



GLOBAL INSIGHT

**Impact of the Bipartisan House Transportation and
Infrastructure Committee's FY 2004-2009 Highway and Public
Transportation Investment Proposal on the US Economy**

An Analysis Prepared for:

Transportation Construction Coalition
American Public Transportation Association

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Global Insight

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Impact of the Bipartisan House Transportation and Infrastructure Committee's FY 2004-2009 Highway and Public Transportation Investment Proposal on the US Economy

Executive Summary

A consortium of the Transportation Construction Coalition and the American Public Transportation Association has retained Global Insight to evaluate the economic impacts of a proposal by the bipartisan leadership of the Committee on Transportation and Infrastructure (T &I) of the U.S. House of Representatives to increase federal investment in highway and public transportation improvements during Fiscal Years 2004 through 2009.

Global Insight used its U.S. Macroeconomic Model to estimate the economic impacts of this proposal compared to a baseline program. Two simulations were conducted. The baseline simulation estimated the economic impact of the highway investment levels in the U.S. government's proposed FY 2004 budget plus flat-line funding for the public transportation program. The alternative simulation analyzed the economic impact of the investment and revenue increases proposed by the bipartisan T&I Committee leadership. In both scenarios, all other assumptions about the future performance of the economy were identical.

Over the period 2004-2009, the incremental impact of the higher investment and revenues proposed by the bipartisan T&I Committee leadership on some key economic indicators is summarized as follows:

- The T&I Committee leadership proposal would add \$290 billion to the nation's nominal gross domestic product (GDP) over the next six years when compared to the level of GDP generated by the baseline program, or an amount equal to the total annual output of a state the size of Massachusetts, Virginia or North Carolina.
- The proposal would add \$129 billion to household disposable income or a six-year total of \$1,100 per household for each of the 117.6 million households in the United States. This would more than compensate households for the annual \$45 cost of the proposed increase in the federal motor fuels tax, or \$268 over the 6 years, and leave a total of more than \$800 per household for other consumer purchases or savings.
- The proposal would add \$98 billion in consumer spending, or a six-year total of \$836 per household.

- The proposal would add \$21 billion to equipment investment by the nation's businesses, thus generating higher productivity and making the U.S. more competitive.
- As a result of the increased investment in highways, public transportation, and business equipment, it would add \$73 billion to real potential GDP over the next six years. The impact of these investments on potential GDP will last far beyond 2009 in that they will impact the standard of living of future generations.
- The proposal would generate an additional \$102 billion in federal tax receipts, thus helping to reduce the federal deficit or provide funding for government programs.
- The proposal would also generate an additional \$140 billion in state and local tax receipts, even with no change in tax rates or tax policies. These additional revenues would be sufficient not only to generate the matching funds required under the highway and public transportation programs, but they would also help reduce state and local budget deficits.

Impact of the Bipartisan House Transportation and Infrastructure Committee's FY 2004-2009 Highway and Public Transportation Investment Proposal on the US Economy

Introduction

A consortium of the Transportation Construction Coalition and the American Public Transportation Association has retained Global Insight to evaluate the economic impacts of a proposal by the bipartisan leadership of the Committee on Transportation and Infrastructure of the U.S. House of Representatives to increase federal investment in highway and public transportation improvements during Fiscal Years 2004 through 2009.

This report presents the results of the Global Insight study.

Background

In FY 2002, the federal government invested a total of \$31.8 billion in highway improvements. This federal investment, along with additional investment by state and local governments, generated a total value of highway and bridge construction put in place of \$54.4 billion in 2002.

The bipartisan leadership of the Committee on Transportation and Infrastructure of the U.S. House of Representatives has proposed that federal highway and public transportation investment increase substantially when Congress reauthorizes the federal surface transportation programs under the Transportation Equity Act for the 21st Century (TEA-21). The Committee's proposal recommends \$40 billion for the federal-aid highway program in FY 2004, growing to \$60 billion in FY 2009¹. Actual outlays – i.e., payments for work actually performed – would grow to just over \$56 billion by FY 2009. Assuming state and local highway investment grows at the same pace as federal investment over the next six years, the amount of construction work performed on highways and bridges would increase to almost \$97 billion by 2009.

In addition to assessing the economic impact of increased investment in highway improvements, Global Insight evaluated the economic impact of the proposed increase in funding for public transportation. We tested a program that would grow in equal increments from \$8.0 billion in FY 2004 to \$14 billion in FY 2009.

To isolate the economic impacts of the proposed increase in federal highway and public transportation investment, Global Insight compared the bipartisan T&I Committee

¹ This is based upon preliminary data. The actual proposal may differ when the legislation is introduced, but should not materially affect the results of this study.

proposal to a baseline representing the current funding outlook for these two programs during the next six years. This baseline consisted of two parts:

- The baseline for federal highway funding was taken from the budget submitted by the administration for FY 2004 – 2008. Under the administration’s budget, federal highway investment would grow from \$29.3 billion in FY 2004 to \$33.1 billion in FY 2008. These annual investment levels are consistent with the TEA-21 rule linking annual highway funding with receipts into the Highway Trust Fund. For FY 2009, which was not covered in the budget, the study assumed continued trend-line growth of federal highway investment proposed in the budget.
- For the public transportation baseline, the study assumed federal investment would remain flat at \$7.2 billion per year, which is the amount appropriated in FY 2003. Public transportation funding was not directly linked to Highway Trust Fund revenues under TEA-21 and thus flat funding is the appropriate baseline.

The Committee’s proposal for federal highway investment for FY 2004 to 2009 is approximately \$110 billion above the comparable figures from the U.S government’s FY 2004 budget while the Committee’s proposal for public transportation program funding is approximately \$23 billion above the FY 2004 U.S. government budget.

These new initiatives would be funded by a combination of an increase in the federal motor fuels taxes and a redirection of selected existing taxes. The motor fuel tax rate would rise to an average of 21.1 cents per gallon in FY 2004² from the current level of 18.4 cents per gallon and would subsequently rise in annual increments to 27.1 cents per gallon in FY 2010. The impact of the proposed increase in the federal motor fuels tax is incorporated into the results of this study.

Global Insight’s analysis shows the year-by-year incremental impact of the bipartisan T&I Committee proposal on such key economic concepts as nominal GDP, real potential GDP, disposable income, consumer spending, equipment investment, federal tax receipts, and state and local tax receipts compared to the levels that would be generated by the baseline proposal.

Assumptions and Methodology

Global Insight used its U.S. Macroeconomic Model to estimate the economic impact of the highway and public transportation investment proposed for federal Fiscal Years 2004 – 2009 by the bipartisan leadership of the House Committee on Transportation and Infrastructure, compared to the baseline spending for these two programs described earlier. Two simulations were conducted. The baseline simulation estimated the economic impact of the highway spending included in the U.S. government’s FY 2004 budget plus

² Assumes mid-year implementation of 5.5 cent per gallon increase in the motor fuels tax rate.

flat-line funding for public transportation. The alternative simulation analyzed the economic impact of the increases in highway and public transportation investment proposed by the bipartisan T&I Committee leadership. The underlying assumptions for the two scenarios are presented in the following table.

Highway and Public Transportation Investment Assumptions						
(millions of dollars)						
	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09
Baseline Federal Highway Investment from the Proposed FY 2004 Budget						
Federal highway investment	29,294	30,265	31,326	32,257	33,104	34,000
Estimated outlays	28,962	30,276	31,149	32,290	33,169	34,100
Highway construction put in place	51,844	54,197	55,759	57,802	59,375	61,042
Bipartisan House T&I Committee Proposal for Highway Investment						
Federal highway investment	40,000	44,000	48,000	52,000	56,000	60,000
Estimated outlays	36,544	40,616	44,563	48,264	52,222	56,233
Highway construction put in place	62,989	70,008	76,811	83,190	90,012	96,926
Incremental Highway Investment over Baseline						
Federal highway investment	10,706	13,735	16,674	19,743	22,896	26,000
Highway construction put in place	11,144	15,811	21,051	25,388	30,637	35,884
Mass Transit Program Investment						
Baseline	7,226	7,226	7,226	7,226	7,226	7,226
House T&I Committee Proposal	8,000	9,200	10,400	11,600	12,800	14,000
Increment over Baseline	774	1,974	3,174	4,374	5,574	6,774

In both scenarios, all other assumptions about the future performance of the economy are identical. The economic assumptions forming the basis for the analysis include:

- Inflation as measured by the Consumer Price Index was assumed to remain in the 2-2.5% range from 2004 to 2009.
- The Federal Reserve will not raise interest rates until early summer of 2003. By 2009, the federal funds rate will rise to 5.5%.
- The unemployment rate will fall from its current 6% level to 4.6% by 2009.
- Oil prices will fall to \$25 per barrel from their current level and then rise again to reach \$28 per barrel in 2009.

The analysis was comprised of four tasks:

- **Task 1.** In consultation with the clients, Global Insight researched the level and characteristics of the proposed highway and public transportation programs and developed a set of reasonable and credible assumptions that were used as inputs into the Global Insight Quarterly Model of the U.S. Economy.

- **Task 2.** Since a certain level of continued federal investment in highways and public transportation is part of the current baseline, Global Insight developed two scenarios – a baseline showing the impact of no investment above current policies as described earlier and an alternative simulation showing the impact of implementing the bipartisan T&I Committee program as described by the clients.
- **Task 3.** A report was prepared that provides summary charts and tables for the alternative simulation that highlights changes from the baseline scenario forecasts for key economic concepts such as nominal gross domestic product, real potential gross domestic product, disposable income, consumer spending, equipment investment, federal tax receipts, and state and local tax receipts. The written analysis in the report discusses the results and identifies the factors underlying the analysis.
- **Task 4.** The impact on nominal gross domestic product, disposable income and consumer spending was allocated among the states in proportion to their share of federal highway investment.

Summary of Results

The charts and tables presented below provide year-by-year details of the total impact on key economic indicators of the increased highway and public transportation investment proposed by the bipartisan leadership of the House Transportation and Infrastructure Committee. Data are presented in Appendix A.

The total impact is the result of direct, indirect, and induced spending effects. These are defined as follows:

- Direct effects—the hiring of construction workers and purchases of non-labor goods and services.
- Indirect effects—the additional demands for inputs from the industries that sell non-labor goods and services directly to the project.
- Induced effects—the increases in employment, and income generated by the expenditure of disposable income of the newly hired construction workers.

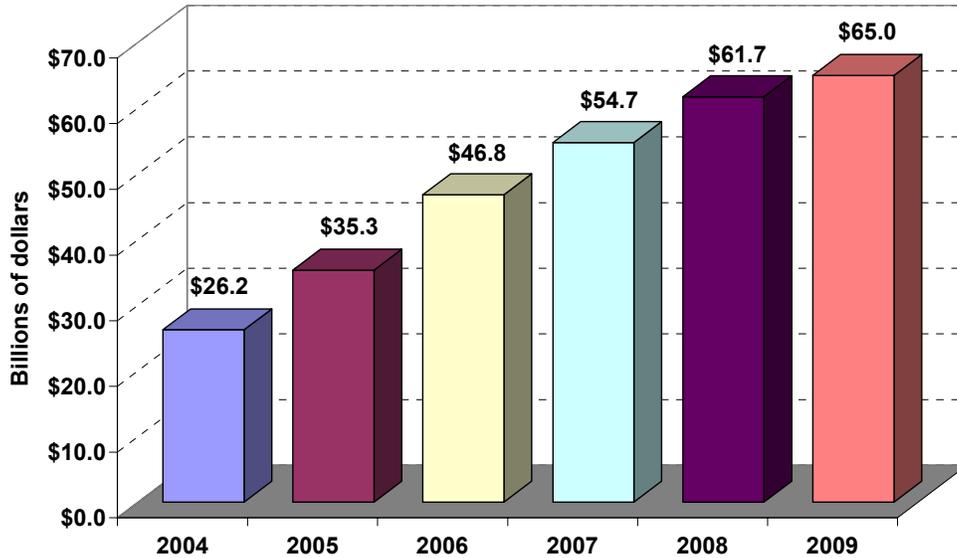
Nominal Gross Domestic Product

The bipartisan T&I Committee proposal would generate more nominal GDP between 2004 and 2009 than would the baseline transportation spending proposed in the administration's FY 2004 government budget.

Over the period 2004-2009, nominal GDP would be \$290 billion above the level generated by the baseline program. This is equivalent to the entire annual gross state

product of a state the size of Massachusetts, Virginia, or North Carolina. Under the Committee proposal, GDP will increase relative to the amount generated by the baseline program due to the expansionary impacts of the highway and public transportation

Incremental Impact on Nominal GDP

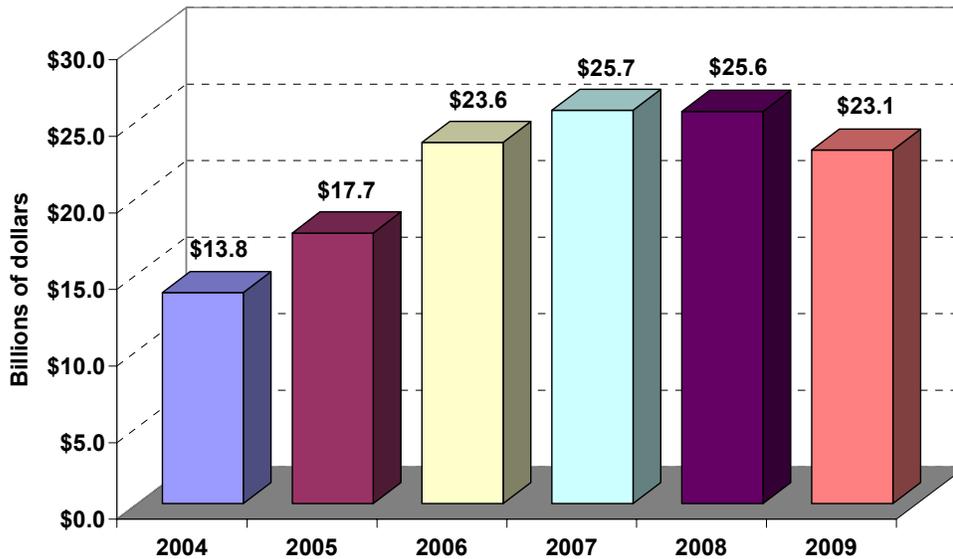


investment on three important components of GDP: consumer spending, investment spending, and government spending.

Disposable Income

Over the period 2004-2009, disposable income under the bipartisan T&I Committee leadership proposal would be \$129 billion above the amount generated by the baseline.

Incremental Impact on Disposable Income



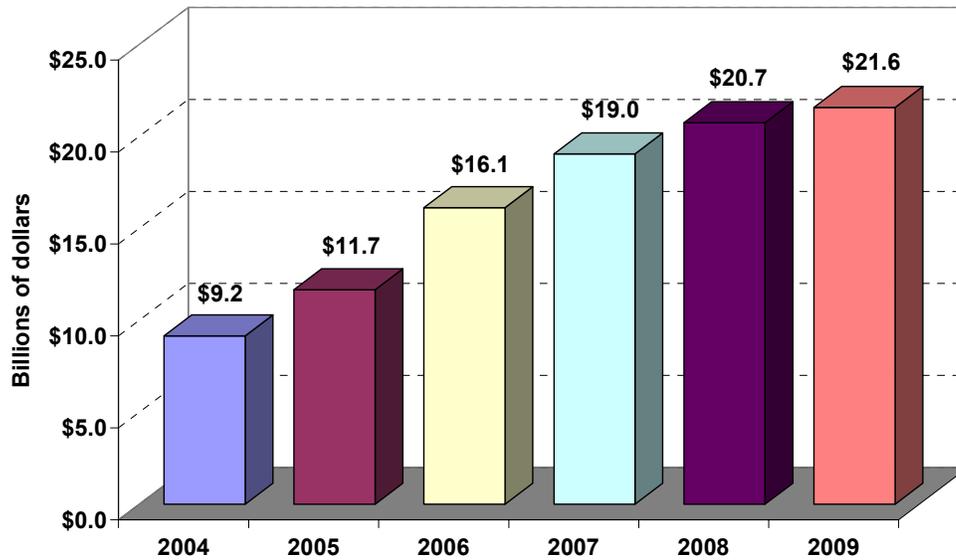
Over the six years, the average household in the United States would receive over \$1,100 more disposable income under the T&I Committee proposal than under the baseline. Not only would this cover the annual \$45 cost of the proposed increase in the federal gasoline tax to the average household (a 6-year total of \$268), it would provide about \$800 over the six years that could be spent on other consumer goods or saved. This increase in disposable income is attributable not only to the increases in income accruing to the construction workers associated with highway construction, but also due to the indirect and induced impacts that result.

Consumer Spending

Under the Committee proposal, consumer spending would be above the amount generated by the baseline scenario every year between 2004 and 2009.

Over the six-year period, consumer spending would be \$98 billion above the baseline, or an average of \$836 for every household in the United States. The indirect and induced impacts of increased highway and public transportation investment will lead to an increase in disposable income and consequently an increase in consumer spending.

Incremental Impact on Consumer Spending

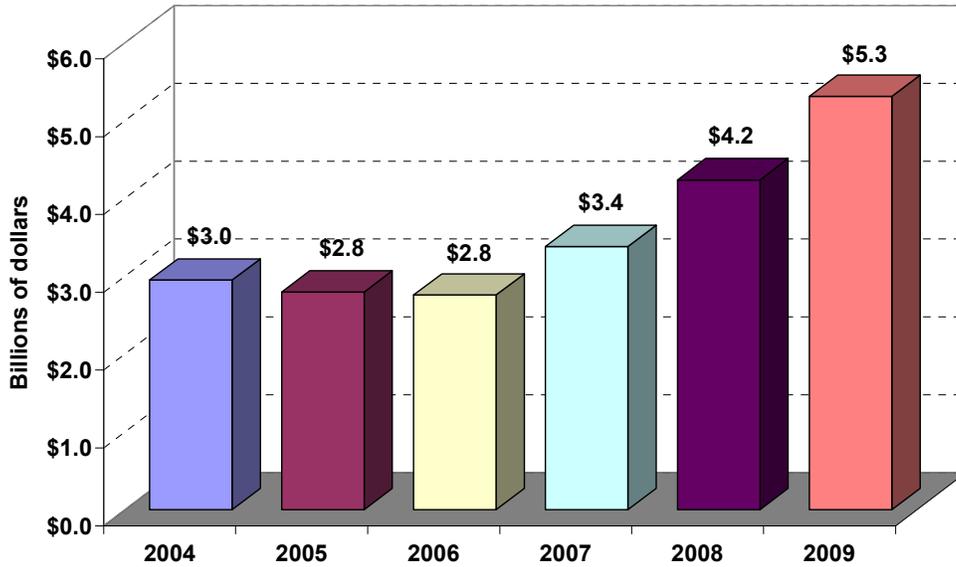


Equipment Investment

Business investment in equipment would also be considerably higher during the next six years under the T&I Committee proposal than under the baseline program.

The Global Insight Macroeconomic Model indicates that, over the period 2004-2009, equipment investment by the nation's businesses would be \$21 billion above the amount generated by the baseline program. This is because the impact of the proposed increase in spending for highways and public transportation is to increase business profits and ultimately increase equipment investment spending.

Incremental Impact on Equipment Investment

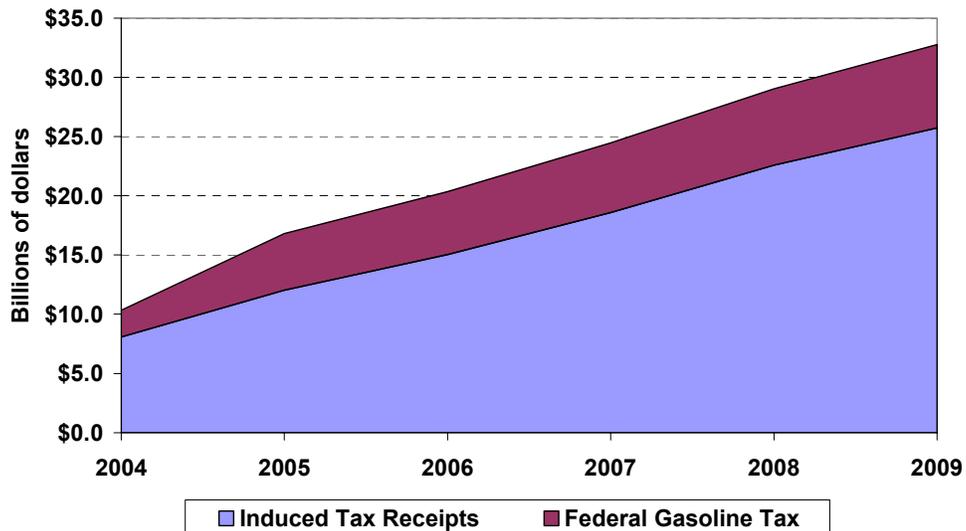


Federal Tax Receipts

Federal tax receipts will be significantly higher under the T&I Committee’s proposal during the next six years than under the baseline program.

Part of the increase would be due to the proposed increase in the federal motor fuels tax. But much would result from the economic growth prompted by the increased highway

Incremental Federal Gasoline and Induced Tax Receipts

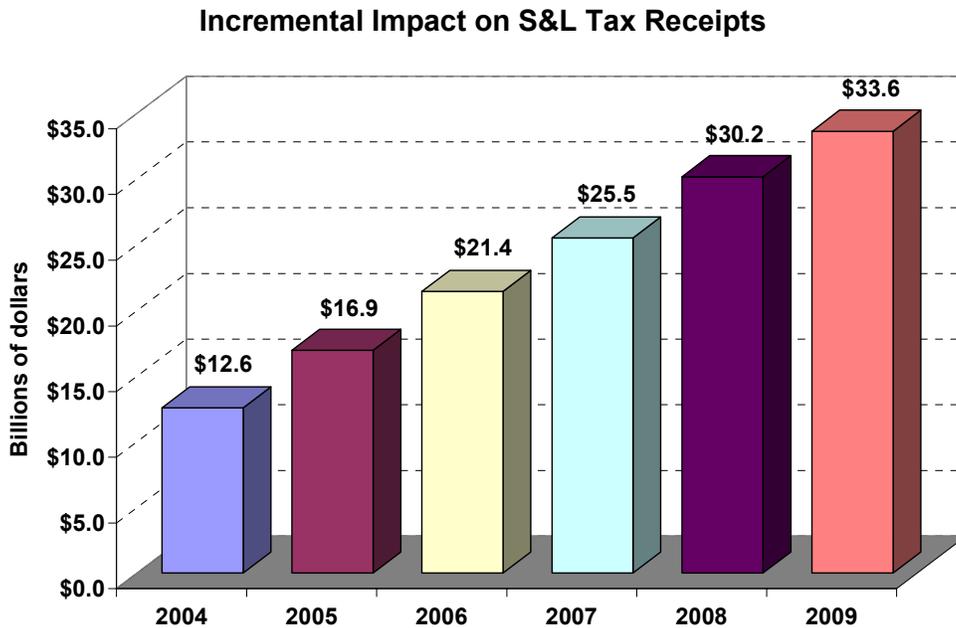


and public transportation investment plus the increase in the inflation-adjusted tax basis for goods and services. Over the period 2004-2009, gasoline tax receipts will be \$32 billion above the level generated by the baseline program while program-induced tax receipts will be \$102 billion higher.

State and Local Tax Receipts

Another benefit of the T&I Committee’s proposal is that state and local tax receipts would be above the baseline scenario every year between 2004 and 2009.

As is the case with federal tax receipts, the economic growth prompted by the spending increase along with an inflation-adjusted tax basis for goods and services cause state and local tax receipts to rise. Over the period 2004-2009, state and local tax receipts increase \$140 billion above the amount generated by the baseline program. These increased tax receipts are more than adequate to cover the 20% matching requirement for the proposed T&I Committee program, and, in addition, would help state and local governments deal with their current budget problems.



Economic Impacts by State

As part of the process of assessing the economic impact of the proposed increases in highway and public transportation investment, Global Insight allocated the incremental impacts on gross domestic product, disposable income, and consumer spending to the individual states according to their 2001 share of federal highway spending. The results are shown in the following table:

State by State Economic Impacts 2004-2009							
State	Gross Domestic Product Increase (\$million)	Disposable Income Increase (\$million)	Consumer Spending Increase (\$million)	Number of Households	Gross State Product Increase per Household	Disposable Income Increase per Household	Consumer Spending Increase per Household
Alabama	\$5,753.5	\$2,569.9	\$1,952.0	1,936,923	\$2,970	\$1,327	\$1,008
Alaska	\$3,179.0	\$1,419.9	\$1,078.5	247,551	\$12,842	\$5,736	\$4,357
Arizona	\$4,849.7	\$2,166.2	\$1,645.3	2,119,799	\$2,288	\$1,022	\$776
Arkansas	\$3,763.4	\$1,680.9	\$1,276.8	1,163,046	\$3,236	\$1,445	\$1,098
California	\$27,153.5	\$12,128.3	\$9,212.2	12,826,956	\$2,117	\$946	\$718
Colorado	\$3,733.2	\$1,667.5	\$1,266.5	1,848,830	\$2,019	\$902	\$685
Connecticut	\$4,209.8	\$1,880.3	\$1,428.2	1,451,856	\$2,900	\$1,295	\$984
Delaware	\$1,248.3	\$557.6	\$423.5	333,414	\$3,744	\$1,672	\$1,270
Dist. of Columbia	\$1,144.3	\$511.1	\$388.2	276,544	\$4,138	\$1,848	\$1,404
Florida	\$13,522.6	\$6,040.0	\$4,587.7	7,067,482	\$1,913	\$855	\$649
Georgia	\$10,083.2	\$4,503.7	\$3,420.9	3,351,980	\$3,008	\$1,344	\$1,021
Hawaii	\$1,459.9	\$652.1	\$495.3	449,384	\$3,249	\$1,451	\$1,102
Idaho	\$2,168.7	\$968.7	\$735.8	524,095	\$4,138	\$1,848	\$1,404
Illinois	\$9,647.0	\$4,308.9	\$3,272.9	5,120,523	\$1,884	\$841	\$639
Indiana	\$6,590.6	\$2,943.8	\$2,236.0	2,604,866	\$2,530	\$1,130	\$858
Iowa	\$3,440.0	\$1,536.5	\$1,167.1	1,281,246	\$2,685	\$1,199	\$911
Kansas	\$3,355.9	\$1,498.9	\$1,138.5	1,157,470	\$2,899	\$1,295	\$984
Kentucky	\$5,044.0	\$2,253.0	\$1,711.3	1,774,119	\$2,843	\$1,270	\$965
Louisiana	\$4,600.8	\$2,055.0	\$1,560.9	1,846,600	\$2,492	\$1,113	\$845
Maine	\$1,513.3	\$675.9	\$513.4	577,620	\$2,620	\$1,170	\$889
Maryland	\$4,723.3	\$2,109.7	\$1,602.4	2,209,006	\$2,138	\$955	\$725
Massachusetts	\$5,371.5	\$2,399.2	\$1,822.3	2,725,296	\$1,971	\$880	\$669
Michigan	\$8,876.5	\$3,964.8	\$3,011.5	4,221,756	\$2,103	\$939	\$713
Minnesota	\$4,278.4	\$1,911.0	\$1,451.5	2,113,108	\$2,025	\$904	\$687
Mississippi	\$3,526.9	\$1,575.3	\$1,196.6	1,166,391	\$3,024	\$1,351	\$1,026
Missouri	\$6,737.6	\$3,009.4	\$2,285.8	2,447,637	\$2,753	\$1,230	\$934
Montana	\$2,741.8	\$1,224.7	\$930.2	400,320	\$6,849	\$3,059	\$2,324
Nebraska	\$2,224.1	\$993.4	\$754.6	742,654	\$2,995	\$1,338	\$1,016
Nevada	\$2,030.2	\$906.8	\$688.8	837,438	\$2,424	\$1,083	\$822
New Hampshire	\$1,469.2	\$656.2	\$498.4	529,671	\$2,774	\$1,239	\$941
New Jersey	\$7,688.9	\$3,434.3	\$2,608.6	3,417,771	\$2,250	\$1,005	\$763
New Mexico	\$2,779.7	\$1,241.6	\$943.0	756,035	\$3,677	\$1,642	\$1,247
New York	\$14,602.4	\$6,522.3	\$4,954.1	7,869,236	\$1,856	\$829	\$630
North Carolina	\$8,035.5	\$3,589.1	\$2,726.1	3,492,482	\$2,301	\$1,028	\$781
North Dakota	\$1,856.6	\$829.3	\$629.9	286,580	\$6,479	\$2,894	\$2,198
Ohio	\$9,862.2	\$4,405.0	\$3,345.9	4,957,719	\$1,989	\$889	\$675
Oklahoma	\$4,459.7	\$1,992.0	\$1,513.0	1,496,460	\$2,980	\$1,331	\$1,011
Oregon	\$3,523.8	\$1,573.9	\$1,195.5	1,487,539	\$2,369	\$1,058	\$804
Pennsylvania	\$14,410.6	\$6,436.6	\$4,889.0	5,326,816	\$2,705	\$1,208	\$918
Rhode Island	\$1,694.6	\$756.9	\$574.9	454,959	\$3,725	\$1,664	\$1,264
South Carolina	\$4,751.9	\$2,122.5	\$1,612.1	1,710,558	\$2,778	\$1,241	\$942
South Dakota	\$2,066.6	\$923.0	\$701.1	323,378	\$6,391	\$2,854	\$2,168
Tennessee	\$6,421.3	\$2,868.1	\$2,178.5	2,490,011	\$2,579	\$1,152	\$875
Texas	\$22,412.8	\$10,010.9	\$7,603.8	8,243,909	\$2,719	\$1,214	\$922
Utah	\$2,238.7	\$999.9	\$759.5	781,683	\$2,864	\$1,279	\$972
Vermont	\$1,302.3	\$581.7	\$441.8	268,738	\$4,846	\$2,165	\$1,644
Virginia	\$7,243.3	\$3,235.3	\$2,457.4	3,009,646	\$2,407	\$1,075	\$817
Washington	\$5,102.8	\$2,279.2	\$1,731.2	2,532,384	\$2,015	\$900	\$684
West Virginia	\$3,233.6	\$1,444.3	\$1,097.1	820,711	\$3,940	\$1,760	\$1,337
Wisconsin	\$5,557.9	\$2,482.5	\$1,885.6	2,324,976	\$2,391	\$1,068	\$811
Wyoming	\$1,992.2	\$889.8	\$675.9	216,329	\$9,209	\$4,113	\$3,124
TOTAL	\$289,678.0	\$129,387.0	\$98,277.0	117,621,501	\$2,463	\$1,100	\$836

Source: Global Insight. Figures are illustrative and would change if distribution of federal highway funds change.

The five states receiving the greatest economic impacts from the proposed spending increases are California, Texas, New York, Pennsylvania, and Florida. These states account for almost 32% of the total national impact. However, all states benefit substantially. For example, Rhode Island’s gross state product increases by \$1.7 billion while Delaware’s gross state product increases by \$1.2 billion.

The following table shows the impact of the proposed spending increases on households over the 2004-2009 period. While disposable income per household increases by almost \$1,100 during the six-year period, the cost per household of the proposed gasoline tax increase is only \$268 over the period—a return of 4 to 1 for each dollar of spending.

Incremental Impact on Disposable Income and Motor Fuel Taxes per Household		
Year	Impact on Disposable Income	Impact on Motor Fuel Taxes
2004	\$121	\$20
2005	\$153	\$41
2006	\$201	\$45
2007	\$217	\$50
2008	\$214	\$54
2009	\$191	\$58
Total	\$1,097	\$268

Real Potential GDP

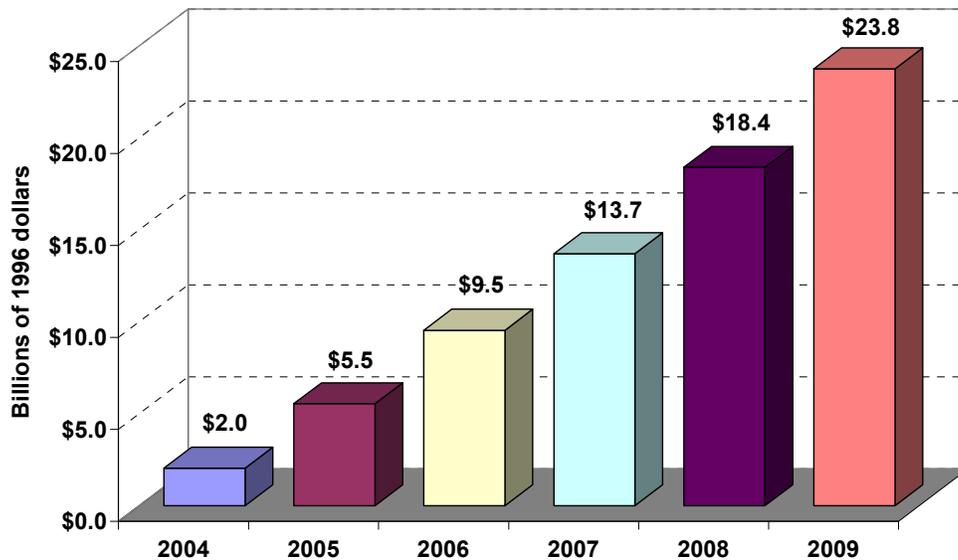
Real Potential GDP measures the ability of the economy to grow over time. It is a measure of productivity in the sense that it reflects the underlying growth rate of the economy based upon the growth of the various factors of production, i.e labor, capital, and technology.

At the levels of federal highway and public transportation investment proposed by the bipartisan leadership of the Transportation and Infrastructure Committee, real potential GDP will be above the level generated by the baseline scenario every year between 2004 and 2009. Over the period, real potential GDP under the T&I Committee proposal is \$73 billion above the baseline result, measured in constant 1996 dollars.

The increase in productivity comes in a number of ways. Increased investment in highways and public transportation at the level proposed by the Committee will reduce congestion and improve travel times for individuals and businesses, thus freeing time for more productive uses. The stronger growth of the economy compared to the baseline will generate more business investment in equipment which will also boost productivity.

Clearly, increases in highway and public transportation investment, other things being equal, will have a positive impact on real potential GDP and the economy’s ability to grow.

Incremental Impact on Potential GDP, \$96



Other Economic Benefits of Highway and Public Transportation Investment

The Global Insight U.S. Macroeconomic Model is designed to analyze the impact of policy proposals, such as the Transportation and Infrastructure Committee's proposal to increase federal investment in highways and public transportation, on such economic variables as gross domestic product, consumer spending, real potential GDP and tax receipts.

There are a number of additional economic benefits that may accrue from increased investment in highways and public transportation that the model does not address but which should not be overlooked. Since they are not part of the model, the model does not provide a dollar value for these additional benefits, but they include:

- Reduced travel time costs and congestion costs. Investments that increase highway capacity or the capacity of public transportation systems can help reduce congestion, thus reducing the economic cost of time and fuel wasted in traffic jams.
- Reduced crash costs. Highway crashes can involve significant economic costs, including medical costs, rehabilitation costs, lost wages, legal fees, property damage and reduced productivity both at home and at work. Highway investments that improve road safety and investments that expand public transportation options can reduce the number and severity of crashes and thus reduce the economic cost of crashes.

- Reduced vehicle operating expenses. Poor road surfaces can raise the cost of operating and maintaining motor vehicles. Repairing and improving road surfaces can reduce these costs, as would investments that expand public transportation.

Long-run economic impacts

In addition to the short-run economic impacts of increased highway and public transportation spending that are the focus of this study, there are long-run productivity impacts as well. These impacts extend far beyond the years of program implementation and leave a legacy for future generations.

Highways, bridges and mass transit systems are a major component of the nation's capital assets and among the most long-lived. A highway or bridge can, with proper maintenance, serve for 50 years or more, while subways and rail lines built in late 19th century are still being used today. Few other assets have such extensive service lives.

Long after 2009, the additional highway and public transportation improvements financed under the T&I Committee's proposal compared to the baseline will continue to serve highway users and support productivity improvements.

Highways, bridges and mass transit provide essential services to private businesses and individuals, despite being publicly owned and financed, and can have a significant impact on long-run productivity growth. Investment in the transportation infrastructure will reduce congestion and lead to improved product flow. Also an improved transportation system will likely lead to increased tourist travel and increased consumer spending. This will stimulate many state economies. In addition, increased highway spending will lead to an increase in capital spending which will increase labor productivity.

Increases in highway investment will also promote economic development. By facilitating transportation flow, highway investment will revitalize and diversify the economy of rural areas and smaller communities, enhance and disperse industrial growth, and encourage more balanced population patterns. In addition, it will promote the development of economic growth centers, encourage the location of business and industry in rural areas, and provide rural citizens with improved highways to such public and private services as health care, recreation, employment, education, cultural activities, and in general encourage the social and economic development of rural communities.

To the extent that increased highway investment reduces transportation costs, it will reduce our balance of payments deficit and ultimately make the US more desirable for foreign investment.

Appendix A: Results of Global Insight Study of Transportation and Infrastructure Committee Proposal to Increase Federal Highway and Mass Transit Investment							
(Billions of dollars)							
	2004	2005	2006	2007	2008	2009	Total
GDP							
T&I Committee program	\$11,701.5	\$12,395.5	\$13,052.3	\$13,751.3	\$14,486.9	\$15,283.5	
Baseline	\$11,675.2	\$12,360.2	\$13,005.5	\$13,696.6	\$14,425.2	\$15,218.5	
Increment	\$26.2	\$35.3	\$46.8	\$54.7	\$61.7	\$65.0	\$289.7
Disposable Income							
T&I Committee program	\$8,877.6	\$9,320.0	\$9,713.7	\$10,142.1	\$10,641.3	\$11,217.7	
Baseline	\$8,863.9	\$9,302.3	\$9,690.1	\$10,116.4	\$10,615.7	\$11,194.6	
Increment	\$13.8	\$17.7	\$23.6	\$25.7	\$25.6	\$23.1	\$129.4
Consumer Spending							
T&I Committee program	\$8,131.3	\$8,620.3	\$9,081.1	\$9,563.6	\$10,069.8	\$10,618.9	
Baseline	\$8,122.1	\$8,608.6	\$9,065.0	\$9,544.6	\$10,049.0	\$10,597.3	
Increment	\$9.2	\$11.7	\$16.1	\$19.0	\$20.7	\$21.6	\$98.3
Equipment Investment							
T&I Committee program	\$995.5	\$1,075.7	\$1,132.6	\$1,191.0	\$1,263.6	\$1,354.5	
Baseline	\$992.5	\$1,072.9	\$1,129.8	\$1,187.6	\$1,259.3	\$1,349.2	
Increment	\$3.0	\$2.8	\$2.8	\$3.4	\$4.2	\$5.3	\$21.4
Federal Tax Receipts							
T&I Committee program	\$1,948.4	\$2,101.3	\$2,301.1	\$2,510.7	\$2,690.6	\$2,836.2	
Baseline	\$1,940.3	\$2,089.3	\$2,286.1	\$2,492.1	\$2,668.0	\$2,810.4	
Increment	\$8.1	\$12.0	\$15.0	\$18.6	\$22.6	\$25.7	\$102.0
Gasoline tax receipts	\$2.3	\$4.8	\$5.3	\$5.9	\$6.4	\$7.0	\$31.7
S&L Tax Receipts							
T&I Committee program	\$1,480.0	\$1,570.8	\$1,651.3	\$1,734.8	\$1,824.7	\$1,921.5	
Baseline	\$1,467.5	\$1,553.8	\$1,629.9	\$1,709.3	\$1,794.6	\$1,887.9	
Increment	\$12.6	\$16.9	\$21.4	\$25.5	\$30.2	\$33.6	\$140.2
Potential GDP, \$96							
T&I Committee program	\$10,387.3	\$10,754.3	\$11,126.5	\$11,483.8	\$11,821.7	\$12,159.3	
Baseline	\$10,385.3	\$10,748.8	\$11,116.9	\$11,470.1	\$11,803.3	\$12,135.5	
Increment	\$2.0	\$5.5	\$9.5	\$13.7	\$18.4	\$23.8	\$73.0

About the authors

Robert Cuomo and Joyce Brinner conducted the study and between them they have over 50 years of experience in conducting economic analyses.

Robert Cuomo

Robert Cuomo has over 25 years experience as an economist. He is currently with Global Insight's Advisory Services Group, with business development and project management responsibility for many of Global Insight's major consulting engagements. He has expertise in applied econometrics and forecasting dealing with large economic and demographic databases. Past work has included developing detailed end-use forecasts for electric residential, commercial and industrial customers. Dr. Cuomo has extensive experience in providing testimony on electric utility forecasts before the Massachusetts Department of Public Utilities.

Dr. Cuomo's primary responsibilities include maintaining existing client accounts as well as identifying additional client needs and addressing them through the development, implementation and management of appropriate projects. Dr. Cuomo has supervised several economic impact studies including an assessment of the economic impact of the construction of an Alaskan Natural Gas Pipeline on the lower 48 states. He manages large complex projects, which require the integration of related intricate tasks. He also assists in the development, documentation, and presentation of Global Insight's Macro and Regional forecasts.

Prior to joining Global Insight, Dr. Cuomo was Chief Economist at NSTAR/Boston Edison. In his most recent position, he was General Manager of Boston Edison's Residential Energy Efficiency Programs. Responsibilities included developing energy efficiency programs and administering a \$22 million budget. Prior to that, Dr. Cuomo was Manager of Boston Edison's Forecasting and Market Analysis Division. In this capacity, he was responsible for the development of the Company's short and long-term forecasts of energy sales and revenues and peak demand. His division also conducted residential and commercial/industrial surveys on a regular basis as well as market analyses for the Company's business plan.

Dr. Cuomo holds Ph.D. and M.A. degrees in Economics from Boston College, and a B.A. degree from Merrimack College. His graduate fields of specialization were Microeconomic Theory, Macroeconomic Theory, Industrial Organization, Public Finance and Economic Development.

Joyce Brinner

Dr. Joyce Brinner is a principal in Global Insight's Advisory Services Group. Dr. Brinner helps clients assess the economic outlook and its impact on their specific operations. She is an expert in developing modeling systems for clients to use in forecasting their markets. Her clients range from local governments and businesses to global industry players, all with a need to forecast their revenues or their market revenues. Dr. Brinner has testified before Congress and state legislatures on industry restructuring and the impact of climate change policies on the economic outlook, and has advised government agencies on the development of their modeling systems. She has over 25 years experience in performing economic analyses.

Prior to her current assignment, Dr. Brinner managed *DRI's* global energy forecasting and publication activities. Under Dr. Brinner's direction, *DRI* produced quarterly, semi-annual, and annual energy publications for global markets, and monthly oil and natural gas market reports. These comprehensive publications analyzed and projected energy demands, supplies, prices, explaining recent developments and investigating alternative future scenarios for all fuels and most regions of the world. The forecasts were supported by a global energy data, modeling and forecasting system.

Dr. Brinner also directed model development for the U.S. Economic Service and led the development of the *DRI* Energy Modeling System. As director of model development, she was responsible for the regression modeling supporting the Quarterly Model of U.S. Economy, the premier model used by Standard & Poor's *DRI* in generating its forecasts of the U.S. economy. She wrote monthly articles on pricing and energy for the *DRI* Review of the U.S. Economy, and semi-annual analyses of the U.S. energy and electricity markets for the U.S. Energy Review.

Dr. Brinner received her B.A. in Mathematics from Ohio University, an M.A. in Economics from Ohio State University, and a Ph.D. in Economics from Boston College