

Transportation Analysis for Metropolitan Areas

TREDIS is the most widely-used and accepted tool for economic analysis of transportation projects, plans and programs. MPOs and other transportation agencies across the globe are using TREDIS to aid in regional long-range growth plans, short run transportation investment plans, corridor analysis and project evaluation. TREDIS is multimodal and incorporates the latest research on urban mobility, freight, and emerging transportation technologies. Following are some examples.

Long Range Transportation Plans

Chicago Region: CMAP. *GO TO 2040* developed alternative regional scenarios for transportation, housing and land development. CMAP used TREDIS to assess economic growth effects of alternative scenarios affecting travel costs, job markets and business freight delivery. The results helped CMAP's process for creating a preferred scenario integrating land-use development with strategic transportation investment. CMAP subsequently used TREDIS to show how congestion pricing can be implemented in ways that improve business market access and economic growth in the region.

Salt Lake City Region. A coalition of the state's metropolitan planning organizations, the Salt Lake City Chamber of Commerce, and Utah Transit Authority used TREDIS to show the economic consequences of a funding proposal to expand the multimodal *Unified Plan*. Their analysis showed not only how increased funding would reduce private-sector costs, but also increase productivity and economic growth in isolated cities, through improved connectivity between communities.

San Francisco Region: MTC and ABAG. Plan Bay Area 2040 tested alternative land-use and transportation scenarios against a series of metrics including economic growth. A TREDIS model with sub-county detail was used to evaluate combinations of development density and clustering around transit stations. Effects on congestion, travel time reliability, business agglomeration, and labor market access were considered. The findings showed that a "proposed plan" and its greenhouse gas reduction goals could be achieved while facilitating economic growth, compared to a "no project" alternative.

Projects

Atlanta Region. CAP & ARC. The planned Multi Modal Passenger Terminal will consolidate bus, rail transit and intercity rail connections in downtown Atlanta. CAP (Central Atlanta Progress) used TREDIS to show how changes in highway congestion, transit use, mobility, and access to downtown jobs will support broader regional economic growth. With Georgia DOT and US DOT support, the project has advanced with a selected developer and PPP funding plan.

Minneapolis–Saint Paul Region. Metro Council. The *closing of a Mississippi River dam*, to halt the movement of an invasive fish species, would limit barge traffic on the Minneapolis Upper Riverfront. The Metropolitan Council study used TREDIS to evaluate effects on the industrial supply chain and broader regional economy.

Phoenix, Arizona. Maricopa Association of Governments. Analysis using TREDIS found that improvements to I-10 will result in improved access for local businesses and reduce operating costs for all users. A notable aspect of this work was the analysis of equity, which considered the distribution and equity of impact among various occupation and wage/income classes.

Prioritization and Strategy

Colorado Springs Region. PPACG. The Pikes Peak Area Council of Governments evaluated the broader economic impacts of projects proposed for the TIP, using TREDIS to assess the impacts of proposed road projects on cost, travel reliability, logistics, economic growth and competitiveness.

Durham, Ontario Region Transit. To support the development of a Long-Term Transit Strategy for Durham Region Transit, the agency embarked on an effort to assess economic development impacts associated with conventional transit, BRT, LRT and TDM strategies. TREDIS was used to assess differences in job access, goods movement, road congestion and economic growth.

Portland, Oregon Region. Metro. Benefits of enhanced regional investment for Long Range Transportation Investment were evaluated by comparing a "Planned Investment Scenario" and "Improved System scenario." TREDIS was used to assess the economic impact of changes in congestion and its implications for productivity, competitiveness and regional growth.

Sydney, NSW (Australia) Region. TfNSW. To evaluate proposed Bus Rapid Transit alternatives serving Sydney and the Northern Beaches area, Transport for New South Wales used TREDIS to evaluate the extent to which the transit alternatives would generate wider economic benefits and economic growth impacts. This included impacts resulting from expansion of market access between the City Center and outlying areas.

Corridor Strategies

Boston Region. MassDOT & CTPS. The South Coast Corridor will restore a rail link between Boston and the South Coast of Massachusetts —formerly robust industrial centers that have suffered economic decline. TREDIS was used to assess how linking these labor markets can expand worker mobility and improve business and labor productivity, while supporting smart growth and sound land use. The project is advancing through planning and funding discussions.

Toronto, Ontario Area. MetroLinx. The study for the Government of Ontario assessed the economic development impacts of electrifying inter-regional rail lines for GO Transit. The study used TREDIS to assess economic impacts of alternative scenarios in terms of benefits for users, non-users and the broader Provincial economy. This included gains due to improved reliability, expanded labor market access, enhanced productivity and attraction of new business activity.