The Economic Impacts of $1.3 Billion in New Jersey Highway & Bridge Capital Investment

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An annual highway and bridge capital investment level of $1.3 billion in New Jersey would support over $3.4 billion in economic output, earnings, and tax revenues.

This is an average return of $2.62 for every $1 invested.

The economic return of this investment would help mitigate some of the job losses, declining state and local revenues and economic slowdown from the COVID-19 pandemic.

The analysis in this report does not include quantifying longer-run benefits from reduced travel times, lower vehicle operating costs, safer roads, and greater access to goods and services.

The immediate economic benefits from the construction activity include:

- An increase in business activity of $2.53 billion across all sectors of the economy.
- The support or creation of over 12,000 jobs per year.
- These workers will earn an estimated $670 million per year in wages.

Economic Impacts of $1.3 Billion in New Jersey Highway & Bridge Capital Outlays	
Total Output	$2.53 billion
Total Value Added (GSP)	$1.35 billion
Earnings	$670 million
Employment	12,018 jobs
Total Tax Revenues	$143 million
State Payroll Tax	$5.7 million
Federal Payroll Tax	$51 million
Income Tax	$65.1 million
Sales & Use Tax	$20.8 million
Total Impact	**$3.4 billion**

- Nearly half of these jobs—46 percent—would be outside of the construction industry.
- The additional economic activity would provide over $143 million in tax revenue.

We use the sophisticated "Regional Input-Output Modeling System" (RIMS II) developed by the U.S. Department of Commerce to track the complex money flows and interactions that occur between the state's diverse business sectors.

The immediate benefit of the capital investment captures the direct, indirect, and induced economic impact, which is measured by increases in economic output, value-added, employment, earnings, and tax revenues across all sectors of the economy.

How does this ripple effect work? Highway, and bridge contractors purchase inputs (such as materials) from New Jersey businesses, in addition to other firms outside of the state, as they complete work on projects. These suppliers then purchase items from other firms, creating an indirect effect.

These employees of the construction firms and supplier industries spend their earnings by purchasing clothing, food and other goods and services, thereby creating induced demand in other sectors of the state economy.

As jobs are created or sustained, employees receive additional income and spend more, and businesses increase sales.

Subsequently, taxes grow due to larger payroll and sales volumes, providing the state and local municipalities with additional revenues to reinvest in New Jersey.

Economic Impacts of $1.3 Billion in Highway and Bridge Capital Outlays in New Jersey		
Industry	Average Annual Impact on Industry Output (in millions)	Average Annual Jobs Supported/Created
Agriculture, forestry, fishing, and hunting	$1.4	27
Mining	$29.8	71
Utilities	$21.5	25
Construction	$1,309.0	5,453
Manufacturing	$308.9	753
Wholesale trade	$101.3	371
Retail trade	$81.8	889
Transportation and warehousing	$66.7	352
Information	$41.2	103
Finance and insurance	$109.7	383
Real estate and rental and leasing	$152.9	826
Professional, scientific, and technical services	$75.0	428
Management of companies and enterprises	$26.7	81
Administrative and waste management services	$37.3	426
Educational services	$9.6	133
Health care and social assistance	$81.9	706
Arts, entertainment, and recreation	$8.5	147
Accommodation and Food Services	$31.2	407
Other services	$40.2	375
Total industry impact*	$2,534.3	11,953

*Does not include impact on government output.

Benefits for New Jersey Businesses

In addition to the economic impacts outlined in the report, there are additional benefits for New Jersey residents and businesses that are harder to quantify. As repairs and upgrades are made to the highway, street and bridge networks overseen by these agencies, both drivers and businesses will save time and money.

These user benefits are a result of decreased congestion, less money spent on vehicle repairs, safer roads, and an improved infrastructure network.

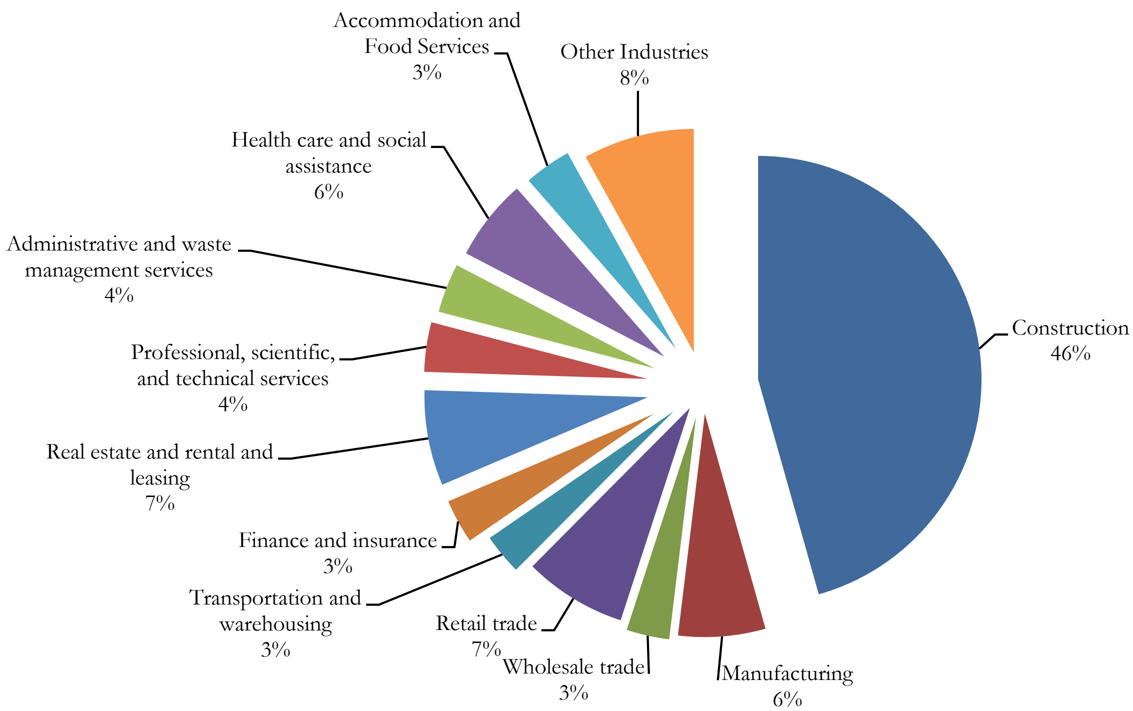
Economic studies suggest that a conservative estimate of economic return for major transportation capital investments are $4 in benefits for every $1 spent, beyond construction activity.

Improved infrastructure would facilitate the shipment of an estimated $532 billion in goods produced by New Jersey businesses in 2020.

Investment would also help support the expected growth in freight shipments. The total value of truck freight shipments on New Jersey roads is expected to increase from $740.5 billion in 2020 to $1.1. trillion in 2040, according to the U.S. Department of Transportation, Freight Analysis Framework.

The efficient and safe movement of goods and people are critical to the economic competitiveness of New Jersey and the quality of life for its citizens.

New Jersey Jobs Supported/Created by Highway and Bridge Capital Investment



An improved highway and bridge network will allow businesses to have greater access to employees and customers. As the economy expands, businesses will purchase more goods from their suppliers and will increase their demand for private capital such as vehicles, equipment, office supplies and even new plants and factories.

Other economic benefits include the clustering of businesses and suppliers together, known as agglomeration economies. By locating near one another, even if they are competitors, firms have access to a greater number of customers and suppliers, which lowers overall costs.

Consider the benefits to a business in New Jersey when the state makes transportation improvements. The increase in construction activity will mean more demand for products and services in the area.

A local business will sell more of its products and may even hire additional employees to increase output. With an improved transportation network, local businesses on the many main streets in New Jersey will thrive.

About the Author

This research was conducted for the Utility and Transportation Contractors Association of New Jersey (UTCA) by the economics & research team at the Washington, D.C.-based American Road & Transportation Builders Association (ARTBA).

This analysis was conducted by senior vice president and chief economist Dr. Alison Premo Black.

Since joining ARTBA in 2000, Dr. Black has led teams and authored over 100 studies examining state transportation funding and investment patterns.

She has a Ph.D. in economics from the George Washington University and a master's in international economics and Latin American Studies from the Johns Hopkins School of Advanced International Studies.

About ARTBA

ARTBA is a federation whose primary goal is to aggressively grow and protect transportation infrastructure investment to meet the public and business demand for safe and efficient travel. In support of this mission, ARTBA also provides programs and services designed to give its more than 8,000 public and private sector members a global competitive edge.

About UTCA

The Utility and Transportation Contractors Association of New Jersey is a non-profit trade association headquartered in Wall Township, New Jersey. Founded in 1965, UTCA represents approximately 1,000 member firms in the public and private sectors, active in all phases of heavy, highway, utility, and marine construction, as well as site work including remediation of brownfields and contaminated sites.

Methodology

The impact of an increase in construction spending is calculated using the U.S. Department of Commerce Regional Input-Output Modeling System (RIMS II). RIMS II is based on input output (I-O) tables. For a given industry, the I-O tables show the industrial distribution of inputs purchased and outputs sold.

Research shows that RIMS II multipliers are similar to other regional I-O models based on in-depth and often expensive surveys. According to the U.S. Department of Commerce, RIMS multipliers have been used to estimate such things as the regional impact of military base closings, tourist expenditures, new energy facilities, offshore drilling and the opening or closing of manufacturing plants and other facilities.

The multipliers are specific to New Jersey and are based on benchmark regional data from 2017 and industry data from the 2007 benchmark series, as published by the U.S. Department of Commerce. These multipliers are standard for this type of analysis and are the latest information available.

The state payroll tax rate is calculated using the average employer tax rate as a percent of total wages for 2019. The source for this information is the National Association of State Workforce Agencies (NASWA) and the U.S. Department of Labor Employment Training Administration (ETA) Financial Handbook 394.

The federal payroll tax rate is estimated to be 7.65 percent. Total income tax contributions comprise gross income tax revenues and Corporation Business Tax revenues, both of which are for state fiscal year 2019 and are from the Governor's FY 2021 Detailed Budget.

To estimate the amount of individual income tax contributions attributable to each industry, the estimated individual income tax collections paid by the average worker in each sector was calculated by using the New Jersey 2019 tax rate schedule for taxable income, then multiplied by the number of jobs supported by highway and bridge investment.

The amount of corporate income tax contributions attributable to each industry was estimated by multiplying the total statewide Corporation Business Tax revenues amount by the percentage of total output for each industry.

Total sales and use tax revenues are the annual totals of state sales and use tax revenues in state fiscal year 2019 and are from the Governor's FY 2021 Detailed Budget. The amount of sales and use contributions attributable to each industry was then estimated by multiplying the total statewide sales and use contributions amount by the percentage of total output for each industry. In 2019, New Jersey had 6.625 percent combined sales and use tax rate, as well as additional local sales and use taxes levied by individual cities and counties.

For more information, please contact Dr. Black at **ablack@artba.org**.