New Jersey Traffic Congestion: A Growing Crisis

January 2008
INTRODUCTION

A rising tide of traffic congestion threatens to increase roadway gridlock, stifle the economy, and erode our quality of life in New Jersey. Failure to take significant steps now to relieve current congestion and to prevent worsening congestion is a real threat to the State’s ability to remain economically competitive. Hours lost in traffic results not only in decreased productivity, but also impacts the quality of life of New Jersey’s families. The State must invest now to implement congestion relief initiatives on the roadways and make public transit a more widely available and attractive travel option.

New Jersey has the most densely traveled roads in the Northeast and experiences almost a million hours of delay every day, according to NJDOT’s Congestion Management System. Today, more than 40 percent of the State’s roads are either near, at capacity, or already exceeding capacity. Not only are roadways more crowded, they are congested for a longer period of time. The concept of a single rush hour when highway traffic is the heaviest is disappearing as the percentage of roadways that experience daily congestion for more than an hour has increased from 15 percent to 27 percent. Congestion is more sharply experienced in northern New Jersey, which ranks seventh among very large urban areas in annual hours of delay per traveler. Growth in southern New Jersey is also causing increased traffic congestion.

Population growth, economic development and changes in land use have combined to produce steadily increasing levels of traffic congestion. The trend is expected to continue and worsen, resulting in increased hours of congestion delays on the State roadway system, increased costs to taxpayers and motorists, and increased air pollution. According to the 2003 Blue Ribbon Commission Report, by 2020, New Jersey is projected to have a million more residents, 21 percent more jobs, and double the amount of freight moving through the State, adding a total of 34 billion additional vehicle miles traveled to New Jersey roadways. (or 45 percent more than the 75 billion miles traveled today.)

“A rising tide of traffic congestion threatens to increase roadway gridlock, stifle the economy, and erode our quality of life in New Jersey. The state must begin investing now to improve the reach and availability of public transit, break roadway bottlenecks and incorporate better transportation planning as part of land use development,” said The Blue Ribbon Commission.
In the nation’s most densely populated state, where families value their quality of life, massive new road construction is too expensive, disruptive, and inefficient to adequately relieve congestion. Consequently, the State must invest in strategic congestion relief initiatives, including: improving the reach, connectivity and capacity of the public transit system; addressing the State’s biggest roadway bottlenecks; applying new technologies to give motorists real-time traffic information; and incorporating smart congestion relief strategies in land use planning and development. Years of underfunding have created a substantial backlog of congestion relief projects that must be undertaken together with forward looking approaches.

To adequately begin to address congestion needs, the State must increase its investment annually for roadway projects according to the State’s Congestion Management System. This is in addition to planned investments in the State’s transit system for major capacity improvements such as the Access to the Region’s Core (ARC) project, with the new trans-Hudson tunnel as its centerpiece.

- New Jerseyans waste more than a full work-week, or 52 hours per year, stuck in traffic.\(^5\)
- The average annual cost of congestion for New Jersey is $1,465 per licensed driver.\(^6\)
- The cost of congestion in New Jersey has increased to up to $8.6 billion.\(^7\)
- New Jersey has the third longest commute time in the nation.\(^8\)
- In terms of economic competitiveness New Jersey ranks 43rd in the nation largely due to its average “travel time to work.”\(^9\)
- By 2015, total traffic will grow by 18 percent more vehicle miles traveled on New Jersey’s highways and freeways.\(^10\)
- New Jerseyans waste about $345 million annually in fuel due to traffic.\(^11\)
Congested conditions on the State’s highways are a daily fact of life. Delays of 30 minutes to an hour at bridge and tunnel crossings are commonplace. Roadway accidents that historically would have caused minor delays, now cascade into major delays due to increased congestion. Traffic congestion results in driver stress, reduced quality of life, decreased productivity, wasted fuel, more air pollution and increased costs to motorists and to businesses.

New Jersey has the most densely traveled roadways in the Northeast, and Garden State motorists experience almost a million hours of delay daily. Of all the northeastern states, New Jersey has the most traffic, as measured by vehicle lane miles traveled annually. In 2001 congestion cost the New Jersey/New York/Connecticut regional economy more than seven billion dollars – second only to the Los Angeles metropolitan region. Estimates based on 2006 data reach $8.6 billion.

While the State roadway network constitutes less than 10 percent of the road miles in New Jersey, the system supports more than 40 percent of all traffic.

Today, 14 percent of the State’s roads are congested, with another 28 percent nearing capacity. New Jersey has the greatest traffic density of any Northeastern state, as measured by vehicle lane miles traveled annually.
NEW JERSEY HAS GROWN FROM A STATE OF NEARLY 5 MILLION RESIDENTS IN THE MIDD-20TH CENTURY TO ONE THAT TODAY HAS MORE THAN 8 MILLION PEOPLE. TODAY’S CONGESTION IS WORSENING AND TRAFFIC WILL CONTINUE TO INCREASE AND AGGRAVATE EXISTING CONDITIONS UNLESS IMMEDIATE ACTIONS ARE TAKEN. IN 2006, NEW JERSEY RESIDENTS DROVE A COMBINED 75 BILLION MILES. POPULATION GROWTH, WHICH IS PROJECTED TO REACH NEARLY TWO MILLION MORE RESIDENTS OVER THE NEXT 20 YEARS, COMBINED WITH INCREASED TRAFFIC GENERATED BY ECONOMIC DEVELOPMENT, AND INCREASED DEMAND FOR FREIGHT MOVEMENT WILL GENERATE ANOTHER 34 BILLION VEHICLES MILES TRAVELED ON THE STATE’S ALREADY OVER BURDENED ROADWAY NETWORK.

While New Jersey ranks second in the nation in public transit usage, the overwhelming majority of residents make their daily commutes in single occupancy cars. Four consecutive years of substantial ridership growth on the State’s transit system suggests that the investments made in transit are working to reduce pressure on the roadway network and more are needed. More than 850,000 passenger trips on NJ TRANSIT daily would otherwise be adding to congestion on local and state roadways – creating paralysis on many roads and at major river crossings. While this report does not address transit initiatives in detail, it is important to note that investing in rail and bus capacity and service expansions to more communities is absolutely essential to any cogent congestion relief strategy.

In addition to major investments in public transportation, the State has made some progress in addressing certain roadway bottlenecks. Currently, the New Jersey Department of Transportation is spending nearly $300 million annually to address 46 major bottleneck locations statewide. These investments range from building new interchanges to adding turning lanes to improved signalization and restriping projects. However strategic, these investments are not enough to address the backlog of congestion relief projects neglected by decades of under-capitalization of the State’s transportation network.
Unmet Needs

It is projected more than $9 billion is required to address the backlog of unfunded and partially funded congestion relief projects.\textsuperscript{17}

New highway construction does not automatically promote better mobility. And it's clear that New Jersey does not have vast tracts of land to build significant new roadways to relieve congestion. However, there are opportunities to increase highway capacity through certain roadway widening projects and interchange improvements that would benefit the existing network.

Roadway Congestion Index (RCI)

For example, the current chokepoint on the New Jersey Turnpike between exits 6 and 9 should be eliminated with lanes added in each direction. This would require an investment of more than $2 billion to construct approximately 170 lane miles of new roadway, including a new toll plaza at interchange 8.

The most heavily traveled road in New Jersey, the Garden State Parkway, would also benefit from widening initiatives designed to reduce bottlenecks and expand capacity. Utilizing the existing right-of-way, lane widening between exits 30 in Somers Point and 80 in Toms River should add one lane in each direction. At a cost of $630 Million, this project would relieve congestion by adding capacity.

Congestion relief tools must also include the use of new technologies to provide motorists with real-time traffic information that can help reduce congestion at roadway chokepoints. New Jersey should expand, for example, the system of variable message signs installed along Routes 78, 287 and the New Jersey Turnpike that is currently being implemented to alert motorists of upcoming construction activities and traffic pattern changes throughout the project’s duration. NJDOT has installed a real-time work zone travel system along the project.
Similar initiatives are needed on other major roadways statewide, including Routes 295, 80, and 17.

The State must optimize the value of the statewide traffic operations center that is currently under development to monitor traffic conditions on the state network—including the New Jersey Turnpike, Garden State Parkway, and Atlantic City Expressway—and relay that information to motorists via radio traffic services, traffic and news websites, and dynamic roadway signage, as well as the future 5-1-1 telephone hotline system.

Funding is also needed to fulfill the State’s unmet parking needs, provide regional interceptor locations that take cars off the most congested roadways and channel more commutation trips to public transit. While NJDOT and NJ TRANSIT are currently making investments to expand park and ride facilities, the current parking space inventory is inadequate to meet today’s demand and future demand is projected to increase by a minimum of 19.6 percent based on proposed Park & Ride facilities.¹⁸

Finally, smart growth strategies that incorporate transportation infrastructure at the earliest phases of development and land use planning can substantially reduce current and future traffic congestion. This requires identifying whether existing zoning requirements fully consider the need for transit accessibility and existing roadway conditions in the approvals process, as well as a transparent examination of the costs of development to the municipality and the State transportation systems.
CONGESTED COMMUTER/RECREATIONAL ROADWAYS

RECREATIONAL ROADWAYS

Legend

Congested Roadways (Commuter)
Congested Roadways (Recreational)

NOTE:
These roadway sections were formed by ranking congested links with "infills" or other links to produce a reasonable, continuous roadway section, then mapped through the NJCHS link Priority Ranking System, based on:

- V/C Ratios
- AADT
- Function/Class Facility Type
- Geographic Context

Current highway congestion levels are a product of many factors beyond the control of transportation providers including population and economic growth, land use, changes in household structure, and evolving work and travel patterns.

Everyone is paying a high price for the rising tide of traffic congestion in New Jersey. Motorists are paying more than $1,465 annually. New Jersey drivers are sacrificing 307 million hours annually with their families. The region’s economy is footing the bill for billions of dollars in lost productivity. And all of us suffer when the very air we breathe is increasingly polluted by auto emissions.

The solution to relieving congestion is straightforward. New Jersey must invest substantially in expansions of and improvements to the public transit system as well as in strategic roadway initiatives that break bottlenecks, utilize new technologies to improve traffic information systems and expand the capacity of the existing roadway network. This will require a minimum of $300-$400 million annually in addition to the investments currently planned in the State’s capital program.

The decades-old backlog of congestion relief projects puts New Jersey at a disadvantage in that it must address historic and current needs while concurrently planning for future demand. However difficult, investments that reduce the backlog and begin immediately to address current congestion challenges will improve current conditions and prevent congestion from worsening as traffic demand increases.
END NOTES

1 NJDOT Capital Investment Strategy (CIS), FY2008 -2012
2 IBID
3 IBID
4 The Blue Ribbon Commission Report – 2003
5 NJIT 2007 - Alternative Performance measures for Evaluating Congestion
6 IBID
7 IBID
8 US Census Bureau 2005
9 State Competitiveness Report, Beacon Hill Institute 2006
10 NJDOT Capital Investment Strategy (CIS), FY2008 -2012
11 NJIT 2007 - Alternative Performance measures for Evaluating Congestion
12 NJDOT Capital Investment Strategy (CIS), FY2008 -2012
13 IBID
14 IBID
15 IBID
16 IBID
17 IBID
18 NJDOT Park & Ride Inventory
19 NJIT 2004 Alternative Performance Measures for Evaluating Congestion