



4

MEETING USER NEEDS AND LIMITATIONS

No matter how much a senior wants to ride public transportation, there may be physical barriers preventing him or her from meeting or boarding the transit vehicle. Financial limitations can also restrict access to public transportation. Public transit systems can better serve the travel needs of older persons by recognizing and then meeting their needs and limitations. Such improvements focus on accessibility issues.

Public transportation systems can become more responsive to the physical and financial limitations of older customers by

- Addressing physical accessibility issues;
- Relieving financial limitations; and
- Providing enhanced information regarding transit services.

Additional information on the transit systems identified in this chapter in boldface type can be found in the Appendix to this Handbook.

OPPORTUNITIES FOR IMPROVEMENTS

Addressing Physical Accessibility Issues

For many older persons, the act of boarding a standard fixed-route bus is anything but routine. Many people would find climbing a few tall stairs to be as simple as walking a few short steps. For older persons with physical ailments and pain, climbing those stairs can be as difficult as climbing a mountain. And when there is a busload of passengers staring at you as you struggle up the steps and a

driver waiting impatiently for you to finish your climb, it can be a traumatic and embarrassing experience. For this reason, many ambulatory seniors will not ride a traditional fixed-route bus, opting for either paratransit or other transportation services. According to the Director of **Capital Area Transit Authority (CATA)** in Michigan, “seniors in wheelchairs are actually better served than ambulatory seniors, because hip problems can be worse than being in a wheelchair.” Making fixed-route services accessible to ambulatory seniors not only saves money (in paratransit costs), it also provides seniors with increased freedom and mobility.

Key strategies for addressing physical accessibility issues include

- Improving the ease of boarding transit vehicles, and
- Improving direct pedestrian access to vehicles.

Improving the Ease of Boarding Transit Vehicles

Key strategies for improving the ease of boarding transit vehicles include

- **Purchasing low-floor vehicles;**
- Deploying ramps for boarding;
- Constructing raised platforms at major passenger boarding locations; and
- Providing passenger assistance in boarding/alighting as needed.

The strategy in boldface type is discussed below.

Purchasing Low-Floor Vehicles. For serving seniors and people with disabilities, low-floor buses possess several advantages

over conventional buses. The most important advantage is the difference in height for the first step. Typically, the first step onto a conventional bus is between 9 and 12 inches above the curb. On the latest low-floor vehicles, the first step is less than 3 inches above the curb. Although a difference of a few inches may not seem like much, for an older person with hip and joint problems it is enormous. Many older persons who cannot board a regular bus can board a low-floor vehicle without difficulty. Getting these older persons to use fixed-route service (rather than costly paratransit service) can easily offset the slightly higher cost of low-floor vehicles.

Ann Arbor Transit was one of the first transit systems in the United States to deploy full-sized, low-floor vehicles. A 1994 on-board survey found that 89 percent of passengers who experienced difficulty with boarding a regular bus found the low-floor vehicles easier to board. Of that same group, 75 percent found the low-floor vehicles easier to exit. Ann Arbor also reports that boarding and exiting times are reduced with low-floor vehicles by approximately $\frac{1}{3}$ second per passenger. Although this may not seem like a substantial reduction, the system’s staff reports that, over the course of a day, the accumulated time-savings have led to greater on-time performance and schedule adherence.

In addition to helping ambulatory persons with mobility limitations, low-floor buses also provide improved service to passengers using wheelchairs. The boarding time is greatly reduced using the ramp on a low-floor vehicle as opposed to the hydraulic lift on a conventional bus. Passengers also prefer using the wheelchair ramp to using the lift. According to a 1992 survey of wheelchair passengers, 81 percent found the

low-floor wheelchair access to be “very easy,” compared with only 28 percent of conventional lift users. Thirteen percent found use of the conventional lift to be “hard” or “very hard,” compared with less than 2 percent of the low-floor users.

Low-floor buses are becoming a very popular choice for fixed-route systems. One bus manufacturer estimates that low-floor bus sales accounted for between 70 and 80 percent of the market in the year 2000. These vehicles are becoming especially popular in areas with a high concentration of senior riders. **Altoona Metro Transportation (AMTRAN)** in Pennsylvania is purchasing low-floor buses exclusively. **CATA** in Michigan has recently purchased 24 new low-floor buses, with plans to purchase more in the near future. **Tri-Met** in Oregon is purchasing 50 new low-floor buses each year, and their entire fleet should be low-floor within 3 years. It is no coincidence that each of the above-mentioned systems transports a disproportionately large number of seniors.

Improving Direct Pedestrian Access to Vehicles

Key strategies for improving direct pedestrian access to vehicles include

- **Providing or contracting for door-to-door service (priced at a fare consistent with the cost of service);**
- Making infrastructure improvements to the walking environment (e.g., sidewalks and curb cuts), offering escort services; and
- Providing feeder service via paratransit, service routes, and contract service providers (including volunteers and taxi cabs), and offering more extensive service coverage.

The strategy in boldface type is discussed below.

Providing or Contracting for Door-to-Door Service. Ambulatory seniors with severe mobility limitations cannot be expected to ride fixed-route buses, no matter how accommodating the service. For them, the only alternative is paratransit service. Most paratransit service is provided on a “curb-to-curb” basis, meaning that seniors are picked up at the curb in front of their residences and dropped off at the curb of their destinations. For most paratransit passengers, this is sufficient. However, some passengers require an even greater level of accommodation. Door-to-door service provides extra assistance to elderly passengers: helping them get to the bus and helping them get from the bus to their final destination. This is especially important in areas with harsh climates and icy winters. Some transportation systems (for example, the **Independent Transportation Network [ITN]** in Portland, Maine) provide “door-through-door” service, which adds an extra level of assistance for very frail seniors. With door-through-door service, the passenger receives assistance with getting ready (e.g., putting on a coat, collecting a handbag, walking out the door and down the steps, and locking the door), getting to the vehicle, getting off the vehicle, and getting inside the destination. The passenger is then met by an appropriate person at the destination.

These higher levels of paratransit service come with additional costs. Trips take longer, drivers need extra training with assisting passengers, and fewer trips can be provided over the course of a day.

Sweetwater Transportation Authority (STAR) in Sweetwater County, Wyoming, provides an excellent example of how door-to-door paratransit service can be provided in a cost-efficient manner. STAR, in cooperation with local human service and coordinating agencies, has installed a semi-

automated dispatching system to assist with the operation of their paratransit service. The dispatching system utilizes color-coded, computer-based maps to identify origins and destinations and route the particular bus.

The dispatching system also allows STAR to track demographic and trip information for every passenger trip and to compile statistics and reports without additional data collection. They can, for example, track the number of low-income riders or welfare trips for a given month. This allows STAR to create a detailed analysis of their clientele and to tailor their service to meet the needs of this clientele.

With the scheduling efficiency provided by the semi-automated dispatching system, in addition to the planning capabilities offered by the demographic tracking system, STAR has been able to increase productivity without additional vehicles or personnel. In fact, according to the former director of STAR, they have experienced a 400-percent increase in the number of rides provided since the inception of the automated system.

Relieving Financial Limitations

Nearly all elders are sensitive to prices, whether they ride transit or not. Transit riders generally have lower incomes than non-riders do. Several strategies can assist seniors with the cost of transportation services.

Key strategies for relieving financial limitations include

- Reducing fares for older persons and establishing special purpose fares and discount programs.

- Looking to human service agencies to identify and provide financial support for those specific older adult riders most in need of assistance.
- **Obtaining subsidies or co-payments for certain older riders or all older riders from local and state governments, merchants, and professionals.**

The strategy in boldface type is discussed below.

Subsidies and Co-Payments

Various sources are used to cover operating and capital expenses not paid for by passenger fares. Federal funds provide significant revenue sources for local transportation operations, and state and local tax revenues are also significant. Human service agencies often pay substantial portions of the fares of their clients, up to and including 100 percent of the cost. Corporate sponsorships and third party payments are also possible but less frequent. Another possibility is using a fare card. In this arrangement, some of the cost (recorded on the fare card) of seniors' trips to a particular store, mall, or medical facility is underwritten by the store, mall, or medical facility. (The ITN has been successful in establishing such partnerships, as has the San Diego Transit Corporation.) Smart card technologies assist in implementing these subsidies.

Pennsylvania's Transportation Programs for Seniors. Pennsylvania provides two special transportation programs for older citizens: the Free Transportation Program for Senior Citizens and the Shared-Ride Program for Senior Citizens. Established in 1973 and 1980, respectively, both programs are funded through the Pennsylvania State

Lottery. Together, these two programs fund transportation for older persons in all of the state's 67 counties using public transportation systems. The lottery-funded programs involve substantial coordination among the state Department of Transportation, Department of Aging, seven other state agencies, local governments, and local public transportation operators. Other state agencies work closely with the Pennsylvania Department of Transportation (PennDOT) and local public transportation providers to minimize duplication and overlap and to maximize the cost-effectiveness of specialized transportation services.

Through the Free Transportation Program for Senior Citizens, people 65 years of age and older can ride free on local fixed-route bus, trolley, commuter rail, and subway elevated systems during off-peak hours on weekdays and all day on weekends and designated holidays. To participate in this program, an older person merely shows identification to the transportation operator when boarding. Valid forms of identification include a Commonwealth Senior Citizen ID Card (provided by PennDOT and issued locally by participating transportation providers), a Medicaid card, or a Railroad Retirement Card. ADA certification is not required. There are no trip purpose restrictions.

The Shared-Ride Program is a paratransit program. People age 65 and older must register with the Shared-Ride transportation operator to use the Shared-Ride Program. Trips must be reserved at least 1 day in advance. Anyone using this service must be willing to share the vehicle with other passengers. Door-to-door service is usually available. Riders generally pay 15 percent of the fares charged to the general public.

Some local Area Agencies on Aging will pay the rider's portion of the paratransit fare. There are no restrictions on trip purpose or on time of day of travel during regular system service hours.

Older riders have reported substantial economic benefits; in addition to saving the costs of the fares, more than half of the older riders surveyed shortly after the program began reported an increased ability to shop around and take advantage of lower-priced goods and services. The Free Transportation Program increased mobility of older riders and decreased their dependency on friends and families for rides. Human service programs with elderly clients have also benefited from lower transportation costs.

Governmental Subsidies in Local Areas.

A number of localities provide transportation services for no fare. Older persons are often seen as a group that receives substantial benefits from such programs. Communities in the state of Washington can use tax revenues to support programs such as transportation. Several are offering what has been termed "prepaid transportation service" under the concept that payment has been made through tax dollars, and the service is available when needed. Logan, Utah, instituted a free transportation service in the late 1990s, which is now recording 40 passengers per hour, a relatively high utilization rate for a community of this size (a population of 43,928 in 2001).

Providing Enhanced Information Regarding Transit Services

Lack of travel information can be as much of a barrier to accessibility as physical and

financial limitations. Older persons may not know of the existence of services that they could use, and they may not know how to use services even if they know that these services exist. They may be reluctant to delay other passengers by the time they take to board or alight, embarrassed to reveal their inexperience or afraid of not being able to manage the journey. More travel information can address all these issues. (See the Final Report, the second volume of *TCRP Report 82: Improving Public Transit Options for Older Persons*, for further details.)

Key strategies for enhancing travel information include

- Implementing outreach and education programs;
- **Increasing the amount and variety of travel information directly available to riders; and**
- **Targeting marketing efforts specifically to groups of older persons.**

The strategies in boldface type are discussed below.

Increasing the Amount of Travel Information for Riders

Providing much better information about all aspects of transport to elderly and disabled people and their friends, families, and caregivers is a growing trend in Europe. This includes information on services that can help with travel planning, as well as real-time information at terminals, at bus stops, and in vehicles to help riders select the correct vehicle and to monitor their progress. Operators are taking care to display information in formats that are easy to read and understand.

Targeting Marketing Information to Older Persons

A common marketing tactic is the dissemination of transit materials (such as maps and schedules) at senior centers, assisted living facilities, and departments of motor vehicles. AMTRAN in Pennsylvania has some of the most advanced and successful marketing techniques. In addition to the above-mentioned tactics, AMTRAN also places radio advertisements on “senior” radio stations (e.g., Big Band and Oldies stations). AMTRAN advertises in the publications distributed by Blair Senior Centers, which have a circulation in excess of 25,000. AMTRAN has also had success targeting seniors with advertisements in the Penn State alumni publications.

ADDITIONAL STRATEGIES FOR ADDRESSING USER PREFERENCES

Other strategies for addressing user preferences, drawn primarily from focus groups with transportation industry professionals, are shown in Table 3.

OTHER TRANSIT SYSTEMS WITH IMPROVEMENTS REGARDING USER NEEDS AND LIMITATIONS

Other transit systems that have made significant steps in addressing user needs and limitations regarding transit services are shown in Table 4. More information on these systems is available in the Final Report, the second volume of *TCRP Report 82*.

Table 3.	
Additional Strategies for Addressing User Preferences Regarding Transit Services	
<i>Issue</i>	<i>Strategy</i>
Travel from a building to the curb to board a vehicle is difficult for some people	<ul style="list-style-type: none"> • Provide driver assistance from the door of a building to vehicles
Some older persons are unable to wait for extended periods outside for a transit vehicle to arrive	<ul style="list-style-type: none"> • Provide shelters and benches at transit stops; improve schedule reliability • Increase service frequency • Institute automated vehicle arrival and departure technologies • Establish short waiting times for transfers
Some older persons need assistance in recognizing destinations and when to get off a bus	<ul style="list-style-type: none"> • Provide audible and visual announcements of stops within the vehicle • Enhance signage at bus stops
Many older persons need to know more about available transportation services to understand and use them	<ul style="list-style-type: none"> • Implement outreach and education programs • Look for models in other markets • Develop affinity relationships; develop peer-to-peer training programs • Create special incentives such as free fares for using fixed-route service instead of paratransit service

Table 4.		
Other Examples of Improvements Regarding User Needs and Limitations		
<i>Need/Limitation</i>	<i>Type of Improvement</i>	<i>Transit System/Location</i>
Physical accessibility issues	Enhanced pedestrian access	Systems in England
Travel information	Targeted marketing techniques	Great Falls, Montana