traveling long distances to work.
- There is very little information about public transportation in DeSoto County, including existing specialized services, but also MATA services in Shelby County. In some cases, even service providers were unsure of what was available and how services work.
- Several stakeholders support public transportation and are interested in developing options and choices in DeSoto County.
- The majority of DeSoto County residents responding to the survey expressed an interest in developing public transportation. Survey respondents felt public transportation could be most valuable if was oriented towards meeting the needs of the most vulnerable (older adults and people with low incomes) and employment.
- People who want to see public transportation in DeSoto County also expressed concern over the pace of growth overall and the need to mitigate some of the negative impacts of the rapid development.

**Figure 5-1 Key Travel Origins and Destinations Identified by Data Analysis**

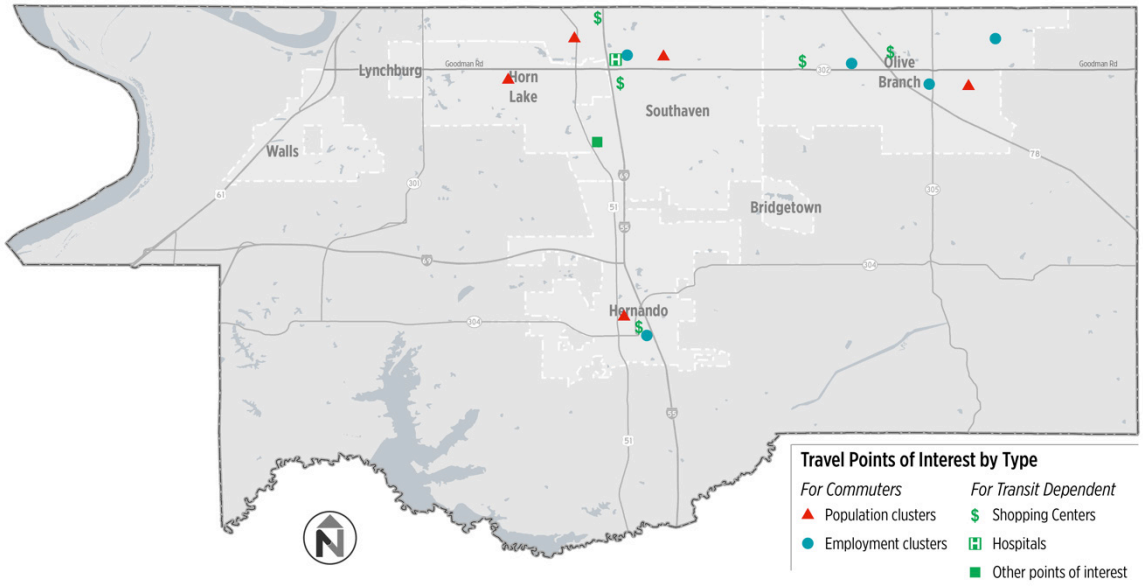
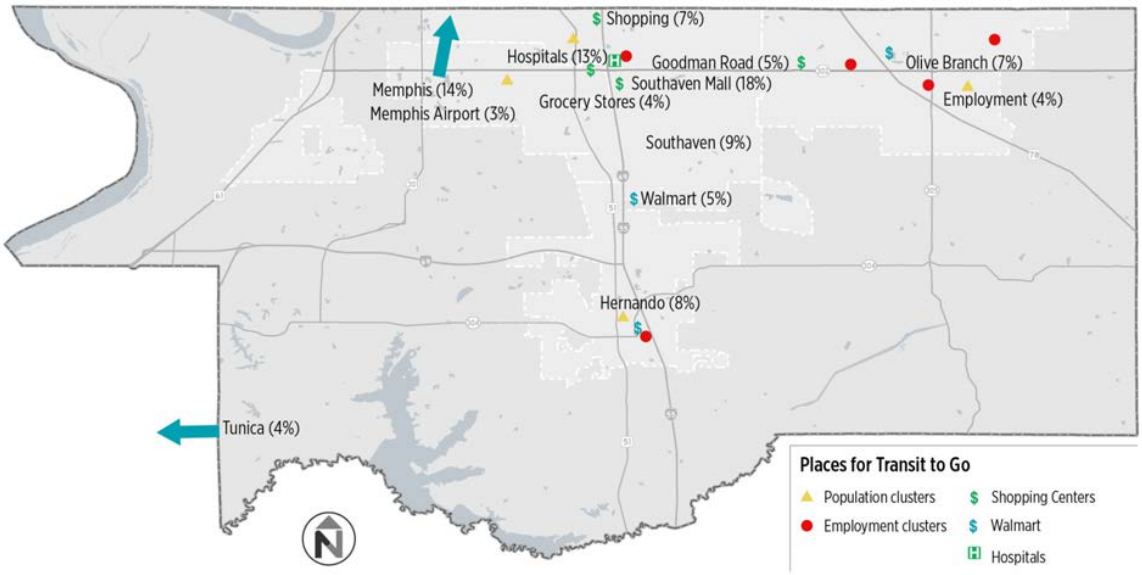



**Figure 5-2 Survey Identified Key Travel Origins and Destinations**



# 6 PUBLIC TRANSPORTATION SERVICE OPTIONS

## OVERVIEW

Taken together the opportunities and challenges suggest that development of public transportation services in DeSoto County, at least initially, should follow an incremental approach, built around small steps that address the highest needs and introduce the community to responsive, cost-effective services that serve the highest need residents. Success in the early stages, combined with other efforts to create a more pedestrian friendly infrastructure, could lead to a more extensive transit network in the future.

While most people consider public transportation as urban bus service, there is a broad spectrum of public transportation service types that range in terms of the amount of administrative and financial investment required. Service options range from low-cost options that are targeted at specific segments of the community (i.e. volunteer driver and taxi voucher programs) or serve specific geographic markets (commuter services) or try to serve the general public (fixed-route transit). This section provides an overview of public transportation services and is intended to illustrate the spectrum of opportunities available to DeSoto County. The text describes various types of transit service with indicative information about service costs, advantages and disadvantages (see Table 6-1).

**Table 6-1 Transit Service Options, Key Advantages and Disadvantages**

| Service Type | Best Suited For | Advantages | Disadvantages |
|---|---|---|---|
| **Volunteer Driver Programs** | ▪ Medical trips<br>▪ Ad hoc travel | ▪ Low-cost<br>▪ High flexibility<br>▪ High service level | ▪ Meets specific need only<br>▪ Challenge to retain volunteers |
| **Ridesharing** | ▪ Commuters | ▪ Systems in place to administer program<br>▪ Low cost<br>▪ High flexibility | ▪ Does not help transit dependent |
| **Voucher Programs** | ▪ Medical trips<br>▪ Ad hoc/emergency travel | ▪ Lower cost<br>▪ Flexible<br>▪ Low start-up costs | ▪ Requires oversight and fraud prevention<br>▪ Difficult to control service quality |

| Service Type | Best Suited For | Advantages | Disadvantages |
|---|---|---|---|
| **Dial-A-Ride (DAR)** | ▪ Older Adults<br>▪ Persons with Disabilities<br>▪ Non-Drivers | ▪ Higher level of service | ▪ Less attractive to commuters<br>▪ Requires advance scheduling<br>▪ High per-trip costs |
| **Fixed-Route Bus** | ▪ Commuters<br>▪ Ambulatory older adults and persons with disabilities<br>▪ Non-Drivers | ▪ Easy to understand/use<br>▪ Builds on existing system<br>▪ Low fares<br>▪ Low per passenger cost | ▪ Lower level of service<br>▪ Set route and schedule<br>▪ Limited flexibility<br>▪ May not serve all markets |
| **Deviated Fixed-Route** | ▪ Commuters | ▪ Flexible<br>▪ More attractive service<br>▪ Satisfies ADA requirements | ▪ May be difficult to understand<br>▪ Requires advance scheduling |
| **Flex-Services** | ▪ Older Adults<br>▪ Persons with Disabilities<br>▪ Non-Drivers | ▪ Combines key advantages of fixed-route and DAR service<br>▪ Increases service area<br>▪ Can be designed to flex in key areas only | ▪ Without proper design, may not be attractive to commuters<br>▪ Requires education<br>▪ Requires advance scheduling |
| **Regional Services** | ▪ Commuters<br>▪ Potential for medical trips | ▪ Easy to understand<br>▪ Potential to build on existing service | ▪ Assumes distribution system on destination end<br>▪ Likely higher cost service in terms of cost per passenger |

Source: Nelson\Nygaard Consulting Associates

## VOLUNTEER DRIVER PROGRAMS

Organizations typically use volunteer drivers to provide transportation to individuals that need a higher level of service, such as door-to-door or door-through-door service[11]. Volunteers typically drive their own vehicles and receive a reimbursement for miles driven, but are not compensated for their time. While not paying driver's time, managing a volunteer driver program can be challenging in terms of finding, training and retaining drivers and arranging for insurance. As a mode of transportation, volunteer drivers can offer a very personal, high-quality level of service that is significantly less expensive than other options. In addition, the full cost (i.e. time plus mileage) of the trips provided may be used as local matching resources for other transportation funds.

Best practice reviews of volunteer driver programs suggest that success often depends on employing a paid program manager who is effective at recruiting and retaining a pool of drivers.

[11] Door-through-door service assumes driver will escort traveler through the door at their destination. This may mean, for example, walking someone into their doctor's office and making sure they check in for their appointment.

Other costs associated with volunteer driver programs include finding and sustaining a funding source to pay mileage reimbursements; managing trip requests and driver assignments; arranging driver training; and administrative responsibility such as reporting requirements and insurance concerns. Depending on a program size, the program manager may or may not need to work full-time. A full-time program manager may be hired for between $40,000 and $75,000 annually including benefits and overhead costs (office rental plus phone lines). A fund of between $10,000 and $15,000 annually provides reimbursement for approximately 1,000 one-way trips per year.

## RIDESHARING, CARPOOLING, AND VANPOOLING

Carpooling involves two or more people sharing a ride in their personal vehicles and usually but not always travel to/from work. Vanpooling refers to an arrangement where a slightly larger group of individuals (usually five or more) share the costs of operating a van that also usually takes individuals to/from work. There are a variety of strategies that encourage and support ridesharing, such as advertising the benefits of ridesharing, creating a database to match drivers and riders, developing a vanpool program, and/or developing support services, such as guaranteed ride home programs that allow carpoolers to get a free taxi ride home in case of emergency.

The employer survey suggests that there is already some limited carpooling to/from employment sites in DeSoto County. Most, if not all, of the current carpooling is loosely organized and arranged among the individuals who know each other. The current ad hoc approach is effective for people who know their colleagues and/or neighbors, but is less useful for prospective or new employees. Preliminary data suggests there is some long distance commuting to Tunica County as well as Shelby and Fayette Counties in Tennessee.

Promoting carpooling and ridesharing is a flexible and relatively low cost option that is usually managed as part of another job. Guaranteed ride home programs typically cost on the order of $2,500 per year to offer (provides about 100 taxi rides per year), and another $5,000 may be set aside for website development or other marketing materials. Given DeSoto County's population, an aggressive program may register between 100 and 250 individuals.

## FLEX VOUCHER OR TAXI VOUCHER PROGRAMS

Voucher subsidy programs provide transportation by offering discounted tickets for use on private transportation modes, such as taxi services. The advantage of this type of program is that it offers flexibility, immediate service and only provides as much transportation as needed. Most voucher programs are designed for taxicab service, but flexible vouchers have also been developed to be used in other ways, such as to pay a friend or family member for a trip, or to 'purchase' a trip at a volunteer driver program.

Eligibility to participate in the program can be based on any number of factors, such as age, disability, income criteria, or the need for a specific type of trip, such as employment. Individuals register with the sponsoring agency and purchase or receive vouchers or scripts that can be used for transportation service. When someone needs a trip, she or he simply calls the taxi company and arranges their travel and uses the voucher to pay the driver. Alternatively, neighbors or friends can provide transportation with their own vehicle and submit the voucher for reimbursement, which is particularly important in rural areas where taxicab service may not be readily available.

Advantages with a voucher program are that sponsors do not need to get involved in the management or delivery of transportation services (e.g., purchasing and maintaining vehicles,

hiring drivers, dispatching vehicles, etc.) and the vouchers give travelers flexibility to travel without a reservation any day of the week. Depending on program stipulations, an individual could travel any time and any day of the week with little or no advanced scheduling. It is also possible to design the programs so that use of the vouchers is limited to certain trip purposes or circumstances, or so that individuals are required to contribute a fixed portion of the taxi fare to help defray costs and limit use. On the down side, it can be difficult to monitor the quality of taxi services and measures must be implemented to prevent fraud. In addition, potential funding sponsors (such as federal programs) have significant insurance requirements that are often expensive for local operators to obtain. Vouchers best meet the need for ad hoc, occasional travel, as costs are usually too high to justify regular use, such as for employment or other regular trips.

Successful voucher programs require organization and management duties as well as administrative oversight, but in most cases, these duties can be provided as part of other job responsibilities. Program costs, therefore, are usually proportional to the amount of service offered. An annual budget of $25,000 could help subsidize 2,500 rides (subsidy of $10 per ride) and serve up to 500 individuals.

## DEMAND RESPONSE OR DIAL-A-RIDE SERVICE

Demand response or Dial-A-Ride (DAR) services provide rides in response to passenger requests. Passengers must schedule their trip in advance (typically at least 24 hours) and travel between pre-determined locations. When passengers schedule a trip, they are usually given a window of time when the bus or van will pick them up and drop them off. Rides may be shared by individuals traveling between similar locations, thus the trip is not always direct. Industry standards generally recommend DAR services over fixed-route services when demand is less than 8–10 passengers per hour, depending on the service area. There is currently limited DAR service in DeSoto County; for example, the Elderly and Disabled Transportation Program that is provided by the North Delta Planning and Development District.

The level of service provided by DAR is high but can be expensive to operate on a per-passenger basis, because vehicles carry fewer passengers but usually have the same hourly costs of operation as other modes. DAR services are often most useful for people who have more flexibility in terms of when they travel and arrive at their destination but need a higher level and/or more individualized service. There are however, strategies that can be employed to control costs, such as charging fairly high fares, limiting service areas and restricting the hours of operation.

Setting up demand response service has capital requirements (usually at least one vehicle) as well as operating expenses, most notably driver wages, but also someone to take trip requests and schedule rides. Vehicles also need to be cleaned and maintained. In addition, if DAR services are intended for the general public, some sort of information about how to use the service is necessary. For purposes of this study, costs to operate the service are estimated at $60 per hour, inclusive of fuel, insurance, driver wages, vehicle maintenance, plus dispatch and management and marketing costs. Nine hours of DAR service in DeSoto County provided five days per week would cost about $135,000 per year. Depending on the organization DAR service, ridership could serve up to 5,000 riders[12].

[12] Assumes just over 2.0 riders per hour; however, achieving this level of ridership requires some trip grouping and scheduling.

## FIXED-ROUTE BUS SERVICE

Fixed-Route bus service is regularly scheduled transportation services that operates between two or more pre-determined points. Routes are typically planned to run along major travel corridors between key destinations (or service anchors) such as housing complexes, employment centers, and along major corridors.

Advantages associated with fixed-route service are that scheduled service is easy to understand and use and can carry a large number of passengers. Fixed-route bus service, however, almost always require that travelers walk to and from the service and require travelers to adjust their travel to match scheduled departure and arrival times. In rural areas, it may be difficult to identify corridors where sufficient numbers of people can walk to/from the corridor and their final destination. Fixed-route bus services usually work best for commuters and mobile members of the transit dependent population and are usually less effective for persons with disabilities and older adults.

As discussed, costs associated with fixed-route services are similar to demand response service. Services may use the same vehicles, thus have similar requirements in terms of fuel, insurance, drivers and maintenance. Additional costs are also required to provide supporting infrastructure, such as signage, shelters, and information materials. Furthermore, if federal money is used to fund the service, complementary ADA paratransit service must be offered for individuals living within ¾-mile of the fixed-route service and traveling during the same operating hours. Providing ADA complementary paratransit further increases service costs. However, despite these additional costs, fixed-route service may still be more productive as compared with demand response service because the service can carry more passengers per service hour.

In general, providing 12 hours of fixed-route bus service with one vehicle and driver (6:00 AM to 6:00 PM) Monday through Friday will cost about $180,000 per year.[13] Adding ADA service may increase costs by 20%. Fixed-route bus service in a community like DeSoto County should eventually be able to serve about 10 riders per hour; or about 30,000 riders annually. Achieving this level of productivity however requires changes in land use and investment in pedestrian infrastructure (i.e. sidewalks, crosswalks, bus waiting areas, etc.).

## DEVIATED FIXED-ROUTE BUS SERVICE

As discussed, a key challenge associated with fixed-route service is it requires people to walk to and from fixed-route stops. A potential solution to this challenge is to allow vehicles to travel off-route to access locations at a pre-determined distance (typically one-tenth to three-quarters of a mile) from the main corridor. Offering route deviations also satisfies ADA requirements and can reduce overall service costs.

Deviated fixed-route service usually works by requiring passengers to call in advance to schedule a deviation, especially if they want to be picked up at a location that is off of the main route. Many systems also charge a premium fare to travel off-route. Route deviation service offers tailored services as compared with regular fixed-route services but will provide slightly less service for the same cost, because offering deviations requires longer service schedules. Marketing is also an essential ingredient to successful deviated fixed-route service; the concept is not always familiar to passengers, and many individuals need encouragement to use it.

[13] Assumes $60 per hour (one bus), and service operates 250 days per year (i.e. weekdays, excluding holidays).

Deviated fixed-route service is less productive than fixed-route service because the schedule includes time to travel off of the fixed-route. However, in DeSoto County where land uses are not transit supportive, a deviated fixed-route service may attract more riders because it brings riders closer to their final destination. The service is also less expensive because ADA service is not required. An investment of $180,000 (i.e. 12 hours of fixed-route bus service with one vehicle and driver (6:00 AM to 6:00 PM) Monday through Friday) may generate 8-10 riders per hour; or about 24,000 to 30,000 riders annually.

## FLEX-SERVICES

Flex-Route services are a hybrid of traditional fixed-route service and demand response service and are typically operated in one of two ways:

- As a structured but flexible bus route, but at one or both ends of a trip, the bus travels off-route to provide curbside pick-ups and drop-offs within a designated area. A service from Horn Lake to Olive Branch, for example, may offer demand response service (i.e. door-to-door pick-ups) throughout Horn Lake between 9:00 AM and 9:30 AM. At 9:30 AM the bus leaves from Horn Lake and travels to Olive Branch, arriving at 9:45 AM. The bus then will bring people to their desired destinations from 9:45 to 10:15 AM.
- Another way that flex service can be structured is to designate a service area with one or more pick-up points and scheduled times. Following our previous example, the flex route might stop at the Horn Lake town center on the hour. Passengers can call in advance to request a pick-up or drop-off at home, or walk to town center and 'catch' the bus. Travel would be permitted anywhere within Olive Branch.

Advantages of flex-routes are that they are often effective at providing service to areas where population and employment densities make traditional fixed-route service difficult. The demand-response feature of the service allows a larger area to be served and improves the attractiveness of public transportation. Flex-services, however, can be difficult for some riders to understand and use. Similar to other services presented here, operating costs are estimated at roughly $60 per hour and include fuel, insurance, driver wages, vehicle maintenance and some scheduling, dispatching and marketing services. Because flex-routes allow time to travel off-route, fewer trips can be scheduled during the same time period as compared with fixed-route service, thus the overall service levels are lower.

Effective flex services can serve between 5 and 7 passengers per hour. The service can be operated with a smaller vehicle that may be less expensive to operate and ADA service is not required. If eight hours of service is available (one vehicle and one driver operating between 7:30 AM and 4:30 PM on weekdays would likely cost on the order of $100,000[14] per year and carry between 13,000 and 14,000 riders per year.

## REGIONAL BUS SERVICE

Regional bus service is the same type of service as fixed-route but refers to routes that travel longer distances and have longer travel times. Regional bus service is usually operated with upgraded "over the road" coach buses that have more comfortable seating and passenger amenities, such as in-vehicle toilets. They also usually have higher fares and fewer scheduled departures.

[14] Assumes $50 per hour (one bus) and 250 days of service per year.

Regional bus service is an attractive service for many because, depending on the fare, long distance bus service may be less expensive, more comfortable and less stressful than driving a private vehicle, depending on a driver's abilities. Disadvantages associated with regional bus service, however, means that there will always be fewer scheduled services as compared with local bus service. In addition, to be effective, regional service must either travel to key destinations (such as hospitals or shopping centers) or connect with local transit networks so that travelers can get to their final destinations.

In general, providing 12 hours of fixed-route bus service with one vehicle and driver (6:00 AM to 6:00 PM) Monday through Friday may cost on the order of $100,000[15] per year and carry between 13,000 and 14,000 riders per year.

[15] Assumes $50 per hour (one bus) and 250 days of service per year.

# 7 POTENTIAL TRANSIT STRATEGIES FOR DESOTO COUNTY

## INTRODUCTION

Taking into consideration likely demand as indicated from quantitative sources (i.e. population and employment data) and qualitative sources (i.e. stakeholder and community input) and a broad range of public or community transportation services, recommendations are designed to reflect the following:

- Given the County's relative lack of experience with public transportation and suburban land use patterns, service should be developed incrementally, building on existing programs and needs to coordinate and expand these resources.
- Services should reflect a clear policy to meet one or more key needs, even if they only meet a small segment of overall population. By making a clear decision to serve a clear need will help decision makers communicate service and funding decisions. In addition, experience in other parts of the country suggest that transportations services are more likely to fail by trying to do much, rather than doing too little.
- An incremental approach also offers funding advantages because initial investments can be fairly low. As these initial investments reap benefits, policy and decision makers are more easily convinced to make subsequent investments. A slower, step-by-step approach also creates opportunities to bring partners together to develop support for programs
- An incremental approach allows DeSoto County to strengthen its pedestrian infrastructure and land use patterns to transition towards a more transit oriented built environment while transit services are being developed and tested. As the community starts to create a transit supportive environment, transit services can be enhanced and strengthened.
- Place an emphasis on setting clear goals (number of individuals served or individuals served), tying these goals to objective measurement and communicating program accomplishments. As the program makes progress (or not) towards these goals, this information should be communicated regularly and used to adjust and adapt the services as well as build support for future efforts.

Following this approach, the overall recommendation for DeSoto County includes:

1. **Hire a Mobility Management** to more actively manage existing transportation programs, create marketing and educational materials and build coalitions to support funding to expand existing resources and services. The mobility manager can become a resource and advocate for the unincorporated county and incorporated municipalities to strengthen pedestrian infrastructure, travel demand management programs and land use patterns so they are more supportive of public transportation.

2. **Create a Flexible Voucher Program** to quickly expand service and provide more flexible travel options for DeSoto County's most vulnerable residents.
3. **Develop Commuter Service** to either the Tunica Casinos or Shelby County (or both) to start developing fixed-route services. As discussed, long distance commuter trips can be burdensome to people looking for jobs but unable to afford the commute costs or lacking reliable transportation.
4. **Operate Fixed-Route or Flex Route bus service along Goodman Road.** As DeSoto County gains experience and success with specialized transportation service, it will be appropriate to develop more traditional bus service along the County's primary corridor. Service will need to be developed cautiously and with care given the challenging land uses and pedestrian environment.

More information on these individual strategies is summarized in the following section (see also Table 7-1).

**Table 7-1 Overview of Service Strategies**

| No. | Service Strategy | Service Type | Area Served | Target Market | Broad Costs | Cost Assumptions |
|---|---|---|---|---|---|---|
| 1 | Mobility Management | Coordinate volunteer driver program and ridesharing, carpool, and vanpool programs | Countywide | Persons with disabilities, older adults, employees of large worksites | $100,000 | Salary/benefits $75,000<br>Volunteer drivers $10,000<br>Office rental/supplies $15,000 |
| 2 | Flex Voucher Program | Flex voucher program | Countywide | Persons with disabilities, older adults | $25,000 | Voucher payments $20,000<br>Marketing/Information $5,000 |
| 3 | Tunica Commuter Service | Vanpool or Fixed-route bus | DeSoto County and Tunica County<br>Access depends on riders – could b e concentrated in urban areas or organized around rural communities | Tunica casino workers | $60,000+ vanpool<br>$200,000+ fixed-route bus | 9 hours per day<br>365 days per year<br>$60 per hour |
| 4 | Shelby County Commuter Service | Vanpool or Fixed-route bus | DeSoto County and Shelby County<br>Access depends on riders – could b e concentrated in urban areas or organized around rural communities | Commuters working in Shelby County | $60,000+ vanpool<br>$135,000+ fixed-route bus | 6 hours per day<br>250 days per year<br>$60 per hour |
| 5 | Goodman Road Fixed-Route | Deviated fixed-route bus | Horn Lake<br>Southaven<br>Olive Branch | Transit dependent<br>Some commuters | $135,000 | 9 hours per day<br>250 days per year<br>$60 per hour |
| 6 | Horn Lake – Olive Branch Flex Route | Flex Service (flex in Horn Lake for 30 minutes, then travels to Olive Branch and repeats in reverse) | Lynchburg<br>Horn Lake<br>Southaven<br>Olive Branch | Transit dependent<br>Some commuters | $135,000 | 9 hours per day<br>250 days per year<br>$60 per hour |

## STRATEGY 1: MOBILITY MANAGEMENT

While there are a handful of transportation resources available in DeSoto County, these resources for the most part are not well organized or coordinated. The County, for example, spends between $400,000 and $500,000 annually on specialized transportation services through contracts with area service providers. Contracts are held by different service providers and operated entirely independently. While existing service is comprised of separate programs there may opportunities to share resources and coordinate efforts. In addition, the County only provides limited oversight of these services and does not actively work to promote them. In addition, outside of the handful of specialized transportation services, there are no active programs to encourage alternative forms of transportation, such as carpooling and vanpooling, or promote walking or biking.

One option, therefore, would be to hire a mobility manager and task this individual with more actively managing existing transportation programs and developing new ones. Initial initiatives may include:

- **Create Service Directory** – Stakeholder research confirmed that there is only a very limited understanding of what transportation services are available, who can use them and how they can be accessed. One of the first things the mobility manager could do, for example, is create a service directory. The service would be useful for residents throughout DeSoto County.
- **Participate in Regional Coordination Efforts** – There are significant coordination efforts underway in the seven county Delta Rides region, including development of a call center. The region also has some existing mobility management resources, although the focus is more regional in nature. Through a mobility manager, DeSoto County could participate in these efforts and leverage regional resources to expand transportation options locally and support efforts to create more transit supportive land use patterns and pedestrian facilities.
- **Promote Inter-Governmental Cooperation** – One of the main reasons to establish a mobility management program and hire a mobility manager is to inventory, coordinate and expand existing transportation resources. Initially, the mobility manager can work towards coordinating existing programs but should transition to expand programs according to the strategies laid out in this report. Part of expanding programs involves collaboration across government entities in DeSoto County to build a coalition of support, including individual municipalities and the County, their leadership and program managers.
- **Function as a Resource and Advocate for DeSoto County's Pedestrian and Alternative Transportation Networks**. Given the lack of a strong integrated pedestrian network, especially along DeSoto County's main corridor, Goodman Road, the mobility manager could become a critical resource to advancing these efforts.
- **Develop a Volunteer Driver Program –** The mobility manager may develop a volunteer driver program to supplement existing transportation services and provide options for people who need transportation but may not be eligible for some to the existing programs.
- **Promote Ridesharing, Carpools, and Vanpools –** The mobility manager may also work to promote ridesharing, carpooling and vanpooling. DeSoto County does not have anyone working to promote alternative commute options, but there are potential markets for ridesharing, such as to/from employment in Tunica and/or Shelby County. The

mobility manager could organize ridesharing efforts and develop supportive programs such as electronic ride boards and guaranteed ride home programs.

Costs for a mobility manager and supporting resources are estimated at $100,000. This estimate includes the mobility manager's salary and benefits, office rental and supplies, and support for initial efforts such as developing volunteer driver, taxi voucher and ridesharing programs.

Federal grant funds may be available to support up to 80% of the mobility manager program costs. In other parts of the country, in-kind resources are permissible as matching funds.

## STRATEGY 2: FLEXIBLE VOUCHER PROGRAM

DeSoto County may develop a flexible voucher program to help expand transportation options in the county. The program could help meet a wide variety of transportation needs and supplement existing programs at a very low cost. The program would also be accessible to residents in all of DeSoto County, including those in the urbanized and rural areas. Although the program does not require significant oversight, it is best implemented in conjunction as part of an overall mobility manager strategy (see previous page) to ensure the program is properly developed and advertised. Implementation requires:

- Creating program rules, eligibility standards and guidelines – there are several national examples that could be used to assist with the development of rules.
- Identifying service providers – these would probably be taxicab companies but may be other service providers, including potentially DARTS.
- Working with local human and social service organizations that represent clients needing transportation and ensure they know about and understand the program. These partners may also help fund the program.
- Developing a monitoring and evaluation mechanism so the benefits and costs of the program can be clearly communicated to funding partners.

Direct costs for a taxi voucher program (cost of the voucher and marketing) are estimated at $25,000. These costs do not include staff time required to develop and manage the program. A program budget of $25,000 would provide approximately 1,000 rides valued at about $25-30 per ride, assuming the traveler contributed up to $5 towards the cost of the trip.

Federal grant funds may be available to support up about 50% of the costs of the taxi voucher program.

## STRATEGY 3: TUNICA COMMUTER SERVICE

Data suggests there is a fairly strong commuter market between DeSoto County and the Tunica casinos. A one-way trip between Southaven and the Tunica resorts is approximately 30 miles, meaning working five days a week could require 300 miles of travel and roughly $60 in gasoline or $165 using the federal mileage reimbursement rate ($0.55). Given that some of the jobs at the casinos pay between $10 - $15 per hour, saving money on the commute trip could be attractive to many workers. There are two service options that offer potential to meet this need:

- **Vanpool service** - Vanpools have the advantage of needing to collect as few as six people to get started and they do not need a trained driver to operate the service. Most vanpool programs have passengers pay the cost of driving the vehicle plus some maintenance costs. Assuming $60 per week in gasoline plus another $15 per week in maintenance, if there were six riders in the van, each rider would need to pay $15 per

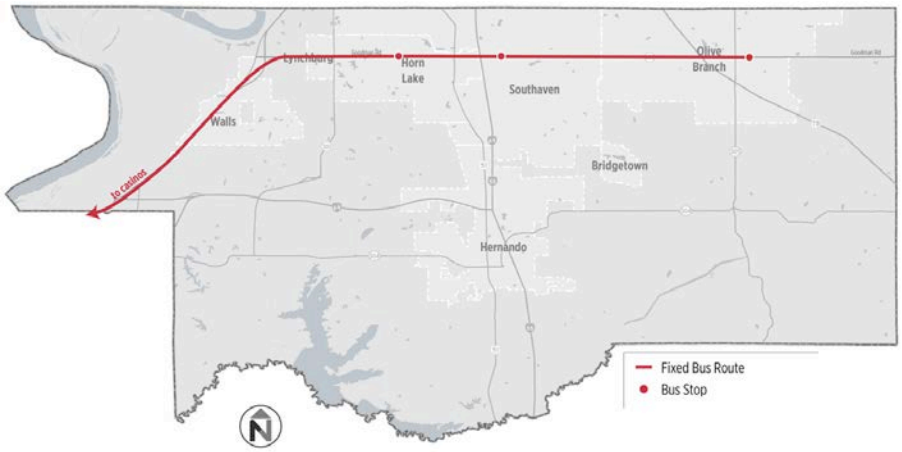
week, or roughly $1.50 per trip. Most vanpool programs use federal and state grants to cover the capital cost of the vehicle. Vanpools are also typically structured so that riders either agree to meet at a central location or are picked up riders at their home.

Cost for a vanpool program are estimated at roughly $60,000 to purchase and maintain a vehicle, assuming passengers pay the cost of fuel and vehicle maintenance. Some additional costs will be needed for program development and marketing. This program could also be developed by a mobility manager.

- **Fixed-route commuter service** - Another alternative would be to develop a fixed-route commuter service that is scheduled around Tunica's primary employment shifts, potentially 7:00 AM – 3:00 PM and 3:00 PM – 11:00 PM on weekdays and weekend days. A bus would pick up passengers at a limited number of stops in DeSoto County and travel non-stop via I-55/I-69 to the casinos. The same service would be available in the reverse direction (see Figure 7-1). Depending on demand (and potentially experience gained through vanpools) the service may begin with one or two trips at each of the three major shift times (arrive at 7:00 AM, 3:00 PM and 11:00 PM). It is anticipated that most riders would drive or be driven to a handful of park and ride lots, or pick-up and drop-off locations.

  Fixed-route commuter bus service would cost about $200,000 per year, not including capital costs. Costs assume six round trips per day for nine hours of service (45 minutes one-way travel time including stops). Assumptions are also based on service costs of roughly $60 per hour and that the bus operates daily year-round in line with casino operations. Costs do not include capital costs, program management or marketing.

**Figure 7-1 Tunica Commuter Service Strategy**




## STRATEGY 4: SHELBY COUNTY COMMUTER SERVICE

The data also shows that there is a strong commuter market from DeSoto County to Shelby County. Serving this market may involve creating a commuter service that departed DeSoto County at key times and traveled to either major employment sites or a key transfer location in Memphis (see Figure 7-2). The service would also be available for any DeSoto County residents commuting to DeSoto County, recognizing that only a handful of the potential riders would be able to walk to pick-up and drop-off locations and most would need to drive, rideshare or be dropped off at the main pick-up and drop-off locations.

Similar to the Tunica service, the service could be operated as a vanpool program or fixed-route commuter service. As compared with Tunica, however, Shelby County is considerably closer; travel from Southaven to the medical district in Memphis is about 13 miles one-way, or about 125 weekly miles; or about $25 per week in gasoline, or about $70 using the federal reimbursement rate. Thus the motivation to use vanpools or commuter services would not be as great. However, the market is larger and therefore, there are more opportunities to find interested travelers.

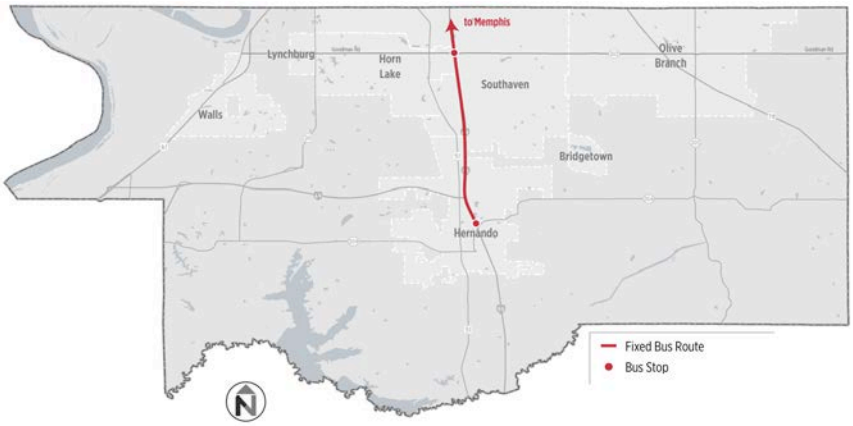
- **Vanpool service** - Vanpools have the advantage of needing to collect as few as six people and they do not need a trained driver to operate the service. Most vanpool programs have passengers pay the cost of driving the vehicle plus some maintenance costs. Assuming $25 per week in gasoline plus another $10 per week in maintenance, if there were six riders in the van, each rider would need to pay $6 per week, or roughly $.60 per trip. Most vanpool programs use federal and state grants to cover the capital cost of the vehicle.

  Cost for a vanpool program are estimated at roughly $60,000 to purchase and maintain a vehicle, assuming passengers pay the cost of fuel and vehicle maintenance. Some additional costs will be needed for program development and marketing. This program could also be developed by a mobility manager.

- **Fixed-route commuter service** - Another alternative would be to develop a fixed-route commuter service that is a key shift times at the medical center (for example), potentially 7:00 AM – 3:00 PM and 3:00 PM – 11:00 PM on weekdays and weekend days only. A bus would pick up passengers at a limited number of stops in DeSoto County and travel non-stop via I-69 to the major employers and offer the same service in the reverse direction. Depending on demand the service may begin with two trips at each of the three major shift times (arrive at 7:00 AM, 3:00 PM and 11:00 PM).

  Fixed-route commuter bus service would cost about $135,000 per year, not including capital costs. Costs assume six round trips per day for nine hours of service (45 minutes one-way travel time including stops). Assumptions are also based on service costs of roughly $60 per hour and that the bus operates on weekdays only. Costs do not include capital costs, program management or marketing.

**Figure 7-2 Shelby County Commuter Service Strategy**




## STRATEGY 5: GOODMAN ROAD FIXED-ROUTE

Travel demand along the Goodman Road corridor is sufficient for transit service, but the lack of density along the corridor and the lack of pedestrian facilities make it difficult to operate traditional fixed-route service. The list of tasks recommended for the mobility manager including functioning as a resource and advocate for more transit oriented design. In the shorter-term,

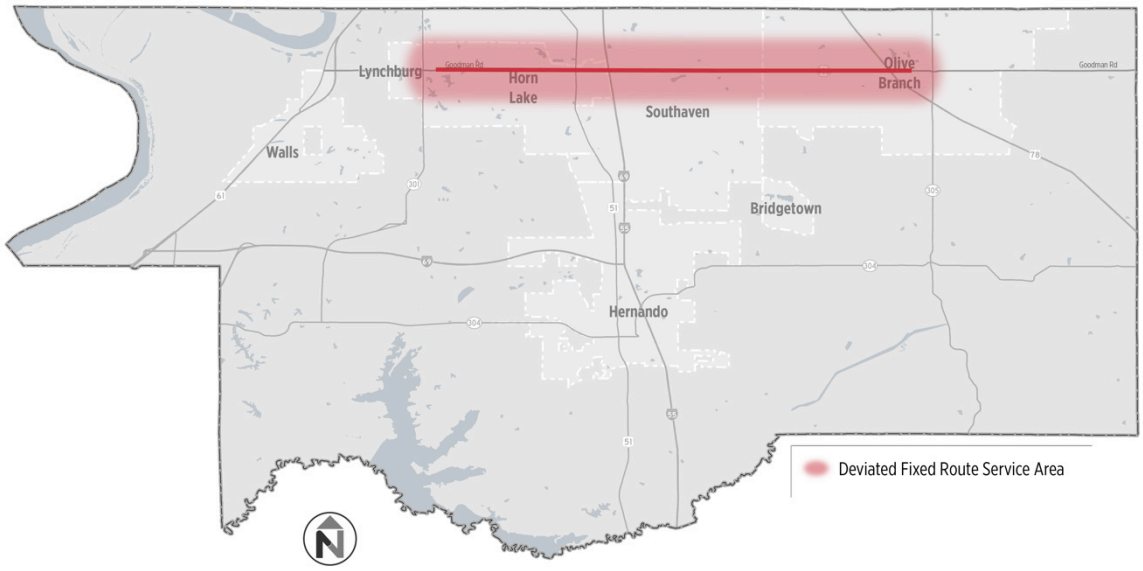
however, as the county transitions land use patterns, transit service could be operated along the corridor as deviated fixed-route service. Deviated fixed-route or flex services offer the reliability and capacity of fixed service as well as the flexibility to drop people off at their door, which is necessary for Goodman Road service.

As an initial service concept, the bus could operate back and forth along Goodman Road between Lynchburg and Olive Branch. It would have a schedule with fixed time points just like fixed-route, but the bus would be allowed to deviate up to ¼ mile from the Goodman Road upon request (see Figure 7-3). This would allow the bus to enter into residential developments as well as some of the key shopping facilities, such as the Southaven Mall. Some riders would also be able to board the bus at key stops, which would need to be located at either safe locations along Goodman Road or at major shopping destinations off the main roadway.

It is assumed that most people would travel in one direction only and would not cross the street to get to the bus. Consequently, the travel times would be long. However, it may meet an important need for transit dependent residents who want flexible transportation options to get to/from destinations along Goodman Road. The service could be available to the general public and would likely charge a fare of in the range of $1 - $2 per trip. Service could be offered from 8:00 AM to 5:00 PM on weekdays, so service would be easy to understand and use.

Operating costs for a deviated fixed-route service are estimated at $135,000 annually. These costs do not include capital costs or staff time required to plan, develop and market the service. Some federal grants may be available to support 30-50% of the operating costs. Costs also do not include ADA service because depending on how the service is implemented, ADA service may not be required.

**Figure 7-3 Goodman Road Fixed-Route Strategy**



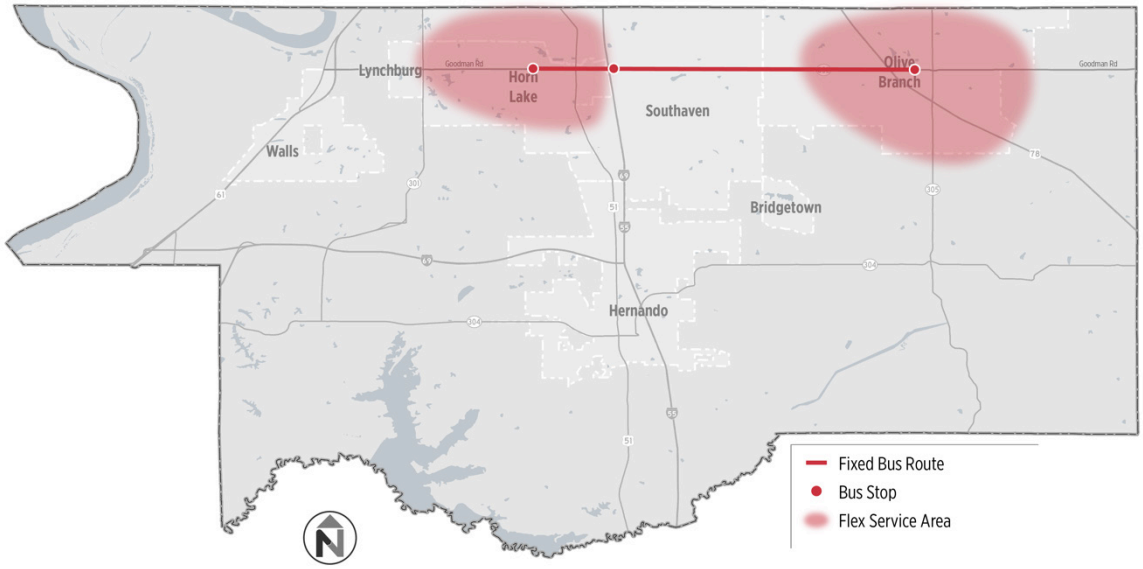
## STRATEGY 6: HORN LAKE–OLIVE BRANCH FLEX ROUTE

Recognizing the importance of the Goodman Road corridor, a second approach to designing transit service is to develop a flex corridor. The concept would be to have a handful of fixed-time points at key locations along the corridor, similar to a regular city bus, but at the route ends allow the route to travel door-to-door to pick-up and drop-off passengers.

The service would offer riders a combination of flexible and fixed service to people traveling between Horn Lake, Southaven, and Olive Branch (see Figure 7-4). This strategy targets transit dependent residents that need to travel along Goodman Road for a variety of trip purposes. It would be available to members of the general public and would charge a nominal fare such as $1 to $2 per trip. Service could be offered from 8:00 AM to 5:00 PM on weekdays.

Service costs for a deviated fixed-route service are estimated at $135,000 annually. These costs do not include capital costs or staff time required to plan, develop and market the service. Some federal grants may be available to support 30-50% of the operating costs. Costs also do not include ADA service because depending on how the service is implemented, ADA service may not be required.

**Figure 7-4 Horn Lake–Olive Branch Flex Bus Service**



# 8 PUBLIC TRANSPORTATION FUNDING PROGRAMS

## OVERVIEW

Funding is an essential part of DeSoto County's (including the incorporated municipalities) decision to develop transit services. It is also an essential aspect to determining if transit service is feasible. This next chapter provides an overview of different potential funding sources and discusses how they could be applied to potential services in DeSoto County.

Nearly all public transportation services and projects in the United States are at least partially funded through federal transportation programs administered through the U.S. Department of Transportation (USDOT) and more specifically, the Federal Transit Administration (FTA). Federal funds do not cover the total costs of transit services and all FTA programs also require local entities, such as counties or cities, provide a portion of the funding. Local funds are typically provided through some combination of state, county or municipal funds that are either raised through a dedicated funding source, such as a portion of the sales tax or property taxes, or are allocated from general fund resources. In some cases, private and/or non-profit organizations help support transit services. The State of Mississippi, however, does not provide local funding to support local public transit. There are no state operating funds available from the state, but Mississippi does provide a limited amount of funding for transit capital programs.

If DeSoto County and/or the incorporated cities decide to expand existing transportation services or develop new public transit services, there *may* be federal programs available to help fund service. However, federal funds will require matching resources. In most cases, local matching requirements are 20% for capital purchases and 50% for operating costs.

## NEW FEDERAL TRANSPORTATION LEGISLATION

FTA funding programs are currently transitioning after President Obama signed a new federal transportation bill, Moving Ahead for Progress in the 21st Century (MAP-21) into law on July 6, 2012 and took effect on October 1, 2012. MAP-21 reauthorizes surface transportation programs through fiscal year 2014 (September 30, 2014). It also changes the way certain urban and rural transit services are funded as compared with the prior federal transportation legislation, the Safe Affordable Flexible Efficient Transportation Equity Act – A Legacy for Users, or SAFETEA-LU.

The DeSoto Transit Feasibility Study began in the fall 2012, just as MAP-21 took effect. Because MAP-21 is brand new, not all of the regulations associated with program changes have been finalized. In addition, the State of Mississippi and the Memphis urbanized area have some funds remaining through the previous legislation (SAFETEA-LU) that could be used to support transit services, especially specialized transit services targeted towards older adults and/or persons with disabilities. Thus, DeSoto County is in an somewhat unique position with regards to seeking

funding – it can still take advantage of some of the funding available through the previous transportation bill and/or wait and apply for funds associated with the new legislation.

DeSoto County is also fairly unique because part of county contains both rural and urban areas. At the federal level, transit funding programs are generally divided into funds for urbanized areas (largely distributed through metropolitan planning organizations or directly to transit agencies) and rural programs (distributed through states). Depending on the type of transit service designed, therefore, DeSoto County may work with the Memphis Urban Area Metropolitan Planning Organization (Memphis MPO) or the State of Mississippi to receive funding.

Finally, DeSoto County may also need a combination of capital and operating funds to initiate service. Capital costs are expenses that are associated with the purchase of vehicles, equipment and facilities, and in some cases, staff. Federal funds may be available to support up to 80% of the costs of capital purchases. Operating costs are expenses associated with the daily operations of transit services, such as purchasing fuel and paying drivers. In rural areas, federal funds may be available for up to 50% of the cost of operating services. This contrasts with urban areas where there are significantly fewer resources available to support transit operations.

As discussed, it is also important to remember all federal funding programs require local matching resources. Local matching funds may be provided by state programs, or raised locally, or a combination of both. The State of Mississippi, as discussed, does not provide funds for transit operations. Fares are also not considered as local matching funds. However, most other types of funds can be used as local match, with the exception being federal Department of Transportation resources (i.e. you can't match DOT funds with other DOT funds). In some cases, in-kind resources, such as the value of providing office space or volunteer driver services (for example), may be used as local match.

Given the fact that DeSoto County encompasses an urban and rural area, the community may need capital and operating funds, and that the timing of this study spans introduction of new federal transportation legislation, there are several federal funding programs that represent potential resources. Not all programs are available to support all programs, however, and in some cases, funds available through SAFETEA-LU are only available for a limited time period. An overview of the individual funding programs is provided in the following text and highlighted in Table 8-1 (rural programs) and 8-2 (urban programs).

**Table 8-1 FTA Funds Available for Rural Transit**

| Program | SAFETEA-LU | MAP-21 | Capital | Operating | Potential Use in DeSoto County |
|---|---|---|---|---|---|
| Enhanced Mobility of Seniors and Individuals with Disabilities (Section 5310) | No | Yes | Yes | Yes | Can be used to purchase transportation services<br>Expand service available to older adults and persons with disabilities |
| Rural Area Formula Grants (Section 5311) | Yes | Yes | Yes | Yes | Operate transit services in rural parts of county only |
| Job Access Reverse Commute (Section 5316) | Yes – but limited (through MDOT) | No | Yes | Yes | Support employment related services |
| New Freedom Funding (Section 5317) | Yes – through FY 14 (through MDOT) | Through 5310 (administered by MDOT) | Yes | Yes | Hire Mobility Manager<br>Expand services for people with disabilities beyond what is required by ADA |

Source: Nelson\Nygaard Adapted from FTA documents (www.fta.dot.gov/documents/2012-10-10_MAP-21_FINAL.pdf)

**Table 8-2 FTA Funds Available for Urban Transit**

| Program | SAFETEA-LU | MAP-21 | Capital | Operating | Potential Use in DeSoto County |
|---|---|---|---|---|---|
| Urbanized Area Formula Grants (5307) | No | Yes | Limited | Limited | Limited |
| Elderly and Disabled Funds (Section 5310) | Yes – through FY14 | Yes | Yes | Yes | Can be used to purchase transportation<br>Expand service available to older adults and persons with disabilities |
| Job Access Reverse Commute (Section 5316) | Yes – through FY14 | No | Yes | Yes | Support employment related services |
| New Freedom Funding (Section 5317) | Yes – through FY 14 | Through 5310 | Yes | Yes | Hire Mobility Manager<br>Expand services for people with disabilities beyond what is required by ADA |

Source: Nelson\Nygaard Adapted from FTA documents (www.fta.dot.gov/documents/2012-10-10_MAP-21_FINAL.pdf)

## SAFETEA-LU FUNDING PROGRAMS

One of the stated goals of MAP-21 was to transition away from having lots of small specialized programs and transition towards larger programs that give agencies more flexibility. As a result, two funding programs available for transit services, Job Access and Reverse Commute (JARC) (Section 5316) and New Freedom (Section 5317) that were included in SAFETEA-LU are not included in MAP-21. However, while JARC and New Freedom are ending, many states and urbanized areas around the country, including the Memphis urbanized area and the State of Mississippi, have remaining funds in these programs. Depending on the type of service DeSoto County is interested in, these programs may be a potential funding source.

## Job Access and Reverse Commute (JARC) (Section 5316)

The goal of the JARC program is to improve access to transportation services to employment and employment related activities for eligible low-income individuals and to transport residents of urbanized areas and non-urbanized areas to suburban employment opportunities.

JARC funds are awarded through a competitive process that is guided by the Coordinated Public Transit-Human Services Transportation Plan. Funds can be used to support capital, planning or operating projects. Capital and planning projects require a 20% match and operating projects require a 50% local match.

Eligible recipients include private non-profit organizations, state or local governmental authorities, and operators of public transportation services, including private operators of public transportation services. Eligible services include late-night and weekend service, guaranteed ride home service, shuttle service, expanding fixed-route public transit routes, demand responsive van service, ridesharing and carpooling, transit-related aspects of bicycling, local car loan programs for shared rides, and promotion through marketing efforts, among other related projects.

All of the JARC funds assigned to the urbanized Memphis area are fully allocated. State of Mississippi funds, however, are available and could be used to support employment related public transit service in rural portions of DeSoto County.

The State has four ongoing JARC-funded projects that will use a portion of the remaining $1.5 million JARC funds. Some of this money will expire in April 2013, but the majority of it will not expire until April 2014. Currently there are no JARC projects that serve DeSoto County; however, the Aaron Henry Community Health Services Center which serves Coahoma County may apply for JARC funding this year in partnership with the North Delta Planning and Development District. Their service area includes part of DeSoto County.

## New Freedom (Section 5317)

The New Freedom grant program aims to provide additional tools to overcome existing barriers facing Americans with disabilities seeking integration into the work force and full participation in society. The New Freedom formula grant program seeks to reduce barriers to transportation services and expand the transportation mobility options available to people with disabilities beyond the requirements of the Americans with Disabilities Act (ADA) of 1990.

Eligible recipients for New Freedom funds include states and public bodies who can provide funding to sub recipients, such as non-profit organizations, state or local governments, and operators of public service transportation services. These funds can be used to finance capital and operating expenses. Federal funds may not exceed 80% for capital and planning costs and 50% for operating activities (10% may be used for planning, administration, and technical assistance).

There is approximately $400,000 remaining of the SAFETEA-LU New Freedom grants in the urbanized Memphis area and another $500,000 available through the State of Mississippi. As with the JARC funding, some of this money will expire in April 2013 and September 2013, but the majority of it will not expire until April 2014. As a result, New Freedom funds are available for new projects that may be identified as part of the DeSoto County Transit Feasibility Study.

Similar to the JARC funds, there are no New Freedom programs in DeSoto County; however, the Aaron Henry Community Health Services Center which serves Coahoma County may also apply for New Freedom funding this year in partnership with the North Delta Planning and Development District. Their service area includes part of DeSoto County.

# MAP-21 FUNDING PROGRAMS

Most new transit projects will look to MAP-21 for funding, including those that may get initial funding from remaining SAFETEA-LU programs. Program changes under MAP-21 create both opportunities and challenges for communities such as DeSoto County considering developing transit services. The following text provides an overview of available funding programs.

## Enhanced Mobility of Seniors and Individuals with Disabilities (Section 5310)

Under SAFETEA-LU Section 5310 funds were primarily available for capital assistance (vehicle purchase) to support community organizations in meeting the transportation needs of the elderly and persons with disabilities. However, under MAP-21, the program was changed so it can be used to support both capital and operating programs. MAP-21 also combined the former 5317 funds with the 5310 program, so its funds may also be used to support persons with disabilities. Funded programs should be included in locally developed coordinated public transit – human service plans, but they do not need to be allocated based on a competitive basis.

Section 5310 funds are apportioned based on each State's share of population of seniors and people with disabilities and are distributed to States (for all areas under 200,000) and large urbanized areas (over 200,000). In the case of DeSoto County, this means some money is transferred to both the State of Mississippi (funds for rural programs) and the Memphis urbanized area.

MAP-21 regulations state that at least 55% of 5310 program funds must be used on capital projects that are public transportation projects planned, designed, and carried out to meet the special needs of seniors and individuals with disabilities. Early guidance on MAP-21 states that Section 5310 may be used to purchase transportation services and this purchase is considered a capital expense, and therefore, requires a 20% match.

The remaining 45% of Section 5310 may be used for public transportation projects that (1) exceed the requirements of the ADA, (2) improve access to fixed-route service and decrease reliance on paratransit, and/or (3) alternatives to public transportation that assist seniors and individuals with disabilities.

MDOT does not have any remaining unallocated funds in its current Section 5310 program. As MAP-21 funds are distributed, however, these resources will be available, although Mississippi has not yet issued guidance about how the funds will be distributed. And, as discussed, projects specifically aimed at persons with disabilities may draw down existing 5317 funds before looking to the MAP-21 Section 5310 funds.

## Rural Area Formula Grants (Section 5311)

Section 5311 funds provide capital, planning, and operating assistance to support public transportation in rural areas, defined as areas with fewer than 50,000 residents. In DeSoto County, this means Section 5311 funds could be used for the majority of DeSoto County's land area, but not the incorporated cities in the northern tier of the county.

The Rural Transit Assistance program provides a source of funding to assist in the design and implementation of training and technical assistance projects and other support services for transit operators in rural areas. The former Job Access and Reverse Commute (JARC) program, which focused on providing services to low-income individuals to access jobs, are also eligible under the

Rural Area Formula Grants program. There is no minimum or maximum that can be spent on JARC activities.

Currently there are no 5311 recipients that serve DeSoto County. In order to receive funding, a service provider would need to submit an application, which would be considered in a competitive evaluation process. MDOT Public Transit division is currently accepting 5311 applications.

DeSoto County could potentially use 5311 funds to provide service. Any operating funds would require a 50% match and would need to be used in the rural parts of DeSoto County only. Consistent with other programs, the Aaron Henry Community Health Center is eligible to apply for this funding and they serve a portion of DeSoto County.

## Urbanized Area Formula Grants (Section 5307)

The Urbanized Area Formula Grant program provides grants to support public transportation to urbanized areas with a population of 50,000 or more. Funds are distributed based on a formula that reflects the level of transit service provision, population, and other factors and funds are primarily used to support capital programs, rather than operating costs. The Memphis Area Transit Authority (MATA) is the recipient of 5307 funds for the urbanized Memphis area.

5307 funds were available under SAFETEA-LU and the program continues under MAP-21 with some changes. One of the changes that potentially affect the Memphis area is a new provision which allows systems that operate 100 or fewer buses during peak periods to use 5307 funds for operating costs. MAP-21 also folded the former Job Access and Reverse Commute (JARC) program into Section 5307 grants. Thus urbanized area formula grant funds can be used to support job related activities, but no specific amount is required.

Another important change associated with MAP-21 is the provision that allows 5307 grantees to use their urbanized area formula grants for operating funds. This provision is only available in areas with populations greater than 200,000 and which operate a maximum of 100 buses in fixed-route service during peak hours (not including rail fixed-guideway service).

Section 5307 funds require a 20% match for capital purchases and, if eligible, a 50% match for operating costs. DeSoto County is eligible to apply for this funding and the money could be used to support urban transit service in DeSoto County.

## Bus and Bus Facilities (Section 5339)

This program replaces the former Section 5309 Bus and Bus Facilities Program providing capital funding to replace, rehabilitate and purchase buses and related equipment and to construct bus-related facilities. Eligible recipients included designated parties and states that operate or allocate funding to fixed-route bus operators. Eligible sub recipients are public agencies or private nonprofit organizations engaged in public transportation, including those providing services open to a segment of the general public.

Eligible capital projects include the acquisition of buses for fleet and service expansion, bus maintenance and administrative facilities, transfer facilities, bus malls, transportation centers, intermodal terminals, park-and-ride stations, acquisition of replacement vehicles, bus rebuilds, passenger amenities such as passenger shelters and bus stop signs, accessory and miscellaneous equipment such as mobile radio units, supervisory vehicles, fare boxes, computers, and shop and garage equipment.

These funds can also be transferred by the state to supplement urban and rural formula grant programs. Program funding is 80% federally-funded and requires a 20% non-federal match.

DeSoto County is eligible to apply for this funding and the money could be used for capital purchases, such as buses, to support urban transit service in DeSoto County.

## Transportation Alternatives Program (TAP)

The Transportation Alternatives Program (TAP) was established under MAP-21 and replaces the Transportation Enhancement Program (TEP), Safe Routes to School Program (SRSP), as well as the Recreational Trails Program (RTP).

The program administers federal funds for community-based projects that expand travel choices and enhance transportation infrastructure. Eligible projects include pedestrian and bicycle facilities, streetscape improvements, rehabilitation and operation of historic transportation buildings, structures, or facilities, archaeological planning and research, scenic or historic highway programs (includes tourist and welcome centers), and other investments that enhance communities and access (see www.enhancements.org).

The program contributes federal funds for up to 80% of the total eligible project costs and requires a 20% local match. Eligible applicants include city and county governments, state agencies, colleges/universities, and Rails-to-Trails districts.

Applications are reviewed by the MDOT Local Public Agencies Division. Funding is separated into two groups: MPOs and non-MPOs. Currently applications for the spring award cycle are being accepted for non-MPOs. Letters were sent out to communities, colleges and universities at the end of December 2012 for an application deadline of February 15, 2013. The fall award cycle begins in August 2013.

The training session is required for all cities, counties, and state/local agencies who want to participate in federally funded locally preferred alternative (LPA) projects through MDOT. There were two LPA training sessions held in March.

- District Two (Batesville)-March 26, 2013 at Oxford Conference Center
- District One (Tupelo) -March 27, 2013 Hilton Garden Inn/Bancorp South Conference Center

TAP funding available for Mississippi in FY2013 = $4,555,152. In 2011, Southaven received $900,000 to build multi-use trails and DeSoto County was awarded $800,000 to build multi-use trails. Although not directly used for transit services, TAP funds can help create a more transit oriented environment and help lay the ground work for development of transit in the future.

# 9 RECOMMENDATIONS AND IMPLEMENTATION

## OVERVIEW

As a rapidly developing community of nearly 180,000 residents, DeSoto County is ready to start expanding alternative transportation infrastructure, including public transportation services. At the same time, however, the feasibility study also found that even as DeSoto County moves towards public transportation, this movement should be thoughtful so that services are appropriate to the community's current characteristics and are cost effective to operate. As a result, an incremental approach is recommended. The approach reflects the current land use patterns of the community, namely low density, auto-oriented development that make it difficult for traditional transit services to be successful. It also reflects community values that view DeSoto County as a small town with some wariness about perceived 'urban' services. Adopting an incremental approach, therefore, allows the County to build success and trust while developing new services.

Given this approach, the transit feasibility study recommends a multi-year, phased program that focuses first on strengthening existing services and slowly expanding and diversifying both political and community support for transit and public transportation service options. The approach is also designed so it can attract federal funds and is consistent with other transportation programs and services being developed in the State of Mississippi. The approach includes the following steps:

1. **Set up a Mobility Management Program** to more actively manage existing transportation programs, create marketing and educational materials and to look for funding to expand existing resources and services. The position will require developing and expanding relationships across County and municipal leadership and programs to build a coalition of leaders that will support and advocate for local funding sources. The mobility manager should work with all DeSoto County residents, including those living in the incorporated cities and unincorporated rural areas. A mobility manager should also be tasked to be a resource for transit oriented design and an advocate for developing and strengthening DeSoto County's pedestrian infrastructure and facilities.
2. **Create a Flexible Voucher Program** to quickly expand service and provide more flexible travel options for DeSoto County's most vulnerable residents. The program is flexible enough so that benefits will accrue to residents of both the incorporated municipalities and unincorporated county.
3. **Develop Commuter Service** to either the Tunica Casinos or Shelby County (or both) to start developing fixed-route services. As discussed, long distance commuter trips can be burdensome to people looking for jobs but unable to afford the commute costs or lacking reliable transportation.

4. **Operate Fixed-Route or Flex Bus Route bus service along Goodman Road.** As DeSoto County gains experience and success with specialized transportation service, it will be appropriate to develop more traditional bus service along the County's primary corridor. Service will need to be developed cautiously and with care given the challenging land uses and pedestrian environment.

# IMPLEMENTATION: TIMELINE AND FUNDING

The proposed approach is designed, as discussed, to be implemented over the next three to five years and to be funded largely – but not entirely – by federal funds. The proposed approach also assumes that DeSoto County will largely be responsible for implementation of the program, but that the incorporated cities (Hernando, Southaven, Olive Branch, Horn Lake and Walls) will also play a key role in the program, providing oversight, policy direction and funding. The requirements for all entities (DeSoto County and the incorporated cities) will likely expand over time, assuming the project is successful. An implementation plan is described in the following text and also summarized in Figure 8-1.

## Year 1 – Apply for Grant Funds and Develop Mobility Management Program

The goal for the first year (FY14) is to secure grant funds to develop mobility management program and, depending on timing, hire a mobility manager. Key steps for DeSoto County include:

- Contact MDOT about programs funded under SAFETEA-LU and/or MAP-21, including requirements and deadlines for applications, amount and type of local match needed and the duration of the grants (i.e. funding for two to three years). As discussed in Chapter 7, there may be SAFETEA-LU funds available in the short-term.
- Secure local matching funds. Federal grants may be available to support 80% of the costs of hiring and supporting a mobility manager. Given the annual costs are broadly estimated at $100,000, DeSoto County will likely need to raise at least $20,000. While some resources may be "in-kind" support, such as providing office space and resources and/or transferring some of the existing transportation program management responsibilities to the new position.
- Ideally, both DeSoto County and the incorporated cities will contribute financially to support mobility management program, even if the amounts are fairly nominal. Financial contributions demonstrate commitment and support for the program and also help ensure that all parties have a stake in the program; contributors should also participate in management and oversight of the program. In support of this, DeSoto County may develop a "fair share formula" for participation in the program that is transparent and tied to program benefits. The fair share formula may be proportional to population, employment and the amount of service being developed and provided.
- Develop a mobility manager program. As part of the grant application, DeSoto County will need to develop the mobility manager program by setting clear goals and expectations for accomplishments over the near and short term. Potential goals include:

| Immediate-Term (6-12 months) | Short-Term (12-36 months) |
|---|---|
| ▪ Actively manage existing transportation services funded by DeSoto County by (for example) understanding demand, costs, and opportunities to increase coordination among services.<br>▪ Developing a service directory that explains existing transportation resources to potential clients.<br>▪ Participating in local and regional efforts to diversify transportation options, strengthen the pedestrian infrastructure and transition land use patterns to a more transit oriented design.<br>▪ Identifying needs for new or expanded services and developing ways to address those needs. | ▪ Expand and diversify transportation services options by (for example) developing a volunteer driver program, a flexible voucher program and/or carpool/vanpool program.<br>▪ Pursue grant funds to support identify needs.<br>▪ Continue to advance development of more transit oriented development patterns, including pedestrian facilities and infrastructure.<br>▪ Start to develop more traditional fixed-route services, potentially commuter routes and/or local service in the Goodman Road corridor. |

## Year 2 – Hire Mobility Manager

Once grant funds are secure and a mobility manager program established, DeSoto County should hire a mobility manager. This individual may be hired as grant funded employee with a limited employment period tied to the availability of grant funds.

Ideas for a work program are broadly identified above, but are expected to include:

- Clarifying, documenting and managing existing transportation programs funded by DeSoto County.
- Building on the base of the existing program to create a more coordinated and efficient service network and expand on this base to offer more and more diverse options for individuals not well served by the existing programs.
- Start to develop new programs to meet unmet needs, such as transportation to/from employment.
- Develop and strengthen relationship with DeSoto County Commissioners and elected officials at the incorporated cities. This effort should focus on communicating efforts, accomplishments and value for money provided through the program. Engaging stakeholders will also help develop support for service expansion and raising additional funds if and when needed.

## Years 3 through 5 – Continue with Mobility Management Efforts and Expand Transportation Services

While the first two years are focused on developing and stabilizing the mobility management program, years three through five should focus on expanding services into a mature program that is highly valued by the community and respected by leadership.

As the program matures, it may expand organizationally into its own agency or department within DeSoto County government and/or expand services to provide more traditional public transportation services, such as fixed-route bus services. As discussed, these future efforts should reflect extensive collaboration with local and regional employers, job training sites and other community resources so that new services are targeted to destinations with highest demand and need.

**Table 9-1 Summary of Recommended Public Transportation Services Development in DeSoto County**

| Year | Action | Implementation Responsibilities | Costs | Funding Sources | Benefits/Program goals |
|---|---|---|---|---|---|
| 1 | Hire Mobility Manager | DeSoto County (plus incorporated cities) | ▪ $100,000<br>▪ Staff time to hire; salary and benefits for mobility manager; support mobility management activities | ▪ SAFETEA-LU Funding may be available for 80% of costs; MAP-21 5310 funds may also be available (also 80%) | ▪ Organize local transportation resources and services<br>▪ Develop new services targeted specifically to DeSoto County<br>▪ Increase ridership by 5% to 10% |
| 2 | Mobility Manager | DeSoto County | ▪ $100,000<br>▪ Mobility manager and related activities | ▪ MAP-21 5310 funds | ▪ Diversify transportation options, closer monitoring of existing program; start coordination to increase efficiencies<br>▪ Increase ridership by 5% to 10% |
| 3 | Mobility Manager<br>Commuter Services | Mobility Manager (plus 5 incorporated cities) | ▪ $100,000 – mobility management activities<br>▪ $150,000 – commuter services | ▪ MAP-21 will be expired; need to explore new transportation funding program<br>▪ Expect federal funds to cover about $150,000 of costs and need to raise $100,000 locally | ▪ Offer public transportation to general public but as a targeted service to meet a specific need – longer distance employment.<br>▪ Activities may include grant writing, fund raising and more detailed needs assessment so service reflects needs and expectations. |
| 4 | Mobility Manager<br>Commuter Services | Mobility Manager (DeSoto County plus 5 incorporated cities) | ▪ $100,000 – mobility management activities<br>▪ $150,000 – commuter services (operating)<br>▪ $100,000 – capital | ▪ MAP-21 will be expired; need to explore new transportation funding program<br>▪ Expect federal funds to cover about $150,000 of costs and need to raise $100,000 locally | ▪ Expand and strengthen public transportation services initiated in previous year. Activities may include increased marketing and employer outreach.<br>▪ Service may be expanded as capital equipment becomes available. |
| 5 | Mobility Manager<br>Commuter Services<br>Limited Flex or Fixed-Route Services | Mobility Manager (DeSoto County plus 5 incorporated cities) | ▪ $100,000 – mobility management activities<br>▪ $150,000 – commuter services<br>▪ $250,000 – local services (capital and operating) | ▪ MAP-21 will be expired; need to explore new transportation funding program<br>▪ Expect federal funds to cover about $150,000 of costs and need to raise $100,000 locally | ▪ Build on success of commuter services to initiate Goodman Road service.<br>▪ Activities may include grant writing, fund raising and more detailed needs assessment so service reflects needs and expectations. |

# Appendix A

## DeSoto County Survey

# Travel Survey

The communities of DeSoto County are exploring the potential for public transportation services in our area. Please tell us your thoughts and ideas about how you travel in and around DeSoto County. Thank you!

---

**1) Where do you currently live?** City/Town/Community/Unincorporated Area: _____

**2) Are you currently employed?** ☐ Yes, full time ☐ Yes, part time ☐ No: _____

**3) If you are employed, where do you work?** City/Town/Community/Unincorporated Area: _____

**4) Do you have access to a car?**

☐ Yes (Always) ☐ Sometimes ☐ No

**5) Have you ever used public transportation?**

☐ Yes ☐ No

**5a) If yes, which public transportation service have you used?** _____

**6) Do you regularly (at least once a week or so) leave DeSoto County for any of the following reasons? (check all that apply)**

☐ Medical Appt. ☐ Shopping/errands ☐ Entertainment/visiting friends/family
☐ Employment ☐ School/college ☐ Other

**7) Which statement best reflects your personal situation and experiences traveling in the region?**

☐ I **never** have problems getting around. ☐ I **sometimes** have problems traveling where I need to go.
☐ I **often** have problems getting around. ☐ I **always** have problems traveling where I need to go.

**8) We'd like to know generally where you need to go and for what reasons.** (Please place an X in all the appropriate boxes)

| | Employment | Shopping | Medical Appt. | Entertainment/ Visiting friends/family | School/ College |
|---|---|---|---|---|---|
| **Southaven** | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Hernando** | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Horn Lake** | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Olive Branch** | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Walls** | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Other, DeSoto County** | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Shelby County** | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Tunica County** | ☐ | ☐ | ☐ | ☐ | ☐ |

**9) If public transportation were available in DeSoto County, where are some of the places you would like transportation to go?**

1 _____

2 _____

3 _____

**10) Do you think public transportation service in the area is a good idea? Why or why not?**

_____

_____

_____

*Thank you for completing this survey!*

# APPENDIX B

## Comments Received on Draft Final Report and Response to Comments

# Appendix B: Comments and Responses

| Comment Received | Response to Comments |
|---|---|
| On the Cover, I don't think the Desoto County Greenways logo should be used. It has been updated to be the DeSoto County Greenways and Parks Commission, and at any rate I believe the actual County logo would be more appropriate. I've attached a logo jpg – please let me know if you need another format or different resolution. Also, if Hernando, Southaven, and Olive Branch will be specifically referred to in images, I think Horn Lake, and possibly Walls, should be as well. Along those same lines, I think either the County and all the municipalities should be referenced, or none of them should be specifically called out. I realize that cover formatting is not a major concern with a draft, but I also think these things should be looked at in completing the final draft. | Report cover has been changed. |
| The study states, particularly on pg. 3-1 but in other places as well, that there are 7 municipalities in DeSoto. In fact there are only five. Lynchburg and Bridgetown are not incorporated. | Noted – report has been changed. |
| On page 4-4, under "Characteristics of Survey Respondents," the study states, "The sample included respondents who live outside of Shelby County, including Memphis, TN and Tate County, MS." Should this read, "…outside of DeSoto County, including Memphis...?" | Change was made. |
| Also on page 4-4, it states, "…respondents were employed full time (69%) or part time (10%) and not employed (24%)." This statement was a bit confusing to me. Aren't all people employed, employed full time, or employed part time? | The numbers included in the analysis were incorrect; only 21% of respondents described themselves as "not employed". Nelson\Nygaard updated the text so that the total equaled 100%. The text and graphic have been updated. |
| Existing infrastructure and land use patterns significantly impact the feasibility of public transit in Desoto. While this issue is touched on in the initial analysis, it should also be highlighted in the recommendations. Specifically, the provision of more pedestrian-oriented development and roadways capable of accommodating transit vehicles should be mentioned. | Challenges associated with the existing land use are discussed throughout the report.<br>Recommendations have been strengthened and in particular the role of the mobility manager in advancing land use patterns is called out. |
| Any transit service in the County will need to serve a multi-jurisdictional area. The recommendation should describe (sic) principally serving the multiple municipalities, and as population growth in the unincorporated county warrants, extending future service to the unincorporated area of DeSoto County. | The type of transit service recommended reflects a combination of factors, including population and employment density. Thus, not all service is effective in all areas. Instead, a range of services and strategies are included, some of which will be more effective and appropriate for residents of the unincorporated areas and others in incorporated areas. |
| In terms of intra-county transit service, the need for intergovernmental cooperation and coordination should be further explored in the study, along with recommendations for facilitating such activities. | The need for intra-county transit service is explicitly discussed in the study and one of the first recommendations, a mobility management strategy, speaks directly to the need for intergovernmental cooperation and coordination. Some language was added to strengthen this point. |
| The ability of each service recommendation to attract and retain ridership should be explicitly discussed. While analyzing this topic requires some subjective assumptions, it is essential to the decision-making process. As noted, strategies that serve the most immediate needs first are the highest priority. However, through intra-governmental cooperation, the County along with the Cities should also pursue those strategies that will have the overall, long-term impact of improving the image and acceptability of transit. | Nelson\Nygaard added broad estimates of ridership to satisfy this comment. However, recommendations are not focused on traditional or high ridership transit services and instead offers strategies to 1) strengthen services to the highest need groups (older adults, people with disabilities and veterans); 2) improve the efficiency and effectiveness of existing programs; 3) expand awareness of transit alternatives; 4) expand staff capacity on transit and 5) begin developing a market for transit. |