Age-Friendly Transit
Accessible and Inclusive Transit Stop Infrastructure
ACKNOWLEDGEMENTS

This work was made possible through the generous support of the National Aging and Disability Transportation Center and The Columbus Foundation.

We would like to thank our partners in this work, especially the Central Ohio Transit Authority (COTA), the Center for Urban and Regional Analysis (CURA), At Home By High, Seton Square North, Catholic Social Services Columbus, Fairwood Commons, Woda Cooper Companies, Functional Training Services, the Franklin County Board of Developmental Disabilities, and Northland area community partners. Additionally, we would like to thank the older adults and individuals with disabilities who worked alongside the project team, providing their time and knowledge.

A special thank you to the expert reviewers that spent time reviewing this report. Finally, we would like to thank the research and administrative staff of the Ohio State University College of Social Work for their support on this project.

Preferred Citation

TABLE OF CONTENTS

Executive Summary ..............................................................................................................2
Community Engagement Highlights .....................................................................................3
Background ..................................................................................................................................4
Overview ..................................................................................................................................6
Findings ......................................................................................................................................11
Social media engagement ........................................................................................................16
Discussion and Next Steps .....................................................................................................17
Limitations and Conclusions ..................................................................................................20
References .................................................................................................................................21

Tables

Table 1: Participant Race .........................................................................................................11
Table 2: Participant Income ....................................................................................................11
Table 3: Participant Disability .................................................................................................12
Table 4: Participant Primary Language ....................................................................................12
Table 5: Participant Use of Mobility Device or Concerns .......................................................12
Table 6: Participant Previous Use of COTA Services .............................................................13
Table 7: Participant Primary Mode of Transportation ............................................................13
Table 8: Participant Reported Top 10 Features Ranked by Importance ....................................14
EXECUTIVE SUMMARY

- **Communities should make updates and changes to the built and social environments that improve the quality of life of their residents**: These updates can support access to transportation and alternative transportation options. For most Americans, transportation is core to their sense of independence and autonomy. The ability for individuals to choose when and where they go is highly valued and has a direct impact on overall well-being (NADTC, 2022). A University of Utah study found that bus routes with stops that include shelters, benches, and good sidewalk connections had greater ridership than routes without those transit supportive infrastructure elements (Transit Center, 2018).

- **Our community is living longer than ever before, creating significant opportunities for improvement**: Between 2010 and 2040, Franklin County is projected to see a near doubling of the 65 and older population. The percentage of Franklin County residents who are 65 and older is expected to increase from 10% to 15% over that same period (Ohio Department of Development, 2018).

- **Most older adults still drive**: Over 85% of Franklin County residents 50 and older report driving themselves as their usual way of getting around (Central Ohio Regional Assessment on Aging, 2021). Updates to the accessibility and inclusivity of transit is a significant factor that can support alternative transportation usage.

- **Only 20% of older adults in Franklin County agree or strongly agree that their opinions and ideas are valued by decision makers**: (Central Ohio Regional Assessment on Aging, 2021) Ensuring the voices of older adults and people with disabilities in the decision-making process, through Community Based Participatory Research methodology, creates a community that is more livable for people of all ages and abilities.

- **The Age-Friendly Innovation Center engaged with community members, through surveys, focus groups, and transit audits to identify potential improvements to make local transit stops more accessible and inclusive**: Through this engagement and understanding currently available improvement options, a list of prioritized infrastructure updates was created: 1) shelter access at transit stops, 2) adequate lighting, and 3) access to trash cans.

- **Community engagement efforts were focused looking at the accessibility and inclusivity of local transit stops**: Despite this specific scope, the study team was presented with significant information from community members that is important in future planning towards a more Age-Friendly Transit system. This information included recognizing the importance of 1) infrastructure surrounding transit stops such as sidewalks and crosswalks, 2) sense of safety using and accessing transit, 3) proximity of stops and routes to areas of interest, and 4) additional training on using transit as necessary to ensure fixed route transit is inclusive of all ages and abilities.

- **Next steps to integrate these findings and continue to work towards a more Age-Friendly Transit System in Franklin County are clear. These should include reviewing findings with the local transit authority, creating more sustainable community engagement processes for identifying transit improvements, leveraging funding to make recommended stop infrastructure updates, and integrating ideas for future planning.**
COMMUNITY ENGAGEMENT HIGHLIGHTS

Participants by race
- Asian or Pacific Islander: 48.00%
- White: 25.33%
- Black or African American: 21.33%
- Other: 1.33%
- Prefer not to answer: 2.67%

- American Indian or Alaska Native: 1.33%

- Reported English was not primary language: 50%
- Reported having a disability: 44%
- Reported income of less than $10K/year: 53%

- Age range of participants: 39-92

Considerations for Future Planning
1) infrastructure surrounding transit stops, sidewalks and crosswalks
2) sense of safety using and accessing transit
3) proximity of stops and routes to areas of interest
4) additional training on using transit

COMMUNITY IDENTIFIED UPDATES

Transit Stop Updates
1) shelter access at transit stops
2) adequate lighting
3) access to trash cans

Prefer not to answer: 2.67%
BACKGROUND

Communities across the United States (U.S.) are at a unique turning point, being presented with the ability to make substantial change in residents’ quality of life through improvements to our built and service environments. These opportunities are largely being driven by a demographic shift, as Americans are living longer than in previous decades. In Franklin County, Ohio, there is projected to be a near doubling of the 65 and older population between 2010 and 2040. The percentage of Franklin County residents who are 65 and older is also expected to increase, from 10% to 15%, over that same period (Ohio Department of Development, 2018).

As our communities experience these demographic shifts, incorporating existing data and research knowledge into planning efforts is critical. For many Americans, access to transportation and the independence and autonomy to choose when and where they go is highly valued (NADTC, 2022). Over 85% of Franklin County residents 50 and older reported driving themselves as their usual way of getting around (Central Ohio Regional Assessment on Aging, 2021). While there is a point at which driving is no longer an option, age related changes and disability may impact individuals’ ability to drive. It is estimated that most older adults will outlive their ability to drive safely by nearly 10 years (AAA Exchange, 2020).

According to the Ohio Department of Transportation’s State Highway Safety Plan, from 2012-2016 Franklin County was one of six Ohio counties that had over 5,000 crashes involving drivers 65 and older. Furthermore, older Columbus adults account for the highest percentage of serious injuries and fatalities when involved in crashes. The likelihood of injury to older persons is compounded because their bodies are likely more fragile than that of younger individuals. As a result, car accidents pose a more significant danger to older people (Ohio Department of Transportation, 2020).

According to older adult residents of Columbus, environmental barriers, or a lack of “transit supportive infrastructure,” imposes limitations on transportation and mobility. Barriers reported were unsafe or uneven sidewalks, lack of places to sit and rest, lack of sidewalks, and lack of crosswalk signals (Age-Friendly, 2016). A University of Utah study found that bus routes including stops
with shelters, benches, and good sidewalk connections had greater ridership than routes without those transit supportive infrastructure elements (Transit Center, 2018). In a recent review, the Central Ohio Transit Authority (COTA) provided data showing 747 out of 4676 COTA bus stops have some kind of shelter facility, accounting for about 16% of all stops. COTA also provided ridership data, showing older adults represent about 5% of COTA’s current fixed route ridership.

With the shifting demographics and changing needs of aging individuals in mind, The Age-Friendly Innovation Center (AFIC), a program of The Ohio State University College of Social Work, has prioritized neighborhood-based mobility approaches that encourage alternative transportation options that are equitable, accessible and safe for older adults and individuals with disabilities. Transportation and mobility are critical to the overall health and well-being of individuals and communities.

Building off of the previous approaches, such as Safe Routes to Age In Place, AFIC has been supporting work to define and create a more Age-Friendly transit system. COTA has proactively made significant progress towards creating a system that supports individuals of all ages, abilities, and income levels. This progress has impacted many parts of their service delivery and includes improvements like their new app for mobile devices, fare capping, investing in travel training, COTA Mainstream on Demand, and creating the Older Adult Mobility Committee.

In partnership with COTA, AFIC embarked on an effort to help prioritize future infrastructure improvements. Using Community-Based Participatory Research (CBPR) methods AFIC listened to the voices of older adults and individuals with disabilities to ensure the improvements towards building a more Age-Friendly transit system are grounded in community members’ experiences.

While infrastructure improvements are a critical component, these changes are not sufficient for enacting community-wide changes in alternative transportation ridership. According to the Social Cognitive Theory (Bandura, 1986), human behavior is influenced by three overriding factors: environmental factors, individual factors, and behavioral factors. Infrastructure improvements are a necessary component for behavior change by addressing the environmental level of this framework, but the individual and behavioral factors must still be taken into consideration by those who aim to create equitable transportation opportunities in their communities. To that end, this project assessed bus ridership through the lens of the Social Cognitive Theory, looking at all three factors – environmental, individual, and behavioral.
OVERVIEW

OBJECTIVES

The Age-Friendly Innovation Center has undertaken many mobility focused initiatives with the goal of improving the well-being of residents through expanding accessible and inclusive alternative transportation. Defining and supporting work towards an Age-Friendly transit system is a major component of AFIC’s mobility efforts. The accessibility and inclusivity of transit stops is a key step towards a more Age-Friendly Transit system. AFIC believes an Age-Friendly Transit system would achieve the following objectives:

- Increase accessible, safe, and equitable mobility options for older adults and individuals with disabilities by decreasing barriers to utilizing fixed route transit.
- Use feedback from a diverse group of older adults and people with disabilities to enhance the current local transit system and include training and outreach to support the utilization of the new mobility opportunities.
- Improve fixed-transit infrastructure and accessibility to increase ridership of older adults and individuals with disabilities.

This project provides next steps towards these larger objectives, complementing other mobility initiatives by AFIC and on-going efforts and improvements by COTA. This report will define the next steps related to transit stop improvements and be accompanied with a toolkit, allowing transit authorities, Age-Friendly Communities, and others to replicate this project in their own communities.

“If you are deaf and blind, you don’t know how to give feedback.”
— Study participant

METHODOLOGY

This study used principles of Community Based Participatory Research (CBPR) for outreach to specialized populations. The CBPR approach involves forming partnerships with community members and engaging participants as experts of their community. Applying CBPR allowed researchers to be informed by participants’ lived experiences. Additionally, this CBPR leads to stronger relationships between the research team and community stakeholders.

This project utilized an interdisciplinary approach. The study team was comprised of individuals with backgrounds in social work, public health research, occupational therapy, and city and regional planning. Having a diverse team was crucial to the project’s success due to the complex nature of the work, which involved building partnerships, designing surveys, conducting focus groups, and strategizing around transportation infrastructure.
“We count, we have feelings, we have needs.”
— Study participant

**Study Phases**

*Identifying and reviewing target locations*

Population density of older adults and people with disabilities was utilized to identify potential areas for project focus. Site reviews of locations were completed to understand baseline infrastructure at bus stop locations. The team visited a list of potential locations to review, to take photos and conduct a preliminary evaluation. The photos and review information were collected and supported the initial planning phase, guiding which bus stops or areas the project team would focus on during the community engagement phase.

**Recruitment**

AFIC has long standing community relationships that were leveraged for study recruitment. Recruitment strategies were crafted after identifying transportation vulnerable residents and community organizations. By identifying high priority destinations and neighborhoods, potential participants were engaged through focus groups. Recruitment involved phone calls, an email, and a flyer inviting service coordinators, older adults, people with disabilities, case managers, and other professionals to participate in a focus group and/or transit audits. Through these partnerships, hundreds of older adults and individuals with disabilities received information about the project.

AFIC believes older adults and individuals with disabilities are the experience experts, best suited to define challenges and areas of improvement in their own life experiences. This is an identified benefit of CBPR method. In recognition of the time and knowledge the participants were providing, all participants received an incentive for participation.

**Data Collection**

Grounded in CBPR methodology, community engagement efforts were designed to meet individuals where they were at and maximize knowledge gathering at each engagement. The engagement opportunities were based on the location of bus stops of interest with varying types of stop infrastructure. The locations were identified throughout Columbus, with locations in both urban and suburban settings. There was an intentional focus on ensuring diversity in the data collection phase, with a focus on age, ability, race, and people for whom English is not their primary language.
To maximize knowledge gathering, engagement opportunities were planned with a layered approach, with a written questionnaire, focus group, and transit stop audit. The following agenda was used for each engagement:

**Agenda**

- Welcome, study overview, and study team introductions
- Verbal consent
- Introduction to COTA representative and travel training opportunities
- Questionnaire
  - Demographics
  - Transportation habits and preferences
- Focus Group
  - What makes a bus stop accessible and inclusive?
  - Describe your experience walking/rolling to and from bus stops
- Transit Stop Audit
- Incentives Provided

Depending on the needs of the group at each engagement opportunity, additional resources were employed to ensure accessibility for participants. This included additional one-on-one study team engagement, translation, and interpretation. Engagement supplies included a wheelchair for any unanticipated needs of participants. Finally, locations were intentionally selected to ensure accessibility and transportation were considered.

**Transit Stop Audit**

Age-Friendly utilized a community-based participatory planning approach and led transit audits to ensure the infrastructure improvements meet the needs of local older adults. The team traveled to identified areas to perform transit audits, capture images, notes, and other information from the bus stop locations.
Due to weather, distance, and other factors, not all participants chose to participate in the transit audits. Since the transit audit checklist only includes straightforward metrics of whether certain things are present or not at the transit stop, the transit audits did not suffer from the lack of presence of study participants.

Transit Stop Audit Checklist

<table>
<thead>
<tr>
<th>Feature</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>The sidewalks surrounding the bus stop are free of cracks and/or damage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The sidewalk leading to or from the bus stop is free of obstructions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bus stop is connected to the sidewalk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The surface from the bus stop to the bus entrance is even and/or smooth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crosswalks with curb cuts are available within two blocks in either direction of the bus stop</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Countdown timers are available at the crosswalk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Countdown timer provides an audible noise for pedestrians</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Countdown timer provides sufficient time to safely cross</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The area around the bus stop has adequate lighting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>There is an ADA landing pad connecting the street and sidewalk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>There is a bus shelter at the stop</td>
<td></td>
<td></td>
</tr>
<tr>
<td>There is access to stable and structured seating within the bus shelter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>There is room for a wheelchair within the bus shelter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The walls of the bus shelter are free of graffiti or other obstructions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The area inside the bus shelter is free of litter or other obstructions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The bus shelter provides adequate protection from weather (four walls, pitched roof)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>There are trash cans available at the bus stop</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trash cans are undamaged and not overflowing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Transit Training

One of the objectives of this study was to increase ridership and accessibility for local fixed-route transit bus stops as well as provide community education around public transit. A representative from COTA offered a brief introduction of COTA services with the option of scheduling a more in-
depth travel training with residents/participants from each location. Some of the information shared included information about the bus pass system, COTA’s services, and making a direct connection to sign people up for COTA services. Through this collaboration, the COTA representative was able to accomplish goals for community outreach, education, and expanded travel training for older adults and individuals with disabilities.

**Data Analysis**

Participants had two different ways of responding to the focus group questions “What makes a bus stop accessible and inclusive?” and “Describe your experience walking/rolling to and from bus stops.” The first was that these questions appeared at the end of the paper surveys, and participants could write their thoughts down on paper. The second way was through our focus groups described above. We included them in the paper questionnaires so that people could share their thoughts even if they did not feel like speaking during the focus group.

During each focus group, one to two members of our team took notes summarizing participants’ statements. All of these notes, as well as all of the written responses were collected, and two members of our team worked together to group responses into themes based on the Social Cognitive Theory (SCT). Each response was tagged with one of the three core features of SCT – Environmental, Individual, and Behavioral. Some responses were assigned more than one theme. A third member of our team was brought in to discuss responses that were more difficult to decipher.

After grouping all responses into these themes, the two members of our team then assigned sub-themes to each response. Sub-themes added a higher level of specificity regarding what exactly participants were communicating. For example, if a participant mentioned bus shelters as being important for bus stop accessibility, this would first be tagged with the “Environmental” theme, and then with a sub-theme of “Shelter.” If a participant mentioned not being able to walk long distances, this would first be tagged with the “Individual” theme, and then with a sub-theme of “Mobility.”

Finally, responses were tagged with whether they included an actionable suggestion or feature for improving bus stops. Using the same two examples from above, the response about a bus shelter would be marked as actionable, and the response about an individual’s mobility would not be marked as actionable. Organizing responses in this way allowed us to more clearly identify potential bus stop improvements.
FINDINGS

DEMOGRAPHIC CHARACTERISTICS

Outreach and recruitment efforts included an intentional focus on reaching diverse community members. In total, this project engaged 85 individuals, through the survey and focus groups. Their ages range from 39 to 92 years. The average age was 73.3 with a standard deviation of 12.0. Per these responses, we learned that more than half of focus group participants had an income under $10,000/year, 44% of individuals reported having a disability, Chinese (Mandarin or Cantonese) were the primary languages spoken, more than half of individuals responded as needing some sort of mobility support or having a mobility concern, 35% of responders have not utilized COTA services (local fixed-route transit system), and nearly 90% of respondents said they use some form of alternative transportation than driving themselves. Detailed data on the responses from the participant demographic questionnaires are listed in the following tables:

Participants’ races are displayed in Table 1.

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>American Indian or Alaska Native</td>
<td>1.33%</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Asian or Pacific Islander</td>
<td>48.00%</td>
<td>36</td>
</tr>
<tr>
<td>3</td>
<td>Black or African American</td>
<td>21.33%</td>
<td>16</td>
</tr>
<tr>
<td>4</td>
<td>White</td>
<td>25.33%</td>
<td>19</td>
</tr>
<tr>
<td>5</td>
<td>Other</td>
<td>1.33%</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Prefer not to answer</td>
<td>2.67%</td>
<td>2</td>
</tr>
</tbody>
</table>

Participants’ incomes are displayed in Table 2.

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Under $10,000</td>
<td>52.78%</td>
<td>38</td>
</tr>
<tr>
<td>2</td>
<td>$10,000 - $24,999</td>
<td>20.83%</td>
<td>15</td>
</tr>
<tr>
<td>8</td>
<td>Prefer not to answer</td>
<td>18.06%</td>
<td>13</td>
</tr>
<tr>
<td>3</td>
<td>$25,000 - $39,999</td>
<td>2.78%</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>$40,000 - $59,999</td>
<td>2.78%</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>$60,000 - $74,999</td>
<td>1.39%</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>$100,000+</td>
<td>1.39%</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>$75,000 - $99,999</td>
<td>0.00%</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 3 shows that around 44% of respondents reported having a disability of some kind.

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I have a disability</td>
<td>44.29%</td>
<td>31</td>
</tr>
<tr>
<td>2</td>
<td>I am responding on behalf of someone with a disability</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>None of these describe me</td>
<td>55.71%</td>
<td>39</td>
</tr>
</tbody>
</table>

Participants were asked to report the primary language(s) spoken in their home. Results for that question are in Table 4.

Table 5 below shows a summary of responses to the question “Do you use any of the following mobility supports to get around?”

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>None</td>
<td>39.77%</td>
<td>35</td>
</tr>
<tr>
<td>2</td>
<td>Support cane or crutches</td>
<td>25.00%</td>
<td>22</td>
</tr>
<tr>
<td>3</td>
<td>Walker or rollator</td>
<td>13.64%</td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>Manual wheelchair</td>
<td>2.27%</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>White cane</td>
<td>4.55%</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>Service animal</td>
<td>1.14%</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Orthoses (ankle foot orthoses (AFO), foot orthoses (KAFO), etc.)</td>
<td>1.14%</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>Prosthesis</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>Other</td>
<td>2.27%</td>
<td>2</td>
</tr>
<tr>
<td>11</td>
<td>I don’t use a support but I have a mobility concern</td>
<td>10.23%</td>
<td>9</td>
</tr>
</tbody>
</table>
TRANSPORTATION CHARACTERISTICS

*Table 6* shows about 65 percent of participants reported having used COTA services, and about 35 percent said they have never used COTA.

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
<td>65.22%</td>
<td>45</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
<td>34.78%</td>
<td>24</td>
</tr>
</tbody>
</table>

Participants’ usual mode of transport is shown in *Table 7* below.

<table>
<thead>
<tr>
<th>#</th>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Drive myself</td>
<td>11.28%</td>
<td>15</td>
</tr>
<tr>
<td>2</td>
<td>Driven by friends or family</td>
<td>30.83%</td>
<td>41</td>
</tr>
<tr>
<td>3</td>
<td>Driven by a professional (paid) caregiver</td>
<td>1.50%</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>I take fixed route public transit (with bus stops and a time schedule)</td>
<td>6.77%</td>
<td>9</td>
</tr>
<tr>
<td>5</td>
<td>I take paratransit (door to door public transit for people with disabilities)</td>
<td>6.77%</td>
<td>9</td>
</tr>
<tr>
<td>6</td>
<td>I use flexible public transit (vehicles operate on a fixed route and have a time, but can deviate from the route)</td>
<td>1.50%</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>I use a transportation service that picks me up from my location and requires a reservation and planning (includes services provided by public entities, nonprofits, and private providers)</td>
<td>5.26%</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>I use rideshare services (Uber, Lyft)</td>
<td>5.26%</td>
<td>7</td>
</tr>
<tr>
<td>9</td>
<td>I use a taxi or similar service</td>
<td>17.29%</td>
<td>23</td>
</tr>
<tr>
<td>10</td>
<td>I walk</td>
<td>9.77%</td>
<td>13</td>
</tr>
<tr>
<td>11</td>
<td>I ride my bike</td>
<td>0.75%</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>Other</td>
<td>3.01%</td>
<td>4</td>
</tr>
</tbody>
</table>
RATINGS OF IMPORTANCE FOR BUS STOP FEATURES

As a part of the survey, participants rated a list of bus stop features based on how important they perceived them to be. This list mirrored the transit stop audit checklist of potential infrastructure improvements currently available. Participants were asked to use a five-point scale of importance, with 1 meaning “Not important at all” and 5 meaning “Absolutely essential.” Below is a table of the top 10 features ranked by importance.

Table 8: Participant Ranked Top 10 Features Ranked by Importance

<table>
<thead>
<tr>
<th>Feature</th>
<th>Mean Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Countdown timer provides sufficient time to safely cross</td>
<td>3.92</td>
</tr>
<tr>
<td>There is a bus shelter at the stop</td>
<td>3.89</td>
</tr>
<tr>
<td>The area around the bus stop has adequate lighting</td>
<td>3.88</td>
</tr>
<tr>
<td>The bus shelter provides adequate protection from weather (four walls, pitched roof)</td>
<td>3.88</td>
</tr>
<tr>
<td>Trash cans are undamaged and not overflowing</td>
<td>3.88</td>
</tr>
<tr>
<td>There are trash cans available at the bus stop</td>
<td>3.78</td>
</tr>
<tr>
<td>The sidewalks surrounding the bus stop are free of cracks and/or damage</td>
<td>3.76</td>
</tr>
<tr>
<td>The area inside the bus shelter is free of litter or other obstructions</td>
<td>3.76</td>
</tr>
<tr>
<td>The surface from the bus stop to the bus entrance is even and/or smooth</td>
<td>3.75</td>
</tr>
<tr>
<td>There is an ADA landing pad connecting the street and sidewalk</td>
<td>3.69</td>
</tr>
</tbody>
</table>

“Bus stops MUST be more easily accessible for older and disabled adults to be more inclusive!”

— Study participant

“Many times I feel like I am taking my chances. Taking a risk any time I walk.”

— Study participant
FOCUS GROUP FINDINGS

From this analysis, the focus groups supported a list of potentially actionable updates for COTA and considerations for future planning and collaborative efforts. Participants identified the items listed below as areas for actionable improvements by COTA to support accessible and inclusive stops. The most commonly heard responses in the focus groups are listed below, in order of those that were heard the most.

- **Shelter** — infrastructure that provides shelter from weather elements
- **Lighting** — increased lighting at stop or within close proximity
- **Training** — opportunities for increased training for bus drivers
- **Safety** — items, such as cameras, to increase safety within vicinity of the bus stop
- **City Infrastructure and Maintenance** — includes necessity for improvements to sidewalks, crosswalks, ensuring trash is cleaned/maintained near stops
- **Signage** — bus stop signs visible and clearly marked
- **Aesthetics** — Bus stops maintained and free from trash, vandalism, and positive improvements such as art
- **Obstruction** — free from obstacles or barriers that make it difficult to navigate or get to/from the bus stop
- **Proximity** — distance to travel to the closest stop

Focus group participants also shared about potential improvements outside of the scope of transit stop improvements. While not explicitly a part of this project, these findings may inform future planning and collaborative efforts towards a more Age-Friendly transit system. The most commonly heard responses in the focus groups related to future planning are listed below.

- **City infrastructure and maintenance** — infrastructure outside of the stop or immediate vicinity including crosswalks, sidewalks, crosswalk improvements
- **Proximity** — changes to stop location or bus routes
- **Safety** — safety improvements to crosswalks, broader community safety concerns
- **Obstruction** — various obstructions to sidewalks such as scooters or construction barriers
- **Training** — specialized training for bus drivers

Through the focus groups, there were various findings of interest the study group felt were important to detail. Through engagement with individuals with visual impairments, the benefits of a shelter were shared that go beyond protection from the elements. A participant specifically shared that a shelter served multiple purposes for her, including providing a larger structure to direct her service animal to find rather than just a sign. This allows sound waves to reflect back to her so that she can become more spatially aware of the location of the stop.

Another participant described how access to a bench at a bus stop influences their selection of where to access the bus, rather than proximity to the stop. This may mean that current ridership data showing lower ridership at stops with less robust infrastructure is not a strong reflection of reality.
SOCIAL MEDIA ENGAGEMENT

In addition to the focus groups, the focus group question, “What makes a bus stop more accessible and inclusive?” was presented to the Age-Friendly Innovation Center social media following on Facebook and Twitter. Many of the suggestions shared reinforced what was learned through the focus groups. Such as, “Providing shelter from sun, wind, rain, snow. Providing space to rest” or “Sheltered and with actual seating. Sidewalk infrastructure to access the bus stop”. A few new ideas, not heard in the focus groups, were provided through these posts – the most notable are:

“Means of summoning help--EMT, police--immediately. Would help everyone, not just older adults and individuals with disabilities”

And

“I agree with sheltered seating - should be comfortable, and not so low that people can’t get up and down. Clear structures add to safety. Room for a wheelchair or walker under the shelter. Clear line of sight from the seats, so you don’t have to get up to see the bus coming.”

And finally, the following was shared through the post that compliments the future planning findings from the focus groups:

“Legible maps posted in trains/stations in sufficient number. More reserved seats for older/disabled. Transit ambassadors to help with directions, fares.”

Through the support of @NADTCmobility & @colsfoundation #AgeFriendly has been gathering groups of older adults and individuals with disabilities to listen to ideas about local bus stop infrastructure. Now we are asking you - what makes a bus stop more accessible and inclusive?

facebook.com/agefriendlyOH
twitter.com/AgeFriendlyOH
DISCUSSION & NEXT STEPS

As communities live longer than ever before, we are presented with many opportunities to make updates and changes to the built and social environments that improve the quality of life of residents. Creating an Age-Friendly Transit system is a significant goal within these broader community changes. Working towards this overarching goal will take continued commitment across the community. As a step towards this, the Age-Friendly Innovation Center engaged with community members, through surveys, focus groups, and transit audits to identify potential improvements to make local transit stops more accessible and inclusive. These findings and next steps are intended to enhance current efforts across the transportation, aging, and disability network locally.

Just over 20% of older adults in Franklin County agree or strongly agree that their opinions and ideas are valued by decision makers (Central Ohio Regional Assessment on Aging, 2021). The value of creating well-crafted opportunities for their voice to be heard and be integrated into the decision-making process about infrastructure changes was a powerful experience. This was evident through many of the comments and statements made through the focus groups and in the high attendance at various engagement opportunities. The process to collect community ideas and help prioritize updates should not be a ‘one off’ effort but should be ongoing, and in a regularly scheduled way.

Learning from the community engagement efforts yielded many lessons learned that were integrated into the development of the Age-Friendly Transit Stop Toolkit. This toolkit is designed to allow communities across the country to replicate this work. Key takeaways about the process were the value of meeting individuals where they are at, meaning at locations close to or connected to where they live, that are comfortable and accessible. Higher attendance and stronger engagement occurred when the community partner identified the location, supported sharing the flyer, and actively invited their community members. The only engagement opportunity at a location identified by the study team (and not identified by a community partner) had low participant turnout.

The layered approach, surveys, focus groups, and transit audits, allowed for significant knowledge to be gathered at each engagement event. COTA has a list of potential infrastructure improvements that are possible within their existing guidelines. This list informed the checklist and discussion with community members. These findings led to a prioritization of the improvements that older adults and individuals with disabilities rated as “important,” and supports the recommendations around improvements. The focus groups and survey results yield slightly different results in ranking of infrastructure updates. Overall, shelter was the highest rated across both types of engagement. Beyond that, common themes were lighting and access and maintenance of trashcans. Shelters and lighting are important but significantly higher cost. These should be should strategically considered whereas trash cans are less costly and can be implemented system wide.

Through the pre-engagement transit audits conducted by the research team, some members recognized potential sources of light nearby stops. Lighting needs additional research as some stops have access to nearby lighting outside of COTA infrastructure that may support sufficient light. Evening transit audits of these locations should be considered.

Shelters were widely recognized as important throughout community engagement, both in the surveys and the focus groups. Of note, through the voices of community members we learned about the importance of a shelter beyond the physical comfort and protection from the weather. The shelter also provides individuals who are visually impaired a place to direct service animals or become more
spatially aware through use of auditory cues as sound bounces off shelter better than a pole. Going into
the community engagement the study team assumed benches would be important, and while they are
important to many, the qualitative and quantitative findings showed that shelters were identified as
significantly important to the accessibility and inclusivity of a stop.

The surveys, focus groups, and transit stop audits conducted in these engagements were narrowly
looking at transit stops. Despite this specific scope, the study team was presented with significant
information from community members that is important in future planning towards a more Age-Friendly
Transit system. Community members reported high importance of the infrastructure surrounding transit
stops such as sidewalks and crosswalks, a sense of safety using and accessing transit, the proximity of
stops and routes to areas of interest, and additional training on using transit as necessary to ensure fixed
route transit is inclusive of all ages and abilities. Many of these improvements are beyond the scope of a
transit authority and may take additional support and collaboration with municipalities, business owners
and other stakeholders consider and prioritize this infrastructure preference. These may also take an
expansion of what is currently available within our community. A robust national best practice search to
investigate other low cost, high impact improvements is an important future step.

Additionally, an important next step for this work should include project partners coming together to
review the report’s findings. As the infrastructure recommendations from this report are integrated, stop
locations should also be a consideration. Updates should be prioritized by areas with a high density of
older adults and individuals with disabilities considered more vulnerable, such as the low-income housing
complexes that were included in the community outreach phase of this project. Similarly, stops should be
prioritized based on those that were identified with the highest rate of the bus kneeling, being lowered to
the curb, or utilization of the lift.

Fully integrating the voices of older adults and individuals with disabilities into future infrastructure
updates and transit planning is important. An on-going process should be created and implemented to
ensure these voices are heard through surveys, focus groups, transit audits, and/or specialized advisory
councils. Enhanced and regular tracking of ridership rates of older adults and individuals with disabilities
on fixed route transit is a necessary step to ensuring transit stops meet the needs of riders. In the future,
this can be used to inform and prioritize infrastructure funding.
REFERENCES


