

TCRP Research Brief

TCRP Report 163: Strategy Guide to Enable and Promote the Use of Fixed-Route Transit by People with Disabilities

Current Use of Fixed-Route Transit Services by People with Disabilities

It is important to consider current use of transit services by people with disabilities. It is also important to consider attitudes about fixed-route transit services and factors that are considered by people with disabilities when deciding whether to use fixed-route transit service or another mode of service.

Current Fixed-Route Transit and ADA Paratransit Use

To develop an understanding of current use of transit services by people with disabilities, information on ADA paratransit ridership and fixed-route reduced fare ridership was collected from seven transit agencies. Agencies from different geographic regions, as well as large, medium, and smaller communities were studied.

To determine the relative use of fixed route transit and ADA paratransit by people with disabilities at each system where data was gathered, the ratio of trips made on each mode was calculated. The results are shown in Table 1. A ratio of 1.0 means that fixed-route transit ridership by people with disabilities and ADA paratransit ridership were equal. A ratio of 2.0 means that fixed-route transit ridership was twice ADA paratransit ridership. With the exception of one of the seven transit agencies in one of the years studied (2009), the fixed-route transit ridership for people with disabilities was greater than the ADA paratransit ridership for every system in every year data was available. The largest systems, including those in Chicago, Boston, Portland, and Salt Lake City, all had ratios close to or greater than 5.0. These four transit systems have urban bus and rail service with frequent headways, as well as late evening service.

The ratio of fixed-route transit ridership to ADA paratransit ridership increased over time in four of the seven systems, indicating that in these systems, use of fixed-route transit service by people with disabilities was increasing at a relatively faster rate than their use of ADA paratransit.

Table 1. Ratio of Fixed-Route Transit Ridership by Persons with Disabilities to ADA Paratransit Ridership

Transit Agency	2009	2010	2011
Ann Arbor Transp. Authority, Ann Arbor, MI	0.84	1.02	1.12
Chicago Transit Authority, Chicago, IL	7.34	8.07	NA
Laketran of Lake County, OH	5.78	2.18 (1)	2.66
Massachusetts Bay Transp. Auth., Boston, MA	NA	5.09	4.84
Pace Suburban Bus, Arlington Heights, IL	1.68	1.98	NA
Tri-County Metropolitan Transit Auth., Portland, OR	6.22	6.12	6.23
Utah Transit Authority, Salt Lake City, UT	5.07	5.89	6.44

(1) Lower ratio in 2010 a result of increased ADA paratransit ridership.

Note: Fixed-route ridership data for 2009 MBTA, 2011 CTA, and 2011 Pace not available.

The study's findings included:

- Fixed-route transit ridership by people with disabilities in many locations is two to six times higher than ADA paratransit ridership.
- In four of the seven systems studied, fixed-route transit ridership increased faster than ADA paratransit ridership in recent years. This suggests that people with disabilities are traveling more. It also suggests that many people with disabilities who are able to use fixed-route transit service appear to be doing so.
- Use of fixed-route transit service by riders with disabilities appears to be greater in the urban systems studied and lower in smaller city and rural systems. This is likely due to the greater availability of fixed-route transit service in urban areas.
- Similar to the growth in ADA paratransit ridership, fixed-route transit ridership by people with disabilities appears to also be growing. This suggests a general increase in public transit use by people with disabilities, not just growing ADA paratransit ridership.

The research is based on transit agencies' tracking of ADA paratransit ridership for the National Transit Database (NTD), and further, on the fact that some transit agencies also track ridership by fare type (e.g., reduced fares or free fares made available to riders with disabilities). It should be noted that reduced fare data likely undercounts actual use by individuals with disabilities, since some people with disabilities may not be aware of the reduced fares, or may simply use fixed-route transit service at the full fare for a number of reasons.

Input on Use of Transit Services from Persons with Disabilities

TCRP Report 163 also conducted an on-line national survey of people with disabilities about what modes of transit they use, and why. Over the approximately three weeks the survey was open, 1,927 people completed the survey. Approximately two-thirds were individuals with disabilities providing their own experience; approximately one-third did so on behalf of a family member, spouse, or other close associate. Survey responses hailed from every US state and territory; approximately 1/3 were from larger cities, while the remainder were from small cities, suburban areas, small towns, or rural areas. Thirty-eight percent (38%) were people with mobility disabilities; 23% were people who are blind or have visual impairments; and the remainder were people with intellectual or cognitive disabilities, people with psychiatric disabilities, or people with "other" disabilities.

Survey respondents also indicated a varied use of public transit services. Thirty-one percent (31%) indicated that they use both the fixed-route transit service and ADA paratransit. Twenty-four percent (24%) indicated they use ADA paratransit service, but don't use the fixed-route transit service. Twenty-six percent (26%) indicated they use the fixed-route transit service but not ADA paratransit service, and 19% indicated they don't use either service.

A particular focus of the research was gauging the interest by respondents in using the fixed-route transit service. Riders from every group reported their interest in using the fixed-route bus and/or train system, or using them more. For example, respondents who use only ADA paratransit were asked, "Would you like to use the fixed route service for some of your trips?" While 48% of respondents indicated "No," 28% indicated "Yes," while 24% indicated "Not sure."

Respondents who use both the fixed-route transit and ADA paratransit systems were asked, "Would you like to use the fixed-route service more often than you use it now?" A

Twenty-eight percent (28%) of survey respondent who indicated using only ADA paratransit service indicated a desire to also use the fixed-route transit service. Fifty-three percent (53%) of respondents who use both ADA paratransit and fixed-route transit indicated a desire to use fixed-route transit even more.

strong 53% of respondents answered “Yes”; 20% responded “No”; and 26% indicated “Not Sure.”

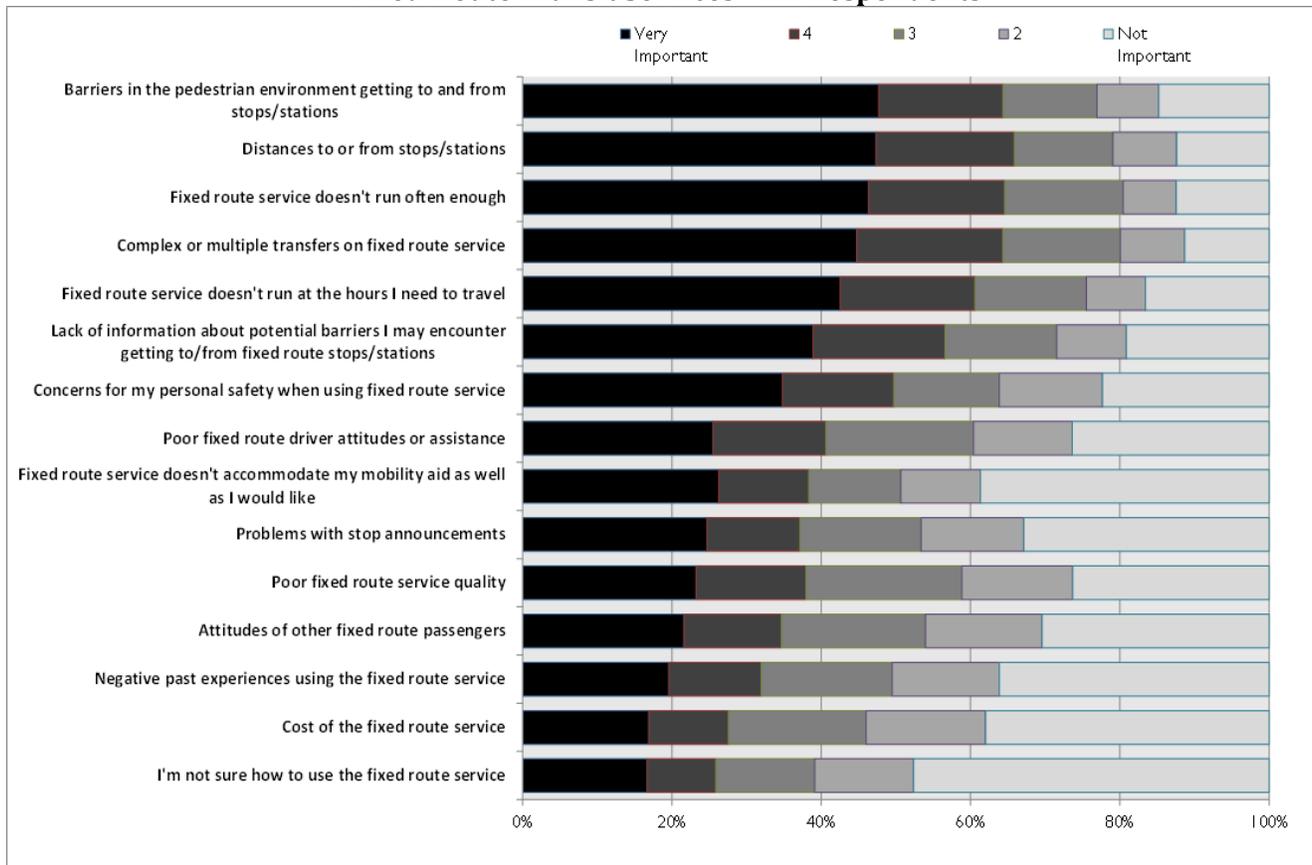
Factors That Affect Use of Fixed-Route Transit

The research also asked respondents what factors affect their use of fixed-route transit. Respondents were asked to rate how important each of 15 likely factors is to them, as well as to write in other factors that strongly affect their fixed-route transit use. The 15 factors included general factors that affect all riders (e.g., the relative infrequency of service, not having service that goes where they want to travel, the cost of the service) as well as disability-related factors such as the distance to or from stops/stations, barriers in the pedestrian environment getting to and from stops/stations, and problems with stop announcements.

The results showed that the highest-rated factor discouraging fixed-route use is barriers in the pedestrian environment, rated as “Very Important” by nearly half of respondents (48%). Respondents tended to rate the following factors the highest:

- Barriers in the pedestrian environment getting to and from stops/stations (highest-rated factor, rated as “Very Important” by 48% of respondents)
- Distances to or from stops/stations (47%)
- Fixed-route service doesn’t run often enough (46%)
- Complex or multiple transfers on fixed-route service (45%)
- Fixed-route service doesn’t run at the hours I need to travel (43%)
- Lack of information about potential barriers I may encounter getting to/from fixed-route stops/stations (39%)
- Concerns for my personal safety when using fixed-route service (35%)

Figure 1. Importance of Selected Factors in Decision to Use Fixed-Route Transit Services—All Respondents



Subgroups of respondents, such as those who use only paratransit, only fixed-route transit, both, or neither, showed some variation in what factors are most important, but not a significant amount.

In respondents' individual write-in comments, obstacles and concerns they described about using the fixed-route transit system included some factors faced by all public transit riders, but which might be obstacles of a higher order for certain people with disabilities, such as exposure to weather, a chaotic atmosphere aboard the bus, the lack of sidewalks in some locales, waiting periods that are too long, and distances that are too great to traverse.

As well, like all riders, the availability and level of fixed-route transit service was a key decision factor in whether or not to use this mode. Many survey respondents indicated that the frequency of fixed-route transit service and the days and hours of operation are key factors for them. This suggested that improving the general level of fixed-route transit service is an important factor in attracting riders with disabilities.

Concerns were also expressed about factors unique to riders with disabilities, such as lack of access to bus stops, out-of-service elevators in train stations, web-based bus schedules that are not accessible to blind people using screen readers, concerns about whether the bus driver will properly secure their wheelchairs, and the challenges of navigating across open spaces in parking lots by people who are blind or have visual impairments. Some had bad experiences in the past, such as the bus passing them by while they were waiting at a bus stop. Some riders who use service animals had bad experiences with the attitudes of other passengers. Some encountered difficulties because local buses have too few wheelchair spaces. Others experienced poor assistance from bus drivers or other transit staff. Some people with hidden disabilities had bad experiences when requesting accommodations because they don't "look disabled." Still others encountered negative attitudes when people without disabilities were asked to move from priority seating. Some people with low vision encountered train stations that were too dark, or had difficulties identifying the correct bus or train. And some people with multiple chemical sensitivities couldn't tolerate fragrance products utilized by the general public.

Yet, a significant percentage of persons with disabilities are interested in using fixed-route transit services, or using them more often. And many survey respondents mentioned negative experiences with ADA paratransit service as a reason they use the fixed-route transit service instead. Fifty-seven percent (57%) of those who only use fixed-route transit currently indicated they would like to use it more often. And 53% of individuals who use both fixed-route transit and ADA paratransit said they are interested in using fixed-route transit service more. Even 28% of those who said they only use ADA paratransit now expressed an interest in using fixed-route transit service.

Information in this Research Brief was taken from *TCRP Report 163: Strategy Guide to Enable and Promote the Use of Fixed-Route Transit by People with Disabilities*. Current use of fixed-route transit services by people with disabilities is described, as well as input received from people with disabilities on current transit use. More information about this, as well as specific strategies for enabling and promoting fixed-route transit use by people with disabilities is contained in *TCRP Report 163*. Copies of the report are available from TRB at www.trb.org.