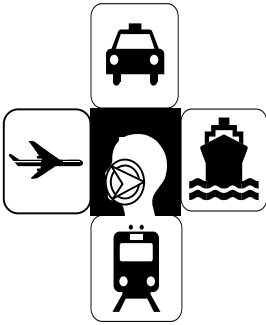


JERSEY DOT'S

"Turning Problems into Solutions"



Need a solution?
Think New Jersey DOT

Tech Brief

NEW JERSEY'S LINKS TO THE 21ST CENTURY:

MAXIMIZING THE IMPACT OF INFRASTRUCTURE INVESTMENT

FHWA-NJ-2003-001

December 2002

Introduction

In the last 10 years, New Jersey has invested heavily in its transportation infrastructure, and numerous additional projects are planned or proposed for the next decade. Collectively, these projects have significantly improved accessibility in northern New Jersey. Highway and commuter rail travel times have dropped throughout the region as projects such as Midtown Direct and the completion of Interstate 287 connected networks and provided commuters with new travel choices.

These transportation improvements have done more than change traffic patterns, however; they have spurred residential relocation and enabled economic growth. Shorter commute times have allowed New Jersey residents to move further away from their workplaces, resulting in real estate price spikes in the affected regions. Where commute times have dropped the most, economic output and employment have gone up the most. The effects include the following:

Economic Growth

- **Multiplier effect.** For every \$10 million invested in transportation infrastructure improvements in northern New Jersey, economic output increases by \$21.5 million, and 207 jobs are created.
- **Economic growth.** There is a statistically significant relationship between improved accessibility and job or income growth in northern New Jersey. Assuming a baseline of 9.9% job growth and 23% income growth over the next decade (the average county growth rates in the 1990s), a 10% reduction in travel times throughout the region would result in job growth of 10.4% and income growth of 26.6%.
- **Sensitivity.** Job and income growth in counties near the region's economic center in Manhattan are more sensitive to changes in accessibility than in more distant counties.

Land Use

Residential Relocation. The beginning of Midtown Direct service in 1996 affected land use in a number of ways:

- **Property values.** Residential real estate price jumped by 20% in the first year of service.
- **Urban diffusion.** Commuters tended to move further away from Manhattan in response to Midtown Direct.
- **Characteristics of movers.** Younger commuters who were married with children were more likely than others to move in response to Midtown Direct.

Commercial Relocation. Firms that moved into New Jersey from out-of-state in the 1990s showed distinct location preferences with respect to transportation and accessibility to markets:

- **Transportation facilities.** Firms relocating into New Jersey in the 1990s concentrated along transportation corridors and near Manhattan. 60% chose locations within five miles of the New Jersey Turnpike; 40% settled within ten miles of the Holland Tunnel entrance.
- **Specific industry preferences.** Location preferences varied from industry to industry. For some, such as finance and insurance, proximity to Manhattan's financial district outweighed the high cost of land in Hudson County. Others, such as warehousing, showed a statistically significant preference for locating at a distance from New York City.

Investment in transportation infrastructure does not guarantee an increase in economic activity; it may simply result in a relocation of existing economic activity. In general, transportation improvements *enable* economic activity but do not, on their own, *generate* it. Certain baseline conditions must exist in order for transportation improvements to have a net economic impact:

- The economy must be strong and there must be a skilled labor force.
- Land must be available, and zoning and development policies must encourage development.
- There must be a long-term financial commitment to the investment's success.

Transportation improvements can enable new economic activity by leveraging certain economic conditions: if the improvements encourage firms in the same industry to cluster, those firms may achieve new economies of scale; if the improvements overcome barriers to labor market participation, they may encourage employment growth; and if they link markets, they may open new opportunities for competition and result in lower prices.

FOR MORE INFORMATION CONTACT:	
NJDOT PROJECT MANAGER:	Nick Vitillo
PHONE NO.	609-530-5637
e-mail	Nicholas.vitillo@dot.state.nj.us
UNIVERSITY PRINCIPAL INVESTIGATOR	Robert E. Paaswell, Ph.D. Director
UNIVERSITY:	University Transportation Research Center
PHONE NO.	212-650-8050
e-mail	paaswell@tid1s0.engr.ccnyc.cuny.edu