

Research at a Glance

Technical Brief

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Understanding the Needs of Current and Potential Bus Transit Riders

Public transit ridership decreased substantially in the United States even before the COVID-19 pandemic impacted the industry beginning in March 2020. The decrease in ridership was more substantial for buses than rail transit. A decrease in ridership was experienced in New Jersey as well. Average weekday bus ridership for NJ TRANSIT decreased by 7.5% between 2015 and 2019 and weekend ridership decreased at a slightly higher rate, necessitating research to comprehend the reasons for the ridership decline and to identify remedial strategies.

Research Problem Statement

Literature suggests that the reasons for the pre-COVID transit ridership decline could be diverse, including the proliferation of ridehailing services, increasing ease of obtaining automobile loans, decreasing price of cars and fuel, greater telecommuting by workers, greater availability of low-cost parking, suburbanization of the traditional transit riders, bikeshare programs, and increasing transit travel time and worsening transit reliability caused by traffic congestion. However, empirical studies that investigated the reasons for ridership decline, especially the reasons for riders' discontinuation of transit use and other people's reluctance to use transit have been rare.

Research Objectives

With the assumption that transit ridership decline can be addressed by retaining current riders and attracting new riders, this research seeks to examine the needs and barriers of current riders and potential riders in the context of NJ TRANSIT's local bus service. The potential riders for this research are the riders who stopped riding the bus for COVID and non-COVID reasons as well as New Jersey residents who never used the bus. It examines the reasons for riders' discontinuation of bus use, perceptions of the bus non-users about the bus, bus attributes that are important to both current riders and past riders, improvements to the bus service that would attract new riders, and the characteristics of the bus trips that bus non-users would want to make if they were to use the bus.



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Methodology

This research adopted a mixed-method approach that included a literature review, telephone interviews with representatives of eight transit agencies from different parts of the country, an online survey of more than 3,000 NJ TRANSIT bus riders, and a random-digit-dialing telephone survey of 1,313 New Jersey residents supplemented by a mail survey of 130 people living in disadvantaged communities where respondents are difficult to reach for telephone surveys.

Results

The online survey of bus riders and the telephone/mail survey of the general population showed that the current riders are socioeconomically very different from the potential riders, especially the people who have never used the bus and the past riders who stopped riding the bus before COVID. The riders who stopped riding the bus after COVID are more similar to the current bus riders, whereas the riders who stopped before COVID are more similar to the people who never used the bus. While the current riders are the most disadvantaged in terms of income, car ownership, and education, they are the most advantaged in terms of proximity to bus stops near home. The people who have never used the bus are the most disadvantaged in terms of proximity to bus stops near home because many of them live in areas far from the NJ TRANSIT bus network. Their socioeconomic distinction and low proximity to bus stops indicate that providing them adequate bus service would require substantial network expansion and service quality improvements in currently unserved areas.

The current and past bus riders are most concerned about bus frequency, travel time, and reliability. The people who have never used the bus are most concerned about direct bus routes to their destinations. Convenience and comfort of bus trips will be important to attract bus non-riders to bus. The proportion of bus non-riders who view the bus as a travel mode to visit recreational and entertainment activities is the same as the proportion that views it as a travel mode for work or school trips.

Recommendations from this research include, but are not limited to: (a) prioritize retention of current riders over attracting non-riders, (b) focus on providing better service in areas already served by local buses, (c) prioritize bus frequency over other transit improvements, (d) retain and improve weekday off-peak bus service and weekend bus service, (e) prioritize accommodating non-discretionary trips such as work trips over discretionary trips such as recreational trips, and (f) improve bus and bus-stop amenities by utilizing newer technologies such as Wi-Fi and real-time information.



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