

Research at a Glance

Technical Brief

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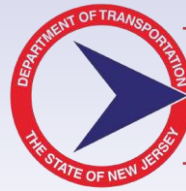
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Identifying Travel Needs for South Jersey and Shore Customers

Transit services in South Jersey and the Shore region play a critical role in supporting mobility, workforce access, and regional connectivity, particularly for populations with limited access to private transportation. However, evolving travel behavior, seasonal demand patterns, and workforce-related commuting needs, especially in tourism, hospitality, and healthcare sectors, require a more detailed understanding of how transit services are used across different times of the year. Variations between weekday and weekend travel, as well as differences between summer and off-season demand, present challenges for effective service planning and highlight the need for more targeted, data-driven analysis of transit usage in the region.

Research Problem Statement

NJ TRANSIT bus services in South Jersey face challenges related to service reliability, frequency, accessibility, and competitiveness with private vehicles. While transit serves a broad range of users, including lower- and moderate-income populations, existing data sources do not fully capture post-COVID travel behavior, seasonal variations, or workforce-related travel needs. Additionally, limited insights from non-users and employers constrain the ability to identify barriers to transit adoption and opportunities for service improvements. These challenges highlight the need for updated data-driven analysis to support targeted transit planning and ridership growth.

Research Objectives

The objective of this research is to evaluate travel patterns, rider characteristics, and service needs across fourteen NJ TRANSIT bus routes serving South Jersey and the Shore region. The study aims to identify service gaps and unmet mobility needs by analyzing onboard survey data and employer/employee survey responses. It also seeks to assess differences in weekday, weekend, and seasonal travel patterns and to understand factors influencing transit use and non-use. The research ultimately supports the development of data-driven strategies to improve service reliability, accessibility, and ridership.

Research Project Manager

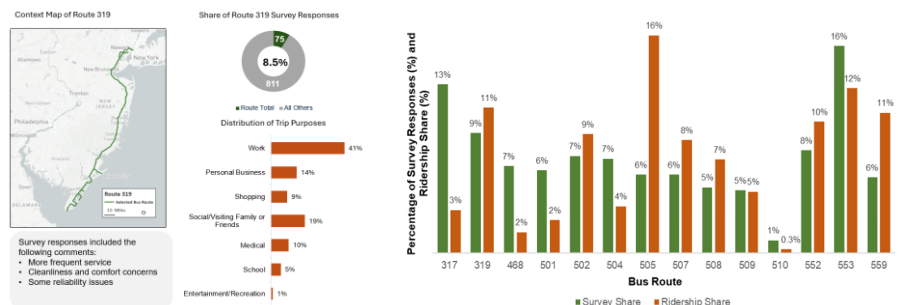
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Methodology

The study used onboard transit surveys and field-based employer and employee surveys to collect data across fourteen NJ TRANSIT bus routes. Data collection was conducted during the spring, summer, and fall periods, covering both weekday and weekend travel. A total of 983 survey responses were collected, with 933 retained after data cleaning. Origin–destination data were geocoded using GTFS stop information, and spatial analysis was conducted using ArcGIS. Survey distribution was supported by a regional mapping framework based on employment hotspots derived from NJ Business Data, enabling targeted field outreach in key activity centers.

Results

- Over 56% of riders reported using transit three or more days per week, indicating frequent and recurring use of bus services for daily travel.
- Nearly 75% reported having one or no vehicles, highlighting limited access to private transportation.
- About 48% of respondents reported household incomes below \$50,000, indicating a strong representation of lower- and moderate-income populations.
- More than 67% of riders reported walking to access bus stops, emphasizing the importance of pedestrian infrastructure for transit accessibility.
- Among non-users, 58% cited access to a private vehicle as the primary reason for not using transit, indicating competition with personal vehicles.
- Riders identified key needs, including improved service frequency, shorter wait times, better schedule adherence, enhanced bus stop infrastructure, and more reliable real-time service information.
- Improving service reliability through schedule adjustments, real-time monitoring, and better coordination of operations was identified as a critical strategy to enhance rider experience and system performance.



Survey findings of Route 319 (Left) and Route-level Survey responses (Right)

This brief summarizes FHWA-NJ-2026-002, "Identifying Travel Needs for South Jersey and Shore Customers", produced through the New Jersey Department of Transportation Bureau of Research, Innovation & Information Transfer, 1035 Parkway Avenue, P.O. Box 600, Ewing, NJ 08625 in cooperation with the U.S. Department of Transportation Federal Highway Administration.