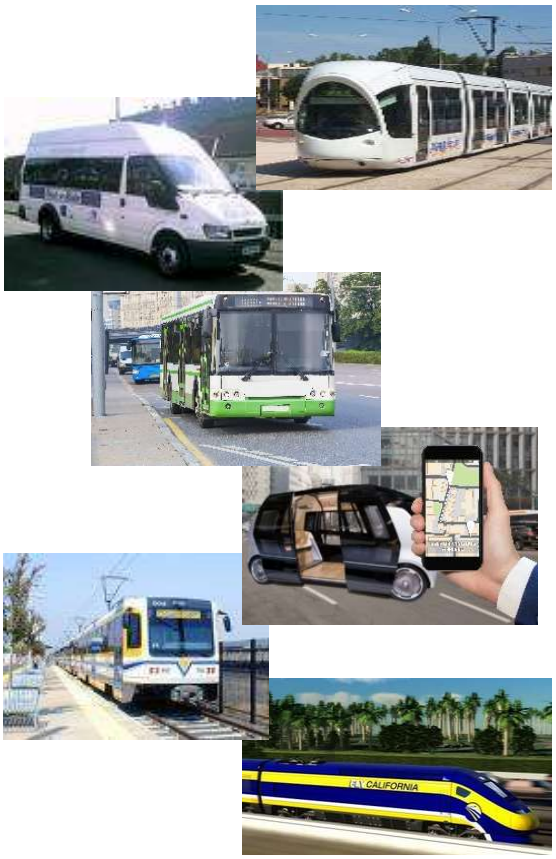
TREDIS®

Passenger Rail & Bus Applications

TREDIS is designed to facilitate the analysis of urban public transportation and inter-city rail investment and service options.

TREDIS is set up to distinguish alternative sizes and configurations of bus, light rail, heavy rail, commuter rail and high speed inter-city trains, as well as micro-transit, on-demand and integrated mobility services.



Key features of TREDIS allow it to demonstrate the unique ways that rail and bus services can affect urban and regional economies. The types of analysis include:

Passenger Travel Time and Travel Cost Changes

TREDIS incorporates all elements of economic impact and benefit, including those associated with changes in travel time, cost, reliability and other performance characteristics for various bus, train, and car modes. TREDIS also incorporates a sophisticated benefit assignment that allocates savings in terms of money flows (for employers and for households) and non-money flows (that can be reflected in land or building values). It draws on research findings to show how both businesses and travelers share the benefit of transportation improvements.

Intermodal Road-Rail-Bus Impacts

TREDIS is the only economic impact analysis system that is fully multi-modal, and features unprecedented capabilities to address mode switching and cross-modal impacts. This is particularly important for public transportation because many benefits of public transit come from switching riders from cars to transit (mode switching impacts), and from additional benefits of reducing congestion growth on existing roadways (cross-modal impacts).

Where TREDIS has been used:

- Atlanta, GA - MARTA System
- Baltimore, MD – MTA System
- California High Speed Rail Authority
- Durham, ONT - Regional Transit
- Hampton Roads, VA – Bus and LRT
- Las Vegas, NV – Transit Mobility Plan
- Massachusetts - South Coast Commuter Rail
- Midwest High Speed Rail Association
- Minneapolis- St. Paul, MN - Itasca Project - LRT and BRT
- Omaha, NE – Bus Rapid Transit
- Sydney, NSW, Australia - BRT Options
- Toronto , ONT - Go Transit - Commuter Rail Electrification

Additional Features of TREDIS for Analysis of Public Transportation

Labor Market Access Impacts - TREDIS is the only economic impact analysis system that can calculate impacts of public transportation on local labor markets for different industries. This is done by considering effects on worker access to jobs and depth of workforce skills for employers. It uses findings from recent research to capture threshold effects that public transportation improvements can have on enhancing labor markets, productivity and the attractiveness of a region for different industries.

Vehicle Occupancy and Performance Customization - TREDIS allows the analyst to distinguish costs and benefits for different combinations of vehicle and services types. The customization of modes allows users to configure driver/staff levels, vehicle size/types, occupancy rates and type of fuel used, as well as fuel efficiency and emission rates. These factors lead to impacts on speed, reliability and vehicle operating costs for bus, commuter rail, intercity rail and ferry boat options. This feature can be particularly useful for evaluation of alternative transit vehicle and control technologies.

Trip Purpose and Time-of-Day Customization – TREDIS allows the analyst to define seasonal and/or time-of-day periods , so that transportation changes can be measured or estimated separately for peak and off-peak periods. This feature makes it possible to derive more precise and complete measures of total impact than would otherwise occur using 24-hour daily averages.

Transit Fares & Revenue Enhancement Policies – TREDIS provides a capability to evaluate the economic impact of alternative revenue mechanisms including transit fares, fees and taxes, as well as public-private partnerships. It also calculates the impact of public transportation policies and programs on local and state government tax revenues.

Elements of Passenger Transportation Impact