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Project Summary

Walker County, Alabama has gained attention the past few years regarding its severe opioid epidemic. In 2017, Walker County had a drug-induced death rate of 47.5 per 100,000 residents, the highest in Alabama and the fifth highest in the nation.\(^1\) Poverty and unemployment are correlated with drug deaths, and Walker County has high percentages of both.

Walker County has also had the highest opioid prescription rate in Alabama. From 2006-2012, 66.4 million prescription pain pills were distributed in Walker County, enough for 140 pills per person per year.\(^2\) For a frame of reference, the average statewide distribution (including Walker County) was approximately 51 pills per person per year.

In response to this crisis, Walker County has received over $1 million in grant funding since October 2018 (see Appendix A), most of which has been for prevention, treatment, and recovery of substance use disorder (SUD). The Appalachian Regional Commission (ARC) recognizes that transportation is a key component in recovery and granted funding to the Regional Planning Commission of Greater Birmingham (RPCGB) for the development of a transportation plan in Walker County to address access to recovery and aftercare services, including employment.

The project involved three phases and had three goals.

Project Phases:
(1) Planning - data collection, interviews, and surveys
(2) Research and identification of options
(3) Development of a feasible transportation plan

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Project Goals:

(1) Develop a viable transportation solution to serve people in Walker County, including those affected by the opioid epidemic
(2) Identify funding for Walker County’s transportation system
(3) Improve the economic vitality of Walker County
Demographics

PEOPLE
Walker County comprises 805 square miles and has an estimated population of 64,493, resulting in an average of 80 people per square mile. The population is widely dispersed, with 74% living in rural areas, creating challenges for travel and access to services (including health care) and employment. Approximately 5.7% of households in Walker County have no vehicle available. This is less than, but comparable to, the state average of 6.2%.3

As previously stated, poverty and unemployment rates have a direct correlation to drug-related deaths, and Walker County has high percentages in both categories. Alabama ranks as the 6th poorest state in the U.S. Educational attainment is also relevant, as low education rates often contribute to unemployment and poverty. Table 1 illustrates the comparison between Walker County and U.S. averages in these categories.

<table>
<thead>
<tr>
<th>Table 1: Poverty, Income, Unemployment, and Education4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walker</td>
</tr>
<tr>
<td>Families below poverty</td>
</tr>
<tr>
<td>Per Capita Income</td>
</tr>
<tr>
<td>Unemployment</td>
</tr>
<tr>
<td>Less than high school education</td>
</tr>
</tbody>
</table>

3 2018 ACS 5-Year Estimates
4 2017 ACS 5-Year Estimates
HEALTH

Data was used from the University of Wisconsin’s Population Health Institute\textsuperscript{5} to review the health of Walker County. The Institute’s annual rankings show how health is influenced by where people live, learn, work, and play. Walker County’s overall health is ranked 62 out of the 67 counties in Alabama. Most notably, indicators reveal a below average life expectancy of 70 years. Table 2 presents other significant health indicators for Walker County as compared to the U.S.

\begin{table}[h]
\centering
\caption{Health Indicators in Walker County 2018 (except as noted)}
\begin{tabular}{lcc}
\hline
 & Walker & U.S. \\
\hline
Life expectancy – in years (2020) & 70 & 81 \\
Prevalence of diabetes & 16\% & 10\%\textsuperscript{6} \\
Adult Smoking & 20\% & 14\%\textsuperscript{7} \\
Uninsured & 13\% & 8.5\%\textsuperscript{8} \\
\hline
\end{tabular}
\end{table}

These numbers are not intended to paint a bleak picture but are meant to emphasize the need for access to health care in Walker County.

EMPLOYMENT

From 2017 to 2018, employment in Walker county grew at a rate of 1.76\%, from 24,280 employees to 24,707 employees\textsuperscript{9}. Labor force participation has remained steady since 2010, at a rate of about 52\%.\textsuperscript{10}

In 2019, the unemployment rate in Walker County was 3.3\%. This is a significant rebound since 2014, when the rate was 7.9\%.\textsuperscript{11} After the decline of the mining industry, Walker County has been successful at persuading new business to locate there.

\textsuperscript{5} www.countyhealthrankings.org, 2018.
\textsuperscript{6} Centers for Disease Control, 2018
\textsuperscript{7} Ibid
\textsuperscript{8} https://www.census.gov/library/publications/2019/demo/p60-267.html
\textsuperscript{9} 2018 ACS 5-Year estimates
\textsuperscript{10} ACS 5-year estimates
\textsuperscript{11} Alabama Department of Labor
The most common jobs held by residents of Walker County, by number of employees, are Office and Administrative Support (2,694), Sales and Related (2,583), Production (2,363) and Construction and Extraction (2,312, as illustrated in Figure 1).

![Figure 1: Most Common Jobs for Residents of Walker County](image)

The most common employment sectors for those who live in Walker County are: Sales and Office (5,277), Production, Transportation, and Material Moving (4,931), and Service (4,321). Figure 2 shows employment by sector for residents of Walker County. Some of these residents may live in Walker County, but work in another county.
Tables 3 and 4 identify the major employers in Walker County and major industrial and manufacturing employers. Figure 3 illustrates the concentration of jobs in Walker County.
### Table 3: Major Employers in Walker County

<table>
<thead>
<tr>
<th>Company</th>
<th>Product or Service</th>
<th># of Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walker County Board of Education</td>
<td>Education</td>
<td>1000</td>
</tr>
<tr>
<td>Mar-Jac Poultry</td>
<td>Poultry</td>
<td>750</td>
</tr>
<tr>
<td>Walker Baptist Medical Center</td>
<td>Hospital</td>
<td>630</td>
</tr>
<tr>
<td>Walmart - Jasper</td>
<td>Retail</td>
<td>475</td>
</tr>
<tr>
<td>Jasper Board of Education</td>
<td>Education</td>
<td>349</td>
</tr>
<tr>
<td>Alabama Power</td>
<td>Utility</td>
<td>285</td>
</tr>
<tr>
<td>Walmart - Sumiton</td>
<td>Retail</td>
<td>250</td>
</tr>
<tr>
<td>Walker County</td>
<td>Government</td>
<td>192</td>
</tr>
<tr>
<td>Yorozu</td>
<td>Automotive</td>
<td>170</td>
</tr>
<tr>
<td>City of Jasper</td>
<td>Government</td>
<td>169</td>
</tr>
<tr>
<td>Bevill State Community College</td>
<td>Education</td>
<td>160</td>
</tr>
<tr>
<td>Jasper Lumber</td>
<td>Wood Products</td>
<td>150</td>
</tr>
<tr>
<td>HTNA</td>
<td>Automotive</td>
<td>130</td>
</tr>
<tr>
<td>Nitto Denko</td>
<td>Automotive</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Walker County Development Authority

### Table 4: Major Industrial/Manufacturers in Walker County

<table>
<thead>
<tr>
<th>Company</th>
<th>Product or Service</th>
<th># of Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar-Jac Poultry</td>
<td>Poultry</td>
<td>750</td>
</tr>
<tr>
<td>Alabama Power</td>
<td>Utility</td>
<td>285</td>
</tr>
<tr>
<td>Drummond Company</td>
<td>Coal Mining</td>
<td>250</td>
</tr>
<tr>
<td>North American Coal</td>
<td>Coal Mining</td>
<td>178</td>
</tr>
<tr>
<td>Jasper Lumber</td>
<td>Lumber</td>
<td>175</td>
</tr>
<tr>
<td>Yorozu</td>
<td>Automotive</td>
<td>170</td>
</tr>
<tr>
<td>HTNA</td>
<td>Automotive</td>
<td>130</td>
</tr>
<tr>
<td>Fontaine</td>
<td>Trailer Mfg</td>
<td>120</td>
</tr>
<tr>
<td>Marigold Works</td>
<td>Machine</td>
<td>100</td>
</tr>
<tr>
<td>Nitto Denko</td>
<td>Automotive</td>
<td>100</td>
</tr>
<tr>
<td>Alabama Moulding</td>
<td>Cabinets</td>
<td>93</td>
</tr>
<tr>
<td>Wilson Machine</td>
<td>Machine</td>
<td>75</td>
</tr>
</tbody>
</table>

Source: Walker County Development Authority
Figure 3: Concentration of Jobs

WALKER COUNTY, ALABAMA
COMMUTE
The average one-way commute time for employed residents of Walker County is 28.7 minutes – 42% commute less than 20 minutes, 34.1% commute between 20-44 minutes, 11% commute for 45-60 minutes, and 12.9% spend more than an hour commuting to work. (2018: ACS 5-year estimates).

As Table 5 shows, 31% of Walker County residents who are employed work in neighboring counties. Table 6 indicates that 22% of Walker County jobs are filled by people living outside the county. Figure 4 gives a visual description of the tables below.

### Table 5: Employed Residents Commuting from Walker County

<table>
<thead>
<tr>
<th>WORKPLACE COUNTIES</th>
<th>TOTAL</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walker County</td>
<td>16,221</td>
<td>69.0%</td>
</tr>
<tr>
<td>Jefferson County</td>
<td>5,027</td>
<td>21.4%</td>
</tr>
<tr>
<td>Tuscaloosa County</td>
<td>518</td>
<td>2.2%</td>
</tr>
<tr>
<td>Winston County</td>
<td>382</td>
<td>1.6%</td>
</tr>
<tr>
<td>Shelby County</td>
<td>198</td>
<td>0.8%</td>
</tr>
<tr>
<td>Cullman County</td>
<td>188</td>
<td>0.8%</td>
</tr>
<tr>
<td>Marion County</td>
<td>184</td>
<td>0.8%</td>
</tr>
<tr>
<td>Blount County</td>
<td>97</td>
<td>0.4%</td>
</tr>
<tr>
<td>Fayette County</td>
<td>75</td>
<td>0.3%</td>
</tr>
<tr>
<td>Morgan County</td>
<td>64</td>
<td>0.3%</td>
</tr>
<tr>
<td>All Other</td>
<td>554</td>
<td>2.4%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>23,508</td>
<td>100%</td>
</tr>
</tbody>
</table>

*Source: 2011-2015 5-year estimates*

### Table 6: Commuting to Walker County (# of Jobs)

<table>
<thead>
<tr>
<th>ORIGIN COUNTIES</th>
<th>TOTAL</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walker County</td>
<td>16,221</td>
<td>78.1%</td>
</tr>
<tr>
<td>Jefferson County</td>
<td>1,348</td>
<td>6.5%</td>
</tr>
<tr>
<td>Winston County</td>
<td>1,016</td>
<td>4.9%</td>
</tr>
<tr>
<td>Cullman County</td>
<td>467</td>
<td>2.2%</td>
</tr>
<tr>
<td>Marion County</td>
<td>438</td>
<td>2.1%</td>
</tr>
<tr>
<td>Fayette County</td>
<td>340</td>
<td>1.6%</td>
</tr>
<tr>
<td>Franklin County</td>
<td>247</td>
<td>1.2%</td>
</tr>
<tr>
<td>Blount County</td>
<td>199</td>
<td>1.0%</td>
</tr>
<tr>
<td>Shelby County</td>
<td>190</td>
<td>0.9%</td>
</tr>
<tr>
<td>St. Clair County</td>
<td>52</td>
<td>0.3%</td>
</tr>
<tr>
<td>All Other</td>
<td>240</td>
<td>1.2%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>20,758</td>
<td>100%</td>
</tr>
</tbody>
</table>
Figure 4: Commuting Patterns

- 4,537 are employed in Walker County, but live outside the county.
- 16,221 live and work in Walker County.
- 7,287 live in Walker County, but work outside Walker County.

[Map showing commuting patterns with numbers 4,537, 16,221, and 7,287]
Interviews and Surveys

Interviews were conducted with local elected officials, community leaders, economic development specialists, and behavioral health priority group members. It should be noted that over the past two years, numerous grants have been given to tackle various aspects of SUD treatment and recovery in Walker County, and input has been gathered from individuals in a wide range of disciplines. Therefore, getting people to agree to another interview was difficult, as their feedback had already been provided. Consequently, information was also gleaned from other project documentation/reports.

HRSA GRANT
Capstone Rural Health received a grant from the Federal Office of Rural Health Policy division of the Health Resources and Service Administration to better understand the issues and challenges pertaining to an opioid and heroin problem in northwest Walker County, Alabama. The study was accomplished in three phases:

Phase 1 – General Public Survey
Phase 2 – Surveys of Providers, Employer, and Local Leaders
Phase 3 – Survey of Persons with Lived Experience (those living with addiction and those supporting someone in addiction)

In Phase 1 of the study, a telephone survey was conducted with 310 randomly selected adults living in Walker County. Among the respondents who indicated there were reasons that would prevent someone from getting help to deal with a problem of SUD, only 15.8% indicated a lack of transportation.

Part of Phase 2 was a survey of Walker County businesses, including industries such as banking, food service, grocery, retail, healthcare, hospitality, and manufacturing. Most of the questions were geared toward an employer’s ability to hire a person in recovery or to assist a person in recovery. Transportation was never mentioned as a barrier to employment or an aid to assist a recovering employee.

Likewise, transportation was never mentioned in interviews with local leaders. They indicated the need for more resources such as education, health care, law enforcement, and social services, and included the importance for representatives of those resources to be
involved in planning efforts to deal with SUD. Local leaders admitted that the economy in Walker County is not healthy and that SUD has a negative effect on the economy and workforce, but transportation was never mentioned as part of that equation.

Transportation was, however, mentioned in the survey of direct and indirect service providers. Direct service providers see it as one of the biggest barriers to serving clients with SUD, and indirect service providers mentioned transportation as one of the services they offer to help clients with short and long-term recovery.

Individuals with lived experience also mentioned transportation as a barrier to treatment and recovery. Because inpatient treatment is only available outside of Walker County, transportation is even more critical.

The final document, The Rural Communities Opioid Response Program (RCORP) Needs Assessment Report for Walker County, Alabama (September 2019), summarizes outcomes from surveys, interviews, and meetings. Findings specifically related to transportation include:

- Transportation is a barrier for sustaining a healthy, productive lifestyle
- Access to a mental health provider network and reliable transportation are important . . . for prevention, intervention, treatment and recovery
- County and city leaders recognize the need for SUD assistance, but are struggling to balance their budgets
- Re-entering normal daily life post-treatment will include viable pathways to employment
- For people with lived experiences, transportation is a key barrier for connecting to resources

ARC GRANT
To gauge transportation needs for individuals recovering from SUD, RPCGB collected surveys from participants attending recovery group meetings. The survey consisted of four short questions, with responses shown below.
How did you get here?

- Drive self: 43%
- Walk or Bike: 11%
- Ride with someone: 46%
- Other: 0%

Are you legally allowed to drive a car?

- Yes: 75%
- No: 25%
If not employed, what is the reason?
(46% of respondents answered this question)

- Disabled: 62%
- Can't get a job: 23%
- Don't want to work: 0%
- No transportation: 0%
- Other: 15%

If you are employed, how do you get to work?
(54% of respondents answered this question)

- Drive Self: 47%
- Ride with Someone: 40%
- Walk or Bike: 13%
- Other: 0%
Notably, none of the respondents cited a lack of transportation as a reason for not working. In addition, 75% of participants indicated they are legally able to drive a car, but 46% rode with someone to the meeting and 40% ride with someone to work. A possible explanation might be that they do not have a vehicle available to drive.
Transportation

Connecting people with recovery services, jobs, and health care improves poverty and unemployment, thereby improving the economy. However, the rural nature of Walker County innately results in transportation constraints, even when travel distance is minimal.

EXISTING CONDITIONS
Public transportation options currently available in Walker County are identified below.

The City of Jasper has a one-way, 2-hour circuitous deviated fixed route bus that makes 4.5 runs a day, operating Monday through Friday from 7:00 a.m. to 5:00 p.m. with a one-hour lunch break. With a 24-hour advance reservation, the bus will deviate up to ¾ mile from the fixed route to pick up passengers who are unable to get to the bus stop. On Wednesdays, a second bus runs throughout Walker County from 8:00 a.m. to 12:30 p.m.

Jason’s Van Service is the only viable taxicab company in Walker County. Service operates Monday through Friday from 7:00 a.m. to 3:00 p.m. and is available after hours and on weekends by appointment. Jason’s also has wheelchair-accessible vehicles.

Walker County Community Action Agency provides transportation to and from employment for full-time, regular shift workers.

Kid One transports children and expectant mothers in Walker County to necessary health care services, including services located in another county.

COST AND FUNDING
Public transportation in Walker County is costly, ineffective, and inefficient. The grueling 2-hour one-way route makes it impossible to use for employment, and difficult (if not impossible) to use for health care or grocery shopping. In fact, when riding the bus, researchers found that many people use it to socialize with other riders and to get relief from the heat or cold, often with no specific destination. The cost to ride is $.50 per trip or $10 a year for an unlimited pass. The very low price results in costing more to administer the fare than recovering any benefit from it.
The fully allocated cost for providing public transportation in Walker County is reported as $47/hour. In October, November, and December 2019, there were a total of 845 trips and 634.5 operating hours, resulting in a cost of $35.29 for each one-way trip. Individual taxi trips would cost less, take a fraction of the time, and would not be limited by service area.

Walker County receives funding for public transportation from the Federal Transit Administration’s (FTA’s) Rural Area Formula Program Grant (Section 5311) which pays 50% for operating costs and 80% for administration costs, with the remaining match paid by the City of Jasper, Walker Area Community Foundation, and Walker County. In FY 2018, the County received a total grant award of $79,661, but only spent $50,580 (63%). The total match paid to provide service that year was $68,000, but only $43,396 (64%) was needed. See Table 7 below for details.

Reporting for FY 2019 showed Walker County spent 77% of the federal award ($78,869) and 73% of the match ($69,200).

**TABLE 7: FY 2018 Funding and Expenditure for Walker County Public Transportation (per ALDOT)**

<table>
<thead>
<tr>
<th></th>
<th>Federal Funds FTA 5311</th>
<th>Match Funds</th>
<th>Total Available</th>
<th>Federal Spent</th>
<th>Match Spent</th>
<th>Total Spent</th>
<th>Leftover Federal</th>
<th>Leftover Match</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operations (50% match needed)</td>
<td>$61,962.00</td>
<td>$61,962.00</td>
<td>$123,924.00</td>
<td>$41,001.00</td>
<td>$41,001.00</td>
<td>$82,002.00</td>
<td>$20,961.00</td>
<td>$20,961.00</td>
</tr>
<tr>
<td>Administration (20% match needed)</td>
<td>$17,699.00</td>
<td>$6,038.00</td>
<td>$23,737.00</td>
<td>$9,579.00</td>
<td>$2,394.75</td>
<td>$11,973.75</td>
<td>$8,120.00</td>
<td>$3,643.25</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>$79,661.00</td>
<td>$68,000.00</td>
<td>$147,661.00</td>
<td>$50,580.00</td>
<td>$43,395.75</td>
<td>$93,975.75</td>
<td>$29,081.00</td>
<td>$24,604.25</td>
</tr>
</tbody>
</table>

**Match Received**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Jasper</td>
<td>$53,000.00</td>
</tr>
<tr>
<td>WACF</td>
<td>$10,000.00</td>
</tr>
<tr>
<td>Walker County</td>
<td>$5,000.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$68,000.00</strong></td>
</tr>
</tbody>
</table>

$53,685.25
(36% of total)
**BARRIERS**

*Service area and hours are inadequate*

There is only one bus route and it is only available in Jasper Monday through Friday, 7:00 a.m. to 5:00 p.m.

*Trip time is lengthy*

The bus route takes a total of 2 hours to complete.

*Walking and biking are dangerous*

Sidewalks and bike lanes, for the most part, nonexistent, making it necessary to walk and ride in streets or in other areas not designed for pedestrians or cyclists. For individuals living within a few miles of a town or grocery store, walking or biking seems like an obvious and convenient choice. However, when walking or biking on a narrow two-lane road where vehicles are traveling in excess of 55 miles per hour, safety becomes a concern. A driver may not see an individual until it is too late, especially if the driver is reaching the top of a hill.

*Mobility devices make travel more difficult*

No travel is simple for anyone using a mobility device. Outdoor conditions like uneven concrete, cracks, sand, rocks, and tree roots increase travelling difficulty and can cause falling or tripping. When a wheelchair or other mobility device is involved, these conditions may make it impossible to traverse.

*Price gouging*

It would be nice to think that everyone wants to help people in need. Unfortunately, there are people who see other people’s need as an opportunity for personal gain. Sometimes family and friends who are going into town for their own business will charge exorbitant fees to take others with them. They may even threaten not to take a person home unless they receive payment for gas and lunch.

*Regular use of taxicabs is not feasible*

Using a taxi on a regular basis (i.e., to work) is not feasible due to its high cost.
**No travel spontaneity**
For most Americans, a car is like an appendage; everyone deserves to have one to go where they want and when they want. For individuals without a vehicle, simple trips are difficult and there is no such thing as spontaneity. Every trip requires advance planning and is usually a result of necessity, rather than pleasure.

**BENEFITS**

*Transportation and economic development are interconnected*
Transportation, as a whole (passenger vehicles, freight, ports, rail, airports, transit, etc.), provides the basis for economic development. Efficient transportation systems provide opportunities and benefits that have a domino effect, i.e., employment, accessibility, and additional investments. On the other hand, deficient transportation systems have an economic cost, such as reduced opportunities and a lower quality of life.\(^{12}\)

*Health care*
Perhaps the main benefit of public transportation is that it is directly linked to improved health care. Since Alabama consistently ranks in the top five least healthy states, this is particularly important. These health care improvements are seen in a range of areas.

  *Increased physical activity*
The Center for Disease Control (CDC) recommends 22 minutes of physical activity per day to stay healthy.\(^{13}\) Most public transportation passengers meet or exceed the recommended amount while walking to and from stops/stations.

  *Access to medical services and healthy food*
Increased accessibility to medical services reduces the frequency of rescheduled or missed appointments, delayed care, and missed or delayed medication use, which result in greater need for medical attention and hospitalization. Preventive care is practically nonexistent when transportation is not readily available. Transportation can also be a factor in better nutrition, by providing accessibility to fresh fruit and vegetables.


\(^{13}\) [www.cdc.gov](http://www.cdc.gov)
Proper use of ambulance services
One of many reasons for the misuse of ambulance services for nonemergency needs is because people do not have access to transportation. Not only does this result in trickle-down costs, but also causes a false overstaffing of ambulances and delayed care for patients with urgent medical problems.

Better air quality
Exposure to traffic emissions has been linked to many adverse health effects including premature mortality, cardiac symptoms, exacerbation of asthma symptoms, diminished lung function, and increased hospitalization. Public transit use reduces pollution emissions, resulting in increased air quality and better health.

Improved mental health
Getting outside, walking, and relaxing on public transportation, instead of driving in traffic, improves overall mental health.

Less congestion; fewer crashes
Traffic casualty rates decline as public transportation travel increases. Using public transportation results in fewer cars on the road. Fewer cars on the road results in fewer crashes.

ALTERNATIVES
Public transportation is not “one size fits all.” Every type of transit has a niche and a travel need that it serves. When planners and politicians fail to recognize this, they build projects that neglect to meet the needs of the people. A lack of understanding about appropriate transit type may stem from the car culture prevalent in the United States, where most people have little experience with public transportation.

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14 Centers for Disease Control, Recommendations for Improving Health through Transportation Policy, 2009.
For example, a motorist can use the same car to drive to a destination three blocks away, across town, or 500 miles away. To go longer distances, most drivers will use a freeway for faster travel while avoiding traffic control devices that exist on at-grade roadways. When traveling 500 miles or more, many prefer to fly rather than drive. The mode of travel usually depends on the purpose and distance of travel.

Such decision making also applies when it comes to public transportation. In cities around the world, multiple forms of public transportation can be found. People living in those cities choose different modes based on trip distance and purpose. For instance, a rider would not expect a local bus to go fast, as it is designed to serve local destinations with stops located a short distance apart. But even with buses, there is a wide variety of engagement, depending on whether it is used for local service or commutes of 20 miles or more. In the case of the latter, vehicles with cushier seats, wi-fi and a single door are often used.

Public transit alternatives are limited only by the extent of one’s ideas. Ideas are usually generated by need and/or problem-solving. Therefore, depending on the situation and location, many options for public transportation could work. The easiest and most readily-available alternative to public transportation is ridesharing.

**Ridesharing**

When fixed route and/or demand response service is nonexistent or impractical, other solutions to driving alone may be viable. Ridesharing is the shared use of a vehicle by two or more persons for the purpose of traveling to work, school or other locations. Vehicles used for ridesharing include privately-owned automobiles or vans, or publicly-owned vans or buses (carpools, vanpools, or buspools). Trip origins and destinations of riders may vary. Passengers may share fuel, tolls, and parking expenses, and driving may be a rotated duty. Although riders most commonly are people from the same household or neighborhood, a ride matching service operated by employers, a regional commuter assistance program, or transportation agency can facilitate ridesharing arrangements.

An emergency guaranteed ride home program (GRH) is generally crucial to the success of ridesharing. Many people are reluctant to rideshare for fear of being stranded at work in case of an emergency. Anxiety over ridesharing is reduced by guaranteeing participants a ride home in the event of a personal emergency or unexpected work requirements, such as overtime. The guaranteed ride can be provided by taxi, short-term auto rental, company-owned car, shuttle service, or public transportation.
Ridesharing success is increased when:

- Travelers find others with similar schedules and points of origin and destination
- Trip distance is greater than 20 miles or trip time is 30 minutes or longer
- Parking is limited or unavailable
- Parking is expensive
- A guaranteed ride home program is offered
- Employers subsidize the cost of ridesharing
- Employers offer preferential parking and flexible work schedules for ride sharers

**Vanpools**

The levels of carrying capacity, flexibility, costs, and convenience are in between those of transit and carpools. A vanpool typically consists of 7 to 15 people traveling together in a passenger van. The commuter vanpool concept typically works best for commuters traveling a distance of at least 20 miles. Vanpools are particularly effective in situations that include outlying work destinations with little or no public transit service. Therefore, commuter vanpools can be an effective alternative for workers with similar trip patterns and schedules. Vanpools may also be effective for employment sites that need workers on shifts that fall outside of other transportation operating hours.

Vanpool programs can earn federal and state formula funding by reporting the mileage to the National Transit Database. This revenue can be greater than the investment in the vanpool program, making the program a revenue generator. For individuals traveling to or from Jefferson County, CommuteSmart coordinates vanpool vehicles and provides rider matching services. CommuteSmart works with employers that often provide financial incentives to employees participating in vanpool programs. See more about this program at [www.CommuteSmart.org](http://www.commutesmart.org).
Individuals who live and work in Walker County, as well as employers in Walker County, can contact Commute Enterprise directly to assist with ridesharing options. Visit [www.commutewithenterprise.com](http://www.commutewithenterprise.com/) for more information.

**Carpools**

Carpooling is defined as two or more persons sharing a ride in a private vehicle. Census data show that, next to driving alone, it is the most prevalent commute alternative in the United States. Carpooling was first encouraged in this country during World War II, due to petroleum and rubber conservation measures. It has been promoted since the 1970’s in response to energy crises and as an air quality transportation control measure.

The matching processes for carpoolers range from sophisticated computerized systems to informal arrangements. More effective matching systems usually include information on specific origins and destinations, schedules, and travel routes. A sufficiently large pool of potential commuters is important for securing good matches. Carpools targeting commuters at the work site seem to be more effective than those focusing on residential areas. Trip time and trip length are determining factors for carpool success. Commutes of 24-54 miles\(^{16}\) or those averaging a minimum of 30 minutes\(^ {17}\) attract the largest proportion of carpoolers.

A major advantage of carpooling is that it has the convenience of a private automobile. In addition, responsibilities for driving are shared among the carpoolers. However, there are some disadvantages when compared to driving alone. These include the necessity for set schedules, the constrained ability for individuals to run errands, and increased commute time (due to picking up additional passengers). In addition, some commuters feel that carpooling deprives them of their private time. For individuals living in Walker County and working in Jefferson County, CommuteSmart is available to coordinate carpools and rider matching services. See [www.CommuteSmart.org](http://www.CommuteSmart.org).

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**COMPLEMENTARY ELEMENTS**

There are also elements that should be used alongside a transportation system to increase its function and efficiency.

*Central call center/mobility manager*

The goal for human service transportation should be to have one coordinator that schedules all transportation services in a region. This makes it convenient for the consumer and reduces duplication of services, while promoting efficiencies for the provider and resulting in substantial cost savings. The National Center for Mobility Management offers assistance with creating mobility management operations, and a detailed toolkit is available at [https://nationalcenterformobilitymanagement.org/](https://nationalcenterformobilitymanagement.org/). For financial assistance in establishing a call center, the FTA offers no-match grant funding for this purpose.18

*Technology*

Transportation technology is a wonderful and helpful tool, creating ease and efficiency for consumers and providers. In the transportation industry, numerous technological tools are available.

- **Website**
  
  An easy-to-navigate website with up-to-date information is critical to a successful transportation system and convenience for the user. At the very least, the website should include a phone number, map or description of the service area, details of service days and times, cost, and where/how to pay.

- **Automatic Vehicle Locators**

  All service vehicles should be equipped with Automatic Vehicle Locators (AVL), to keep dispatchers up-to-date on the location of a vehicle and be able to accurately estimate the availability and time of arrival. Providers having more than 3-4 vehicles could benefit from scheduling software. Although the initial investment can be costly and it can take several months to become proficient in its use, the time savings, efficient scheduling, and automatic reporting will pay for itself very quickly.

18 For more information, contact Wiley Brooks at brookswi@dot.state.al.us or 334-353-6417 at the Alabama Department of Transportation.
• **Mobile Data Terminals**
  Another helpful tool for demand response is mobile data terminals (MDTs) installed in every vehicle. There are many applications for MDTs such as managing paratransit trip manifests, collecting passenger and fare data, communicating with dispatch, and trip routing. They can also serve as a GPS-based navigation assistant for vehicle operators. Because demand response is in a constant state of flux—cancellations, last-minute trips, delays (especially on return trips), roadwork and detours—this device keeps the driver up-to-date and keeps the dispatcher from making frequent calls to every driver.

• **Mobile Apps**
  Mobile apps used for public transportation have two components. A static component contains information necessary for scheduling, paying, and taking a trip, and a real-time component contains arrival predictions and service advisories.

*Mobile clinics, food markets, etc.*
Bringing services to unserved or underserved areas is becoming more common and reduces the need to transport individuals to the service. Most common are mobile health clinics, libraries, food markets, dentists, and veterinarians. A variation to offering services by way of a temporary vehicular approach is to set up a permanent station. For example, for telehealth, a video Internet station can be set up in a local church, library, or community center, providing access to medical care for individuals who do not have Internet.
Plan for Walker County

The focus of this project has been connecting those having SUD with treatment and recovery. To receive federal funding, the transportation system must be equally available to all persons, without regard to trip purpose or destination.

Many people do not consider using public transportation in Walker County, because of the limited service area and lengthy run time. Local officials in Walker County are skeptical about changing the current system because they are unsure of the success or failure of its replacement which could lead to public backlash. The truth is that change always incites a response, both positive and negative. The current system is ineffective, inefficient, impractical, costly, and in desperate need of an overhaul. The costs alone should drive a desire for change.

This study has revealed many concerns, all of which cannot be alleviated. Transportation is the backbone of health — physical, mental, social, and economic. Most often, people point to money as the answer, but just like in a family or a business, successful management means doing more with less and finding ways to make the most of one’s resources. While there may be several viable options to improve transportation in Walker County, only recommended options are identified herein.

As stated earlier, Walker County is very rural and spread out. A person may live in Carbon Hill, work in Sipsey, go to the doctor in Parrish, and get groceries in Jasper. Some of these trips might need to be taken on weekends or outside of normal working hours. Having one provider deliver one type of transportation does not and will not work.

**SERVICE TYPE**

Because of the rural nature of Walker County and the widespread coverage area, a demand-response, shared ride service is the best fit. Demand-response is a transit mode comprised of cars, vans, and/or small buses operating in response to calls from passengers. In this system, a vehicle is dispatched to pick up passengers and transport them to their destinations. A vehicle may pick up or drop off other passengers along the way (shared ride) before taking them to their respective destinations.
LEAD AGENCY
Utilizing multiple options requires one designated organization to oversee the program in Walker County. In general, the lead agency will work with multiple transportation providers, take calls and answer questions in a timely manner, assess ridership need, determine the most appropriate provider for the trip, keep detailed records, provide detailed reporting, and ensure financial transparency.

To assume the responsibility as the lead agency requires the implementation of multiple regulations that are generated from receiving state and federal grant funds. The RPCGB and the Alabama Department of Transportation (ALDOT) Transit Section will help the lead agency with training and hands-on technical assistance.

FUNDING
Funding is available from continuing sources that support rural transportation (ALDOT/FTA), and through grant opportunities acquired by competitive application and selection.

Walker County receives annual funding for public transportation through FTA Section 5311, Rural Area Funding Program. These funds can be used for “capital, planning, and operating assistance . . . to support public transportation in rural areas.” As previously stated, this grant pays 50% of operating costs and 80% for capital equipment. Committed match funds must be in place prior to an award. The Section 5311 grant also provides funding for state and national training and technical assistance through the Rural Transportation Assistance Program (RTAP).

Section 5311 also offers funding through the Jobs Access Reverse Commute (JARC) program for capital, planning, and operating expenses for projects that transport low income individuals to and from jobs and activities related to employment.

Other grant opportunities may be applied for as they become available through www.grants.gov website. Foundations and private organizations also offer funding via a competitive application process.

FARE STRUCTURE
A statewide survey of public transportation providers conducted in 2016 included fare structures. Many of the rural transportation providers charge by zones or miles. Based on a 10-mile one-way trip, the average one-way fare for countywide service was $3.50. That data is
four years old and it is very difficult to increase fares once they have been established. Therefore, it is recommended that the one-way
fare should be no lower than $4.00 and no higher than $5.00.

**PERFORMANCE MEASURES**
Detailed recordkeeping and data collection are required to produce measures to evaluate performance of the transportation system. (See Appendix for specifics.) Performance measures are grouped into the following general categories:

- Effectiveness
- Efficiency
- Labor Utilization
- Safety and Security
- Vehicle utilization, asset management, and state of good repair

Measures are reported to the National Transit Database (NTD), which is a federal reporting program for agencies receiving funding from FTA. It serves as a primary repository for all transit-related data and statistics in the United States. The performance data from the NTD is used to allocate FTA funding and for peer comparison. Performance should be assessed regularly so the system can build on what works and improve what could work better.

**EQUIPMENT**
The following equipment is a minimum baseline for conducting transportation service in Walker County.

**Vehicles**
Demand for public transportation is dependent on many factors including, but not limited to, service characteristics (hours, days, type), fare, reservation requirements, population, and location of services (healthcare, retail, grocery, employment, etc.). Because public transportation has not previously served the entire county, and the service characteristics, fare, and reservation requirements have not been determined, predicting demand would not be reliable. Walker County currently owns two small cutaway buses, which can be used to begin service. An additional vehicle should be acquired immediately to be used as a backup when a vehicle is out for maintenance or repair. After time, demand will dictate if more vehicles need to be added to the service. A five-year plan to purchase vehicles for replacement and
expansion needs to be developed as soon as possible. All vehicles must be compliant with the Americans with Disabilities Act of 1990 (ADA).

**Communications**
The lead agency must have a phone system and personnel that can handle incoming calls, call forwarding, messaging, and a telecommunications device for the deaf (TTY). For trips scheduled the next day, it is helpful if the phone system has an automatic call feature to remind passengers of their upcoming trip.

Every driver must have a mobile phone. It is helpful if every vehicle has a mobile data terminal to keep the driver and dispatcher updated on trip status. It is also valuable for simplifying recordkeeping (trips taken, cancelled, trip length, payment, etc.)

The lead agency needs a website and phone app that provides all the information necessary to plan and take a trip. The website must be user-friendly with the ability to accept online payment. It is also helpful if to have an app that includes information on the approximate arrival time and any service advisories.

**Software**
The following software is essential for the lead agency to own.

- **Database** - needed to simplify scheduling passengers and trip destinations
- **Mapping/GIS** - a necessity for scheduling trips and the ability to multiload/share vehicles
- **Accounting** – to keep detailed records of finances
- **Scheduling and Dispatching** – recommended but may not be essential to start – integrates database, GIS, and trip brokers, provides automatic scheduling and transmission to mobile data terminals, and supports detailed reporting and billing.

**TIMELINE AND MARKETING**
Once a lead agency is agreed upon and the plan is advancing, a marketing campaign should begin promoting a change that will serve more people more efficiently. Branding should be developed for the new service that does not include company/agency names, since multiple organizations will be involved in providing service.
When the lead agency is set up to begin delivering transportation service, a targeted 30-day marketing campaign is ample for informing the public regarding discontinuation of the current service. The new service should run concurrently with the existing fixed-route during the 30-day time period. This will create a seamless transition and offer an opportunity for current users to test the new service before being forced to make the change.

**OTHER**

*Vehicle storage*

The lead agency will need to have or arrange to have a place where vehicles can be stored securely.

*Maintenance*

The lead agency will need to identify how vehicle maintenance and repairs will be managed, and a schedule for regular maintenance will need to be prepared for each vehicle.

**RECOMMENDATIONS FOR LEAD AGENCY**

Two organizations rise to the top for taking responsibility of leading public transportation in Walker County.

**Walker County Community Action Agency (WCCAA)**

WCCAA rises to the top of the list for being the lead agency. They have been in Walker County for over 50 years and know the people, community, needs, resources, and leadership. Their mission is to help “communities work toward self-sufficiency” and are aware of what is involved in realizing that mission. WCCAA recognizes that transportation (mobility) is the basis for self-sufficiency and provides transportation to/from employment. They have indicated a willingness to assume this responsibility and are eager to get started.

**Kid One**

Kid One has been transporting children and expectant mothers to necessary health care services since 1997. Today, they serve 43 counties in Alabama. Kid One knows transportation and does it well. They have the necessary infrastructure to provide service and prepare reporting. They are expert in driver training and accountability, are known for their financial integrity, and understand rural challenges.
CONCLUSION
Transportation in Walker County is in desperate need of transformation, without which little change will be realized on the opioid and economic crises. Good options are available for a lead agency to assume responsibilities, and federal funding is already in place. Assistance is available through the Community Transportation Association of America, RTAP, and RPCGB to help with the transition.