



ECONOMIC BENEFITS OF INVESTING IN TRANSPORTATION

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HNTB

On behalf of:

**Metro
Atlanta
Chamber** 

Survey findings and additional
research provided by

 **Urban Land
Institute**

EY
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CONTENTS

PURPOSE OF THE STUDY	1
WHAT ARE THE TRANSPORTATION NEEDS AND ASSOCIATED SPENDING?.....	2
WHAT ECONOMIC OUTCOMES CAN WE ANTICIPATE FROM FUNDING THE NEEDS?.....	5
HOW CAN INVESTING IN TRANSPORTATION LEVERAGE ADDITIONAL FUNDING?	10
RESOURCES	11

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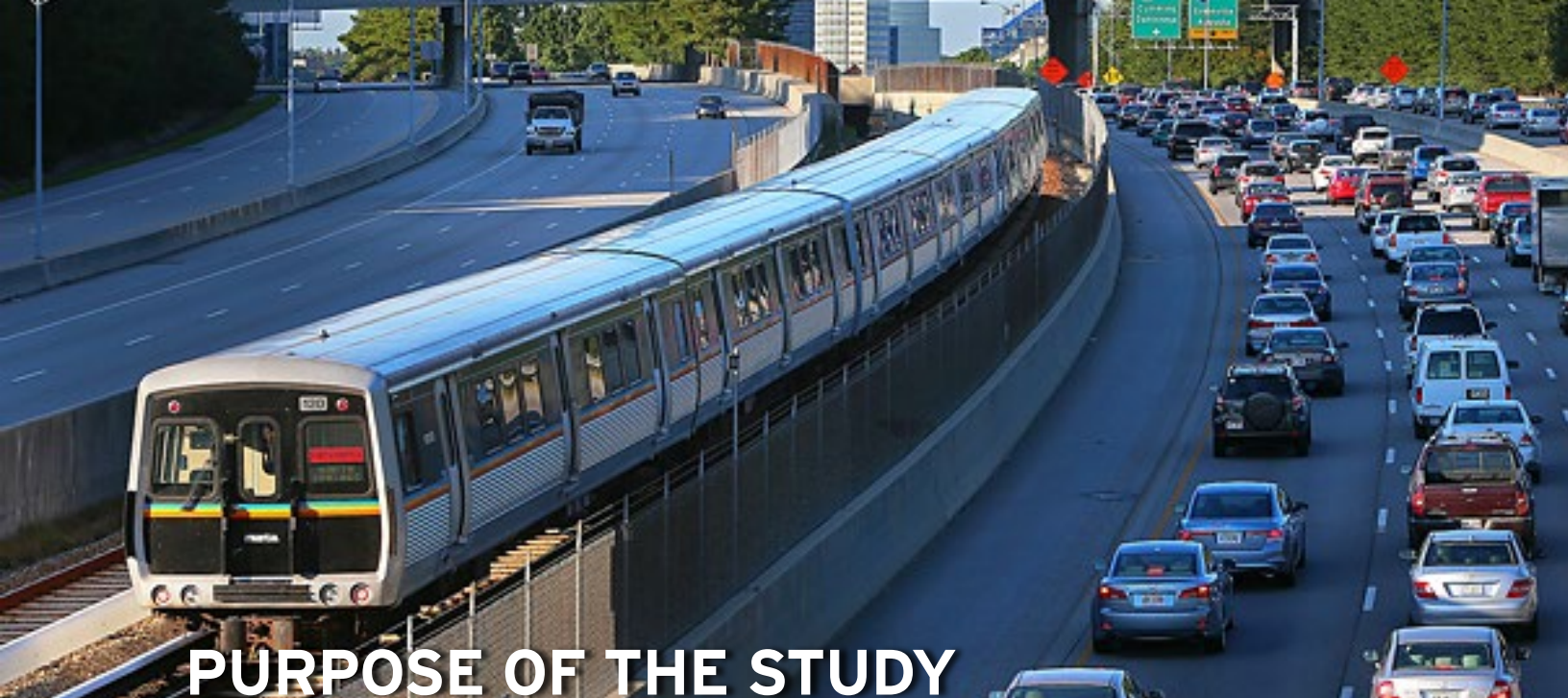
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PURPOSE OF THE STUDY

As 2015 approaches, interest in how Georgia funds transportation has risen sharply in the minds of Georgia legislators, business and civic leaders, employees, and citizens. In part, this is a result of the state legislature's formation of the Joint Study Committee on Critical Transportation Infrastructure Funding. Its charge is to make recommendations for consideration in the 2015 Legislative Session, and its members are working now to develop their proposal(s).

This report seeks to share insights and bring perspective to the transportation landscape that Georgians will face in the long term. It will compare the expected outcomes of Georgia's current transportation funding levels to alternative outcomes that would require higher funding levels.

Specifically, this report intends to answer the following questions:

- What will be the most critical transportation needs in Georgia's future?
- What are the approximate spending ranges needed to meet those needs?
- Why is it important to invest in transportation? In other words, what kind of economic outcomes can we anticipate from funding those critical transportation needs?
- How could this spending leverage other sources of funding?

This report compiles publicly available and recently completed plans, documents and presentations to provide a compilation of major transportation investments in Georgia, as well as approximate funding ranges necessary to implement those investments.

Once the projects were identified, a high level evaluation of outcomes was conducted to understand how funding transportation can impact job growth and a general return on investment.

WHAT ARE THE TRANSPORTATION NEEDS AND ASSOCIATED SPENDING?

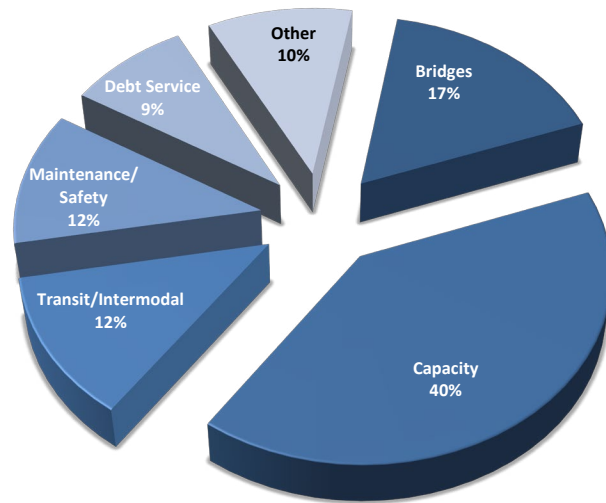
Specifically:

- What has Georgia historically invested in transportation?
- How does Georgia's spending levels compare to peer states?
- What additional spending levels are needed to address unfunded transportation needs in Georgia?

WHAT HAS GEORGIA HISTORICALLY INVESTED IN TRANSPORTATION?

In FY 2014, Georgia received \$2.2B: \$1.2B in federal and \$1.0B in state revenues.¹ These funds have been allocated as follows:

ANNUAL STATEWIDE FUNDING TOTAL =
\$2.2 BILLION²



Probable Outcomes without Significant State Transportation Investment:³

- *Doubling of the per capita cost of congestion in metro Atlanta.*
- *Reduction, by 33% from today's total, in the number of Georgians who can reach employment in 45 minutes or less.*
- *Cuts to the core MARTA system by 30 to 50 percent.*
- *GRTA Xpress bus service will be cut or eliminated.*
- *Higher levels of congestion and deteriorating road reliability in medium-sized cities.*
- *Growth of traffic on interstate highways by 60% and continued inadequate capacity for highway traffic.*
- *Erosion of efficient and reliable supply chains.*

¹ Joint Study Committee on Critical Transportation Infrastructure Funding Presentation by Keith Golden, P.E. GDOT, September 30, 2014.

² Adapted from SSIP, FY15-FY18.

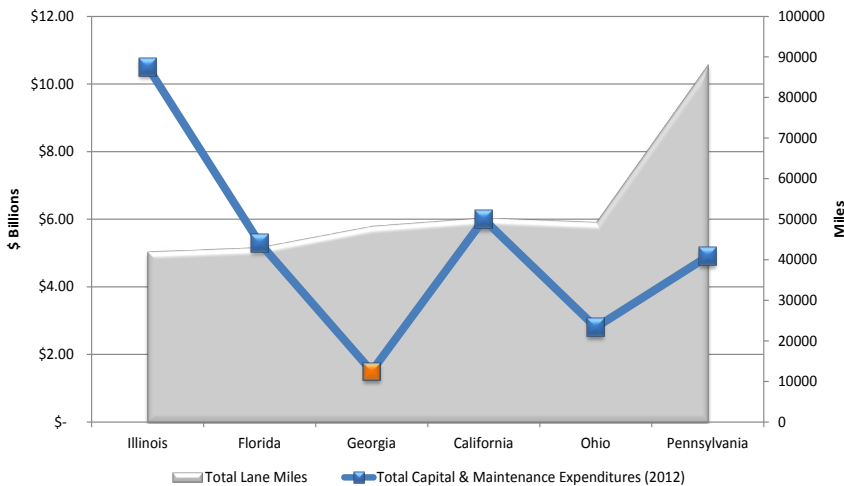
³ GDOT, Statewide Strategic Transportation Plan (SSTP) 2010-2030, April 2010



HOW DOES GEORGIA'S SPENDING COMPARE TO PEER STATES?

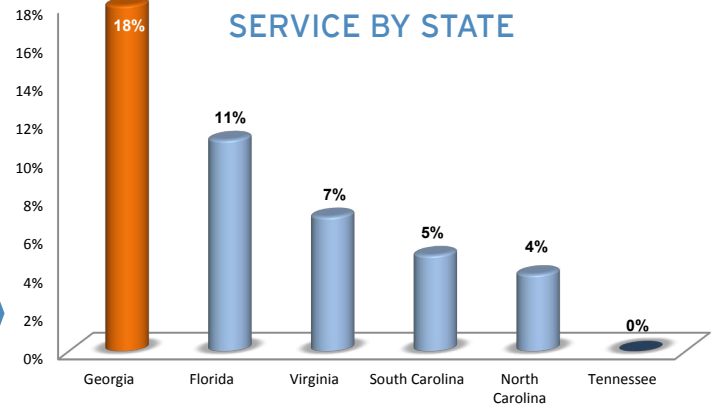
Currently, Georgia collects the least amount of motor fuel tax (34.7 cents), bears the highest percentage of debt (18%) compared to the annual budget, and expends the least amount on capital and maintenance projects compared to its peer states. These statistics indicate that Georgia is falling behind in terms of where the state is heading with transportation infrastructure versus where the state must be to keep pace with a growing population and economy.⁴

COMPARISON OF EXPENDITURES BY STATE

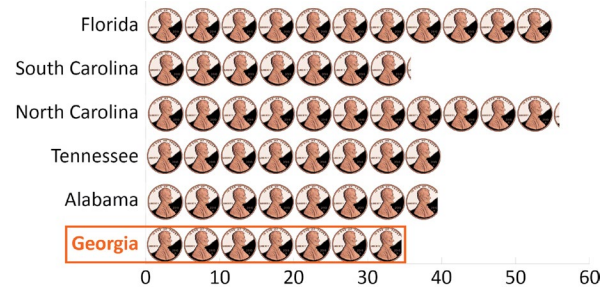


⁴Population increased by 3.9% between 2010 and 2013 and non-farm industry increased by 1.3% between 2011 and 2012 according to the U.S. Census Georgia QuickFacts.

TOTAL CURRENT DEBT SERVICE BY STATE



EFFECTIVE MOTOR FUEL TAX (FEDERAL & STATE)



Georgia's total of capital and maintenance expenditures is \$1.5B, the lowest among the peer states. In 2013, GDOT only resurfaced 2% of roadways (average once per 50 years). In 2014, GDOT is on track to resurface 1% (once every 100 years). GDOT's goal is to resurface 6-7% every year (once every 15 years).



WHAT ADDED SPENDING IS NEEDED FOR UNFUNDED NEEDS?

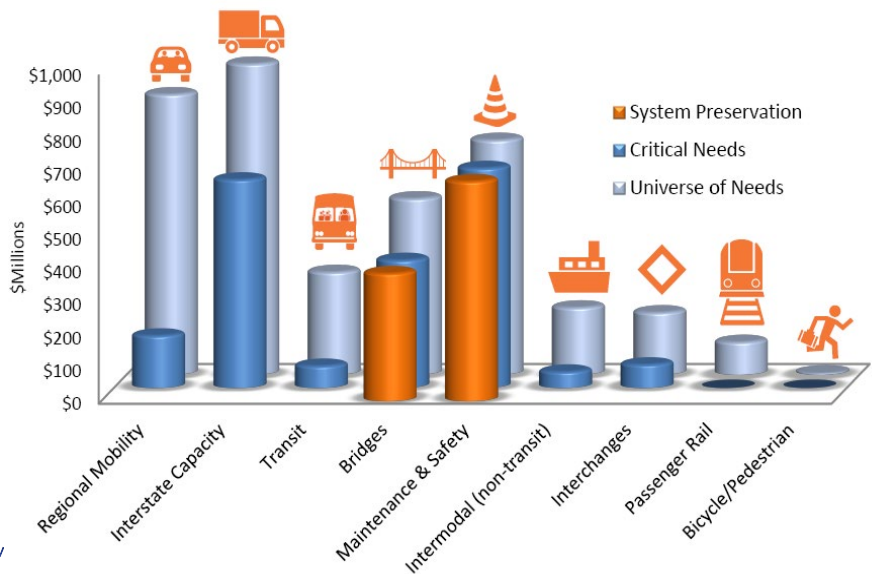
HNTB, in association with EY, was commissioned by the Metro Atlanta Chamber to meet with key agencies and review publicly available data. It was verified that in order to merely preserve the current transportation system (maintenance of roads and bridges), the state has a funding gap of \$1.0-\$1.5B annually.⁵

Similarly, addressing the state's critical transportation needs (boosting regional mobility, increasing interstate capacity, expanding transit availability, and new interchanges), would require an additional annual investment of \$2.1-\$2.9B. Finally, the full universe of transportation needs in the state, including establishment of a passenger rail system, would require additional funding of \$3.9-\$5.4B annually.

In FY 2014, the Georgia Department of Transportation made a \$2.2B (\$1.2B Federal aid) investment in transportation. However, an additional \$1.0-\$1.5B is needed annually just to preserve the current, aging system. Funding beyond that will allow for additional capacity.

Investment Scenario	Annual Funding Gap
System Preservation	\$1.0-\$1.5 billion
Critical Needs	\$2.1-\$2.9 billion
Universe of Needs	\$3.9-\$5.4 billion

INFRASTRUCTURE NEEDS BY CATEGORY



⁵GDOT Unfunded Project Needs dated October 15, 2014. Atlanta Regional Commission Plan 2040 2013 Updated Constrained Projects (AppendixA-2).

WHAT ECONOMIC OUTCOMES CAN WE ANTICIPATE FROM FUNDING THE NEEDS?

Specifically:

- What drives real estate investment?
- What are the results of other cities' investment in infrastructure?
- What could happen if Georgia continues to invest based on the current spending levels?
- What could the economic impacts be should Georgia increase investments in transportation?

WHAT DRIVES REAL ESTATE INVESTMENT?

The Urban Land Institute (ULI) and EY (formerly known as Ernst & Young) produce an annual Infrastructure Report on infrastructure investment. In the 2014 report, ULI and EY conducted a survey of real estate and civic leaders to understand drivers of real estate investment.

ULI and EY found through their survey that “infrastructure is a primary driver of real estate investment. [Particularly], transit, roads and bridges, and pedestrian infrastructure were important priorities.” Of the respondents, 88% believe that the quality of infrastructure (including transportation) is a “top consideration” or “very important.”

According to one developer, “When we’re redeveloping, if infrastructure is sub-standard then it becomes part of the development process and we end up having to bear some of the cost. The cost of infrastructure improvements must get priced into the deal, and market conditions will determine whether a project proceeds.”

ULI and EY 2014 Infrastructure: Shaping Competitive Cities

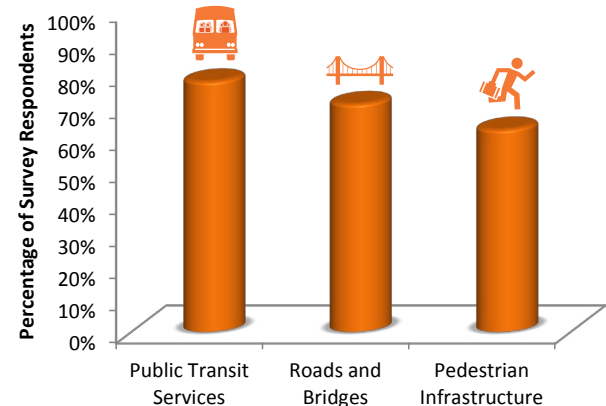
“Research has shown that transit and highway infrastructure creates significant economic benefits by providing greater access to labor, goods and services, and reducing time spent in transit.”

*Andrew D. Phillips, Principal,
EY LLP*

“...[I]nvestors and developers look for evidence of the public sector’s commitment to quality infrastructure when siting projects and relocating businesses.”

*Bob Voyles, Principal & CEO
Seven Oaks Company, LLC*

TOP INFRASTRUCTURE IMPROVEMENT PRIORITIES





Specifically, 78% of respondents agreed that improved public transit services (bus and rail) is “one of the very top priorities” or a “high priority;” 71% of respondents believe that improved roads and bridges are a “top or high priority;” and 63% of respondents believing improved pedestrian infrastructure is a “top or high priority.”

70% of Atlanta Speaks 2014 survey respondents thought improved public transit system was “very important” for metro Atlanta’s future.

- Survey conducted by Atlanta Regional Commission

“What infrastructure categories tend to matter the most, when it comes to where real estate investments happen?”

Survey Says: “Well-maintained roads and bridges” and “good intercity passenger connections are at the top of their list.”

WHAT COULD HAPPEN IF GEORGIA CONTINUES TO INVEST BASED ON THE CURRENT SPENDING LEVELS?

The Statewide Strategic Transportation Plan (SSTP) estimates investment levels and economic impacts based on current funding levels.⁷ The outcomes of the SSTP represent the best economic impacts the state can achieve.

The graphic (page 7) illustrates that \$44-\$52B in cumulative revenue is expected from federal and state transportation sources through 2030. However, after obligated funds, which pertain to operations and maintenance, debt service, etc., there is only expected to be \$12-\$15B available for new capacity and improvement programs through the year 2030. The question then becomes, where does Georgia invest these limited funds?

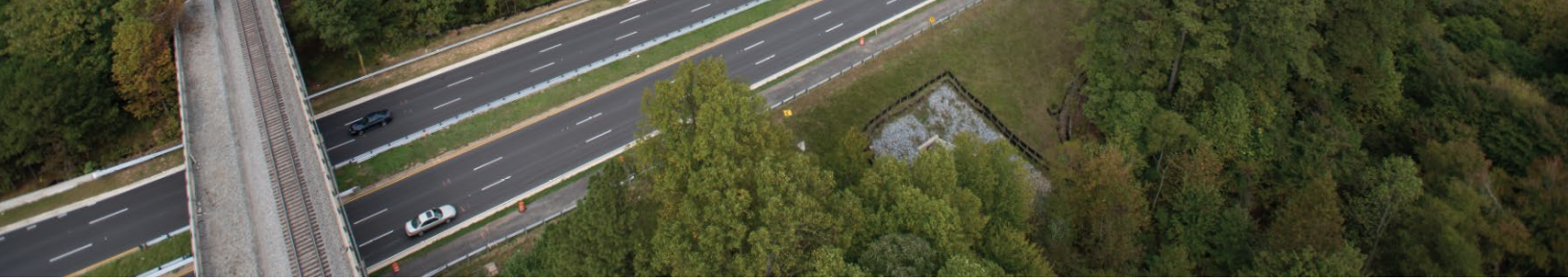
In Georgia, transit is becoming an important mode for both young professionals and aging populations. Currently, the State is limited on transit funding, as it is limited to the General Funds alone. In FY 2013, the State only received \$7.6 million for all of Intermodal.

This report only reflects the types of transit projects that the State has funded historically and does not include local transit projects (e.g., MARTA); therefore, this report under-represents the transit needs across the state.

For example: Three major capacity projects for MARTA include the Clifton Corridor, I-20 East, and 400 North. These projects have an estimated cost of \$3-\$4 billion collectively, or \$120-\$160 million per year for 25 years.

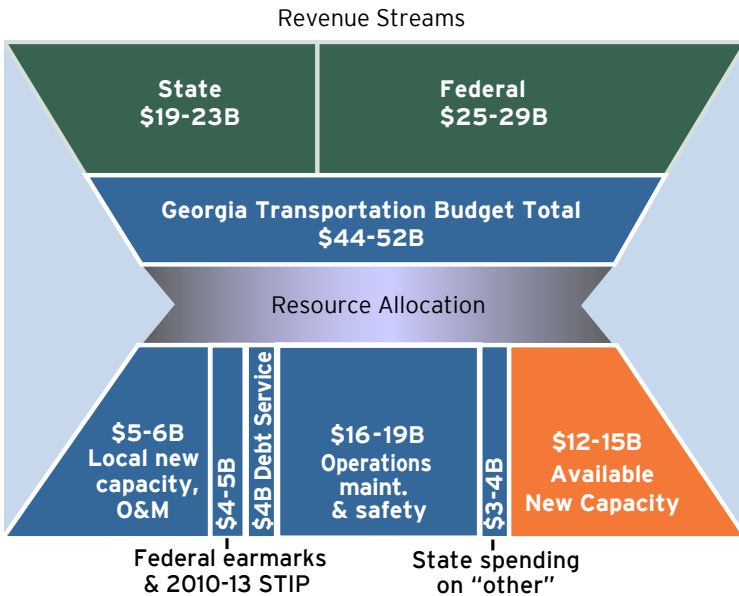
Local funding alone will not be sufficient to complete these projects and all transit capacity projects across the state.

⁶Assumes no new sources of funding are identified and fee levels/rates of taxation stay fairly consistent until 2030.



RESOURCES AVAILABLE FOR NEW-CAPACITY INVESTMENT

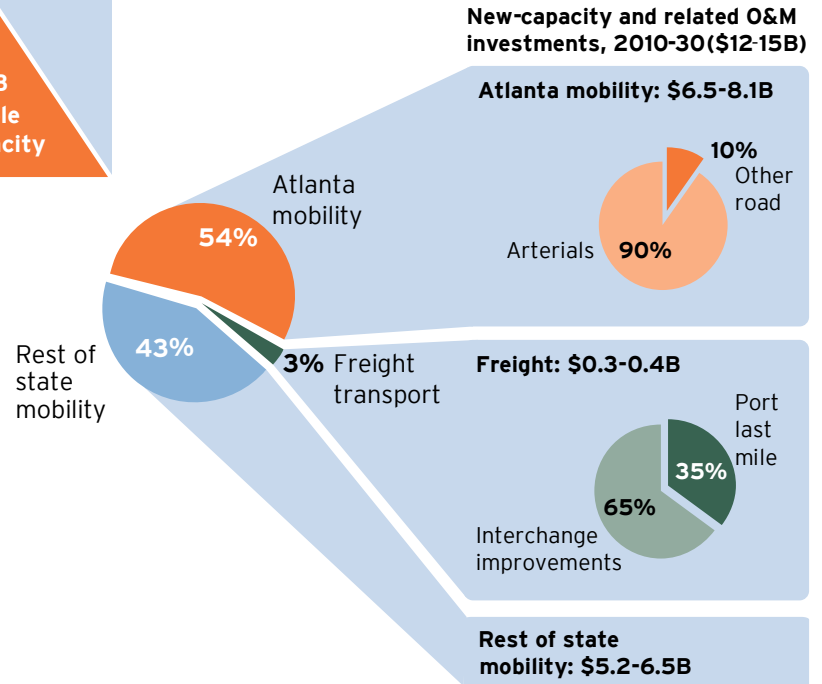
Resources currently applied to transportation in GA: 2010-2030⁷ (2008\$)



As the SSTP points out "the focus has to be solving the most urgent problems today - safety, congestion, and the worst freight bottlenecks across the state. As part of the SSTP, GDOT and the Governor's Office determined the following distribution of new-capacity dollars (see graphic below) utilizing the remaining \$12-15B available for new capacity.

LIKELY NEW-CAPACITY IMPROVEMENTS THROUGH 2030

TOTAL = \$12-15B





WHAT COULD THE ECONOMIC IMPACTS BE SHOULD GEORGIA INCREASE INVESTMENTS IN TRANSPORTATION?

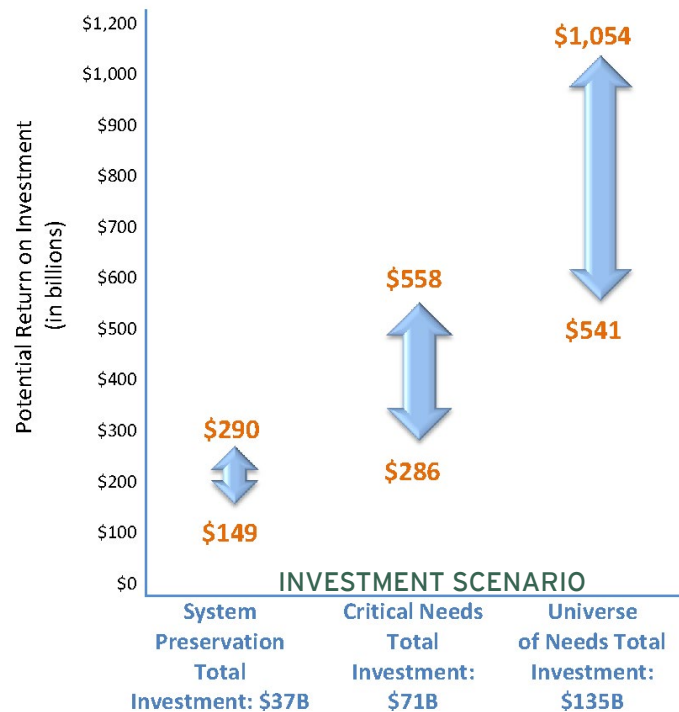
As indicated earlier, the approximate funding needs are an additional \$1.0-\$1.5B annually (including system preservation), an additional \$2.1-\$2.9B annually for critical needs, and an additional \$3.9-\$5.4B annually for the full universe of transportation needs (including system preservation and critical needs as well).

While the spending levels identified in this report represent significant new costs for the state to bear, they represent investments with tremendous upside potential for Georgia (or return on investment). Large increases in transportation spending in Georgia would yield considerable economic benefits to the state.

Economic impacts are generally measured using a Benefit-to-Cost ratio that provides how much return can be expected for every dollar of investment.



ESTIMATED ECONOMIC IMPACTS OF TRANSPORTATION INVESTMENT⁸



⁸Economic impacts in the 2010 SSTP includes congestion, GDP, jobs, and supply-chain benefits. The methodology used to calculate economic benefits was based on applying the benefit-cost ratios of 4.0 to 7.8 derived from the SSTP to the total funding program amounts for each investment scenario. This benefit-cost range is based on the four funding levels outlined in the SSTP (Level 1: \$12-19B, Level 2: \$20-29B, Level 3: \$57B, Level 4: \$63B).



In other words, for every \$1.0B invested in transportation, Georgia could expect to see a return of \$4.0-\$7.8B in economic benefits. These estimated economic benefits include:

- Reduced congestion benefits;
- Gross Domestic Product (GDP) benefits;
- Supply chain benefits; and
- Job creation.

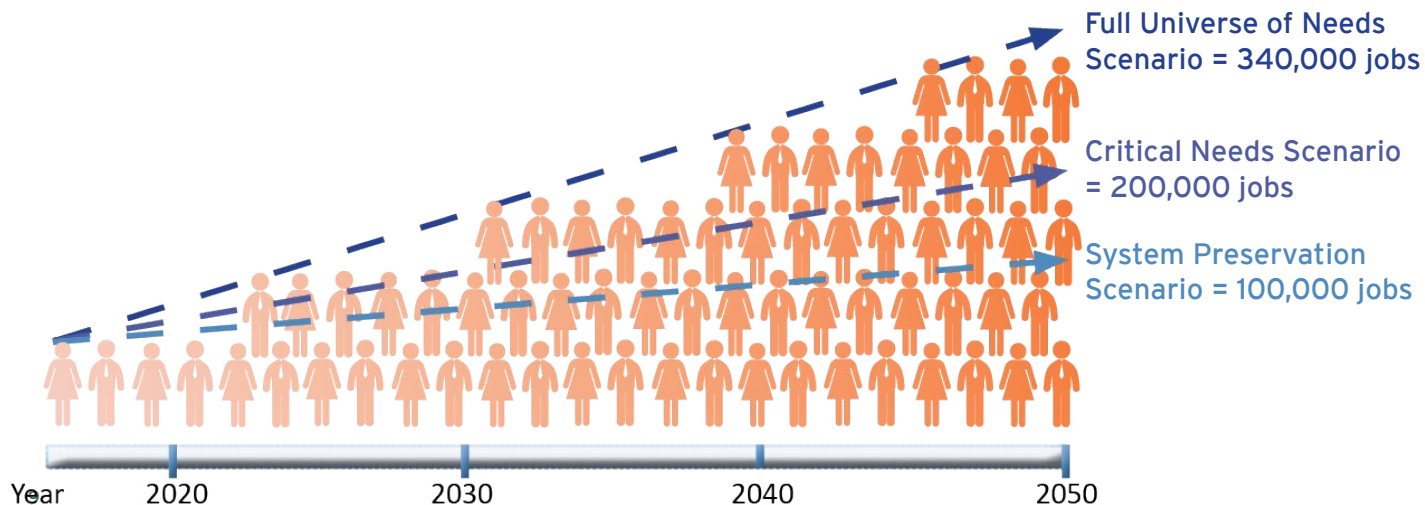
Additionally, “the U.S. Department of Transportation (USDOT) estimates that there are 13,000 short-term job-years created per one billion dollars of government investment. These estimates include direct on-site jobs, indirect jobs in supplier industries, and jobs that are induced in consumer goods and services industries as workers with direct and indirect jobs spend their increased incomes.”

Based on this calculation, the total job years created by implementing the critical transportation needs is approximately **1.0 million job-years through 2050**. If one were to conservatively assume that the average duration of a transportation construction project is five years, this would estimate a total of **200,000 people being employed**. The total potential job-year creation through 2050 for the

“In a typical US city, spending \$100 million on transportation infrastructure generates around 600 construction jobs and 1,300 total jobs in the state economy, as the construction occurs.”

*Andrew D. Phillips, Principal,
EY LLP*

POTENTIAL NEW JOBS THROUGH 2050



HOW CAN INVESTING IN TRANSPORTATION LEVERAGE ADDITIONAL FUNDING?

universe of transportation needs is approximately **1.7 million job-years, or 340,000 people being employed. Even with only funding the additional maintenance needs there is still the potential to generate 100,000 new jobs.**

Discretionary federal transportation funding has moved from an earmark system to a competitive process, such as Transportation Investment Generating Economic Recovery (TIGER) grants, as well as Transportation Infrastructure Finance and Innovation Act (TIFIA) loans. These programs, combined with the Federal Transit Administration's (FTA) New Starts program, which has always been a competitive program, favor projects with significant local matches. The historical ratio of 80% federal and 20% local money simply will not be competitive in the future. For example, recent TIGER grant awards have shown that the largest projects were awarded to those sponsors that provided an average of 60% for the local match. As federal transportation programs continue to shrink, the local match requirements will continue to increase to remain competitive.

WHERE DO WE GO FROM HERE?

Following this report, the Joint Study Committee on Critical Transportation Infrastructure Funding will report their recommendations for transportation legislative action for the 2015 Session. Should their recommendations pass in both the House and Senate and be signed into law, the next step will be to identify a combination of projects that provide the highest level of service to Georgia citizens while also providing the highest return on investment that can continuously be measured by the GDOT Performance Dashboard.

TAKING CARE OF WHAT WE HAVE⁹



Additional economic impact analyses will be needed to identify and prioritize these projects requiring the the collaboration of multiple state and regional agencies.



RESOURCES

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