



SHOVEL WORTHY

THE LASTING IMPACTS OF THE
AMERICAN RECOVERY AND
REINVESTMENT ACT ON AMERICA'S
TRANSPORTATION INFRASTRUCTURE

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THE VICE PRESIDENT
WASHINGTON

Dear Mr. President:

Nearly eight years ago, on February 17, 2009, Congress passed, and you signed, H.R.1— the American Recovery and Reinvestment Act (the Recovery Act). In the three months prior to the Recovery Act, the nation lost 2.2 million jobs, financial institutions were on the brink of collapse, and it was becoming clear that the Great Recession was the most calamitous economic crisis since the Great Depression. You took swift actions to stabilize our economy, combining rapid stimulus with investments in cities and states across the country, and bold measures to strength our financial institutions and save the American auto industry.

Eight years later, the U.S. economy has experienced a historic turnaround. Businesses have added 15.8 million jobs since early 2010, and we have seen the longest streak of total job growth on record. Since its peak during the recession, the unemployment rate has been cut by more than half and now stands at 4.7 percent, reaching that level far sooner than expected. As we reflect on our tremendous progress, the Recovery Act stands out as a critical chapter in the story of America's recovery.

You asked me to lead the implementation of the Recovery Act, with a focus on getting underway quickly, watching the taxpayers' funds carefully, and putting America back to work. In the end, we invested nearly \$840 billion – \$787 billion in the first 18 months, getting work underway immediately, and setting an unprecedented standard for transparency and accountability to the American people.

The following report chronicles the impressive impacts of the \$48.1 billion in transportation investments made possible by the Recovery Act, the largest single stimulus project in the history of the United States, and the largest public works project since the Eisenhower Interstate System.

What is unique is not only the size—but also the way the Recovery Act fundamentally changed the country. Our short-term objective was to rescue the economy, but the long-term goal was to build a 21st Century economy and transportation system. With \$48.1 billion in job-creating investments in transportation infrastructure, Americans were put back to work and our transportation system—from roads and bridges to high-speed rail—received a significant down payment in every state in the country.

The work that we began in 2009 has been a success—a product of the coordinated effort of 28 agencies that received Recovery Act funds. It was my pleasure to lead that effort, and work with dedicated public servants across the Administration, who responded to your call to do nothing less than rescue the economy and reimagine how the government can deliver for the American people. We will continue to see the benefits in the years and decades to come.

Sincerely,

Joseph R. Biden, Jr.

Executive Summary

In 2009, at the height of the worst economic recession in American history since the Great Depression, the nation invested roughly \$48 billion in transportation infrastructure as part of the American Recovery and Reinvestment Act (Recovery Act, or ARRA). This is a report about the impact of those dollars in improving the lives of Americans across the country – putting people to work immediately in the service of much-needed improvements, and seeding longer-term economic investments across the country. These benefits are tangible, visible, and transformative. With nearly all of the transportation funds in the Recovery Act spent, and with the end of the current fiscal year marking the deadline for the expenditure of the final transportation project dollars, the time is right for a review of those impacts.¹

The Recovery Act provided critical economic stimulus by creating and saving jobs at a time when America was facing an economic crisis. This included roughly \$48.1 billion in transportation funds. These funds supported immediate-term investments, such as repairing roads and bridges and upgrading runways in need of maintenance, ultimately reducing a substantial backlog of transportation maintenance projects, and provided a significant down payment toward our nation's transportation infrastructure deficit. Recovery Act funds also supported longer-term investments designed to spur transformative projects like intermodal hubs to connect metropolitan regions, solutions to freight bottlenecks, and high-speed rail corridors to connect key markets. And importantly, the Recovery Act also transformed the way that government delivers projects, setting a new standard for providing transparency for the expenditure of Federal dollars and accountability to the American taxpayer.

Early wins; lasting impacts

- **With the passage of the Recovery Act, “shovel ready” projects, such as fixing roads and bridges, got underway immediately, creating and savings jobs:** Within just six weeks of enactment, the U.S. Department of Transportation (DOT) announced funding for about 2,000 transportation projects.
- **Today, Americans across the country are benefitting from the infrastructure improvements paid for by the Recovery Act:** More than 13,000 road and bridge projects across the country have resulted in over 42,000 miles of improved road and almost 2,700 rebuilt or strengthened bridges. Recovery Act-related transit investments constructed or rehabilitated 850 new facilities and provided nearly 12,000 new buses and nearly 700 new rail cars. Additionally, about 800 airport improvement projects addressing needed repairs to runways, airport facilities, and air traffic towers were completed.
- **Transportation system conditions measurably improved during the years following the Recovery Act.** Notably, compared with previous years, bridge quality improved over twice as much during years immediately after the implementation of the Recovery Act. In

¹ This excludes oversight funds provided to the Department of Transportation's Office of Inspector General (OIG), which have a deadline of the close of fiscal year 2018 – September 30, 2018.

particular, National Highway System bridges, which benefit from funds reserved exclusively for the National Highway System, improved more than five times as much as in the years immediately prior.

- **The Recovery Act pioneered a new model for investing in game-changing projects and incenting innovation through competition:** The Transportation Investments Generating Economic Recovery (TIGER) grant program, which was initially established in the Recovery Act, and has been consistently continued by Congress, has successfully supported an ongoing stream of innovative projects across the country. The initial \$1.5 billion TIGER grant program kicked off this successful program with over 60 competitively selected projects across the country. Throughout its eight-year history, TIGER has not only renewed Federal investment in critical infrastructure—putting \$5.1 billion into 421 projects—it has re-energized communities across the country by sparking local and private investments in our transportation network.
- **Measures to ensure accountability for taxpayer dollars set a new standard for transparency and improved the way that Government delivers:** The Recovery Act improved the management of Government programs through increased transparency and accountability. To meet the Recovery Act’s extensive accountability provisions and reporting requirements, DOT implemented effective internal controls, best practices in transparency, and accountability to protect taxpayers’ dollars. DOT also quickly prioritized and coordinated the distribution of funds to State and local governments, while meeting various reporting requirements.



I. Introduction

At the height of the worst economic recession in American history since the Great Depression – now known as the Great Recession – and less than a month after taking office, President Obama signed into law the Recovery Act on February 17, 2009. At the time, the Great Recession was producing devastating impacts on employment, consumer spending, and the overall American economy such that it is compared to the Great Depression of the 1930's. In the final months of 2008, the economy was losing nearly 800,000 jobs per month and shrinking at an annual rate of over 8 percent, and many indicators – from household wealth to the stock market—were declining faster than they had during the Great Depression. At the peak of the recession, American households' net worth had declined by \$13 trillion, the U.S. stock market had declined by nearly 50 percent, the housing market crashed with plummeting home prices, and the collapse in employment and labor output rates had altogether outpaced that of the 1930's depression.²

In 2009, the President and Congress took swift actions to stabilize the economy, combining rapid stimulus with forward-looking investments across the country, and bold measures to strengthen our financial institutions and save the American auto industry. The Recovery Act was a critical part of that story, providing \$787 billion in support for the economy, divided between support for Federal discretionary programs, tax incentives, and entitlements. This provided a variety of tools that yielded a balanced approach to fiscal stimulus over the short, medium, and longer term. Analysis by the Council of Economic Advisers (CEA) estimates the boost to the economy from the Recovery Act generated almost six million job-years (years of full-time equivalent employment) through the end of 2013, raising employment by more than 2.3 million in 2010 alone.

This creation of new jobs was so robust that it substantially boosted economic output, supporting the U.S. economy at a critical moment in history. In 2010 alone, the millions of new jobs made possible by the Recovery Act lowered unemployment in that year by an estimated 1.8 percentage points, and spurred GDP growth by as much as four percent—or over \$500 billion.³ New jobs and increased economic output created more income for American households, saving many millions of Americans from falling into poverty and improving overall welfare.

Eight years later, thanks to the resilience of the American people and the decisive actions of policymakers, the U.S. economy has experienced a historic turnaround, achieving both near-term growth and a stronger foundation for the future. Businesses have added 15.8 million jobs since early 2010, and our economy has seen the longest streak of total job growth on record. Since its peak during the recession, the unemployment rate has been cut by more than half and now stands at 4.7 percent, reaching that level far sooner than expected.⁴

² The White House: Office of the Press Secretary. *FACT SHEET: Seven Years Ago, the American Recovery and Reinvestment Act Helped Bring Our Economy Back from the Brink of a Second Great Depression*. White House Briefing Room: Statements and Releases, 25 Feb. 2016. Web. 15 Nov. 2016.

³ United States. The White House. Office of the Press Secretary. *FACT SHEET: Seven Years Ago, the American Recovery and Reinvestment Act Helped Bring Our Economy Back from the Brink of a Second Great Depression*. White House Briefing Room: Statements and Releases, 25 Feb. 2016. Web. 15 Nov. 2016.

⁴ United States. The Council of Economic Advisors. Executive Office of the President. *Eight Years of Labor Market Progress and the Employment Situation in December*. By Jason Furman. Whitehouse.gov, 6 Jan. 2017. Web.

This report specifically focuses on the transportation infrastructure spending included within the Recovery Act. These funds supported two broad categories of investment. Some spending supported a near-term “shot in the arm,” keeping existing projects going amidst State and local budget cuts across the country, and advancing needed repairs to maintain the conditions of the nation’s roads, bridges, transit facilities, and other infrastructure assets. Other investments, such as large multimodal projects across the country, would mature over a longer time horizon, continuing to create jobs during the later years of economic recovery, and seeding long-term economic growth for communities across the country. Comparing the distinct successes of these two types of investment yields a number of valuable lessons for future infrastructure investment.

II. Overview of Recovery Act Transportation Investments

The U.S. Department of Transportation administered a total of \$48.1 billion, of which \$38.6 billion was distributed through existing funding programs. Traditional highway formula calculations were used to distribute \$27.5 billion; \$8.4 billion were distributed through transit programs; \$1.3 billion were distributed through aviation programs; \$1.3 billion went to Amtrak; and \$100 million supported grants to shipyards. These funds were distributed using methods that were in place prior to the Recovery Act, though many of them were subjected to new “use or lose” provisions designed to ensure prompt spending, as described further below.⁵ Much of the funding was distributed to States as well as, both directly and indirectly, to local governments.

The Recovery Act also created new programs reflecting the intent of Congress and the Administration to create long-term economic benefits by investing in a competitive, 21st Century transportation network. The Recovery Act included \$8 billion to jumpstart high-speed and intercity rail programs in the U.S., and created a new \$1.5 billion discretionary grant TIGER program. The initiation of the TIGER program in the Recovery Act provided a unique opportunity to support multimodal projects, such as freight and port projects, with a longer-term economic vision. A new transit program, the “Transportation Investments for Greenhouse Gas and Energy Reduction” (TIGGER) program, also looked toward a longer-term approach.



⁵ United States. U.S. Department of Transportation. *American Recovery and Reinvestment Act of 2009 Agency-Wide Recovery Plan*. USDOT, 15 May 2009.

https://www.transportation.gov/sites/dot.dev/files/docs/RECOVERY_051909_DOT_AGENCYWIDE_RECOVERY_ACT_PLA N.pdf

Figure 1

U.S. DEPARTMENT OF TRANSPORTATION
American Recovery Act Funding, by Obligation and Outlay Deadlines, and by Program
(In Billions of Dollars)

Mode/Account	Funding Amount (millions)	Obligation Deadline	Outlay Deadlines
FHWA Highway Infrastructure Investment	\$27,500	9/30/2010	9/30/2015
FTA Capital Investment Grants	\$750	9/30/2010	9/30/2015
FTA Transit Capital Assistance	\$6,900	9/30/2010	9/30/2015
FTA Transit Fixed Guideway Infrastructure Investment	\$750	9/30/2010	9/30/2015
FRA Grants to the National Railroad Passenger Corporation	\$1,300	9/30/2010	9/30/2015
FRA Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service	\$8,000	9/30/2012	9/30/2017
FAA Facilities & Equipment	\$200	9/30/2010	9/30/2015
FAA Grants-in-aid for Airports	\$1,100	9/30/2010	9/30/2015
MARAD Assistance to Small Shipyards	\$100	9/30/2010	9/30/2015
OST Supplemental Discretionary Grants for a National Surface Transportation System	\$1,500	9/30/2011	9/30/2016
OIG Salaries and Expenses	\$20	9/30/2013	9/30/2018
Total:	\$48,120		

Figure 1: This figure provides a breakdown of funding for transportation infrastructure included in the Recovery Act, along with the deadlines for obligating and spending those funds. Aggressive deadlines prompted near-term activity and economic stimulus. Some programs intended to spur longer-term investment included somewhat later deadlines.⁶

The figures above reflect the topline breakdown of transportation funds included in the Recovery Act, including the deadlines for obligation, or formal commitment, of funds, as well as deadlines for spending, reflected in expenditures or outlays. Notably, the funds executed through existing programs tended to carry nearer-term spending deadlines, while the funds supporting longer-term transformative investments tended to have obligation and expenditure deadlines further out into the future.

III. Making a Down Payment Toward Our Infrastructure Deficit with “Shovel-Ready” Projects

The majority of transportation funds included in the Recovery Act were structured to prioritize “shovel ready” projects – or those that were able to spend funds, and employ Americans quickly. These tended to be projects already in advanced stages of planning, including needed repairs and improvements to roads, bridges, and other infrastructure. In many cases, these projects had been needed for years, but were simply in need of funding before they could move forward. The

⁶ Breakdown of funds was detailed in agency recovery plan:

https://www.transportation.gov/sites/dot.dev/files/docs/RECOVERY_051909_DOT_AGENCYWIDE_RECOVERY_ACT_PLA_N.pdf

Department and its state and local partners effectively executed against aggressive spending targets, and in doing so supported projects across the country. Measurements that track “state of good repair” show improvements over the period of increased spending due to the Recovery Act.

Prioritizing expedited spend-down

The Recovery Act made the prioritization and incentivizing of shovel-ready projects explicit through aggressive deadlines for obligation (or formal commitment of funds) and expedited spend-down, tracked through obligations and outlays.⁷ In fact, Title XII of the Act, which included the provisions for Transportation, Housing and Urban Development, and Related Agencies, specified for the majority of program funds, including for highway and aviation dollars, DOT should give priority to projects that could be completed within two or three years. The law also included other mechanisms to prompt expeditious spend-down. For example, the nearly \$28 billion Highway Infrastructure Investment section of the Recovery Act specified that 50 percent of the funds made available as formula funds should be apportioned for use by recipients “not later than 21 days after the date of enactment” and prioritizing projects that could be completed within three years.⁸ Funds would be redistributed if States could not obligate half of awards within 120 days, with the remainder of funds subject to redistribution as of February 2010.⁹ These restrictions were meant to ensure that every dollar of Recovery Act funds was put to use as quickly as possible.

Advancing thousands of projects across the country

Shovel-ready projects translated into real results and jobs across the country, with impact beginning almost immediately. For example, the first approved project, a safety and resurfacing project along New Hampshire Avenue in Montgomery County, Maryland that improved ramp access, drainage, signage and pavement marking, and pedestrian access, was underway within days after enactment.¹⁰ Within just six weeks, the Department announced funding for the 2,000th transportation project.¹¹ By June 25, 2009, Secretary Ray LaHood announced a total of \$19 billion of Recovery Act dollars had been obligated to fund over 5,300 projects. More than 1,900 of these projects were already underway, some having broken ground within days of funds

⁷ The American Recovery and Reinvestment Act of 2009 (ARRA) (Pub.L. 111–5), Title XII, Page 123 STAT. 204 <<https://www.gpo.gov/fdsys/pkg/PLAW-111publ5/html/PLAW-111publ5.htm> >

⁸ United States. Cong. House. Committee of Conference. *H. Rept. 111-16 - Making Supplemental Appropriations for Job Preservation and Creation, Infrastructure Investment, Energy Efficiency and Science, Assistance to the Unemployed, and State and Local Fiscal Stabilization, for the Fiscal Year Ending September 30, 2009, and Other Purposes*. By David Obey, Charles Rangel, Henry Waxman, Daniel K. Inouye, Max Baucus, and Harry Reid. 111th Cong., 1st sess. H. Rept. 111-16. United States Congress, 12 Feb. 2009. Web. 15 Nov. 2016. <<https://www.congress.gov/congressional-report/111th-congress/house-report/16/1>>.

⁹ United States. U.S. Department of Transportation. *Highway Infrastructure Investment Program Performance Plan*. Federal Highway Administration, 20 May 2009. Web. 15 Nov. 2016.

¹⁰ "American Recovery and Reinvestment Act - Maryland's Year in Review." *Maryland Department of Transportation State Highway Administration*. Maryland DOT, 9 Feb. 2010. Web. 15 Nov. 2016. <<http://www.marylandroads.com/OC/ARRA-Year-In-Review.pdf>>.

¹¹ United States. The White House. Office of the Press Secretary. *President Obama, Vice President Biden, Transportation Secretary LaHood Announce 2,000th Transportation Project Under Economic Recovery Act*. The White House: Briefing Room, 13 Apr. 2009. Web. 15 Nov. 2016. <<https://www.whitehouse.gov/the-press-office/president-obama-vice-president-biden-transportation-secretary-lahood-announce-2000t>>.

becoming available. Just as impressive, all 50 states had beaten the 120-day deadline for obligating Recovery Act dollars.

Figure 2

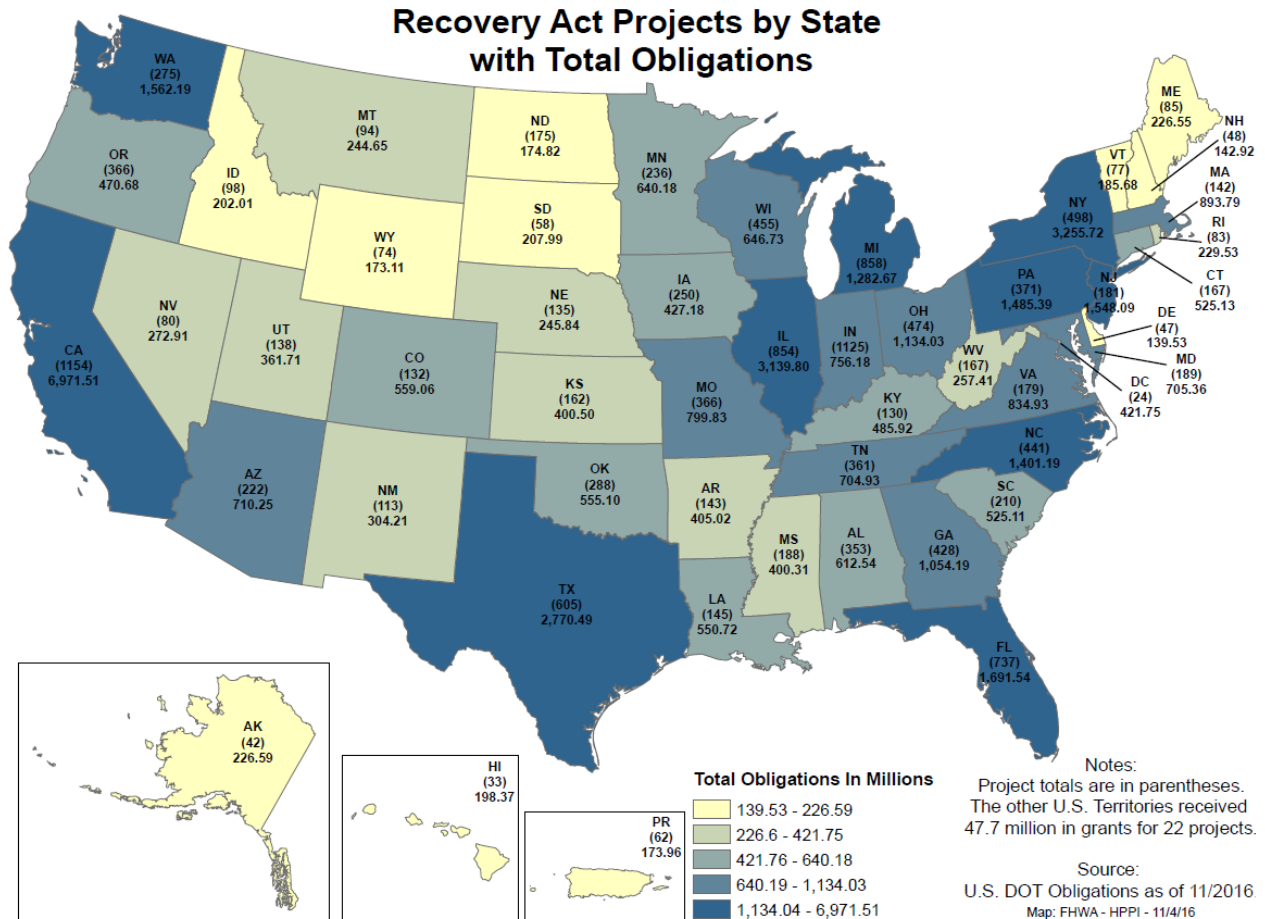


Figure 2: This figure shows U.S. Total Recovery Act Obligations (in millions), by state. It demonstrates the extent to which investments benefitted communities across the country.

Improvement of the nation's roads and bridges: Through funding provided to the Federal Highway Administration (FHWA), the Recovery Act supported more than 13,000 projects, improving more than 42,000 miles of road and more than 2,700 bridges around the country. For example:

- In New Hampshire, a resurfacing project on a heavily-trafficked freeway on Route 101 was estimated to create and sustain up to 250 direct and indirect jobs. The project was completed on time and at a cost substantially below initial estimates due to heightened competition among contractors.¹²

¹² "U.S. Transportation Secretary LaHood Visits First New Hampshire Highway Project to Break Ground Using Recovery Funds." *NH Insider*. N.p., 18 Apr. 2009. Web. 15 Nov. 2016. <<http://www.nhinsider.com/press-releases/2009/4/18/us-transportation-secretary-laheed-visits-first-new-hampshir.html>>.

- In Texas, \$250 million in Recovery Act funds supported the Dallas-Fort Worth Connector, a \$1 billion project that reconstructed three major highway interchanges, increased capacity at five majority arterial crossings, and added four managed lanes. The project has reduced congestion along the SH 121/SH 114 corridor, improved access to Dallas-Fort Worth Airport and improved freight and cargo movement.
- In San Bernardino, California, \$128 million in Recovery Act funding was used to reconstruct portions of I-215, as part of a \$2 billion project to revitalize an economically distressed city by improving access to local business and connecting economically disadvantaged communities
- In Tampa, Florida, the Selmon Expressway Crosstown Connector, a \$421 million project, used \$105 million in Recovery Act funds to improve freight movement to and from the Port of Tampa, easing congestion for Tampa's 340,000 drivers and diverting hazardous cargo away from local streets.
- Pennsylvania used \$70 million in Recovery Act funds to rehabilitate and reinforce the Girard Point Bridge in Philadelphia. The double-decked bridge carries 83,000 vehicles daily across the Schuylkill River. The project improved the bridge's structural integrity and extended its life.¹³

Expanded and safer public transit options: Through the Recovery Act, the Federal Transit Administration (FTA) awarded 1,072 grants for more than \$8.78 billion in transit systems across the country, including FHWA flex funding, and the transit formula and discretionary funding. The funds have helped to purchase more than 11,500 buses and 665 rail cars, construct or rehabilitate more than 850 transit facilities nationwide, and reduce greenhouse gas emissions. Examples of these investments include:

- The Recovery Act provided \$100 million for a discretionary program to support transit capital projects that resulted in greenhouse gas reductions or reduced energy use. The funding supported efforts to work directly with public transportation agencies on new strategies for cutting their greenhouse gas emissions, dependence on oil, and energy use within transit operations through the Transit Investments for Greenhouse Gas and Energy Reduction (TIGGER) program.
- Improvements to Massachusetts Bay Transportation Authority's (MBTA) Rapid Transit Network and Ashmont Station. The \$54.1 million Massachusetts Bay Transportation Authority project provided funding for operating assistance and state of good repair improvements to MBTA's Rapid Transit Network; \$13.9 million to fund improvements to Ashmont Station, and \$90,000 to purchase an enhanced security camera system.

Investments in runways, airports, and Air Traffic Control upgrades: The Recovery Act included about \$1.3 billion administered by Federal Aviation Administration (FAA), supporting nearly 800 projects across the country. These projects protected and created jobs through investments including grants to airports, investments in power systems, air traffic control infrastructure, and navigation and landing equipment. Examples of these investments include:

¹³ "American Recovery and Reinvestment Act - Maryland's Year in Review." *Maryland Department of Transportation State Highway Administration*. Maryland DOT, 9 Feb. 2010. Web. 15 Nov. 2016. <<http://www.marylandroads.com/OC/ARRA-Year-In-Review.pdf>>.

- Oakland, California Air Traffic Control Tower. A new Air Traffic Control Tower and base building was constructed to replace two towers at the Metropolitan Oakland International Airport that had been jointly controlling air traffic since 1962. FAA obligated approximately \$35 million for the construction of the facility. The new facility attained LEED Gold certification, validating that the building effectively promotes energy savings, water efficiency, CO2 emissions reduction, and improved indoor environmental quality. More than 110 direct jobs were realized as a result of this work, and the prime contractor employed more than 41 local small businesses throughout Oakland.
- Palm Springs, California Air Traffic Control Tower. A new Air Traffic Control Tower and base building was constructed to replace the old facility that dated from 1967. The new facility provides safety and efficiency benefits for air traffic controllers and the flying public by providing visibility across the entire airport surface. The FAA obligated \$14.5 million for the construction of the facility. Over 40 direct jobs were created as a result of this project, and the prime contractor used more than 40 small subcontractors or suppliers over the life of the project.
- Wilkes-Barre, Pennsylvania Air Traffic Control Tower and Radar Control Facility. A new Air Traffic Control Tower and base Radar Control building was constructed to replace the old facility. The new facility has made the airport safer by improving the line of sight for air traffic controllers as well as more energy efficient, thanks to green materials that were used to reduce heating and ventilation costs. Approximately \$14 million was obligated on the construction project and over 53 direct jobs were created providing economic benefit to the depressed community.
- Omaha, Nebraska Taxiway Rehabilitation. This \$14.4 million AIP grant funded the rehabilitation of Taxiway A at Eppley Airfield. The rehabilitation will extend the useful life of the pavement.

In addition to the grants, the Recovery Act provided a provision for a two-year Alternative Minimum Tax (AMT) exemption for airport bonds, which made these bonds more attractive to investors and reduced the interest rate paid by airports.¹⁴ The reduced financing costs for large airport capital improvement projects meant that airport sponsors had more capital to invest in good infrastructure projects. As a result, many airports issued taxable Build America Bonds instead of traditional municipal tax-free bonds to reduce their debt payments. Between March 2009 and June 2010, 43 airport sponsors issued approximately \$14 billion in bonds, and 75 percent of those bonds benefit from Recovery Act provisions.

- Charlotte, North Carolina issued a \$130 million bond in January 2010 for improvements at Charlotte Douglas International Airport. Because of the Recovery Act's Alternative Minimum Tax exemption, the bond avoided the tax penalty usually applied to such bonds. Charlotte is using the proceeds to finance Phase II construction of its third parallel runway and associated taxiway bridges.
- Los Angeles issued four bonds for Los Angeles International Airport in November 2009. Three of these bonds use the tax exemption in the Recovery Act to raise \$310 million in

¹⁴ FAA Uses Recovery Act Tools to Enhance Safety, Improve Facilities at U.S. Airports, June 14, 2010
<<https://www.whitehouse.gov/blog/2010/06/14/faa-uses-recovery-act-tools-enhance-safety-improve-facilities-us-airports>>

Airport Revenue Bonds, and one of the four bonds is a \$307 million Build America Bond. The proceeds from these bonds will fund terminal, airfield, apron, and parking projects.

Strategic capital investment and infrastructure improvements at small shipyards: The Maritime Administration received \$100 million of Recovery Act funds for the Small Shipyard Grant Program to provide assistance to small shipyards for capital and infrastructure improvements and to facilitate the efficiency, cost-effectiveness and quality of domestic ship construction, conversion and repair. This funding supported construction of new dry-docks, purchase of shipyard equipment, and training of new employees through apprenticeship programs that taught welding and other skills.

Making a measurable difference on the condition of roads and bridges

Nearly eight years after the passage of the Recovery Act, historical data begin to show additional aggregate impacts of Recovery Act transportation investments. For example, a review of spend-down, or outlays, on highway and bridge transportation projects during the years before, during, and after the Recovery Act shows correlation between spending levels – which increased with the availability of Recovery Act funds – and key measures of conditions and performance. However, the data also demonstrate that these conditions are not static. Increased use of highway and bridge assets also results in stresses that require ongoing investment to maintain a state of good repair. A comparison of spend-down rates alongside key measures of highway pavement conditions and bridge conditions, collected as part of FHWA’s review of “Conditions and Performance,” reflect these patterns.

For the purposes of comparing outlay rates to measure conditions and performance, it is important to note that spending totals reflect a combination of Recovery Act funds and annual funding for the National Highway System (NHS) through Title 23 programs. While the allocation and obligation of funds was concentrated in 2009, at the outset of the Recovery Act, those funds were spent down through FY 2012, with overall outlay rates reflecting an increase throughout the duration of that period. Additionally, project sponsors tended to sequence expenditure of Recovery Act dollars, which carried a near-term spending deadline, ahead of other Federal aid dollars, while planning and executing projects under topline budgets that accounted for all of these dollars combined. Consequently, the Recovery Act effectively elevated spending levels, or outlay rates, for several years beyond the deadline, e.g. 2013-14, as reflected in the table below.

Figure 3**Pavement Ride Quality, Structurally Deficient Bridges, and Capital Outlays, 2002-2014¹⁵**

Year	Percent of NHS Travel on Pavements with Good Ride Quality	Percent of All Bridges Classified as Structurally Deficient	Percent of NHS Bridges Classified as Structurally Deficient	Highway Capital Outlays, All Levels of Government (\$Millions)	Highway Capital Outlays, State Governments Only (\$Millions)
2002	50.0%	10.4%	8.6%	\$68,175	\$51,774
2003	52.0%	10.3%	8.8%	\$70,004	\$52,215
2004	52.3%	10.1%	8.9%	\$70,274	\$50,889
2005	54.5%	9.8%	8.5%	\$74,143	\$54,689
2006	56.7%	9.6%	8.4%	\$80,246	\$58,992
2007	55.8%	9.5%	8.4%	\$90,911	\$67,518
2008	56.6%	9.3%	8.2%	\$90,396	\$68,142
2009	58.4%	9.3%	8.2%	\$98,031	\$71,160
2010	60.5%	9.1%	8.3%	\$100,004	\$72,573
2011	60.0%	8.7%	7.8%	\$101,090	\$73,003
2012	57.1%	8.2%	7.1%	\$105,199	\$76,018
2013	57.7%	7.7%	6.8%	\$103,426	\$74,413
2014	58.7%	7.1%	6.0%	\$105,452	\$80,502

Figure 3: This table compares several key measures of infrastructure condition to capital outlay rates during the years before, during, and after the Recovery Act. It shows improvements on measures of bridge performance, especially, with steeper increases for bridges within the “national highway system,” which benefit the most from federal aid highway dollars, given eligibility requirements. Pavement quality also improved, though fluctuations reflect ongoing stress on the system in light of a range of factors – for example, overall vehicle miles traveled, which increased as the economy improved, put continued strain on the system.

The table above compares outlay rates to two key measures of conditions and performance: pavement and bridge condition. With respect to pavement condition, the “International Roughness Index” (or IRI) measures roughness of pavement, with a lower number reflecting smoother pavement and better condition.¹⁶ An IRI less than 95 percent is considered “good” condition, and highway data record the total share of vehicle miles traveled (VMT) annually on pavement meeting that standard. With respect to bridges, DOT annually measures the share of percent of surface area qualifying as “structurally deficient.”

The figure below shows a steep decline in structurally deficient bridge surface area during the years of increased investment due to the Recovery Act.

¹⁵ The NHS was expanded under MAP-21, adding mileage with rougher pavement on average than the pre-MAP-21 NHS. This expansion is estimated to have reduced the percent of travel on the NHS on pavements with Good Ride Quality by approximately 5-6% beginning in 2012

¹⁶ United States. US Department of Transportation. Federal Highway Administration. *2013 Conditions and Performance*. Federal Highway Administration, 7 Nov. 2014. Web. 5 Dec. 2016.

Figure 4

Bridge Deficiency vs. Capital Outlays

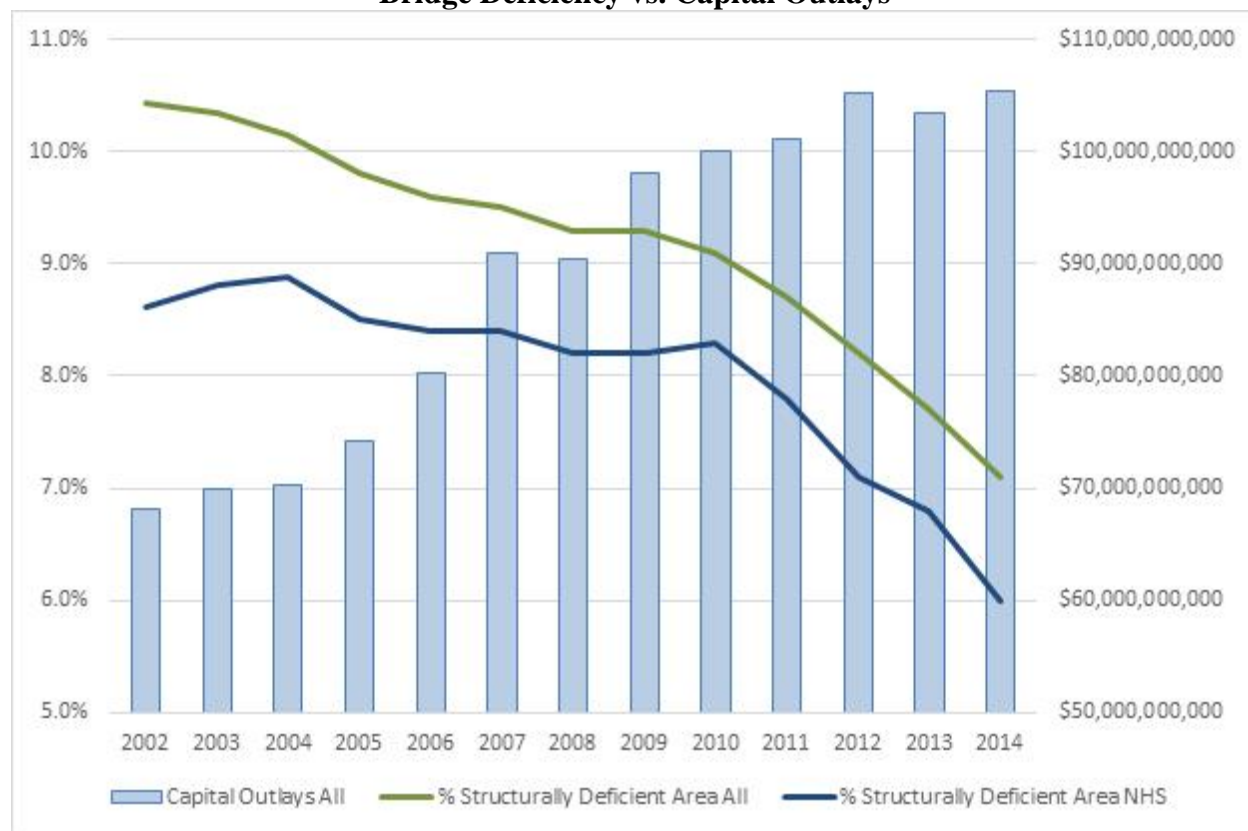


Figure 4: Bridge quality improved twice as much during the years of increased spending after 2008 as it had during the comparable period before the Recovery Act. On National Highway System bridges, the improvement was more than five times greater during the six year period after enactment than the six years prior.

While this measure had increased somewhat in the years prior to the Recovery Act, this metric improved nearly doubled from 2008 to 2014, over the prior comparable six-year period. On National Highway System bridges, which benefit from funds reserved exclusively for the NHS, improvement was more than five times more than in the comparable period prior to the Recovery Act.

When comparing the significance of these two figures, the average capital outlay per mile provides a way to consistently measure how much different portions of the system benefit from highway spending programs. In 2012, the average capital outlay per mile for the NHS was \$199,679/mile, compared to \$78,577/mile for the Federal-aid system, and \$25,600/mile for all public roads. These reflect the impact of a number of programs reserved exclusively for the NHS. Thus, the greater improvement across the NHS during the post-Recovery Act period shows the impact of higher spending concentration.

Pavement condition also improved, in total, with the share of mileage traveled on roads in good condition growing more than two percent higher in 2014 than it had been in 2008. However, fluctuations in this measure reflect dynamic pressure on the system, and upkeep needed to maintain a state of good repair. For example, after a jump in pavement quality of more than two percent in just one year between 2009 and 2010, this measure dropped somewhat in subsequent

years before improving again in 2013-2014. Notably, the timing of the dip in 2011 was concurrent with an increase in total vehicle miles traveled during that year, as shown in the figure below, which was related to a range of other factors including overall economic improvement (which typically correlates to higher VMT).

Figure 5

Trends: Total Travel vs. Trends in the Percent of NHS

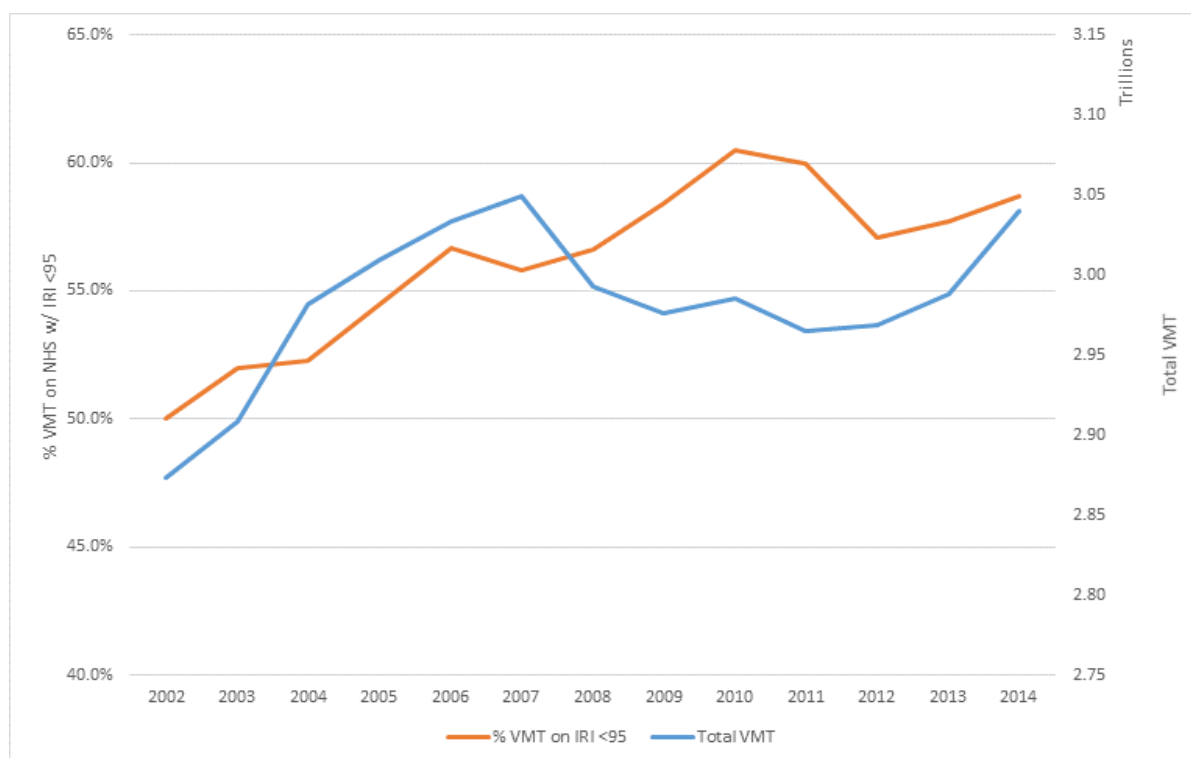


Figure 5: This chart shows trends in total travel on all roads, compared with trends in the percent of NHS travel on pavements with good ride quality. Total vehicle miles traveled increased as the economy recovered, putting additional strain on the system.

IV. Long-Term Economic Growth and Investment in a 21st Century Transportation System

In addition to effectively bringing shovel-ready projects with near-term impact to construction, the Recovery Act also laid a solid foundation for long-term economic growth and investment in a 21st Century Transportation System. Innovative new Recovery Act programs, like TIGER and the High-Speed Rail program, have supported a diverse array of projects that seeded long-term transformative investments. Projects ranged from developing passenger rail corridors to investing in strategic freight chokepoints to redeveloping intermodal stations that provide access to economic opportunity across regions. Projects were also noteworthy for leveraging private investment in transportation infrastructure. Many of these projects had longer spend-down

timelines reflecting their planning and execution needs, delivering economic benefits and creating jobs on commensurate timelines.

The slower spend-down of these program funds was envisioned in the Recovery Act itself, reflected in longer deadlines for commitment and spend-down, as well as in the program specifications included in the law, which focused on program impact, though not at the exclusion of considering speed.

Importantly, these investments also established a foundation for future competitive program dollars, geared toward transformative investments. The successful TIGER Discretionary Grant program, initiated with \$1.5 billion in Recovery Act funds supporting 60 projects nationwide, has been continued by Congress annually since the Recovery Act, supporting an ongoing stream of innovative projects across the country. The TIGER grant program supports innovative projects, including multimodal and multi-jurisdictional projects, which are difficult to fund through traditional Federal programs. Since 2009, and through eight rounds of investment, TIGER has provided a combined \$5.1 billion to 421 projects in all 50 states, the District of Columbia, Puerto Rico, Guam, the Virgin Islands, and tribal communities. Demand for the TIGER grant program continues to far exceed available funds. During the eight rounds, the Department received more than 7,800 applications requesting more than \$152 billion for transportation projects across the country.

The Recovery Act has also enabled the Department to use competition as a tool to drive innovation. Through TIGER, for example, the Department offered state and local governments the chance to compete for capital investment dollars based on the quality and thoroughness of their project applications. Internally, DOT created new processes to evaluate projects based on primary criteria that include safety, economic competitiveness, quality of life, environmental sustainability, and state of good repair. Secondary criteria are innovation and partnership, which includes the extent of non-Federal matching funds, and cost share.

Making strategic investments in freight corridors

Our nation's ability to compete in global markets, and to meet the needs and expectations of consumers and industry, depends on a robust multimodal freight transportation system. There are several system challenges in the horizon for our freight system. Over the next 30 years, truck and rail freight movements are expected to increase by approximately 45 percent; air freight is expected to triple in response to demand for the rapid movement of high-value merchandise, while multimodal shipments will likely double.¹⁷

The Recovery Act provided significant down payment on strategic freight investments across the country. This down payment has translated into additional projects through subsequent iterations of the TIGER program. Given the success of TIGER, the Congress chose a similar model when it created the new *Fostering Advancements in Shipping and Transportation for the Long-term Achievement of National Efficiencies (FASTLANE)* program to address freight and significant highway projects as part of the Fixing America's Surface Transportation Act. The Administration has proposed to further build on this paradigm through additional investments in

¹⁷ Beyond Traffic: Trends and Choices 2045 - US DOT's 30 Year Framework for the Future, Posted: February 2, 2015.

the Budget. Recovery Act projects included a range of innovative partnerships, and cross-cutting investments, such as:¹⁸

- **A \$105 million grant for the Crescent Corridor Intermodal Freight Rail Project.** The Crescent Corridor is a \$224 million, major intermodal freight program centered on the continued development of a rail intermodal route from the Gulf Coast to the Mid-Atlantic. This project constructs two new intermodal facilities – in Memphis, TN, and Birmingham, AL – both of which are critical components of the full corridor plan and can handle export and import traffic through nearby U.S. ports. Construction of these new facilities includes pad and support tracks, trailer and container parking areas, lead tracks, and related ancillary buildings and features.
- **An investment of \$98 million in the National Gateway Freight Rail Corridor, supporting Ohio, Pennsylvania, West Virginia, and Maryland.** The \$183 million, National Gateway Project is a package of rail infrastructure and intermodal terminal projects that enhance transportation service options along three major freight rail corridors, through the Midwest and along the Atlantic coast. The improvements, including increased vertical clearances, allow trains to carry double-stacked containers, increase freight capacity, and make the corridor more marketable to major East Coast ports and shippers. The Recovery Act investment completes the first section of the corridor, from Northwest Ohio to Chambersburg, Pennsylvania, through West Virginia and Maryland.
- **A \$20.2 million grant for Otay Mesa Port-of-Entry I-805/SR-905 Interchange, in California, part of a project worth nearly half a billion dollars.** The Otay Mesa Port-of-Entry I-805/SR-905 Interchange project creates a critical interchange linking I-805 in San Diego to the new SR-905 highway. It helps to finalize a six-lane highway link to the Otay Mesa Port of Entry at the Mexican border, with reduced grades and improved shoulders. International freight uses the new highway, instead of using heavily congested Otay Mesa Road, to access the largest freight border crossing between California and Mexico. The completion of this Interstate connection reduces congestion at the border on a major international freight route, improving the efficiency and reliability in the movement of goods and services.

Providing a down-payment for American high-speed rail

Through the Recovery Act, Congress made \$8 billion available for high-speed rail, and continued to build upon that foundation through an additional \$2.1 billion made available through subsequent appropriations. In addition to investing in improvement of key corridors, these funds supported substantial planning, environmental, and engineering efforts across the country to establish a pipeline of rail projects ready for future appropriations. Prior to the Recovery Act, no Federal assistance was available for this activity and few State and local governments had undertaken this groundwork (this is in contrast to the highway systems, which have long benefitted from Federally required and funded planning processes. Over the last

¹⁸ United States. The White House. *How the Recovery Act Is Helping to Modernize Our Transportation System*. By Deputy Secretary Victor Mendez. Department of Transportation, 17 Feb. 2016. Web. 15 Nov. 2016.

several years, with the aid of Recovery Act funds, States and local governments have spent significant resources preparing for future rail projects. Nearly 9,000 miles of corridors in 33 states and the District of Columbia either already have these prerequisites in place (about 3,000 miles), or will be completing them soon (about 6,000 miles). The readiness of this analysis creates an important starting point for expediting future investment.

The Recovery Act \$8 billion High-Speed Rail funding initiative represents the largest U.S. infrastructure investment of its kind. The Recovery Act invested in 75 projects in 24 states and the District of Columbia – or nearly 150 projects in 35 states when combined with subsequent appropriations. Through these investments, thousands of corridor miles of track are being constructed or improved, more than 30 stations are being upgraded, and new passenger cars and locomotives are being procured. These investments are reducing trip times, adding frequencies, improving safety and reliability, modernizing stations, upgrading equipment, and building connections along key corridors.

Figure 6
Recovery Act High-Speed Rail Investment Corridors

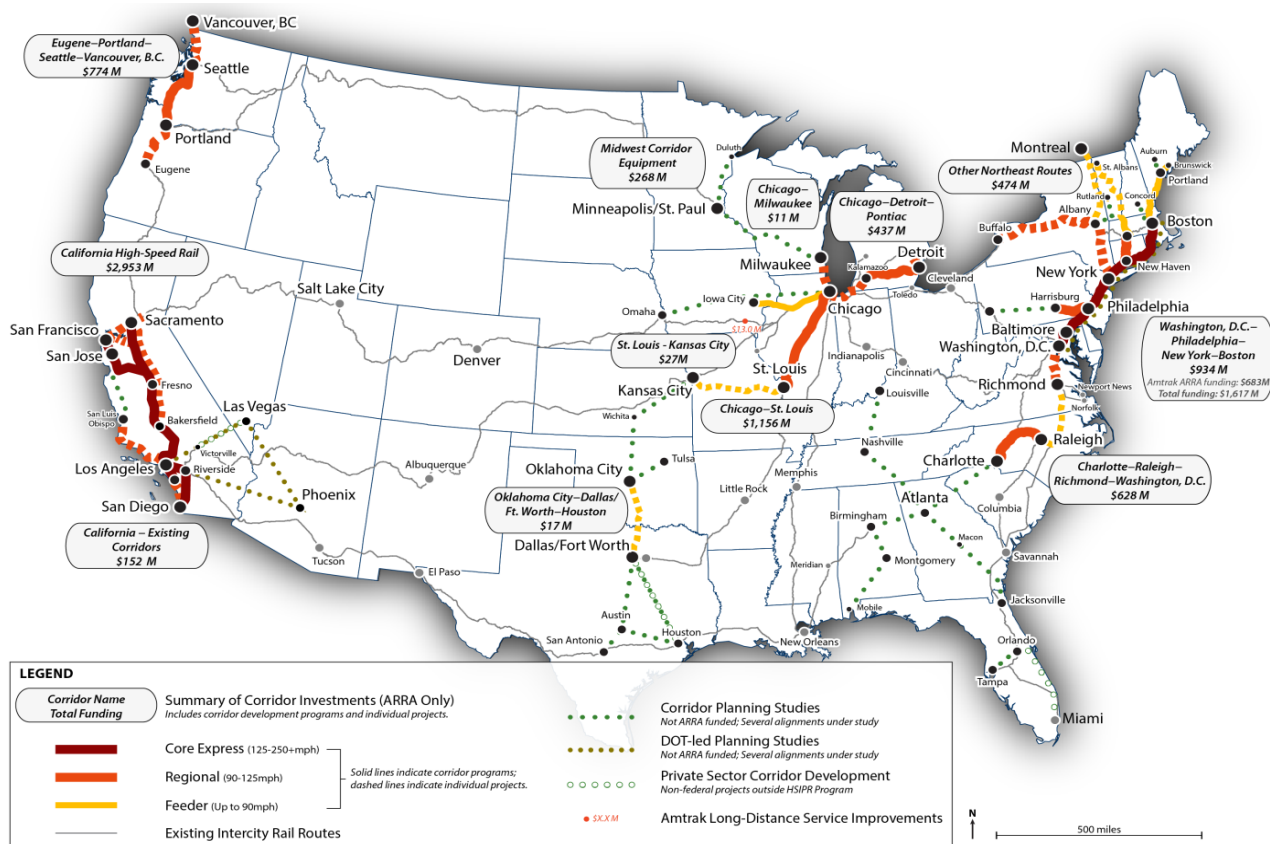


Figure 6: This map shows the geographic scope of investments in High Speed Rail across the country, through the Recovery Act. These funds supported a mix of improvements to existing corridors – improving service and availability in places like the Midwest, with planning and Capital investments to support current and future corridor expansion (Shows only ARRA funding).

Examples of investment in rail travel improvement and high-speed rail through the Recovery Act:

- **Improving corridor options in the Midwest:** In Michigan, \$347 million, including \$197 million in Recovery Act funds, will allow trains to travel at 110 mph for more than three-quarters of the Chicago–Detroit corridor, resulting in a 30 minute reduction in trip time. In Illinois, \$1.3 billion, including \$1.1 billion in Recovery Act funds, will institute 110 mph service on a portion of the Chicago–St. Louis corridor, allowing trains to make the trip from end to end in 4 hours and 45 minutes, a 55-minute reduction in trip time. Importantly, \$155 million along this corridor will support implementation of Positive Train Control technology.
- **Providing faster and more frequent service in the Pacific Northwest:** In Washington, \$752 million is supporting improvements to add two, daily round-trip trains between Seattle and Portland, for a total of seven daily. The improved Pacific Northwest Rail Corridor reduces highway and freight railroad congestion while improving rail options between the U.S. and Canada.
- **Laying the groundwork for a Southeast High-Speed Rail Corridor:** \$520 million will add two round-trips between Charlotte–Raleigh, for a total of five daily. Other improvements related to the Southeast High-Speed Rail Corridor will lay the groundwork for investments that expand service and reduce travel time north to Richmond and Washington.
- **Enhancing operations and infrastructure on the Northeast Corridor (NEC):** Along the NEC, which carries 750,000 passengers daily on Amtrak and commuter services, nearly \$1 billion is helping to improve the NEC mainline between Washington, DC–New York City – Boston. This includes \$450 million in Recovery Act funds to increase capacity, reliability, and speed along one of the NEC’s most heavily used segments from New Brunswick–Trenton, NJ.
- **Supporting planning and initial construction for California High-Speed Rail (CHSR):** With a \$2.55 billion Recovery Act grant and \$929 million in FY 2010 appropriations, California is currently undertaking one of the largest infrastructure projects in the U.S., which will bring 220-mph high-speed rail service across the state. Over the next two decades, CHSR will lay more than 500 miles of new track to provide convenient, one-seat service from the San Francisco Bay to the Los Angeles Basin. The Recovery Act covers two major elements of work. First, the preliminary engineering and environmental clearance for the entire high-speed rail corridor between San Francisco and Los Angeles. Once this work is done, all parts of the corridor will be poised for final design and construction as funding becomes available. Second, it provided funding for final design and construction for an approximately 119 mile long section in California’s Central Valley. As construction proceeds, with just under \$2 billion of the Recovery Act funds currently outlaid, CHSR is creating jobs in the Central Valley and ensuring significant Small and Disadvantaged Business participation to meet a 30 percent overall participation goal. For example:

- Outback Materials:** Outback Materials is a certified Small Business that was awarded a contract to provide all the concrete for the CHSR Program’s initial Construction Package in the Central Valley. This contract allowed Outback Materials to invest \$3 million to build in Fresno a state-of-the-art plant – built with U.S. steel from a Nebraska supplier – in that efficiently produces concrete and recycles gray water, which is reused in the concrete mix. Outback Materials invested an additional \$3 million to purchase fifteen new trucks with concrete mixers from companies located in Washington and Minnesota. Outback Materials’ environmental commitment extends through its equipment purchases, as these are the only variable speed concrete mixers on the West Coast, allowing workers to avoid spillage during loading process. As a result of this contract and the expansion, Outback Materials hired 25 new employees across all levels of the company. Curtis Lovett, Owner of Outback Materials, describes how his small business provides concrete for California High-Speed Rail projects in [this video](#).¹⁹



Outback concrete is a small business in Fresno California that set up a new facility to service initial construction of the California High Speed Rail corridor.

- Valverde Construction, Inc.:** Valverde Construction is a certified Hispanic Owned Small Business based in Santa Fe Springs in Los Angeles County that is contracted to perform utility relocation work. Owner Joe Valverde expanded his business by opening an office in Fresno, where a small crew of employees are completing designs, buying equipment and hiring additional workers. A family business, Mr. Valverde’s two sons are leading the Fresno operations for high-speed rail and look forward to additional opportunities in the Central Valley.²⁰

¹⁹ Outback Materials, Curtis Lovett: < https://www.youtube.com/watch?v=QoAICTP_K8w >

²⁰ California High-Speed Rail Authority, Small Business News Letter Vol. 2, Issue 1 (March 2014) https://www.hsr.ca.gov/docs/programs/small_business/SB_Newsletter_Final_March_2014.pdf

By design, the high-speed rail program carries the latest statutory deadline (September 30, 2017) of the transportation project investments included in the Recovery Act to account for the significant planning needs associated with program execution. The following graph illustrates that the program is on track to meet the outlay deadline, as projected in the President's Budget, while the Department continues to actively monitor these projects to ensure timely and appropriate use of funds.

Figure 7

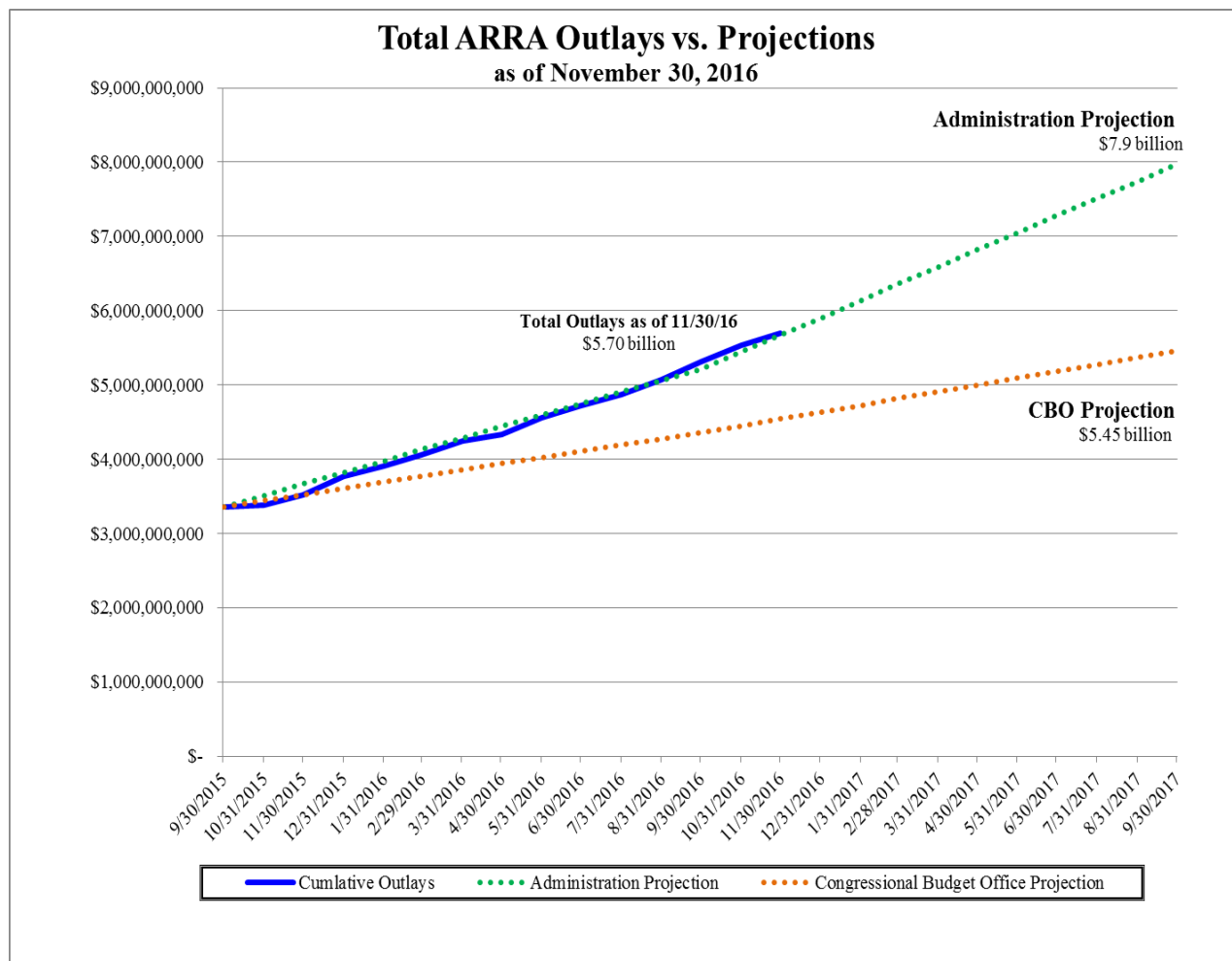


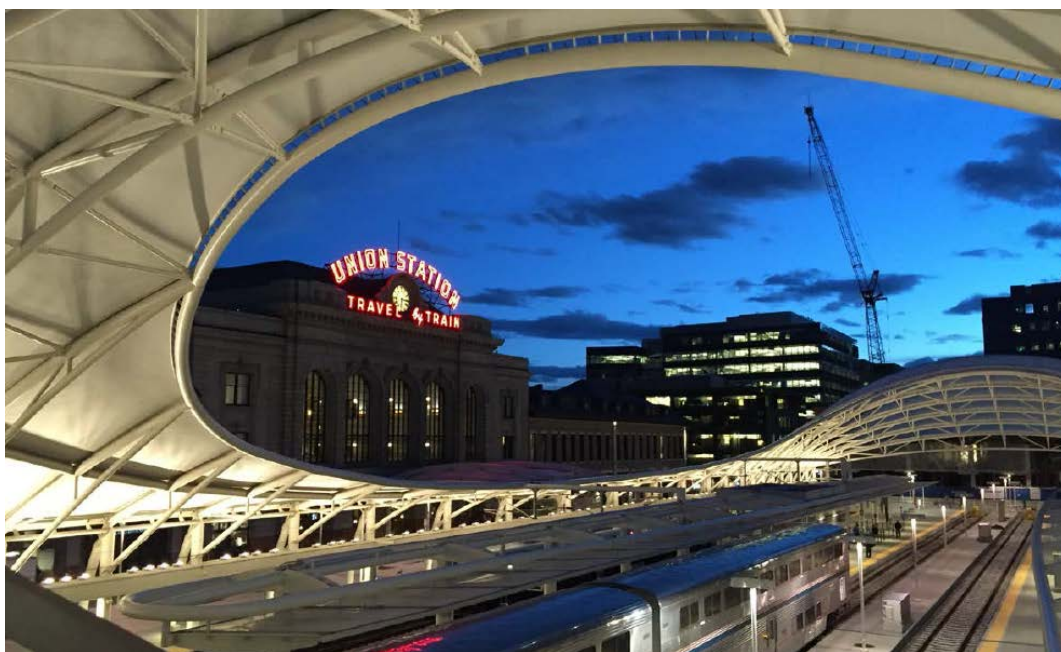
Figure 7: Total Recovery Act Outlays as of November 30, 2016, compared with projections included in FY2017 Administration budget, versus FY2017 Congressional Budget Office (CBO) Projections.

Developing intermodal projects that provide access to opportunity and leverage private dollars

Recovery Act funds supported a range of intermodal projects, through TIGER as well as other programs, which successfully leveraged outside dollars and provided important investments for communities. For example, the initial TIGER projects funded through the Recovery Act included seven intermodal projects, and collectively leveraged \$4.5 billion in outside dollars,

across the TIGER portfolio. Some grantees, such as Colorado DOT, used FHWA dollars to support projects like Denver Union Station, in partnership with other entities:

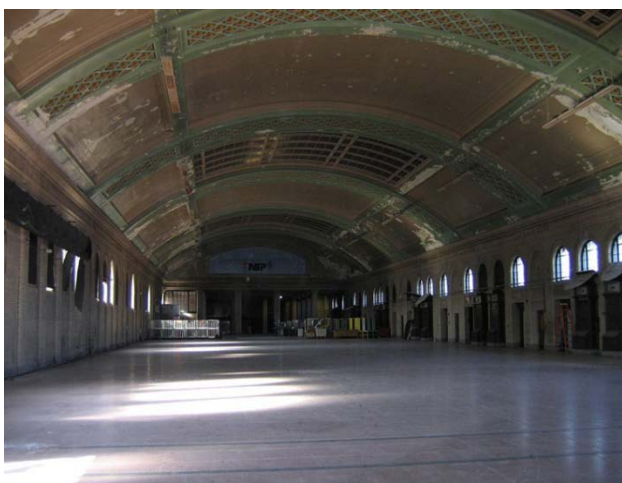
- **Denver Union Station Project:** The Recovery Act grant of \$28.4 million was used to help fund the \$487.7 million project in downtown Denver. The Recovery Act grant aided innovative project development, financing and delivery. The project was developed as public-private partnership; it leveraged strategic partnerships from Federal, State and local governments; and used multiple innovative funding sources. The other funding sources included – Transportation Infrastructure Finance & Innovation Act (TIFIA) loan, Railroad Rehabilitation & Improvement Financing (RRIF) loan, FHWA grant, FTA grant, Homeland Security funds, State and local funds. The project redeveloped the rail station and site into a multimodal transportation hub connecting passenger rail, vehicle parking, commuter rail, light rail, bus rapid transit, regularly scheduled bus service, bicycle and pedestrian access, and other related transportation services. The project sponsor, Denver Union Station Project Authority (DUSPA), is a nonprofit, public benefit corporation formed by the City of Denver to finance and implement the project. As project elements are completed, they are transferred to the Regional Transportation District (RTD), which will operate and maintain the redeveloped station. The redevelopment project reached substantial completion on February 24, 2014 and already serves as an anchor for downtown Denver while being home to a range of local businesses.²¹



The Denver Union Station Area Redevelopment Project

²¹ "Denver Union Station." *US Department of Transportation*. Build America Bureau, 3 Aug. 2016. Web. 05 Dec. 2016. <<https://www.transportation.gov/buildamerica/denver-union-station>>.

- **St. Paul Union Depot Project:** A \$35 million TIGER grant contributed to an overall project cost of about \$243 million. The St. Paul Union Depot Multi-Modal Transit and Transportation Hub project renovated and reactivated St. Paul's historic Union Depot and provided an efficient, sustainable, and expandable multimodal rail and transit hub. The project combined Amtrak, intercity bus carriers, local bus operations, light rail services, taxis, and bicycle accommodations. The Depot is in the heart of downtown St. Paul and its redevelopment promoted economic growth and created a vibrant, multimodal transportation to accommodate future intercity, commuter, and high-speed rail services.²² The restoration project created over 4,400 jobs, both on and off-site, with minority and female workforce participations, and partnership with Disadvantaged Business Enterprises.²³



(L) A view of the outdated St. Paul Union Depot's empty interior, where there had been no rail service since 1978.

(R) The interior of the newly renovated and active station.

²² United States. The White House. *How the Recovery Act Is Helping to Modernize Our Transportation System*. By Deputy Secretary Victor Mendez. Department of Transportation, 17 Feb. 2016. Web. 15 Nov. 2016.

²³ "Union Depot Fact Sheet." Union Depot, Oct. 2014. Web. 15 Nov. 2016. <http://www.uniondepot.org/wp-content/uploads/2014/10/FactSheet_Final2014.pdf?c4b2fb>.

IV. Revitalizing Regions and Supporting Local Economic Recovery through Investment in Transportation

Federal investments in transportation provided by Recovery Act funds also helped to reshape and revitalize communities and regions that had been left particularly distressed by the economic recession. In several cases, the introduction of Recovery Act funds, combined with other measures that were part of the Administration's economic recovery efforts, successfully spurred the revival of American industry as well as investment in regions – consistent with the Administration's approach to "place based" investment. The Cities of Detroit and Fresno provide the backdrop for two case studies of this trend.

Detroit: Reviving a City through its Auto Industry

24



License plate image displays figures from Detroit's auto industry recovery.

When President Obama took office, the American auto industry was on the brink of failure and facing the real possibility of liquidation—which estimates suggest would have caused at least one million more American jobs to be lost. Unemployment had reached a peak of more than 25 percent. Many in Washington opposed providing government assistance and were ready to write off not just the American auto industry, but the entire City of Detroit.

In his first few months in office, President Obama pledged his commitment to American workers and manufacturing in Detroit—by providing temporary Federal assistance to rescue the

²⁴ Foxx, Anthony, Sec. "Obama Administration Investment in U.S. Automakers and Detroit Pays Dividends." *Transportation.gov*. USDOT, 2016. Web. <<https://www.transportation.gov/fastlane/obama-detroit-auto-show>>.

American auto industry. He also pledged a broader commitment to the City of Detroit that has been sustained through a team of Federal staff that partner with the Mayor, local business and community stakeholders to deliver tailored assistance, identifying unique programs and resources that have helped the people of Detroit get back on their feet. Because he acted quickly and aggressively, and demanded real change as a condition for government assistance, the American auto industry not only avoided a much deeper collapse, but bounced back stronger than ever.

By the end of 2014, every dollar of the funds provided by the Obama Administration had been repaid. The “Detroit Three”—GM, Chrysler, and Ford—had resumed hiring, maintaining profitability, and competing globally. They also began to reinvest in the U.S. by conducting R&D on state-of-the-art fuel efficient, electric, and autonomous vehicles. Today, the automotive industry has seen six consecutive years of sales increases and a new all-time sales record in 2015, during a period when vehicles are also getting cleaner and more efficient for consumers, thanks to historic fuel efficiency standards developed in collaboration between industry and the Administration. **And since Chrysler and GM emerged from bankruptcy in mid-2009, the auto industry has added 699,300 jobs, the industry’s strongest growth on record.**²⁵

Alongside the progress of the auto industry, Detroit has made significant strides too. Unemployment in the city has been reduced by nearly 80 percent, from its peak point to 5.4 percent in November 2016, and is now at its lowest levels since 2003.²⁶ Because of the grit and determination of the people of Detroit and the President’s support, the city has begun a turnaround with brighter days ahead. This has included a range of transportation infrastructure and other place-based investments, coordinated through the Administration’s interagency “Strong Cities, Strong Communities” team as part of a one-government approach.

This investment has included: significant progress toward blight elimination, with \$130 million through the Treasury Department’s Hardest Hit Fund providing resources for demolition that removed over 7,500 blighted structures in under two years; **Investing in transit** through a \$25 million Department of Transportation grant for 80 new buses so that the City can, for the first time in decades, meet its full bus schedule, as well as innovative TIGER grants of more than \$25 million to support a new regional transit authority and the M-1 Rail connecting Downtown and Mid-Town Corridors; as well as a host of other investments ranging from **expanded affordable housing** to **investment in high efficiency lighting** across the City, to supporting **groundbreaking auto parts research** through manufacturing innovation hubs.

²⁵ United States. Council of Economic Advisors. Executive Office of the President. *CEA Key Points on the Economy*. January 6, 2017: CEA, n.d. Print

²⁶ "Detroit Area Economic Summary." *BLS.org*. US Bureau of Labor Statistics, 30 Nov. 2016. Web. 14 Dec. 2016. <https://www.bls.gov/regions/midwest/summary/blsummary_detroit.pdf>.

Fresno: Diverse Federal Investments Spurring Revitalization



Conceptual rendering of Fresno's high-speed rail station, demonstrating the scale of transit-oriented developments it is likely to attract to the City.

President Obama's agenda included making significant investments in communities that were hardest-hit by the recession and experiencing economic hardships, such as persistent job loss, and capacity challenges. In 2011, the City of Fresno, California faced a bleak economic outlook with an 18 percent unemployment rate. After several initiatives and strategic investments, in October 2016, Fresno's unemployment rate had been cut in half to 9.3 percent.

The City is beginning to flourish with recent influx of Federal investments to support local economy. The City is executing several priorities, such as downtown revitalization, economic development and innovation, increased infill development, business development, neighborhood revitalization, and sustainable communities.

In addition to the California High-Speed Rail (CHSR) project, the City of Fresno is making great progress in effectively leveraging other Federal investments to deliver the maximum benefit for its communities. For example, Fresno's community leaders envisioned reconnecting an 18-square-block street grid downtown near the proposed site of the high-speed rail station and Fresno's historical Main Street.

- **The White House Council on Strong Cities, Strong Communities Initiative (SC2)**
 Fresno was one of six pilot cities for this White House innovative program, along with Detroit, Michigan; New Orleans, Louisiana; Chester, Pennsylvania; Cleveland, Ohio; and Memphis, Tennessee. This initiative did not involve new Federal funding; rather it leveraged the Federal Government's technical expertise and ability to increase Federal-local collaboration. Under the SC2 program, U.S. Department of Transportation team members delivered technical assistance that helped the city improve the siting of a future bus rapid transit (BRT) line, which as a result will better connect planned retail and mixed use developments with transit options for commuters and residents, and ultimately generate additional economic activity in the downtown area.
- **TIGER Grant plays a role in Fulton Pedestrian Mall conversion**
 With a \$16 million TIGER Grant and \$4 million in State and local shared funding, construction is currently underway to convert Fresno's Fulton Pedestrian Mall to Fulton Street to accommodate vehicular traffic. Prior to this project, the mall included about 1.5 million square feet of vacant office and retail space with six percent of the economic potential and another 1.5 million more square feet of vacant or underutilized land. Since this grant award, this area of the City has realized \$66 million in private investment with another \$40 million planned in the near future.
- **Bus Rapid Transit touches Downtown Fresno**
 In July 2012, the U.S. Department of Transportation selected Fresno to receive \$2.45 million in Bus Livability funding to better connect the future downtown BRT line to Downtown. Early engagement by the SC2 team also resulted in the proposed BRT line being rerouted through the heart of downtown to directly connect the Fulton Mall and other key downtown sites. More than \$38 million of Federal funding is now programmed for the project.

The city is projected to have short and long-term economic growth. Several major construction projects are currently underway. With the January 2015 groundbreaking for the high-speed rail project and Fresno's Fulton Street conversion, these recent major construction projects will have significant local and regional economic benefits that will continue to be realized by the city of Fresno and the surrounding communities. For instance, CHSR is having significant impact on the City of Fresno:

- As of November, over 750 dispatched craft labor union workers are doing construction in the Central Valley. Of that, 80 percent are from the Central Valley, while 50 percent of the total is from Fresno County.
- CHSR is investing over \$500 million in local road improvements in the City of Fresno.
- As of September, 56 Small Businesses based in Fresno County working on CHSR; 45 of which are based in the City of Fresno.

V. Changing the Ways that Government Delivers: Accountability and Transparency

Across the Federal Government, Departments and Agencies implemented the Recovery Act with unprecedented transparency and accountability, and commitment to careful stewardship of taxpayer dollars. DOT played an important part in that process through a range of internal control measures in and advancing all Federal reporting requirements, including regular recipient reporting on expenditures and job-years by project. Some of these measures included, but were not limited to the following:

- **Standing up a new TIGER Team to coordinate program implementation across the Department:** The team ensured that funding under the Department's various Recovery Act programs were rapidly made available for transportation infrastructure projects and that project spending was efficiently monitored. The Department established a robust review process to streamline evaluation, determine eligibility and protect taxpayers' dollars. The review process encouraged strong project oversight, internal controls and transparency. Members of the team took leadership roles in driving issues including: data consolidation; executive accountability; financial stewardship; communications and stakeholder engagement; information technology; and data mapping. The Department worked in close collaboration with DOT's Office of Inspector General.
- **Real time oversight through the National Response Team:** FHWA established a National Response Team to assist its division offices across the country in achieving accountability and transparency in project delivery as required under the Recovery Act. The team conducted timely reviews of the Recovery Act programs and assess processes and compliance with Federal requirements, and to ensure consistent compliance across the country.²⁷
- **FRA's HSR long-term strategic project delivery:** Charged with implementing a new and unprecedented program, the FRA developed capacity to implement and deploy high-speed passenger rail systems in the country. Unlike the other Recovery Act funding with short-term horizon, HSR funding was meant to lay foundation for long-term vision for high-speed rail in America. With all \$8 billion Recovery Act funding obligated to 75 projects across the country, the Department continues to work closely with six grant recipients that risk not spending their funds by the September 30, 2017 deadline.
- **Timely compliance with spending and job reporting requirements:** The Recovery Act required weekly reports through 2013 to track spending on a real-time basis, with data covering award type and geography. Across agencies, this data, including the collection of "sub-recipients," provided a new level of insight into project spending and allowed taxpayers to track where their dollars were going through an online portal. Agencies were also

²⁷ United States. Government Accountability Office. *RECOVERY ACT Grant Implementation Experiences Offer Lessons for Accountability and Transparency*. GAO, Jan. 2014. Web. 15 Nov. 2016. <<http://www.gao.gov/assets/670/660353.pdf>>.

required to collect data from project sponsors on project-by-project job creation, and to use a CEA-provided methodology for calculating indirect jobs. At peak, reported jobs registered in the hundreds of thousands, though it is difficult to account for the full effect of induced jobs across the supply chain.

VI. Conclusion

The success of the Recovery Act is apparent in all sectors of the nation's transportation systems. The funding provided was used to address a combination of long-term and short term transportation improvements that are still paying dividends today. Not only was the transportation system improved, the number of American jobs that were saved or created as a result of the Recovery Act is impressive, and ongoing. Implementation of the Recovery Act also resulted in new ways of delivering programs. Not only were we able to get funds out the door and put to work in an accelerated way, we were able to do so using modern technology and tracking tools that provided unprecedented transparency and accountability for public funds. The Recovery Act paved the way – literally and figuratively – by showing that Government can deliver high quality results, transparent information, and accountability without compromise.

