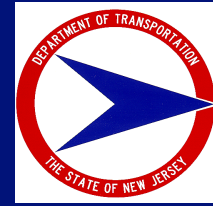


New Jersey Department of Transportation  
Bureau of Research

## Technical Brief



## Impacts of Rail Grants Program

### Background

- The New Jersey Rail Freight Assistance Program awards approximately \$10 million annually in grants to freight rail operators for construction and improvement projects.
- New Jersey Department of Transportation (NJDOT) has begun studying the past performance of the program to learn the effects it has had on the NJ economy and transportation system, with the aim of potentially modifying the rail grants program.

### Here's the problem

- The literature confirms the private and social benefits of maintaining short line railroads, but the cost of doing so is often prohibitive for short line operators.
- Federal studies consider several common factors and useful approaches that should be considered during the rail freight assistance evaluation processes. However, there is no singular evaluation methodology in the literature for the estimation of public benefits of rail transportation investments.
- With scarce resources available, a proper evaluation of the rail grants program is critical to ensure that the program meets the needs of NJDOT and the traveling public.

### These are objectives...

- The primary goal of this project is to review and analyze studies conducted by grant programs of different DOTs as the past records of the NJDOT's Rail Grant Program.
- A second component of this project is the analysis of the economic and highway impact of the awards.
- Finally, based on the information collected and analyses conducted, the project report provides recommendations for improvements to NJDOT's current program.

### Here is what we did...

- Several state DOT programs are reviewed. The compilation of existing studies includes reviews of a wide variety of reports and documents, as well as the policies of the FRA, AASHTO, NCHRP, USDOT, and several other states.
- Cost-benefit methodologies and monetization factors used by other state rail freight assistance programs are also reviewed. The states included in the review are New York,

Pennsylvania, Florida, Idaho, Illinois, Iowa, Kansas, Maine, Maryland, Minnesota, Ohio, Oregon, Virginia and Washington.

- The application scoring method of NJDOT and its analysis are discussed. The sample scorecard and explanation of each category is defined for its significance in terms of project selection. A systematic scoring technique is suggested for implementation for the purpose of avoiding possible discrepancies.
- Targeted interviews and surveys are conducted as part of the data collection task. Several DOT managers, New Jersey railroad managers, and railroad industry experts participated in the interview and/or survey process.
- IMPLAN is tested by using it to quantify economic benefits of sample projects proposed in previous years under New Jersey’s Rail Grant Program. Features such as multiple region scenarios of IMPLAN are used to determine the effects of investment in the railroad industry on the primary county as well as neighboring counties. It is suggested that, like many other states, New Jersey can use a combination of IMPLAN and cost-benefit analysis to score the projects.
- Moreover, traffic impacts of investments are calculated by running the travel demand model and evaluating the output in the ASSIST-ME tool previously developed by the research team to quantify highway transportation costs in New Jersey.
- Based on the results of this study, a number of recommendations to improve the existing “New Jersey Rail Grant” program are provided. It was concluded that NJDOT could consider finding a way to incorporate financial analysis into its management of this program as well as using it to redefine the program’s purpose.
- Among some of the recommended improvements are the introduction of a more objective and standard method for the prediction of the economic and traffic impacts of the proposed projects and a process for post project monitoring and reporting.
- There is also an opportunity for a more rigorous monetization of emissions, safety, road maintenance and congestion costs in the benefit-cost calculation. In the application form there is some double counting between the sub-criteria used for the benefit cost analysis and other criteria in the NJDOT scorecard.

### **For More Information Contact:**

NJDOT PROJECT MANAGER:	Giri Venkiteela, Ph.D.
	609-530-8038
e-mail	<a href="mailto:Giri.Venkiteela@dot.nj.gov">Giri.Venkiteela@dot.nj.gov</a>
PRINCIPAL INVESTIGATOR:	Dr. Hani Nassif
UNIVERSITY:	Rutgers University
PHONE NO.	(848) 445-4414
e-mail	<a href="mailto:nassif@rci.rutgers.edu">nassif@rci.rutgers.edu</a>

A final report is available online at: <http://www.state.nj.us/transportation/refdata/research/>  
 If you would like a copy of the full report, send an email to [Research.Bureau@dot.state.nj.us](mailto:Research.Bureau@dot.state.nj.us)

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