Coordinated Public Transit Human Services Transportation Plan

Supporting individuals with disabilities, older adults, and people with low incomes

August 15

Winston-Salem Urban Area Metropolitan Planning Organization
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Introduction: What is a Human Services Transportation Plan?

The Winston-Salem Urbanized Area Metropolitan Planning Organization (WSUAMPO) sets regional priorities for transportation investments and leads initiatives for human services and public transit coordination. The Federal Transit Administration (FTA) provides funding (49 U.S.C. 5310) to direct recipients to support the transportation needs of older adults and individuals with disabilities.

WSUAMPO uses the Human Services Transportation Plan and Program Management Plan to drive the direction and implementation of the FTA funded programs for Human Service Transportation in the community.

**Human Services Transportation Plan:** this document lays out a strategic vision for how Human Services Transportation (HST) will operate in the WSUAMPO region. It reviews existing conditions for HST in the community, identifies service gaps, makes recommendations on how to address them, and provides a timeline for actions that can be taken to improve the quality and coordination of HST services. The Coordinated Plan is also used to guide the selection process for discretionary federal transit grants available to public agencies, non-profits, and private organizations in the Winston-Salem Urban Area MPO.

**Human Services Transportation Plan History:** The Coordinated Plan was first mandated under the federal surface transportation authorization act SAFETEA-LU, which was in effect from 2005 through 2012. SAFETEA-LU made discretionary transit grants available for MPOs to direct funds to eligible projects. These grants included the Job Access Reverse Commute (JARC / Section 5316) and New Freedom (Section 5317) Programs. The Coordinated Plan was the means through which the MPO established its goals and criteria for selecting projects in the MPO area. The Coordinated Plan also addressed the Elderly Individuals and Individuals with Disabilities programs, although these funds are now directed through the Program Management Plan locally. As a result, the MPO adopted its first HST plan in 2008, and updated it in March 2010 to fit the ongoing needs of the greater Winston-Salem community.
**Program Management Plan:** this document describes how WSUAMPO will administer the FTA funds in support of HST services in the community. It includes information about roles and responsibilities of HST stakeholders, including providers and WSUAMPO. It describes the process by which the annual Program of Projects will be developed, including which types of organizations are eligible to apply, which types of services are eligible uses of any 5310 and 5307-JARC funds received, and the selection criteria that will be used to select projects.

In addition to guiding funding and service development for transportation projects supporting older adults, people with disabilities and individuals with low incomes, it also serves as an update to the 2008 Public Transportation-Human Service Coordination Plan, and reports on which objectives from the previous plan have been accomplished.

This plan was prepared with involvement of WSUAMPO staff and Human Service Transit Providers in the community, through a series of virtual meetings and a survey of Human Service Transit passengers and caregivers during the height of the COVID-19 pandemic in late 2020 through early 2021.

The chart in Figure 1 from the Centers for Disease Control shows cases and deaths from COVID-19 in Forsyth County from the beginning of the pandemic in March 2020 through late September in 2021. The blue line shows when the provider and public engagement occurred relative to the case counts. This period of time was mostly prior to when vaccines were broadly available.
The project team acknowledges that this was a particularly challenging time to conduct public engagement activities, and that in non-pandemic times, we would have been able to supplement electronic and internet-driven public engagement activities with more in-person events. That said, with the team unable to project when the pandemic may have receded to allow those activities to occur in a safer manner, the project team elected to proceed so as not to delay the work indefinitely.

To acknowledge the COVID-19 pandemic’s impact on the HST ecosystem and identify lessons learned from this unique period of time, we have included Appendix 19, documenting Pandemic Lessons Learned and Strategies for Future Pandemics.

Guiding Principles

In the 2008 plan, to address the unmet needs of people with disabilities, low-income individuals and older adults, the WSUAMPO staff, providers, and other HST stakeholders identified a series of Guiding Principles that identify how best to serve these members of our community.
The Right to Mobility

People with specialized transportation needs have a right to mobility. Individuals with limited incomes and people with disabilities rely heavily, sometimes exclusively, on public and specialized transportation services to live independent and fulfilling lives. These services are essential for travel to work and medical appointments, to run essential errands, or simply to take advantage of social or cultural opportunities.

Provide Equitable Transportation

There are many transit-deficient corridors in Winston-Salem, especially in areas where people are heavily reliant, if not completely dependent on a fixed-route, paratransit, or shared ride service within or beyond the urban area. The MPO remains cognizant of this issue and is steadfast in improving service to low-income and majority people of color (POC) populations.

The costs of providing human service transportation continue to rise. However, cost containment should not be achieved at the expense of service delivery. Fortunately, coordination of human service transportation offers the potential to improve service delivery by reducing duplication, making use of available capacity elsewhere in the system, and achieving economies of scale in providing these services.

Customer Service Focus

In providing public transportation, the transportation needs of the customer should always be kept at the forefront. The abilities of individual riders vary in different aspects of the transportation experience, from accessing program information, to trip scheduling, to route navigation. Policies and procedures should be clear and flexible enough to allow for different abilities, and to provide support as needed. The goal of every transportation provider should be to facilitate a safe, courteous and timely trip every time.

Elimination of Service Gaps

While there are many providers serving a numerous and diverse clientele, significant gaps exist in human service transportation, which limits the mobility of the individuals
who rely on it. Across the region, users of specialized transportation programs live and work in different areas and have different travel patterns. To the maximum extent feasible, gaps in human service transportation services should be eliminated to ensure individuals have a viable transportation option when they need it.

**Maximize Efficiency of Service Delivery**

Accessible vehicles are expensive to acquire and maintain. Maximizing the efficiency of human service transportation vehicles helps to reduce program costs by generating additional user revenue while also helping to eliminate gaps in service, without the need for additional capital purchases. Transportation providers should collaborate to provide services where extra capacity exists. The Coordinated Plan will help to identify opportunities for collaboration, as well as providing the space for resolving any issues related to cross-jurisdictional service delivery (i.e., Winston-Salem to other MPOs/cities).

In addition to maintaining these Guiding Principles from the 2008 Plan, the 2021 Plan Update adds two more principles.

**Pursue Continuous Performance Improvement**

With the funding challenges facing the HST ecosystem, a commitment to increasing the amount of mobility provided per dollar spent is crucial.

To support that drive towards excellence and efficiency, both this plan and the Program Management Plan emphasize improving the quality of operational data collection and maintaining a standard quarterly report that can be submitted by all providers.

To help the providers reach this goal, the WSUAMPO staff will work to clarify roles and procedures within the HST ecosystem, develop document standards and provide coaching on how to implement them. This will build capacity among providers and MPO staff to create a culture of continuous improvement.
Coordinated Human Services
Transportation Planning

Overview

Federal and state governments have long been interested in coordinating transportation funding across human service and public transit agencies. By coordinating planning and collaborating on service delivery, the goal is to increase the amount of service available to individuals and maximize service and operation efficiency.

The Federal Government’s interest in coordinated public transit – human service transportation has been consistent for more than thirty years. The rules, regulations and requirements have evolved, but the goals remain the same – increase mobility and lower costs.

The evolution of coordinated planning is highlighted by a series of federal directives:

- 1986 Joint Department of Health and Human Services and Department of Transportation Coordinating Council on Human Service Transportation established.

- 1998 Transportation Equity Act for the 21st Century (TEA-21) required funding for Job Access Reverse Commute to be part of a coordinated public transit – human service transportation planning process.

- 2004 Executive Order created multi-department Coordinating Council on Access and Mobility (CCAM).

- 2005 Safe, Accountable, Flexible, Efficient, and Transportation Equity Act (SAFE-TEA) required local coordination plan to be eligible for three programs: Elderly Individuals and Individual with Disabilities, Job Access Reverse Commute and New Freedom.

- Under the most recent federal transportation law, Fixing America’s Surface Transportation (FAST) Act of 2015, projects funded by the Enhanced Mobility of
Seniors and People with Disabilities (FTA Section 5310) must be “included in a locally developed coordinated public transit – human services transportation plan”. The plan must be “developed and approved through a process that included participation by seniors, individuals with disabilities, representatives of public, private and nonprofit transportation, and human service providers and other members of the public.”

- On November 15th, 2021, President Biden signed the Infrastructure Investment and Jobs Act (IIJA) into law. This bill presents an opportunity for increased funding for many types of transportation and will increase authorization for the Section 5310 program nationally from the current figure of $285.6 million to $371.2 million in FY 2022 and grow to reach an annual authorization of $407 million in FY 2026. It is not yet clear how these funds will be apportioned to state-level and MPO-level 5310 recipients, but it is possible that the IIJA could direct some of these funds to WSUAMPO and other Section 5310 recipients in North Carolina.

WSUAMPO envisions IIJA as a springboard for coordinated human services transportation long term, given greater investment opportunities in the form of increased formula grants (FTA Sections 5307, 5310, 5339) as well as supplemental COVID relief funds. These funds were provided through the American Relief Plan (ARP) and the Coronavirus Response and Relief Supplemental Appropriations Act (CRRSA) totaling around $180,000 for 5310 and 5307 JARC funds. IIJA will also contribute to extended investment opportunities towards repairing, rehabilitating, and constructing essential bus facilities, as well as sidewalks, bridges, and roads. All these elements are vital to coordinated human services transit in the MPO.

The FTA provides guidance for the coordinated public transit –human service transportation planning process. This process involves six main steps:

1. Assess transportation needs
2. Inventory available services and identify service gaps and redundancies
3. Develop strategies to address the identified gaps in service
4. Identify coordination actions to eliminate or reduce duplication in services and develop strategies for more efficient utilization of resources
5. Collect input from stakeholders and members of the public
6. Prioritize and recommend strategies for implementation
Traditional Federal Funding Programs

The Federal Transit Administration (FTA) administers funding programs for public transportation. FTA funding pertinent to human service and rural transportation programs includes FTA Section 5310 Enhanced Mobility for Seniors and Individuals with Disabilities (“5310”) and FTA Section 5311 Formula Grants for Rural Areas (“5311”). The North Carolina Department of Transportation (NCDOT) administers Section 5311 funding for all rural transit in the State, and the Winston-Salem Urbanized Area Metropolitan Planning Organization (WSUAMPO) administers Section 5310 funds for distribution in the Winston-Salem Urbanized Area.

More information on each of these programs is provided in the following sections. Most funds made available to human service and rural transportation providers will be from Section 5310 and 5311. The Winston-Salem Transit Authority also directly receives funding from FTA programs directed at urban areas, including Section 5307 Urbanized Area Formula Grants and Section 5339 Bus and Bus Facilities Infrastructure Investment Program. These grant programs are relevant to the Coordinated Public Transit-Human Services Transportation Plan because the fixed route transit operators (like WSTA) use them to help fund Americans with Disabilities Act (ADA) paratransit services.

Two rounds of federal funding related to the COVID-19 pandemic are discussed in the Appendices.

State Funding Programs

Historically, NCDOT has provided funding for rural and human service transportation programs. However, in response to the financial crisis NCDOT experienced in early 2020, the North Carolina General Assembly passed House Bill 77 in June 2020, which had consequences for state-driven transit funding. Two major statewide transit spending programs were reduced to zero dollars for the FY20-21 state fiscal year:

- State Maintenance Assistance Program (SMAP) - $32.5 million revised to $0.
- Rural Operating Assistance Program (ROAP) - $18.7 million revised to $0.
These cuts were approved after CARES funding had been provided to many transit agencies by the Federal Government, but before the CRRSAA funding was approved on December 27th, 2020.

Prior to these cuts, Davidson County, WSTA and YVEDDI had all reported using ROAP funds. YVEDDI reported that the ending of ROAP funds forced them to reduce the number of people they could serve. WSTA noted the loss of SMAP funds but highlighted that CARES Act funding had helped them weather the reduction in state funds for the time being.

As of early 2022, the recently adopted state budget restored the SMAP and ROAP funding programs for transit agencies in North Carolina.
Existing Conditions

Overview of Service Area

The 2021 Human Services Transit plan has been developed for the Winston-Salem Urbanized Area Metropolitan Planning Organization (WSUAMPO), shown in Figure 2.

The boundaries of WSUAMPO include all of Forsyth County as well as portions of Stokes, Davie and Davidson Counties. In 2019, the American Community Survey 5-Year Estimate of population within this area was approximately 414,000 residents.
Figure 2 WSUAMPO Boundary and Area Served
As shown in Figure 2, WSUAMPO serves Winston-Salem, the communities that have a portion of their jurisdiction within Forsyth County, including Rural Hall, Tobaccoville, King, Bethania, Lewisville, Clemmons, Bermuda Run, Kernersville, and Walkertown. The WSUAMPO jurisdiction also includes Midway and Wallburg in northern Davidson County.

Across this geography, Winston-Salem Transit Authority (WSTA), Piedmont Authority for Regional Transportation (PART), Yadkin Valley Economic Development District (YVEDDI), Davidson County Transportation System (DCTS), and numerous other private providers contribute to delivering Human Services Transportation trips to the community. When YVEDDI receives 5310 funding, it comes through state-level programs for rural agencies, and not WSUAMPO.

Target Markets and Population

The Coordinated Public Transit-Human Services Transportation Planning process is specifically focused on a target group of individuals that consists of older adults and persons with disabilities as well as veterans, minorities, and people with low incomes. The size and distribution of these individual populations helps determine the need for both public transit and human service transportation. The following section identifies target populations and where they are concentrated in the WSUAMPO area.

Seniors (Age 65 and Over)

The population of adults aged 65 and older in the Winston-Salem Urban Area has increased over 30% since 2010, with slightly slower growth in the senior population in Stokes County compared to Forsyth, Davidson, and Davie Counties.

In terms of Older Adults as a percentage of the population, in 2019, Forsyth County (15.6%) was very close to the North Carolina average of 15.9%, while Davidson (17.8%), Davie (20.2%), and Stokes Counties (20.3%) were above the state average.

Denser senior population clusters within the Urbanized Area include several areas in Winston-Salem and Kernersville.
Figure 3 Senior Population (Age 65+) Distribution

<table>
<thead>
<tr>
<th>People per Acre</th>
<th>Legend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 0.15</td>
<td></td>
</tr>
<tr>
<td>0.15 to less than 0.40</td>
<td></td>
</tr>
<tr>
<td>0.40 to less than 0.90</td>
<td></td>
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<tr>
<td>0.90 or more</td>
<td></td>
</tr>
</tbody>
</table>
Table 1 Growth of Population of Residents Over Age 65

<table>
<thead>
<tr>
<th>Total Population</th>
<th>Population Growth Rate</th>
<th>Population 65+</th>
<th>Percent age 65+</th>
<th>Age 65+ Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>2019</td>
<td>2010</td>
<td>2019</td>
<td></td>
</tr>
<tr>
<td>Forsyth County</td>
<td>342,989</td>
<td>375,195</td>
<td>9.4%</td>
<td>43,560</td>
</tr>
<tr>
<td>North Carolina</td>
<td>9,271,178</td>
<td>10,264,876</td>
<td>10.7%</td>
<td>1,168,168</td>
</tr>
</tbody>
</table>

For Census Block groups within Davidson, Davie and Stokes Counties that are within the WSUAMPO boundary, 2020 Census Block Group total population and senior population is shown below in Table 2. Older adult population for each county in full is shown in Table 3.

Table 2 Population of Residents Over Age 65 Living Within WSUAMPO Boundary in Davidson, Davie, and Stokes Counties

<table>
<thead>
<tr>
<th>Total 2020 Population within WSUAMPO Boundary Block Groups</th>
<th>Total Age 65+ Population within WSUAMPO Boundary in 2020</th>
<th>Percent of 2020 Population Age 65+ within WSUAMPO Boundary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Davidson County</td>
<td>41,917</td>
<td>7,478</td>
</tr>
<tr>
<td>Davie County</td>
<td>17,707</td>
<td>4,128</td>
</tr>
<tr>
<td>Stokes County</td>
<td>16,203</td>
<td>2,626</td>
</tr>
</tbody>
</table>

Table 3 Population of Residents Over Age 65 in All if Davidson, Davie, and Stokes Counties

<table>
<thead>
<tr>
<th>Total Population</th>
<th>Population Growth Rate</th>
<th>Population 65+</th>
<th>Percent age 65+</th>
<th>Age 65+ Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>2019</td>
<td>2010</td>
<td>2019</td>
<td></td>
</tr>
<tr>
<td>Davidson County*</td>
<td>160,638</td>
<td>165,381</td>
<td>3.0%</td>
<td>22,329</td>
</tr>
<tr>
<td>Davie County*</td>
<td>40,581</td>
<td>42,257</td>
<td>4.1%</td>
<td>6,371</td>
</tr>
</tbody>
</table>
Individuals with Disabilities

The U.S Census Bureau defines Disability in the following way:

In an attempt to capture a variety of characteristics that encompass the definition of disability, the ACS identifies serious difficulty with four basic areas of functioning – hearing, vision, cognition, and ambulation. These functional limitations are supplemented by questions about difficulties with selected activities from the Katz Activities of Daily Living (ADL) and Lawton Instrumental Activities of Daily Living (IADL) scales, namely difficulty bathing and dressing, and difficulty performing errands such as shopping. Overall, the ACS attempts to capture six aspects of disability: (hearing, vision, cognitive, ambulatory, self-care, and independent living); which can be used together to create an overall disability measure, or independently to identify populations with specific disability types. (U.S Census Disability Definition, www.census.gov)

The densest clusters of individuals with disabilities are located in Winston-Salem close to Downtown and in the northwest portion of the city, and there is a cluster in Kernersville as well, outside of the primary WSTA service area.
Figure 4 Individuals with Disabilities Distribution

- **Medical Facilities**
- **WSUAMPO Boundary**
- **Municipalities**

**Individuals with Disabilities**

**People per Acre**
- Less than 0.10
- 0.10 to less than 0.20
- 0.20 to less than 0.30
- 0.30 to less than 0.60
- 0.60 or more
People Living in Poverty

The Federal register defines poverty levels based on the number of individuals in a household. The definitions for FY2020 – FY2022 are $25,520 for a 1-person household, $34,480 for a 2-person household, $43,440 for 3 people, and $52,400 for 4 people. For each additional member of the household, the poverty threshold rises by approximately $9,000. There are clusters of people living in poverty in the past 12 months, both east and west of US 52 and along both I-40 and Salem Parkway. Notable clusters outside of Central Winston include locations in the northwest portion of the city, the area near Hanes Mall, and Kernersville.
Figure 5 Low Income Population Distribution

Households Living in Poverty
Households per Acre
- Less than 1
- 1 to 2
- 2 to 4
- Greater than 4
Minority Populations

Minority population is defined as the total population that does NOT identify as “non-Hispanic, white alone” in the Census. The following figures show the distribution of Black, Hispanic/Latino, and Asian American/Pacific Islander populations in the WSUAMPO area.

Black Population
Black population density is highest in central Winston-Salem, with significant clusters of black residents along both sides of US 52 from where US 311 and US 52 meet, and south of Salem Parkway along US 52 towards I-40, as well as East of US 52 north of Downtown Winston-Salem.

Hispanic/Latino Population
Hispanic/Latino population density is highest to the south of I-40 between NC 150 and the town of Wallburg, as well as in northwest Winston-Salem between Silas Creek Parkway and Bethania.

Asian American/Pacific Islander Population
Asian American/Pacific Islander population density is highest in western Winston-Salem north of US 421, in Clemmons, and at the endpoint of Silas Creek parkway at Reynolda Road north of downtown Winston-Salem.
Figure 6 Black Population Distribution

- Medical Facilities
- WSUAMPO Boundary
- Municipalities

**Black Population**

**People per Acre**
- Less than 0.75
- 0.75 to less than 2.25
- 2.25 to less than 4.20
- 4.20 or more
Figure 7 Hispanic/Latino Population Distribution

- Medical Facilities
- WSUAMPO Boundary
- Municipalities

Hispanic/Latino Population

People per Acre
- Less than 0.40
- 0.40 to less than 1.20
- 1.20 to less than 2.25
- 2.25 or more
Figure 8 Asian American/Pacific Islander Population Distribution

- Medical Facilities
- ✗ WSUAMPO Boundary
- □ Municipalities

Asian American/Pacific Islander Population

People per Acre
- Less than 0.08
- 0.08 to less than 0.35
- 0.35 to less than 0.75
- 0.75 or more
Zero Car Households

Many households in the WSUAMPO area do not own any cars. There are three Census block groups East of US 52 located between Salem Parkway and I-40 that have greater than 40 zero-car households within the block group. Some of the Census blocks just north of Downtown Winston-Salem and along Shattalon Drive in northwest Winston-Salem also have concentrations of zero-car household

Figure 9 Zero Car Household Distribution
Inventory of Services

An initial step in coordinating transportation resources involves inventorying available services. Data included in these tables was largely compiled through a combination of interviews/conversations with the transit operators (Winston-Salem Transit Authority (WSTA), Piedmont Authority for Regional Transportation (PART), Yadkin Valley Economic Development District, Inc. (YVEDDI) and Davidson County Transportation System (DCTS)) plus information gleaned from published datasets. For purposes of this analysis, the service inventory is divided into public transit providers and human service providers.

A glossary of terms has been provided at the end of this report to help explain transit-specific terms used in the following sections.

Public Transit Providers
There are several public transportation providers serving the Winston-Salem Urban Area: WSTA operates a combination of Fixed Route services and ADA complementary paratransit services – Trans-AID - and PART provides commuter service and access to medical facilities throughout the Piedmont Triad region.

Several providers of on-demand and shuttle services include the Kernersville Shuttle for the Elderly, DCTS and YVEDDI transportation services. DCTS and YVEDDI provide general public transportation circulars and/or deviated fixed route service as well as on demand response services in rural areas in support of medical and human service programs. The transit agencies operate with varying service levels and days of the week. The Fixed Route service providers operate in distinct service areas, with PART being the only Fixed Route agency providing service across jurisdictional boundaries.
### Table 4 WSUAMPO Transit Provider Service Attributes

<table>
<thead>
<tr>
<th></th>
<th>WSTA</th>
<th>PART</th>
<th>DCTS</th>
<th>YVEDDI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service Area</strong></td>
<td>City of Winston-Salem</td>
<td>Piedmont Triad and Triangle Region including Forsyth, Surry &amp; Davidson</td>
<td>Davidson County</td>
<td>Yadkin Valley including Davie, Stokes, Surry &amp; Yadkin Counties</td>
</tr>
<tr>
<td><strong>Service Type</strong></td>
<td>Fixed Route Complementary ADA Paratransit – Trans-AID</td>
<td>Fixed Route</td>
<td>Fixed Route with deviations Demand Response Shared Ride Door to Door</td>
<td>Elkin and Mocksville Circulators Demand Response Shared Ride Door to Door</td>
</tr>
<tr>
<td><strong>Span of Service</strong></td>
<td>Monday-Friday 5:25am-12:15am Saturday 6:43am-12:00am Sunday 7:25am-7:00pm</td>
<td>Monday-Friday 5:45am – 9:45pm Saturday 7:00am-7:00pm</td>
<td>Monday-Friday 6:00am-6:00pm Saturday 6:00am-6:00pm (Thomasville Route Only)</td>
<td>Monday-Friday 6:00am- 6:00pm By Appointment on Weekends &amp; Holidays</td>
</tr>
<tr>
<td><strong>One-Way Adult Fare</strong></td>
<td>Fixed Route and ADA Services Cash - $1.00 10 ride - $10 30-day pass - $30 Seniors (60+), Disabled, Medicare Cardholders Cash - $0.50 10 ride - $5 30-day pass - $15</td>
<td>General Fare - $2.50 Seniors (60+), Disabled, Veterans, Students, Medicare Cardholders - $1.25</td>
<td>Free Fare</td>
<td>Deviated Fixed Route Fare $10.00 weekly $30 monthly (100 trips) $2 Veteran Shuttle Demand Response Fare $2.00 (Mount Airy, Elkin, Mocksville, Danbury, Yadkinville) $3 within County $5-$15 for out of County</td>
</tr>
</tbody>
</table>

### Table 5 Transit Provider Cost Per Trip

<table>
<thead>
<tr>
<th>2019 NTD*</th>
<th>WSTA</th>
<th>PART</th>
<th>DCTS</th>
<th>YVEDDI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand Response Cost Per Trip</td>
<td>$19.70</td>
<td>N/A</td>
<td>$16.27</td>
<td>$40.10</td>
</tr>
<tr>
<td>Fixed Route Cost Per Trip</td>
<td>$5.84</td>
<td>$16.63</td>
<td>$4.31</td>
<td>$20.08</td>
</tr>
</tbody>
</table>

*Source: WSTA, PART, Davidson County Transportation Service and YVEDDI

*2019 National Transit Database data for PART/WSTA, which was reported in 2021.
**Winston-Salem Transit Authority (WSTA)**
WSTA is the City of Winston-Salem’s local public transportation provider and operates Fixed Route service within the city limits of Winston-Salem. As part of its Fixed Route service, WSTA also operates ADA complementary paratransit service, Trans-AID, in accordance with the federal requirements. The Trans-AID service is available to eligible customers traveling within 3/4 of a mile of WSTA’s Fixed Routes.

WSTA Fixed Route service is open to the public. Trans-AID is the Winston-Salem Transit Authority’s ride sharing transportation service for eligible riders who are older adults and/or have a disability that prevents them from utilizing WSTA’s fixed route services.

**Table 6 Trans-AID Paratransit Service 2015-2019**

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ridership</td>
<td>191,586</td>
<td>215,158</td>
<td>223,863</td>
<td>224,268</td>
<td>225,074</td>
</tr>
<tr>
<td>Budget</td>
<td>$3,000,630</td>
<td>$3,149,200</td>
<td>$3,697,830</td>
<td>$3,887,730</td>
<td>$4,043,140</td>
</tr>
<tr>
<td>Cost per Trip</td>
<td>$16.53</td>
<td>$16.02</td>
<td>$18.33</td>
<td>$19.65</td>
<td>$20.44</td>
</tr>
<tr>
<td>Vehicles</td>
<td>36</td>
<td>36</td>
<td>37</td>
<td>40</td>
<td>40</td>
</tr>
</tbody>
</table>

Source: WSTA

*Note: minor differences in cost per trip between table 5 and table 6 may be due to different months in fiscal years for federal (October to September of following year) and local (July to June of following year) budgets.*

**Piedmont Authority for Regional Transportation (PART)**
PART is a multi-county public transportation agency that provides regional transportation services in the Piedmont Triad Region including Forsyth, Surry and Davidson Counties. As a regional service provider, PART’s service consists of peak period commuter and express service on 17 routes.

PART services are open to the general public. Several PART routes provide access to Wake Forest Baptist and Forsyth Hospitals in Winston-Salem, the Veterans Administration Med Center in Kernersville, and UNC Hospital in Chapel Hill.
Table 7 PART Transit Services 2015-2019

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ridership (unlinked trips)</td>
<td>511,377</td>
<td>469,259</td>
<td>427,049</td>
<td>439,476</td>
<td>449,979</td>
</tr>
<tr>
<td>Routes</td>
<td>18</td>
<td>19</td>
<td>19</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>Budget (Operating &amp; Capital Expenses)</td>
<td>$6,999,966</td>
<td>$7,756,037</td>
<td>$12,851,168</td>
<td>$11,150,644</td>
<td>$8,069,598</td>
</tr>
<tr>
<td>Operating Expense per Unlinked Trip</td>
<td>$10.43</td>
<td>$11.83</td>
<td>$12.74</td>
<td>$13.91</td>
<td>$16.63</td>
</tr>
<tr>
<td>Vehicles Total (Vehicles op. in max service)</td>
<td>30 (26)</td>
<td>30 (26)</td>
<td>30 (26)</td>
<td>35 (25)</td>
<td>40 (29)</td>
</tr>
<tr>
<td>Drivers</td>
<td>38</td>
<td>38</td>
<td>42</td>
<td>43</td>
<td>34</td>
</tr>
</tbody>
</table>

Source: PART

Davidson County Transportation Service (DCTS)

DCTS operates general public transportation services in Davidson County, with four routes serving Lexington, Thomasville, and Davidson-Davie Community College. DCTS also provides demand response transportation through contracts with human service organizations, taxi services, and other private providers, including Medicaid.

DCTS services are open to the general public. Both fixed route and demand response services at DCTS are fare free.

Table 8 DCTS Fixed Route Transit Services 2015-2019

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ridership</td>
<td>149,458</td>
<td>139,547</td>
<td>121,533</td>
<td>122,191</td>
<td>134,863</td>
</tr>
<tr>
<td>Budget</td>
<td>$880,205</td>
<td>$390,681</td>
<td>$422,857</td>
<td>$456,933</td>
<td>$581,952</td>
</tr>
<tr>
<td>Cost per Trip</td>
<td>$3.82</td>
<td>$2.79</td>
<td>$3.48</td>
<td>$3.74</td>
<td>$4.31</td>
</tr>
</tbody>
</table>

Table 9 DCTS Demand Response Human Transit Services 2015-2019

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ridership</td>
<td>81,056</td>
<td>82,553</td>
<td>90,974</td>
<td>44,987</td>
<td>43,938</td>
</tr>
<tr>
<td>Budget</td>
<td>$304,629</td>
<td>$362,582</td>
<td>$322,006</td>
<td>$671,329</td>
<td>$653,082</td>
</tr>
<tr>
<td>Cost per Trip</td>
<td>$3.76</td>
<td>$4.39</td>
<td>$5.08</td>
<td>$16.11</td>
<td>$16.27</td>
</tr>
</tbody>
</table>

Source: DCTS
Yadkin Valley Economic Development District, Inc. (YVEDDI) Public Transportation
YVEDDI Public Transportation is a regional transportation system operated by the Yadkin Valley Economic Development District, Inc. and the North Carolina Department of Transportation/Public Transportation Division. YVEDDI provides community and public transportation services in Davie, Stokes, Surry and Yadkin Counties.

YVEDDI operates two deviated fixed route public transportation circulators serving Elkin and Mocksville. YVEDDI also provides demand response transportation service with fares dependent on mileage. Riders must enroll in the transportation program.

While YVEDDI does provide service passing through the WSUAMPO area, it does not receive any MPO funds as YVEDDI is a rural provider. YVEDDI receives funding through Federal 5311 and 5310 funds and other funds from the State of North Carolina.

Human Service Transportation Providers
This plan collected information on transportation services provided by for profit and non-profit human service agencies. This data was collected through stakeholder input and surveying HST providers and users. Key contributors to the inventory included the Winston-Salem MPO staff, transit and paratransit providers, recipients of 5310 grants, and agencies that provide services to the elderly and disabled.

Winston-Salem Urban Area 5310 and 5307 JARC Grant Recipients
To receive 5310 or 5307 Job Access Reverse Commute (JARC) funding, there is an annual call for projects and application process for funds. Agencies whose proposals are accepted then become subrecipients of federal funds disbursed by WSUAMPO.

Each organization and transportation provider has an important role in the delivery of human service transportation programs in the Winston-Salem Urban Area. These providers or transportation service agencies coordinate to ensure transportation is available to the elderly, disabled and underserved populations and refer Medicaid eligible clients to the Department of Social Services for ADA paratransit service.
Within Forsyth County, the Forsyth in Motion stakeholder group meets monthly to identify issues and work collaboratively to meet the transportation needs of the elderly and disabled population.

Table 9 below shows the amount of 5310 funding distributed to each agency in each fiscal year.

**Table 10 WSUAMPO Section 5310 Funding Allocations**

<table>
<thead>
<tr>
<th>Recipient</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Shepherd’s Center of Winston-Salem</td>
<td>$64,375</td>
<td>$85,000</td>
<td>$125,000</td>
<td>$155,000</td>
<td>$175,000</td>
</tr>
<tr>
<td>Town of Kernersville</td>
<td>$28,000</td>
<td>$80,000</td>
<td>$40,000</td>
<td>$45,000</td>
<td>$45,000</td>
</tr>
<tr>
<td>The Shepherd’s Center of Kernersville</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>$26,100</td>
</tr>
<tr>
<td>The Enrichment Center</td>
<td>$10,000</td>
<td>$10,000</td>
<td>$10,000</td>
<td>$10,000</td>
<td>$6,250</td>
</tr>
<tr>
<td>Here ‘2 There Van Services, Inc.</td>
<td>$65,000</td>
<td>$100,000</td>
<td>$75,000</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Wake Forest Baptist Downtown Health Plaza</td>
<td>$24,000</td>
<td>N/A</td>
<td>$8,905</td>
<td>$8,905</td>
<td>N/A</td>
</tr>
<tr>
<td>GroMeds, Inc</td>
<td>$17,750</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Forsyth County Department of Social Services</td>
<td>$33,484</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Davidson County Senior Services</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>$35,000</td>
</tr>
<tr>
<td>The Workshop of Davidson</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>$60,000</td>
</tr>
<tr>
<td>WSTA - Trans-AID</td>
<td>$93,793</td>
<td>N/A</td>
<td>$94,498</td>
<td>$138,463</td>
<td>$16,379</td>
</tr>
<tr>
<td>Total Allocation</td>
<td>$336,402 ($336,864)</td>
<td>$275,000 ($344,308)</td>
<td>$353,403 ($353,095)</td>
<td>$357,368</td>
<td>$363,729</td>
</tr>
</tbody>
</table>
### Table 11 WSUAMPO Section 5307 JARC Funding Allocations

<table>
<thead>
<tr>
<th>Recipient</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Here '2 There Van Services, Inc.</td>
<td>N/A</td>
<td>$50,000</td>
<td>$98,650</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Family Services</td>
<td>$45,000</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>GroMeds, Inc</td>
<td>$10,000</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Urban League</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>$66,325</td>
<td>N/A</td>
</tr>
<tr>
<td>Community Transportation Program</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>$19,250</td>
</tr>
<tr>
<td>Support Services of Forsyth County</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>$16,750</td>
</tr>
<tr>
<td>Total Allocation</td>
<td>$55,000</td>
<td>$50,000</td>
<td>$98,650</td>
<td>$66,325</td>
<td>$36,000</td>
</tr>
</tbody>
</table>

Note: Amounts in parentheses indicate adjustments or changes from previous years.
Status of Transportation Improvements Identified In 2008 Plan

The identification of various transit needs across the MPO area led to the adoption of the following strategies in the 2008 plan. Table 11 below identifies the 2008 Plan strategies and briefly describes their implementation status as one of the following, if not identified as completed:

- **Ongoing** – initial implementation achieved, and program continues
- **Additional Funding May Be Needed** – there is consensus that this action would be worthy to pursue if funding to implement were available
- **TBD** – Has yet to be implemented, and changing conditions since prior plan may suggest other strategies may be a higher priority

Table 12 Priority Actions and Status from 2008 Plan

<table>
<thead>
<tr>
<th>Priority</th>
<th>2008 Priority</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Establish More Accessible Vehicles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A1. Accessible Service Subsidy Program</td>
<td>High</td>
<td>TBD</td>
</tr>
<tr>
<td>B. Expand Public Transportation Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B1. Expand hours of operations on nights, weekends and provide Sunday service.</td>
<td>High</td>
<td>Ongoing</td>
</tr>
<tr>
<td>B2. Provide more frequent WSTA service.</td>
<td>High</td>
<td>Ongoing</td>
</tr>
<tr>
<td>B3. Expand service area for ADA and seniors.</td>
<td>High</td>
<td>Ongoing</td>
</tr>
<tr>
<td>C. Improve Access to Jobs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C1. Provide early morning and late-night service on Fixed Route.</td>
<td>High</td>
<td>Hours Adjusted in 2017-18</td>
</tr>
<tr>
<td>C2. Promote alternative transportation options, during non-peak hours and underserved geographic areas.</td>
<td>High</td>
<td>Hours Adjusted in 2017-18</td>
</tr>
<tr>
<td>C3. Partner with job training organization</td>
<td>High</td>
<td>TBD</td>
</tr>
<tr>
<td>D. Provide Volunteer Assistance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D1. Establish or enhance volunteer programs to offer alternative means of transportation.</td>
<td>High</td>
<td>Ongoing</td>
</tr>
<tr>
<td>E. Enhance Communication &amp; Advocacy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E1. Establish a directory as a central source for information.</td>
<td>Medium</td>
<td>Ongoing</td>
</tr>
<tr>
<td>E2. Improve communications with riders and riders’ abilities to communicate with agencies.</td>
<td>Medium</td>
<td>Ongoing</td>
</tr>
<tr>
<td>E3. Establish workshops to promote on-going coordination activities.</td>
<td>Medium</td>
<td>Ongoing</td>
</tr>
<tr>
<td>E4. Establish 24/7 trip planning</td>
<td>Medium</td>
<td>TBD</td>
</tr>
<tr>
<td>F. Marketing</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
F1. Provide information to the community about available transportation services.  
Low  
Ongoing

F2. Encourage employers to assist with costs of employee transportation  
Low  
TBD

F3. Promote travel training  
Low  
WSTA carries out travel training

**Notable Implementation Successes From the 2008 Plan**

One of the major successes of the 2008 plan’s implementation in the high priority category was the addition of Sunday Service on WSTA in 2013. Providing seven-day service helps transit riders access a wider variety of job opportunities by giving them access to jobs that require Sunday employment without forcing them to pay for expensive cab rides to take the job. Given that Sunday Service is often used by essential workers and those with the greatest need for transit, adding Sunday Service is also a win for equity in WSUAMPO’s public transportation ecosystem.

In addition to the big win of Sunday Service, the goal of enhancing volunteer programs to offer HST trips was also met successfully.

Finally, several of the 2008 information sharing and distribution Priority Actions were also addressed through the establishment of Forsyth in Motion, a forum where stakeholders and providers in the HST ecosystem in the WSUAMPO area can come together to share information and best practices.
Gaps, Needs and Service Improvements

Human Service Transit Passenger Survey: Outreach Methods

As part of the study, the project team created a community survey targeted to users of Human Service Transit in the WSUAMPO area. The survey was promoted in the following ways:

- City Press Release
- Outreach on City’s Facebook, Twitter, and Instagram feeds
- Two invitation emails that City Staff shared with providers to invite them to participate in virtual meetings
- Partner Letter to HST Providers to share with their passengers
- Posting on the city website, and a new project website: www.WinstonSalemHST.com
- Advertisements on the side of WSTA vehicles from February 2nd through 26th, 2021 (see Figure 8)

Figure 7 WSTA Vehicle HST Survey Advertisement
Survey Formats

As noted in Figure 1, the survey was deployed in the height of the COVID-19 pandemic. The key principle guiding the planning for public involvement was ensuring that public health and public safety guidelines would be met to prevent transmission of the virus. This was a challenging environment in which to engage the public. The survey was offered in five formats to ensure it was accessible as possible to all community members. These included:

- Online via Survey Monkey
- Phone survey via a hotline
- Physical mail-in available for download on the project website and provided at transit locations
- Call center surveys via WSTA and the City Link call center

Survey Respondent Demographics

A very small percentage of the transit ridership (80 participants) completed the Human Services Transportation Plan survey. This group was comprised of the following demographics:

- **Geography.** Individuals from all corners of the Winston-Salem Urban Area Metropolitan Planning Organization boundary participated in the survey.
- **Age.** 52% of participants were over the age of 55, with 37% of respondents skewing even older, over the age of 65.
- **Gender.** Participants were split fairly evenly between male (44%) and female (52%).
- **Race and ethnicity.** Nearly three quarters of respondents (74%) identified as white or Caucasian. The remaining group identified as African American or Black (21%) or preferred not to disclose their race (6%).
- **Household income.** One-third of participants reported having a household income of less than $30,000 a year. 22% of participants opted not to disclose their household income.
- **Medicaid.** One-fifth of respondents (20%) reported that they are on Medicaid.
- **Disability Status.** 37% of respondents identified themselves as an individual living with a disability.
Survey Findings

Destinations

The top destination when using transportation services is work (42%), followed by medical appointments (31%) and personal trips (23%), such as trips to the grocery store, pharmacy or the post office. 63% of respondents were able to reach all of the destinations they needed to visit in the last year, however, 33% of respondents reported that they were unable to reach at least one destination due to a lack of transportation.

Barriers for Those Who Were Unable to Reach Their Destinations

The project team analyzed the qualitative/free response comments of those who answered “YES” to the question asking if they had been unable to reach a destination, and found that the barriers could be grouped into the following categories:

- Lack of Service Availability/Geographic Coverage – 9 responses
- Complexity of Services – 3 responses
- Cost of ride hailing services (Uber, Lyft, Taxi) – 2 responses

Areas of Persistent Poverty Cross-Referencing

While the survey did not pinpoint a more specific location within a ZIP code where the survey-taker lives, the comments below have been cross-referenced with a list of Census Tracts that meet the Federal definition of an Area of Persistent Poverty.

For those respondents who entered a ZIP code, 81% of them lived in a ZIP code which overlaps a Census Tract that is an Area of Persistent Poverty. When a ZIP code does overlap with an Area of Persistent Poverty, we have designated that below with “(APP)” after the ZIP code. The map in the figure below shows the locations of Areas of Persistent Poverty and Zip Codes throughout the WSUAMPO area.
Figure 8 WSUAMPO Area Zip Codes and Areas of Persistent Poverty
Comments from these passengers included:

“50 yards outside city limits and handicapped. Frustrated not allowed to use WSTA.” – ZIP code 27106 (APP)

“having to work with both the County and the service provider to arrange the service” – ZIP code 27107 (APP)

“The bus routes are not convenient. It takes too long to go to one destination.” – ZIP code 27101 (APP)

“Need trans-aid - do not understand why our neighborhood is not serviced.” – ZIP code 27104 (APP)

“Cheaper uber.” – ZIP code 27012

“Better sidewalks all over the city” – ZIP code 27104 (APP)

Passengers who had been able to reach their destinations identified barriers differently. For this group, their most common barriers to using transportation services were:

- Service Quality – 8 responses
- Service Availability / Geographic Coverage – 5 responses
- Access Improvements – 3 responses

Comments from those who were able to reach their destinations included:

“More frequent bus trips. I share a car, but my spouse needs it more for her job. It is sometimes hard to coordinate with her work schedule and I rely upon the bus, which is so infrequent that it takes me 3-4 times as long to get to work than if I would drive.” – ZIP code 27103 (APP)

“All routes run seven days a week.” – ZIP code 27105 (APP)
“No bus shelters, unsafe crossings to get to bus stops. Would love to ride a bike more, but don’t feel safe” – ZIP code 27106 (APP)

“Have bus stop closer to my house and available in Rural Hall.” – ZIP code 27045 (APP)

“access to services and quicker access at all times. need more "on demand" transportation instead of schedules. Increases independence and mobility” – ZIP code 27006.

“Disabled that can walk and work but cannot drive have no low fare options but the bus. You have to stand in the cold and rain and it's confusing. There absolutely needs to be reduced fare for disabled on Uber” – ZIP code 27106 (APP)

“more variety- wheelchair accessible cabs” – ZIP code 27106 (APP)

**Service Gaps, Needs and Challenges Identified**

In this section, the report defines Gaps, Needs, and Challenges as follows:

- **Gap** – Something that is completely missing from the HST ecosystem that can be resolved by additional focus, resources, or both.
- **Need** – Something that if addressed can improve the overall HST experience, but may or may not be able to be addressed.
- **Challenge** – Something that makes delivering HST service more difficult and is also exceedingly difficult to address.

Interviews with HST service providers and passenger surveys revealed several types of service gaps that occur within the Winston-Salem Urbanized Area HST ecosystem.

**Gap: Service Availability/Geographic Coverage**

For those who reported being unable to reach a destination in the survey, the most common ZIP codes were 27104, 27106 and 27101. Multiple respondents mentioned:

- More bus stops and more coverage/availability in their geographic area
- Living inside the city limits but outside the Trans-AID service area
- Scheduling that does not fit their needs
For those who did not report being unable to reach a destination in the survey, all but one of the respondents lived outside of Winston-Salem and the WSTA service area. These respondents live in Greensboro, Rural Hall, Kernersville, and Tobaccoville. All expressed interest in transit service that was closer to where they live.

Davidson County Transportation Services (DCTS) staff indicated that serving the southeast portion of Davidson County is challenging for them, and that while their trips were down 50% during the pandemic, they were increasingly taking people farther for medical treatment, often out of the County. DCTS also noted that if ridership picked back up coming out of the pandemic, they would struggle to continue to provide these out-of-county trips.

**Gap: Complexity**

Multiple survey respondents described frustration and challenges with living outside the WSTA service area and reported not being able to use the service.

Trans-AID does provide some trips outside of the primary ¾-mile ADA service area surrounding the WSTA fixed bus routes and can pick up individuals in places such as Kernersville and Rural Hall, but only if they have capacity. When Trans-AID cannot pick up someone living outside the ¾-mile ADA service area, they refer trips out to individual HST providers.

When a HST provider is referred an individual who is Trans-AID eligible, they are supposed to serve the individual for up to 90 days while the qualification process takes place. HST provider staff report that when an individual does not have a social worker, getting the individual or their caretakers to complete the application can “fall through the cracks,” and never get completed.

Trans-AID staff meet quarterly with dialysis social workers and WSTA staff follow up to help them fill out the application, and this helps get individuals with dialysis needs into the HST ecosystem. However, those who are receiving treatments other than dialysis and do not have a social worker working on their behalf are often less able to keep their paperwork moving to completion for Trans-AID eligibility.
Even if the individual living outside the WSTA service area qualifies for Trans-AID, they may still face limited-service availability from Trans-AID as those inside the service area are served first.

One ZIP code 27107 resident said it would be a big improvement if they did “…not have to work with both the County and the service provider to arrange the service.”

**Gap: Service Quality**

For those in the survey who reported not making a trip due to service quality issues, infrequent fixed route bus service that comes once per hour was mentioned several times.

Survey respondents also expressed a desire for shorter wait times both going to their destination and especially returning home.

**Need: Increasing Number of Passengers Who Need Cognitive and Additional One-On-One Support**

In a stakeholder interview, one provider said: “we created a system to help transport 65- to 70-year-olds from curb-to-curb. Modern medicine has helped people live longer and stay at home, and we now have more individuals than ever age 85 to 95 who need help making trips from door to door.”

Providers are seeing an increase in passengers who have cognitive issues and need more help to plan trips ahead of time, help to remember and confirm those trips, and help getting to and from the vehicle to complete those trips.

These individuals may need more time to complete reservations and may need providers other than traditional curb-to-curb ADA service that have a more “hands-on” level of service.
Service Provider Need: Easily Accessible HST Ecosystem Information

Providers are working hard to transport individuals with often complicated needs and meet tight budgets. Having a one-stop-shop for HST program information online that identifies application timeline calendars, forms, and training needed to successfully apply for funds was listed as highly desired resource by multiple providers.

Challenge: Access Improvements/Safety

Within the built environment, survey respondents expressed a need for more sidewalks, bus shelters, and more crosswalks at intersections to make them feel more comfortable walking and bicycling. All the requests for these access facilities came from within Winston-Salem ZIP codes, including 27103, 27104, and 27106.

Trans-AID staff reported that there are sometimes situations where the mobility challenges of an individual to travel from their front door to the Trans-AID vehicle can interact with topographical challenges. A cutaway paratransit vehicle with a wheelchair lift may struggle to traverse long driveways and steep slopes in some areas. The Trans-AID staff tries to respond creatively, but there was at least one case where the ramp from an individual’s home down to the vehicle was in such poor repair, that Trans-AID worked with the county to bring a COVID-19 vaccine to the home in lieu of risking trying to bring the individual down the unstable ramp.

There are also many streets without ADA facilities for moving along streets or across them. Curb cuts for wheelchairs are missing at many intersections, and traffic signal timing is optimized for vehicle traffic, not accommodating individuals who may walk or roll and need more time than a typical adult to cross a street.

Challenge: Technology

Interviews with providers indicate that many of the older adults and disabled individuals being served are not familiar with how to use a computer or a mobile phone or may not have access to those technological tools.
At least one participant from 27105 in the survey identified that “having a way to communicate other than a cell phone or computer” would make the service better for them. Communication and scheduling with cell phones and computers are difficult for elderly and disabled populations.

For those who may be physically able to use Uber or Lyft, a lack of proficiency with mobile-phone-based apps may also make it harder for them to use these services.

**Challenge: Medical Facilities Are Moving Outside the Primary Trans-AID Service Area**

In recent years, the VA Hospital has moved out of Winston-Salem to Kernersville, and Wake Forest and Novant Health have both located major new Medical Centers in Davie County and Clemmons, respectively. Medical services located at these facilities create greater travel distances from the population core of the county in Winston-Salem and are more likely to cause HST passengers to need to coordinate across multiple providers to complete certain trips. In the survey, needing to call multiple numbers to set up a trip, such as both the county and a provider, was described as challenging by passengers.

Staff at one HST provider stated that for a volunteer can take up the better part of an entire day taking a veteran living in western Winston-Salem to the VA Hospital in Kernersville including trip times and wait times.

As suburbanization in Forsyth County and adjacent counties continues, there is a continuing lengthening of trips to primary medical service areas. Longer trips mean drivers can transport fewer individuals in the same number of hours as before.

While it is possible that there are some individuals living closer to the newer medical centers than the older ones that may have shorter trips, the three most populated suburbs of Forsyth County (Kernersville, Lewisville, and Clemmons) total roughly 43,000 in population, while Winston-Salem is almost six times larger at roughly 250,000 as of the 2020 Census. The number of potential HST users whose trips could get longer is significantly larger than those who may experience shorter trips.

**Challenge: Significant Growth in Senior Population**
As Table 1 demonstrates, North Carolina is a growing state, and the Triad is a growing metropolitan area, but while the state and Forsyth County grew at approximately 10.7% and 9.4% respectively over the past decade, the senior population in the Winston-Salem Urbanized Area grew approximately 30% across all of the region’s counties. This represents population growth above age 65 that is three times the state and Forsyth County average, and nine to ten times the growth rate of Davidson, Davie and Stokes counties.

**Challenge: Funding Has Not Kept Pace with Population Growth or Service Cost Growth**

While population has grown significantly, Federal funding for Human Services Transportation in the WSUAMPO only grew at 1.3% from FY14 to FY21.

Meanwhile, while Table 12 shows that Trans-AID’s year-over-year cost growth is line with industry trends, the most recent National Transit Database data shows that while funding is growing at 1.3% per year, costs are rising 4.2% per year on average for Trans-AID.

**Table 13 Demand Response Cost Per Trip for Select NC Transit Agencies**

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Buncombe County</td>
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<td>$21.10</td>
<td>$21.04</td>
<td>$22.43</td>
<td>$24.61</td>
<td>$24.65</td>
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<td>Cape Fear Public Transportation</td>
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<td>$23.86</td>
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<td>Chapel Hill Transit</td>
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<td>$43.60</td>
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<td>$44.18</td>
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<td>Charlotte Area Transit System</td>
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<td>High Point Transit</td>
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<td>Winston-Salem Transit Authority</td>
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<td>$20.50</td>
<td>$19.70</td>
<td>21%</td>
<td>4.2%</td>
</tr>
</tbody>
</table>

**Challenge: Dialysis Center Hour Expansion Beyond 9 AM to 5 PM**
With the increase of obesity and diabetes in the population at large, there is an increase in the population of those needing kidney dialysis, which is one of the most common trip purposes for HST in the WSUAMPO region.

On provider's staff expressed concern that evening dialysis appointments becoming more common would be very challenging for them to serve. Their model is built on having support for their volunteer drivers between 9:00 AM and 5:00 PM. They do not have the capacity to staff that support after 5:00 pm if evening dialysis becomes common. Additionally, they mentioned that many of their drivers are older, and have trouble driving at night, which would limit their ability to bring volunteers forward to serve those evening dialysis trips.
Recommendations

Given the needs and challenges described in the prior sections of the report, the following actions are recommended for the WSUAMPO HST Ecosystem.

Change Scoring Weights for Projects in the Program Management Plan (PMP)

When provider applications are evaluated under the 2008 Call for Projects scoring, the evaluation criteria that most influence performance are weighted lower than those that describe Project Goals and Implementation Plans.

A review of past applications indicates that the Project Goal sections are very similar across providers and most receive identical scores, which makes it difficult for the evaluators to differentiate based on performance. To drive performance, the evaluation process must shift its weight towards the Program Effectiveness and Performance and Budget categories. The new recommended weights in the 2022 PMP are shown below:

Table 14 Original 2008 PMP Scoring Weights and Recommended 2022 Scoring Weights

<table>
<thead>
<tr>
<th>Criterion</th>
<th>2008 PMP Scoring Weights</th>
<th>2022 PMP Scoring Weights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Needs/Goals and Objectives</td>
<td>25</td>
<td>15</td>
</tr>
<tr>
<td>Implementation Plan</td>
<td>25</td>
<td>10</td>
</tr>
<tr>
<td>Program Effectiveness and Performance</td>
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<td>35</td>
</tr>
<tr>
<td>Project Budget</td>
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<td>25</td>
</tr>
<tr>
<td>Coordination and Program Outreach</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Innovation</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

How This Action Benefits Passengers

If future project evaluation cycles put a heavier value on the number of trips delivered per dollar spent, this should increase trip capacity for passengers across the HST ecosystem as higher-performing providers receive more funds, and other providers adjust their practices to match the higher performers.
Create a HST Data Portal Webpage on the MPO Website Targeted to Providers

Collecting and consolidating data, frequently used forms, call for project procedures, and historical funding and ridership information in one place will strengthen recordkeeping for the HST program, increase transparency, and create a “one-stop-shop” for providers, staff, coordinating agencies, and the public.

While the current website identifies the existence of the FTA 5310 program, none of this other information is publicly available. The data portal should include:

- Financial and Ridership Data
- Total funds received by MPO from federal, state, and local sources to support the HST provider ecosystem for the last five years
- Total funds disbursed by MPO to providers, with amounts by provider – for the last five years
- Total number of trips provided by providers, with number of trips by each provider, for the last five years
- Call for Projects and Application Materials
- Downloadable Forms for providers
- Instructions to complete forms for providers
- Email and phone number of Project Planner who supports providers
- Schedule of key application and funding deadline dates
- Provider-oriented FAQ
- Data detailing cost impact of COVID-19 pandemic on the HST Ecosystem through extra cleaning required, limitations on vehicle capacity, etc.

How This Action Benefits Passengers
As providers improve their data collection and reporting, it will be easier for WSUAMPO and providers in the ecosystem to identify places where duplication may exist in certain geographies, and which approaches to service are producing more mobility at less cost for passengers. This practice can also help identify trips that only 5310 funding can serve and help groups like Forsyth in Motion figure out how to maximize cooperation and efficient use of funding among providers for the benefit of passengers.
Create a HST Customer Portal on the MPO Website Targeted to HST System Users

While the current WSTA website has a detailed Riders’ Guide and application procedures, information for other HST ecosystem services is spread across the websites of the different providers, which each have different rules and eligibility.

The Customer Portal should support a current or potential user entering information about themselves and their desired trip, and then recommend the provider that is a best fit for their trip. This “steering” of individuals to a provider that best suits their needs can help educate potential users about the full spectrum of mobility providers who may be able to help them.

Establish Reimbursement Rates and Fees for All Providers Each Year

In our interviews with providers, we heard that sometimes HST providers are asked by service agencies and stakeholders if they can provide the trip at a lower price, which can then turn into a financial challenge for the HST providers if they accept the lower price, even if they want to help the individual using the service.

Recognizing that a situation where 5310 recipients are allowed or inadvertently encouraged to bid down the price of trips can damage the fiscal solvency of providers, this plan recommends establishing a set rate for each provider each year, and that the MPO communicate those reimbursement rates to all 5310 recipients as non-negotiable for that year.

Within Davidson County, there are established rates for each of the eligible providers, and the differences in cost in using providers are known and understood. Adapting the rate-setting method to the rest of the MPO may support greater financial stability for providers.

How This Action Benefits Passengers

A predictable reimbursement schedule helps providers better manage costs, and limiting negotiation on the operational side among agencies and providers helps both focus on customer service instead.
Explore Whether a Reimbursement Agreement Across Agencies Could Help with Vehicle Availability

As the medical providers in Forsyth County and neighboring counties have decentralized, trip lengths for HST trips to outlying medical centers for medical appointments have made service more expensive to provide, and slower to turn around vehicles for the next trip.

In the Triangle Region, GoDurham, GoRaleigh and GoTriangle have an inter-agency reimbursement agreement that allows them to travel into each other’s service areas to help individuals complete their trips, with the agencies splitting the revenue. Agencies within WSUAMPO should explore if such an agreement could help the ecosystem serve more trips across the increasingly decentralizing region.

While there are many days when WSTA, PART, Davidson County, YVEDDI and other public agency fleets are fully utilized, having an inter-agency reimbursement agreement in place may allow a WSTA vehicle to be brought into service to support a YVEDDI trip, or vice versa – if either agency could confirm it had spare capacity that day. A version of the Triangle region agreement has been included in the Appendices of this report.

How This Action Benefits Passengers

WSTA staff identified that having more vehicles and drivers available would help support the ability to deliver more trips.

Explore Whether Creating a Central Brokerage Function for Providers Would Be Beneficial

This report documents numerous providers in the WSUAMPO region taking calls and scheduling trips. Sometimes, they find that the person they are speaking to is not eligible for their service, but for another provider’s service, and then they work to transfer or refer the call to another agency. While it is clear the WSUAMPO ecosystem communicates well and is skilled at this behavior, other growing regions are moving to a centralized call center model with trip brokers who assign travel to the most appropriate
provider, in order to reduce the amount of calls a customer needs to make to book a trip.

As this requires significant coordination across agencies, the recommendation on trip brokerage is to study how this may be helpful to WSUAMPO agencies, what challenges implementing a centralized brokerage may present, and to consider how large the geography of the central brokerage should be. (For example, should the Greensboro and High Point MPO participate as well)

*How This Action Benefits Passengers*
Central trip brokerage can reduce the number of calls a passenger needs to book a trip, and with one number to call or website to visit, trip brokerage can simplify the marketing of the service to the broader public.
Implementation Timeline

Short Term (2022 – 2024)

- Change Scoring Weights for Projects in the Program Management Plan (PMP).
- Create passenger and provider portals on the MPO website, and begin building a document archive for current HST ecosystem year documents, and prior year documents and reports
- Establish a reimbursement per trip schedule from the MPO to HST providers, acknowledging that regional length medical trips are increasing
- Establish or enhance volunteer programs to offer alternative means of transportation
- Provide information to the community about available transportation services

Medium Term (2025 – 2027)

- Explore whether a reimbursement agreement across WSTA / PART / others could help address vehicle availability for trips in the HST ecosystem
- Partner with job training organizations
- Encourage employers to assist with costs of employee transportation
- Provide more frequent WSTA service
- Expand WSTA hours of operations on nights, weekends and provide Sunday service
- Expand service area for ADA and seniors

Long Term (2028 – 2030)

- Explore whether a central trip brokerage function for trip assignment across multiple providers would be beneficial
- Provide early morning and late-night service on fixed route transit services.
- Establish 24/7 trip planning
- Promote alternative transportation options, during non-peak hours and underserved geographic areas
Glossary of Terms

**Circulator** - A circulator is a short-distance, circular, Fixed Route transit mode that takes riders around a specific area with major destinations. Two common types of circulator bus transit are downtown circulators and neighborhood circulators. Most downtown circulators are oriented toward employee and tourist/visitor markets. Neighborhood circulators meet the mobility needs of transit-reliant populations, such as low-income and mobility-challenged individuals. WSTA provides three neighborhood circulators in suburban neighborhoods and employment centers using routes 81, 82 and 97.

**Demand-Response** - Demand-Response transit service is an operating method where the origin and destination of a service is determined by a passenger request, usually through a call center that dispatches vehicles to pick passengers up and drop them off. Paratransit services are typically operated on a Demand-Response basis.

**Fixed Route** – Fixed Route is a term that refers to a bus, rail, or other transit service where the route traversed by the vehicle and the stops served do not change. These services are most common in urban and suburban areas and passengers walk from their origins and destinations to dedicated bus stops with signs by the side of the street.

**Flex Route or Fixed Route with Deviations** – Flex Route service is an operating method where the service largely resembles a Fixed Route service but can deviate in portions of the entirety of the route according to requests of passengers in the vehicle or calling in by phone ahead of time. Due to the variability in destinations served, Flex Routes are generally slower and have greater variability in on-time performance than Fixed Routes, but they can also serve low-ridership destinations more cost-effectively than a Fixed Route.

**Paratransit** – Paratransit is a public transportation service that supplements larger public transit systems by providing individualized rides without fixed routes or timetables. Paratransit service can include curb-to-curb service, where an operator picks up a passenger on the sidewalk or edge of the road and drops them off at a similar location. It can also include door-to-door service where the paratransit operator exits their vehicle and assists the passenger in moving between the vehicle and their origin or
destination. As this type of service costs more per trip to provide than traditional Fixed Route bus service, use of paratransit is generally restricted to those individuals whose physical or cognitive limitations make it difficult or impossible for them to use the fixed route bus system.

**Shared Ride** – Shared Ride services are those where multiple individuals going to the same destination arrange to travel in a vehicle together, usually to save on gas and other vehicle operations costs. A carpool is the basic version of this type of service, where a public transportation agency may facilitate connections between two individuals who wish to share rides. A vanpool is a more organized version of Shared Ride, where an agency may provide a van to a group of 5 or more that will travel together on a regular basis to an employment center.
Appendix A: Survey Results and Free Response Comments
In addition to the longer comments in the primary document, we received many individual comments in the survey that are similar to those that would be written on sticky notes in a public in-person meeting or workshop. A few key questions are listed below, followed by responses from the survey respondents:

“What would make it easier to use transportation services for your needs?”

- Having one available to this rural area of Woodleaf, NC
- Having my own reliable transportation
- To cover a wider area
- Reduced Uber fare for disabled
- I drive and don’t need any transportation services.
- A way to communicate other than cell phone or computer
- Access to services and quicker access at all times
- More availability and greater coverage
- More frequent buses
- If it served the whole county
- Have limited mobility due to age, balance problems, general frailty due to age
- More routes, more frequent stops
- More accessible routes
- Evening availability that was safe
- Closer to my home
- Future - autonomous bus routes based on demand
- Having transportation service availability in my area
- More frequent bus trips
- All routes run 7 days a week
- No bus shelters, unsafe crossings to get to bus stops
- Availability in my area; scheduling options and destinations that match my needs.
- Reliability
- If I can get there to sign up
- Quicker service – Going directly there
- Accurate scheduling
- We live inside city limits, but outside service area for Trans-Aid
- A simpler system documentation
- Availability
- Available in my area, arrive at specific times I choose and delivers me to destination on time without significant wait times, low cost
“What else would you like to tell us about your transportation needs?

- Being on outskirts of county makes it difficult to schedule rides
- Would need disability accessibility
- Change in bus routes more difficult for disabled seniors in 27105 zip code area
- Public transportation is better for the environment
- Probably require too much assistance to be able to use public transportation;
- need helper/caregiver entire time I'm out
- I have a 1996 Ford Ranger that is not good on gas. Gas is expensive and I'm afraid for my vehicle to break down because I do not have the money for repairs or another vehicle. I am disabled and live on social security.
- I am fortunate that my needs are met, but I know there are many people who have challenges
- Public transportation needs GREAT improvements.
- We should be able to provide more frequent bus and van service even if taxes have to go up
- In the future I know that I will need help.
- walking is difficult because of sidewalk interruptions and crosswalk availability
- I no longer drive... family took keys away
- More stops are needed
- more sidewalks to bus stops
Appendix 19: Lessons Learned from the COVID-19 Pandemic and HST Strategies for Future Pandemics

Preparing For Future Pandemics

A dominant theme in this study was how the COVID-19 pandemic impacted human service transit passengers and providers in every way, from staffing to vehicle cleaning to capacity to funding challenges.

As the HST plan update process began, the project team resolved that the WSUAMPO human service transit ecosystem should identify ways to be better prepared for a future pandemic.

This appendix identifies important information about this unique period in 2020 and 2021, and lessons learned from the COVID-19 pandemic that can be applied in the future.

Supplemental Federal Funding

Federal Coronavirus Aid, Relief, and Economic Security (CARES) Act
In addition to the standard Federal Funding programs, two major disbursements were made from the Federal government to transit agencies as part of the nation’s response to the COVID-19 pandemic. The CARES Act was the first, and the Winston-Salem Urbanized Area received $15.3 million under that disbursement, which was subdivided as follows across the following WSUAMPO recipients:

- WSTA - $12.4 million
- PART - $1.9 million
- Davidson County - $1.0 million

These one-time funds were eligible for all normal expenses, including paratransit operations.
Federal Coronavirus Response and Relief Supplemental Appropriations Act (CRRSAA)
In late December 2020, a second disbursement of Federal funds was sent to transit agencies. Winston-Salem did not receive any 5307 CRRSAA funds. In the CRRSAA package, 5310 funds were available, and the Winston-Salem Urbanized Area received approximately $63,000. CARES and CRRSAA were one-time disbursements and are unlikely to be repeated.

Impacts of COVID-19 on the HST Ecosystem

Especially important during the duration of this plan update was assessing and addressing the impacts of the COVID-19 pandemic on the human service transportation system. Key findings included:

COVID-19 related issues created additional stresses on transportation providers and clients. These issues were faced by transportation providers nationally, but were also cited in interviews with Winston-Salem area transportation providers. They included:

- Non-profit HST providers were unable to use volunteer drivers to provide door to door demand response service. For profit HST providers became overbooked and the taxis and Transportation Network Companies could not fulfil the same level of elderly and disabled service.
- Additional cleaning regimes and social distancing meant fewer trips with fewer clients served.
- Medical services required clients to remain in the vehicle until appointments and this was unworkable with typical ADA paratransit service. Medical triage tents and waiting areas began to help alleviate this issue.
- Virus testing of drivers and clients was difficult and evolving during the pandemic. Without rapid testing, trips had to be delayed or cancelled by COVID-19 positive contacts.
- Agencies, senior centers and day programs were cancelled or operating under new protocols which made trip planning and delivery difficult.
Pandemic-Specific Gaps, Needs, and Challenges

As in the primary report, the appendix defines Gaps, Needs, and Challenges as follows:

- **Gap** – Something that is completely missing from the HST ecosystem that can be resolved by additional focus, resources, or both.
- **Need** – Something that if addressed can improve the overall HST experience, but may or may not be able to be addressed.
- **Challenge** – Something that makes delivering HST service more difficult and is also exceedingly difficult to address.

Need: Outdoor Waiting Rooms at Medical Centers In Future Pandemic Conditions

When COVID-19 hit, one of the responses from medical facilities was to tell patients to wait in their cars instead of coming into the waiting room ahead of an appointment. While this may work for an individual who owns a car, this created challenges for HST passengers and providers. There is a need in the community for outdoor waiting rooms in these circumstances.

Pandemic-Specific Recommendations to Consider

Engage Medical Organizations in a Dialogue About the Need for Outdoor Waiting Rooms

When a passenger must wait in a vehicle instead of a waiting room, it has the following consequences in a pandemic:

- Lengthens the trip time and delays the ability of the vehicle to serve another trip
- Prolongs vehicle operator and passenger exposure to each other, raising airborne illness transmission risk

Setting up outdoor waiting room facilities with the capacity to receive multiple wheelchair patients who can wait out of the rain or hot sun increases safety for both the HST vehicle operator and the passenger, and allows the vehicle to serve another trip sooner. Getting vehicles back into service faster helps the ecosystem deliver more capacity to passengers each day.

This dialogue is also an opportunity to improve overall coordination between medical providers and HST providers on subjects such as scheduling and where possible,
choosing locations for medical procedures that make it easier to transport patients using HST services.

**Work With Service Providers to Share Best Practices Around Destinations That Require COVID-19 and Other Testing for Entry**

During the COVID-19 pandemic, some destinations like sheltered workshops instituted screening protocols at their building’s front door to screen people before entering. In some cases, a HST provider brought a passenger all the way to their destination, only to have them trigger a potential COVID-19 indicator in a screening and require the HST provider to return them home immediately.

While any future pandemic protocols may be driven by the viral nature of a future pathogen, having providers share “what worked” best practices around COVID-19 to prevent these wasted trips that also increase exposure risk could be beneficial to the ecosystem at large.

**Engage HST Providers In a Dialogue About Whether the Pandemic Has Increased Demand for Trips Beyond Typical Service Areas**

Providers reported that COVID-19 generated new kinds of trip requests that they had not seen previously. In one case, a grandmother whose child was an essential worker, needed transportation from within the MPO to a location outside of it where her child lived, so that she could go there to supervise online schooling of her grandchildren. The provider worked to complete the trip even though it was beyond their service area so that the children would not be left home alone. Gaining an understanding of the new types of trips the pandemic induced may help WSUAMPO communicate provider needs to FTA in a future pandemic condition.