Highway Boondoggles 2

More Wasted Money and America's Transportation Future

U.S. PIRG Education Fund

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Executive Summary

America is in a long-term transportation funding crisis. Our roads, bridges and transit systems are falling into disrepair. Demand for public transportation, as well as safe bicycle and pedestrian routes, is growing. Traditional sources of transportation revenue, especially the gas tax, are not keeping pace with the needs. Even with the recent passage of a five-year federal transportation bill, the future of transportation funding remains uncertain.

Twelve proposed highway projects across the country – slated to cost at least $24 billion – exemplify the need for a fresh approach to transportation spending. These projects, some originally proposed decades ago, are either intended to address problems that do not exist or have serious negative impacts on surrounding communities that undercut their value. They are but a sampling of many questionable highway projects nationwide that could cost taxpayers tens of billions of dollars to build, and many more billions over the course of upcoming decades to maintain.

America does not have the luxury of wasting tens of billions of dollars on new highways of questionable value. State and federal decision-makers should reevaluate the need for the projects profiled in this report and others that no longer make sense in an era of changing transportation needs. State decision-makers should use the flexibility provided in the new federal Fixing America's Surface Transportation Act (FAST Act) to focus investment on real transportation solutions, including repairing potholes and bridges and investing in public transportation and bicycling and walking options.

Americans' transportation needs are changing. America's transportation spending priorities aren't.

- **State governments continue to spend billions on highway expansion projects that fail to solve congestion**.
    - In Texas, for example, a $2.8 billion project widened Houston's Katy Freeway to 26 lanes, making it the widest freeway in the world. But commutes got longer after its 2012 opening: By 2014 morning commuters were spending 30 percent more time in their cars, and afternoon commuters 55 percent more time.
    - A $1 billion widening of I-405 in Los Angeles that disrupted commutes for five years – including two complete shutdowns of a 10-mile stretch of one of the nation's busiest highways – had no demonstrable success in reducing congestion. Just five months after the widened road reopened in 2014, the rush-hour trip took longer than it had while construction was still ongoing.

- Highway expansion saddles future generations with expensive maintenance needs, at a time when America's existing highways are already crumbling.
    - Between 2009 and 2011, states spent $20.4 billion annually for expansion or construction projects totaling 1 percent of the country's road miles, according to Smart Growth America and Taxpayers for Common Sense. During the same period, they spent just $16.5 billion on repair and preservation of existing highways, which are the other 99 percent of American roads.
    - According to the Federal Highway Administration, the United States added more lane-miles of roads between 2005 and 2013 – a period in which per-capita driving declined – than in the two decades between 1984 and 2004.
    - Federal, state and local governments spent roughly as much money on highway expansion projects in 2010 as they did a decade earlier, despite lower per-capita driving.
- **Americans' long-term travel needs are changing.**
    - In 2014, transit ridership in the U.S. hit its highest point since 1956. And recent years have seen the emergence of new forms of mobility such as carsharing, bikesharing and ridesharing whose influence is just beginning to be felt.
    - According to an Urban Land Institute study in 2015, more than half of Americans – and nearly two-thirds of Millennials, the country's largest generation – want to live "in a place where they do not need to use a car very often." Young Americans drove 23 percent fewer miles on average in 2009 than they did in 2001.

The Federal Highway Trust Fund and many state transportation funds are increasingly dependent on the failing gas tax and infusions of general fund spending to sustain transportation investments.

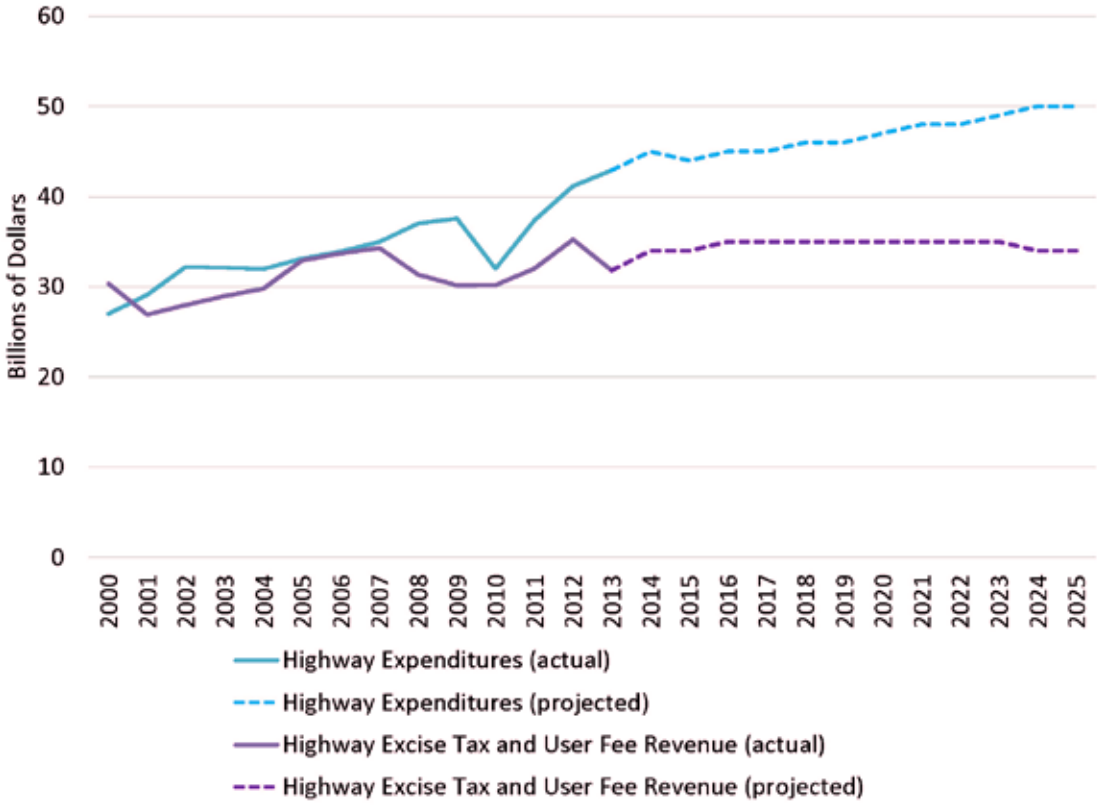
- The Federal Highway Trust Fund – once supported entirely by the gas tax – has been subsidized from general tax revenues since the late 2000s. Federal highway spending is projected to exceed revenues in every year through 2025, according to Congressional Budget Office projections. (See Figure ES-1.) The FAST Act transportation bill approved in December 2015 transfers an additional $70 billion from the country's general funds to the Highway Trust Fund.
- Bailing out the Highway Trust Fund with general government funds cost $65 billion between 2008 and 2014, including $22 billion in 2014 alone. Making up the projected shortfall through 2025 would cost an additional $147 billion.

States continue to spend tens of billions of dollars on new or expanded highways that are often not justified in terms of their benefits to the transportation system, or that pose serious harm to surrounding communities. In some cases, officials are proposing to tack expensive highway expansions onto necessary repair and reconstruction projects, while other projects represent entirely new construction. Many of these projects began or were first proposed years or decades ago, are based on long-outdated data, and have continued moving forward with no re-evaluation of their necessity or benefits.

Questionable projects poised to absorb billions of scarce transportation dollars include:

- **I-95 widening, Connecticut, $11.2 billion** – Widening the highway across the entire state of Connecticut would do little to solve congestion along one of the nation's most high-intensity travel corridors.

Figure ES-1. Federal Highway Trust Fund Highway Excise Tax and User Fee Revenues and Highway Expenditures, 2000-2013 (actual) and 2014-2025 (projected)



- **Tampa Bay Express Lanes, Florida, $3.3 billion** – State officials admit that a decades-old plan to construct toll lanes would not solve the region's problems with congestion, while displacing critical community job-training and recreational facilities.
- **State Highway 45 Southwest, Texas, $109 million** – Building a new, four-mile, four-lane toll road would increase traffic on one of the most congested highways in Austin, and increase water pollution in an environmentally sensitive area critical for recharging an aquifer that provides drinking water to 2 million Texans.
- **San Gabriel Valley Route 710 tunnel, California, $3.2 billion to $5.6 billion** – State officials are considering the most expensive, most polluting and least effective option for addressing the area's transportation problems: a double bore tunnel.
- **I-70 East widening, Colorado, $58 million** – While replacing a crumbling viaduct that needs to be addressed, Colorado proposes wasting millions of dollars widening the road and increasing pollution in the surrounding community.
- **I-77 Express Lanes, North Carolina, $647 million** – A project that state criteria say does not merit funding is moving forward because a private company is willing to contribute; taxpayers will still be on the hook for hundreds of millions of dollars.
- **Puget Sound Gateway, Washington, $2.8 billion to $3.1 billion** – The state is proposing to spend billions of dollars on a highway to relieve congestion in an area where traffic has not grown for more than a decade, and where other pressing needs for transportation funding exist.

- **State Highway 249 extension, Texas, $337 million to $389 million** – The Texas Department of Transportation relies on outdated traffic projections to justify building a 30-mile six-lane highway through an area already suffering from air quality problems.
- **U.S. 20 widening, Iowa, $286 million** – Hundreds of millions of dollars that could pay for much-needed repairs to existing roads are being diverted to widen a road that does not need expansion to handle future traffic.
- **Paseo del Volcan extension, New Mexico, $96 million** – A major landholder is hoping to get taxpayer funding to build a road that would open thousands of acres of desert to sprawling development.
- **Portsmouth bypass, Ohio, $429 million** – Despite roads across Ohio being in dire need of repair, the state Department of Transportation is embarking upon its most expensive project ever: building a new road to bypass a 20,000-person city where driving is decreasing.
- **Mon-Fayette Expressway extension, Pennsylvania, $1.7 billion** – A new toll road long criticized because it would damage communities is moving forward in an area where residents are calling instead for repairs to existing roads and investment in transit improvements.

Several states are re-evaluating the wisdom of boondoggle highway projects – either shelving them entirely or forcing revisions to the projects.

- The **Illiana Expressway** was a proposed $1.3 billion to $2.8 billion tollway intended to stretch from I-55 in Illinois to I-65 in Indiana. Faced with a budget deficit, Illinois Governor Bruce Rauner suspended the project in January 2015 pending a review; in a lawsuit filed in May 2015, a coalition of environmental advocacy groups said the road's federal approval had been based on bad population and financial projections, and did not properly consider the potential environmental damage. In June 2015, a federal judge agreed, and invalidated the Federal Highway Administration's approval of the project.
- The **Trinity Parkway** in Dallas was once a $1.5 billion proposal to build a six-lane, nine-mile tolled highway along the river in the middle of the city. Under fire from the community, including people who had first conceived of the road project, the city council voted unanimously in August 2015 to limit city spending to a reduced version of the project, a four-lane highway without tolls. It is still unclear, however, whether the smaller highway will alleviate the concerns raised by the original proposal.
- A proposal to **widen I-94 in Milwaukee** has been denied funding by state lawmakers in the wake of community advocacy opposing the project. An analysis by a group called 1000 Friends of Wisconsin found the state Department of Transportation systematically overestimates traffic projections. WISPIRG Foundation has proposed improving the area's mobility with more effective and less costly options that state officials ignored.
- An **extension to an existing toll road in southern California** was denied on the grounds that it, and a future additional extension, would threaten local water resources. Other toll roads in the region have failed to attract enough traffic to meet revenue expectations, and data suggest traffic is not growing as quickly as officials had projected.

The diversion of funds to highway boondoggle projects is especially harmful given that there is an **enormous need for investment in repairs to existing roads, as well as transit improvements and investments in bicycling and pedestrian infrastructure**. Federal and state governments should eliminate or downsize unnecessary or low-priority highway projects to free up resources for true transportation priorities. Under existing federal funding guidelines,

they have the flexibility to do this with little or no need for additional approval.

Specifically, policymakers should:

- **Invest in transportation solutions that address congestion more cheaply and effectively than highway expansion.** Investments in public transportation, changes in land-use policy, road pricing measures, and technological measures that help drivers avoid peak-time traffic, for instance, can reduce the need for costly and disruptive highway expansion projects.
- **Adopt fix-it-first policies** that reorient transportation funding away from highway expansion and toward repair of existing roads and investment in other transportation options. As first suggested by Smart Growth America and Taxpayers for Common Sense, this includes more closely tying states' allocations of federal transportation funding to infrastructure conditions, encouraging states to ensure existing roads and bridges are properly maintained before using funds for new construction or expansion projects. To most effectively meet this goal, government agencies should provide greater public transparency about spending plans, including an accounting of future maintenance expenses.
- **Give priority funding to transportation projects that reduce growth in vehicle-miles traveled**, to account for the public health, environmental and global warming benefits resulting from reduced driving.
- **Analyze the need for projects using the most recent data and up-to-date transportation system models**. Planning should include full cost-benefit analyses, including the costs to maintain newly constructed highways. Models should reflect a range of potential future trends for housing and transportation, incorporate the availability of new transportation options (such as carsharing, bikesharing and ridesharing), and include consideration of transit options. Just because a project has been in the planning pipeline for several years does not mean it deserves to receive scarce taxpayer dollars.
- **Apply the same scrutiny to public-private partnerships** as to those funded solely by taxpayers.
- **Revise transportation forecasting models** to ensure that all evaluations of proposed projects use up-to-date travel information.
- **Invest in research and data collection** to better track and react to ongoing shifts in how people travel.

Introduction

In December 2015, Congress passed the first long-term transportation funding bill in more than 10 years. Like past measures, the latest transportation funding bill provides states with vast public resources that can be spent with great flexibility – and little accountability.

Attention now turns to the states. Will they spend the next quarter of a trillion dollars of transportation funding well – leaving us with a transportation system that is efficient, well-maintained and addresses America's 21st century transportation needs? Or will they spend it on unnecessary projects that give the appearance of progress, but that leave urgent needs unmet and promise even greater maintenance headaches in the years to come?

The track record of the past is not good. For decades, state transportation policies have prioritized highway expansion as the solution to any and every transportation woe. The result of those policies: a transportation network crumbling in many places for lack of proper maintenance; the absence of good alternatives – from transit service to safe places to walk or bike – in much of the country; and more congestion than ever before.

Despite the failure and massive expense of those policies, in much of the United States, the highway construction machine continues to chug along almost unabated – adding new lanes of highway where none are needed, inflicting damage on neighboring communities, and sucking up resources that could be used for more pressing needs.

Even the funding crisis brought on by the decline in the real value of the gas tax and the rising maintenance bill for the nation's aging roads and bridges have not been enough to force a change in direction. On the contrary: The ever-continuing quest to expand highways has begun to consume resources previously dedicated to other public needs, as general fund revenue and new taxes on the public at large are increasingly common sources of highway funding around the country.

Some of today's highway expansion projects are so unjustifiable that they can be described as "boondoggles" – a term defined by the *Oxford Dictionary of Difficult Words* as "work or activity that is wasteful or pointless but gives the appearance of having value."[1]

Many of these projects "give the appearance of having value" when justified by public officials based on decades-old studies, speculative economic development promises, or fears of hypothetical future traffic congestion. On closer inspection, however, the rationale for the massive expense proposed for these projects often melts away.

Money spent on a wasteful highway expansion project is money that can't be spent fixing our existing roads and transit systems, adding a new light rail or bus line in a growing American city, or exploring ways to serve America's changing transportation needs more effectively and efficiently.

Cutting waste can free up money for better investments. The 12 projects highlighted in this report illustrate a problem but also represent an opportunity – the money that can be saved by cutting or downsizing these projects and others like them is more than enough to make a down payment on America's 21st century transportation needs.

Highway Megaprojects Consume Precious Dollars and Lock in Outdated Priorities

The United States continues to spend vast resources on expanding our highway network, even as existing roads and bridges crumble and pressing needs for other forms of transportation go unmet.

Those needs – especially the need for repair and reconstruction of existing transportation infrastructure – are well-known and all but certain. By contrast, justifications for highway expansion are often speculative and uncertain, especially given recent uncertainty in driving patterns and changes in Americans' housing and travel preferences.

Widening Highways Does Not Solve Congestion Problems

Longstanding research demonstrates that building additional highway capacity – whether by widening existing roads or building new thoroughfares – does not solve congestion, but rather creates more traffic, in which more drivers spend more time behind the wheel.[2] The phenomenon, called "induced demand," results when a new or expanded road encourages development to spread out farther, encouraging additional driving. Also, people who had previously changed their transportation behaviors to avoid congestion – perhaps by taking transit, telecommuting, or driving via a different route or at a different time – tend to change back once the new or wider road opens, further contributing to the return of congestion. Congestion then returns to previous levels.

The Katy Freeway

In Texas, for example, the Katy Freeway was known as far back as 2002 to be a very congested highway.[3] A $2.8 billion highway widening project was promoted as a fix for the congestion.[4] When the expanded road opened in 2012, it became the world's widest – with 26 lanes.[5]

And yet, travel times worsened considerably. By 2014, 85 percent of commutes along that highway took longer than they had in 2011.[6] Morning commutes took more than 30 percent longer, and afternoon commutes took more than 50 percent longer.[7]

"I'm surprised at how rapid the increase has been," transportation analyst Timothy Lomax of the Texas A&M Transportation Institute told Houston's KPRC television station.[8]

I-270 in Maryland

In the 1980s, congestion led Maryland to spend $200 million to widen Interstate 270 to as much as 12 lanes.[9] By 1999, traffic had filled up the new lanes – reaching levels that hadn't been predicted to happen until 2010 and leading one local official

to tell the *Washington Post* the road was again "a rolling parking lot."[10]

The congestion has remained a problem: In June 2015, Maryland Governor Larry Hogan announced a $100 million plan to fight congestion on I-270.[11]

I-405 in Los Angeles

A $1 billion widening of I-405 that disrupted commutes for five years – including two complete shutdowns of a 10-mile stretch of one of the nation's busiest highways – had no demonstrable success in reducing congestion.[12]

Just five months after the widened road reopened, the rush-hour trip took longer than it had while construction was still ongoing.[13] Officials had not gathered data about trip duration before the project began, and were therefore unable to demonstrate any effects – positive or negative – to congestion as a result of the widening.[14]

Silicon Valley's U.S. 101

Over two decades, $1.2 billion was spent widening U.S. 101 between San Francisco and Silicon Valley. In 2014, after a new interchange opened, travel took between 14 and 17 percent longer than it had a year earlier.[15]

Maintenance Needs Are Growing

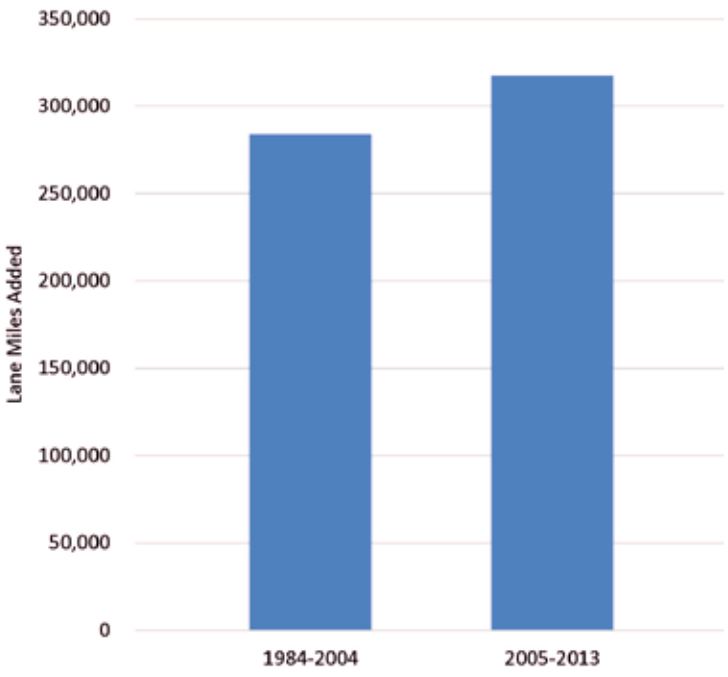
Much of the nation's highway infrastructure was originally built between the 1950s and the 1980s and is, therefore, reaching the end of its useful life. The need for investment to repair or rebuild that aging infrastructure can be expected to grow in the years ahead.

Building more highways, and enlarging existing ones, adds to the burden of future maintenance, rather than easing the pressure on maintaining our existing infrastructure.

More than 61,000 U.S. bridges – one in every 10 – is structurally deficient, a federal designation indicating significant problems with a bridge's structure.[16]

Repairing all these bridges would cost $31.6 billion in 2013 dollars; rebuilding them all would cost $46.5 billion, according to the Federal Highway Administration.[17] If all government spending on highway expansion were paused for just two years, the savings would more than cover the cost of rebuilding all of the country's unsafe bridges.[18] The United States has continued to add new highway capacity at a rapid clip. The nation added more lane-miles of public roads and highways between 2005 and 2013 – a period during which per-capita driving was falling – than were added from 1984 to 2004, the final two decades of the "Driving Boom."[19] (See Figure 1.) That may be due in part, to highway funding provided as part of the federal stimulus package intended to minimize the effects of the Great Recession, as well as the transfer of local streets and highways built by developers to municipalities, but it represents a continuing addition of new roads the public is responsible for maintaining.[20]

Figure 1. Lane Miles of Public Roads Added, 1984-2004 and 2005-2013[21]



America's Long-Term Travel Needs Are Changing

Even with evolving driving trends, federal, state and local governments spent about as much money (in inflation-adjusted dollars) on highway expansion projects in 2010 (the most recent year for which a total is available) as they did a decade earlier.[22]

The highway construction spree has continued at the expense of other important transportation priorities. From 2009 to 2011, state governments spent $20.4 billion annually for expansion or construction projects totaling 1 percent of the country's road miles, according to Smart Growth America and Taxpayers for Common Sense.[23] During the same period, they spent just $16.5 billion on repair and preservation of existing highways, which are the other 99 percent of American roads.[24]

In many cases, states justified these highway expenditures based on the assumption that the number of miles Americans drive would continue to increase dramatically. In 1999, the federal government anticipated that Americans would be driving 3.7 trillion miles per year by 2013 – 26 percent more miles than we actually did.[25] The U.S. Department of Transportation now forecasts that we will not attain those vehicle-miles traveled (VMT) levels until 2037, while another government agency forecasts that they may not be reached until some time after 2040.[26]

During the six decades after World War II, with short interruptions for crises such as the OPEC oil embargo, Americans drove more and more each year. Annual miles driven per capita skyrocketed from 5,400 in 1970 to just over 10,000 in 2004.[27] During this "Driving Boom," government invested more than $1 trillion in highway capital projects, often expanding highway capacity with the intention of relieving growing congestion, but with the actual result of fueling even greater dependence on cars.[28]

From 2004 to 2014, Americans drove less each year than the year before, decreasing driving an average of 0.8 percent a year.[29] That period also saw Americans increase their transit ridership, by an average of 0.3 percent a year.[30]

Driving declined for a variety of reasons. While the economic recession contributed to the fall in driving, the downturn began in 2004, years before the economic decline. The rate of growth in driving has been declining since the 1950s, in terms of both overall vehicle-miles traveled and per-capita driving.[31] (See Figure 2.)

According to the most recent annual statistics, Americans in 2014 drove no more on average than we did in 1997.[32] If previous trends had continued, Americans would have driven an average of about 11,500 miles annually instead of the 2014 average, which fell to just below 9,500.

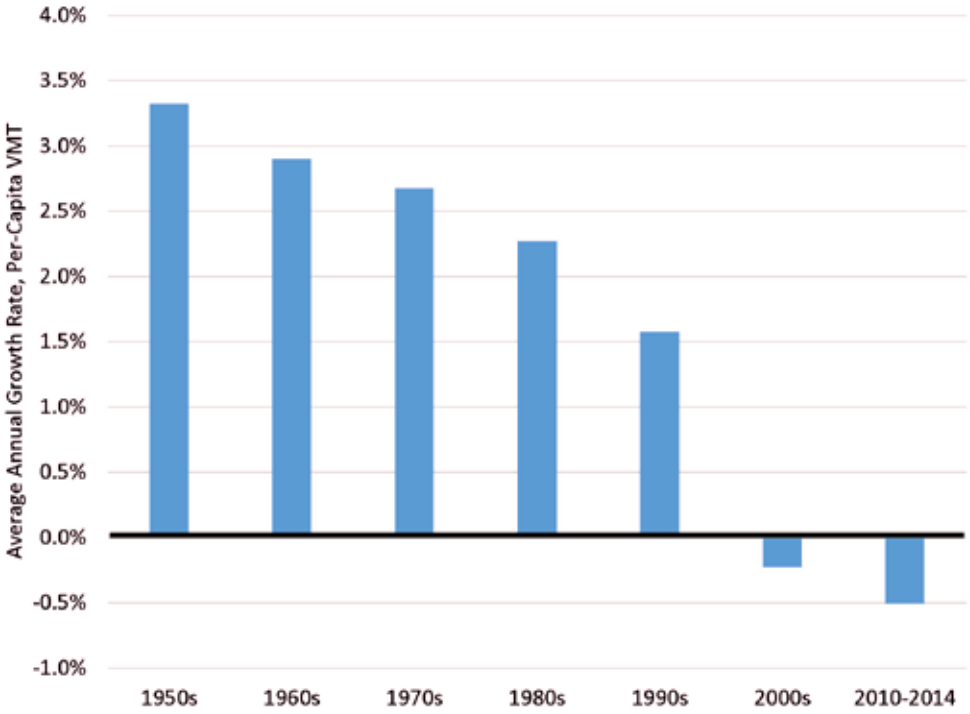
Many of the forces contributing to the fall in driving are likely to be lasting.

- **Market saturation:** The Driving Boom was driven in part by increases in the number of cars and licensed drivers per household, both of which peaked during the 2000s.[34]
- **Workforce participation declines:** The percentage of Americans in the workforce increased during the Driving Boom, but has been falling in recent years and is expected to fall farther as the Baby Boomers age.[35]

Other forces changing transportation needs in America relate to changing preferences and lifestyle choices.

- **Urban resurgence:** The long-term trend toward automobile-oriented suburban development has slowed. In the early 2010s, central cities grew faster than their suburbs for the first time in 90 years.[36] Metropolitan areas have also long been growing faster than rural areas of the country.[37]
- **Increased use of transit and other non-driving modes:** The use of non-driving modes of trans-

Figure 2. Annual Average Growth Rate, Per-Capita Vehicle-Miles Traveled, by Decade, 1950-2014[33]



portation – transit, bicycling and walking – is on the rise. In 2014, transit ridership in the U.S. hit its highest point since 1956.[38] In addition, recent years have seen the emergence of new forms of mobility such as carsharing, bikesharing and ridesharing whose influence is just beginning to be felt.[39]

- **Changing preferences among young people:** These changes in transportation behaviors have been occurring fastest among members of the Millennial generation. Young Americans drove 23 percent fewer miles on average in 2009 than they did in 2001.[40] Young people today are also less likely to get driver's licenses than in the past.[41] Millennials are not only the largest generation in the United States, but they will be the primary users of the transportation infrastructure we build today.[42]

In 2015, driving grew at the fastest rate in decades, following the collapse of world oil prices, which left gasoline nearly as cheap as bottled water in many locations across the nation.[43] At the same time, loose lending standards and low interest rates encouraged increased car sales.[44]

Given that the long-term factors putting negative pressure on driving growth are likely to continue, and that the more immediate factors pushing driving growth upward again are likely temporary, it is far more reasonable to conclude that future driving will more closely resemble a scenario more akin to the last decade than the last few months.

However, regardless of whether gas prices remain low or interest rates rise, one thing is clear: Americans consistently say they want to drive even less than they do now. In a 2015 study, the Urban Land Institute found that more than half of Americans – and nearly two-thirds of Millennials – want to live "in a place where they do not need to use a car very often."[45]

A 2015 study by Portland State University and the National Association of Realtors found that each successive generation of Americans likes driving less

than its predecessor, and likes taking transit more.[46] Nearly all Americans prefer walking to driving, and all Americans say they would drive less if their destinations were more accessible by walking.[47]

America's transportation needs are changing, as is the way America is paying for transportation.

The Transportation Funding Gap Is Expanding

The United States has continued to spend big on highway expansion even as revenues from the gasoline tax, other truck-related excise taxes and highway user fees have stayed stagnant or declined.[48]

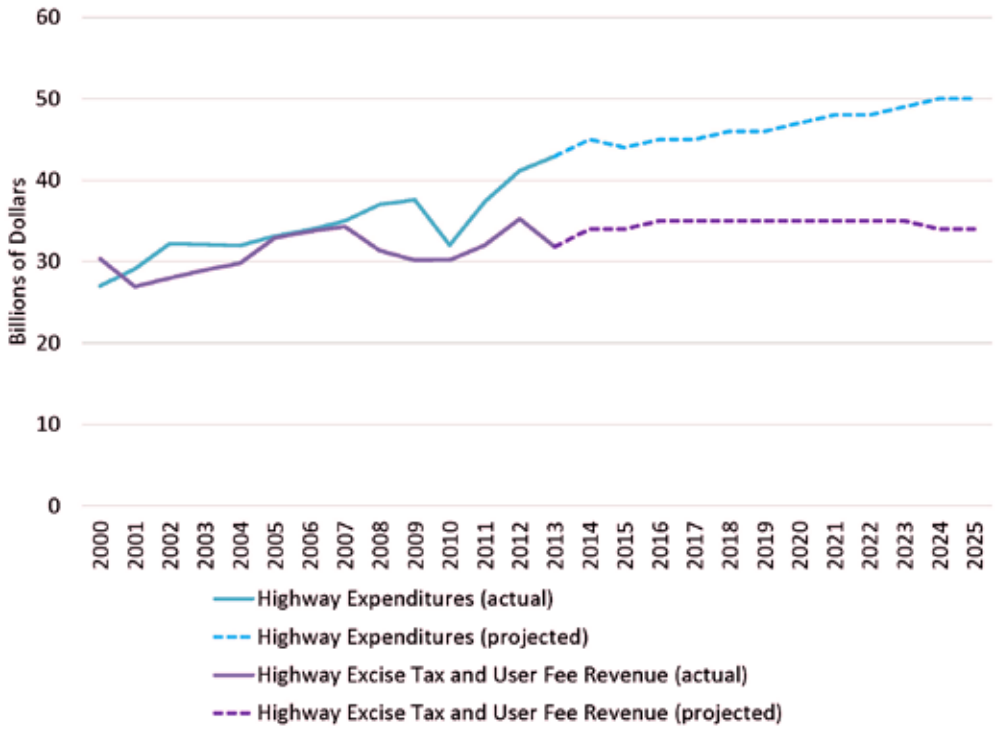
Federal Highway Trust Fund expenses have exceeded revenues since 2001. The gap is slated to widen in the future, with federal highway spending projected to exceed revenues in every year through 2025, according to Congressional Budget Office projections.[49] (See Figure 3.)

Bailing out the Highway Trust Fund with general government funds cost $65 billion between 2008 and 2014, including $22 billion in 2014 alone.[51] Making up the projected shortfall through 2025 would cost an additional $147 billion.[52] The FAST Act transportation bill approved in December 2015 transfers an additional $70 billion of general government revenue to the Highway Trust Fund.[53]

The continued expenditure of billions of dollars each year on highway expansion projects exacerbates the nation's transportation funding crisis – both in the short term by consuming resources that are more urgently needed elsewhere, and over the long term by increasing the amount of infrastructure that will need to be maintained, with shrinking resources, in the years and decades to come.

A closer look at a limited number of these projects shows that, in addition to being expensive, many of these projects are unlikely to address real problems or deliver substantial public benefit.

Figure 3. Federal Highway Trust Fund Highway Excise Tax and User Fee Revenues and Highway Expenditures, 2000-2013 (actual) and 2014-2025 (projected)[50]



Twelve Questionable Highway Projects Demonstrate the Need for New Priorities

Across the United States, there are countless proposed highway projects – many of them originally conceived of decades ago – that represent unnecessary or inefficient expenditures of public resources. These projects come in several forms:

- New highways or relocations of existing highways.
- Projects that add new lanes to existing roads.
- Highway expansions that are unnecessarily tacked onto needed highway reconstruction and repair projects. Many highways originally built in the mid-20th century are now nearing the end of their useful lives and require major reconstruction. In many cases, however, officials have added expansion proposals onto these reconstruction projects, making them more expensive and disruptive than they might otherwise be.

This report highlights 12 pending highway projects that represent a questionable expenditure of public resources at a time of strained transportation budgets and competing needs.

These projects are of widely different scales, from highly localized widening projects to massive highway expansions. They are examples of the broad range of dubious projects in varying phases of development across the country.

While not every state or region is included in the list of misguided highway projects below, nearly every state has one or more highway expansion projects whose wisdom is called into question by shifting priorities for transportation investment. The projects highlighted here are not necessarily the worst highway expansion projects in the country, but they are representative of the costs of proceeding with disruptive projects that may no longer have a compelling transportation rationale.

Photo: Doug Kerr, Flickr user dougtone

Connecticut: Widening I-95 across the State

Cost: $11.2 billion[54]

"You can't build your way out of congestion"

A long-dormant idea for a multi-billion-dollar expansion of I-95 is being promoted by the state's governor as a fix for congestion, despite official studies dating back to 2002 recommending against any expansion of the highway, saying it would make congestion worse, extend traffic delays and increase pollution.

Connecticut Governor Dannel Malloy has proposed a 30-year, $100 billion plan to invest in transportation across the state. More than 10 percent of that spending, $11.2 billion, is dedicated to reversing decades of Connecticut's planning priorities by adding an additional lane to I-95 across the entire state – 110 miles from the New York state line to the Rhode Island border.[55]

Malloy says his proposal will reduce congestion, despite years of industry and academic research showing that widening highways is an expensive and ineffective way to solve congestion-related problems.[56] "You can't build your way out of congestion," the chief planner of the Connecticut Department of Transportation told the *Connecticut Post* in October 2015.[57]

Local knowledge dating back more than a decade also supports looking for solutions other than highway widening. In 1999, a consultant's report came out identifying congestion along I-95 as a barrier to business interests across the state.[58] A government-commissioned follow-up study was issued in 2002 with 150 recommendations for addressing the state's transportation needs, none of which included widening I-95.

That report, released by the board of the Coastal Corridor Transportation Investment Area – which spans Fairfield and New Haven counties and a small portion of southern Litchfield County – found that congestion on I-95 was a problem in those counties, which are near New York City, but then went on to make plain that expanding the highway is not a solution:

> *"Significant increase in road capacity . . . would be very expensive and would have negative environmental impacts. Moreover, adding capacity to highways induces additional traffic, as people take additional automobile trips and new development creates even more demand. It is now generally accepted that states cannot build their way out of congestion."*[59]

The report's top recommendations specifically target congestion on I-95, but rather than proposing highway expansion, they endorse improved rail service for pas-

sengers and freight, and state policies "to encourage commuters to modify their travel patterns and behavior in such a way as to reduce single-occupant vehicle traffic and, by extension, traffic congestion."[60]

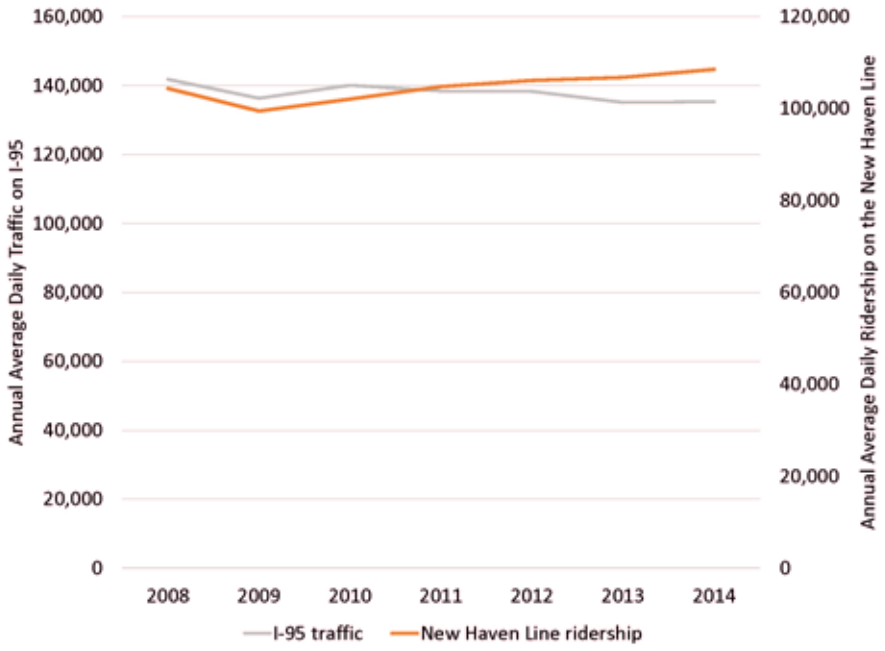
One example the report raises is adding variable tolls to the road at peak times, which could encourage people to shift their travel times, consolidate trips, or otherwise reduce their driving.[61] A 2009 study found that doing so on I-95 and State Route 15 between the New York state border and Stratford in southwestern Connecticut could reduce the volume/capacity ratio by 10 percentage points on both roads and raise $40 billion.[62] Investing that money in improving access to existing transit, building new transit connections, expanding rail capacity for freight traffic, and focusing development on transit-accessible areas could help further reduce congestion throughout the region.[63] In fact, the 2002 state plan explicitly "opposes expanding vehicular capacity on I-95 west of New Haven . . . unless and until all reasonable alternative modes of transportation and strategies have been explored and put in place."[64]

There is a clear, proven and obviously better choice for Connecticut: the rail line that parallels I-95 across the entire state, carrying the Metro-North rail service between New Haven and New York City, Shore Line East rail service between New Haven and New London, and the Amtrak Acela high-speed rail service along its entire length.[65] Shifting the billions from highway expansion to rail improvement could deliver significant benefits, including meeting the governor's goal of congestion reduction.

Rail was highlighted in that 2002 report as a major way to fight congestion.[66] Metro-North's potential was proven in a 2009 survey of Fairfield County businesses, which found, in the words of a 2011 Connecticut Transportation Strategy Board report, that "economic growth in the I-95 corridor continued even as congestion brought traffic on I-95 . . . to a crawl."[67] The reason was simple: Though "highway capacity was exhausted, capacity still existed on [the] New Haven Line."[68]

As I-95 traffic in southwestern Connecticut fell an average of 0.8 percent a year from 2008 to 2014, New

Figure 4. Annual Average Daily Ridership on Metro-North Railroad's New Haven Line, and Annual Average Daily Traffic on I-95 in Southwestern Connecticut, 2008-2014[71]



Haven Line ridership grew an average of 0.6 percent a year.[69] (See Figure 4.) Rail improvements can improve train service and further reduce congestion on I-95, according to both the 2002 report and a 2014 study of the New Haven Line by the New York metropolitan area's regional planning authority.[70]

Gov. Malloy has also called for increasing service on the New Haven Line: Part of his $100 billion transportation plan calls for $22 billion in spending on maintaining and improving the state's rail system.[72] Of that, $14.6 billion would go toward preserving and maintaining the existing system; $7.2 billion would pay for expansions to service.[73]

Customer demand is already driving increased service frequency on the rail line. Five of the last seven years have seen historic ridership highs for the New Haven Line.[74] In November 2014, Metro-North trains started coming every half-hour all day.[75] Demand for that improved service contributed to the New Haven Line setting a new all-time ridership record in 2014.[76] Calls have already come for service to increase to once every 10 or 15 minutes.[77]

Even more demand for New Haven Line service may develop as a result of a slated extension of Metro-North service to Penn Station, to be paid for by New York's Metropolitan Transportation Authority.[78]

Improving the rail corridor through Connecticut to reverse years of delayed maintenance needs and to provide required safety upgrades would require $1.8 billion beyond already allocated funding from 2016 to 2020, according to a federal report released in April 2015.[79] Fully revamping the corridor from Washington, D.C., to Boston to provide modern high-speed rail service would cost an estimated $151 billion through 2040.[80] Improvements in Connecticut and adjoining states would cost $62 billion.[81]

Of that $62 billion, $3.9 billion – $2.1 billion beyond the maintenance and safety needs highlighted above – would pay for upgrading existing tracks, including those along the Connecticut coast, to be ready for high-speed rail between New York City and Boston.[82] It would also include building additional tracks on segments of the route from New Haven to Springfield, Massachusetts, to allow more trains to travel more quickly.[83]

The remaining $58 billion would be spent building a new rail route heading northeast from New York through Waterbury, Danbury and Hartford.[84] On that route, new train cars would roll at speeds up to 220 miles per hour, far faster than the current Acela maximum of 150 miles per hour.[85] That would cut the current three-and-a-half hour trip from Boston to New York down to just over 90 minutes.[86]

With limited financial resources at hand, Connecticut faces a choice between a vision of the future based on speedy and efficient rail service and one that expends vast resources on the expansion of a highway that is likely to remain just as congested afterwards as it is today.

Florida: Tampa Bay Express Lanes

Cost: $3.3 billion[87]

"Such a dreadful plan and so expensive"

The Florida Department of Transportation acknowledges that a decades-old plan to construct toll lanes allowing paying drivers to bypass congested traffic on I-275, I-75 and I-4 in Tampa would not solve the region's problems with congestion, but is pushing the project forward anyway in the face of community opposition.

Starting in the late 1950s, the Florida Department of Transportation built I-275 through the middle of Tampa, "ripping holes through neighborhoods such as the historic Central Avenue business district, Seminole Heights and West Tampa," as a local newspaper columnist put it.[88]

In 1996, plans to expand that stretch of I-275 were approved by the Federal Highway Administration.[89] That project was never built.[90] For years the plans laid

dormant.[91] In the meantime, the neighborhoods began to rebuild themselves. Under an agreement with the state, community institutions used land owned by the Florida Department of Transportation (FDOT) to expand their presence (on the condition that any structures would be demolished were the highway ever to go through).[92]

The Tampa Heights Junior Civic Association, for example, raised and spent $1 million to convert the former Faith Temple Baptist Church on the property into a community center that now offers pre-college and pre-professional classes for local teens.[93] Outside the center are a community garden, a playground and a walking and biking trail.[94]

Improvements in the building, both planned and already under way, were stopped by a November 2015 cease-and-desist order from FDOT, indicating the highway project is moving forward.[95] The projects were to build a teaching kitchen, an aquaponic garden and a sound studio, all for teaching young people new professional skills.[96] Community leaders are concerned the order might mean the dismantling of some of the work already completed, and even require the refunding of donations.[97]

In mid-December 2015, FDOT and the city of Tampa rejected a request from the community group to be allowed to continue improving the building.[98]

The highway expansion would also destroy historic homes and businesses, centers of culture and community life, and even part of a popular water park the city spent millions to build and open in 2014.[99]

For nearly two decades, local officials thought the highway expansion would never come. "I sat on Tampa City Council and the Metropolitan Planning Organization [in 1996], but never believed that [the expanded highway] would be built because it was such a dreadful plan and so expensive. Surely we would embrace transit and quit widening the interstate and destroying neighborhoods," wrote Linda Saul-Sena in a local newspaper in June 2015.[100]

The community expressed its preferences in 2014, with Plan Hillsborough, the county's transportation planning agency, approving a long-range transportation plan focusing significantly on transit improvements, and specifically aiming to decrease fossil fuel consumption and dependence on single-occupancy vehicles.[101] Both would be increased by

Photo: J. Todd Montgomery, Clear Glass Photo/clearglassphoto.com

Community members work on the garden and playground at the Tampa Heights Junior Civic Association's community center, which would be demolished to make way for tolled express lanes on I-77. The large wall in the background is the viaduct carrying the existing highway.

construction of the proposed highway lanes. The long-range plan highlighted the facts that nearly half of Hillsborough County residents don't have access to transit routes, and more than one-third of county residents are unable to transport themselves or purchase transportation.[102]

The plan detailed significant community-wide benefits for those investments, including boosting economic development, energy conservation, environmental quality and local quality of life.[103]

Nevertheless, the dormant 1996 highway expansion plan came back to life in May 2015, under a slightly different guise.[104] While beginning another major highway project in the area, the I-4 "Ultimate" expansion, FDOT decided to include the tolled express lanes along I-275, even though they were not included in the state's upcoming highway project list, which extended out to 2040.[105]

The DOT projects that the new highways would bring between 5 and 24 percent more traffic than would use the roads if the project were not built, making the highways likely to produce more pollution and noise than they currently do.[106] Those threats to their community – and the potential for demolition of 100 homes and 30 businesses – brought out local residents in opposition.[107]

In June 2015, after hearing from dozens of affected community members, the Tampa City Council voted to oppose the project, unanimously agreeing to lobby state legislators, local planning officials and other state leaders.[108] The council also asked city attorneys to consider filing a federal complaint alleging the project would discriminate against the local residents.[109]

Councilman Mike Suarez, a third-generation Tampa resident, denounced the highway project to a local newspaper as "not good for the neighborhood; it's not good for the city."[110]

In August 2015, Plan Hillsborough, the same agency that just a year before had approved the transit-promoting long-range plan, voted to include the express lanes in its five-year transportation plan.[111] But conditions on that approval include requirements to reduce the project's effects on urban neighborhoods, and to reevaluate the 1996 plan.[112]

The region's top transportation official, FDOT District 7 head Paul Steinman, told the *Tampa Tribune* that the new lanes on their own won't solve the region's congestion problem.[113] He said transit will also be needed to address the problems Tampa residents and commuters have getting around.[114] So far, all FDOT has offered is $1 million to study an expansion of a city streetcar line.[115]

A significant opportunity for the state and local government to invest in a transportation project that would further the community's goals presented itself in late 2015. Rail giant CSX is interested in selling 96 miles of existing rail tracks that connect downtowns in Clearwater, St. Petersburg and Tampa, as well as the key destinations of Tampa International Airport and the University of South Florida.[116] The tracks are currently used – infrequently – for freight but could be the basis for a revitalized push for commuter rail, which the region currently lacks.[117]

The cost is not yet determined, but a similar project in Orlando allows some comparisons. In 2011, CSX sold 61.5 miles of tracks for $2.4 million a mile, on which Orlando started a commuter rail line.[118] The total cost for that project was $432 million, half paid with federal dollars and the rest with state, city and county funds.[119]

Assuming a similar track-mileage-to-cost ratio, the Tampa track purchase could cost $234 million, with another $440 million in additional costs, such as rail cars and station construction.[120]

Texas: State Highway 45 Southwest

Cost: $109 million[121]

A new toll road would increase traffic on one of the most congested roads in Austin, and threaten the drinking water supply for 2 million Texans

Building a controversial brand new, four-mile, four-lane toll road would increase traffic on one of the most congested roads in Austin, and increase water pollution in an environmentally sensitive area critical for recharging an aquifer providing drinking water to 2 million Texans.

The Texas Department of Transportation's efforts to connect Austin's MoPac Expressway to I-35 along Bear Creek date back to the 1980s.[122] For 20 years, the connection from I-35 to MoPac, formally called Loop 1 and nicknamed after the old Missouri-Pacific railway that ran where the road now does, has not been a high enough priority to attract funding.[123]

Now, efforts are coming together to build the first leg of that road, from MoPac to Farm-to-Market Route (FM) 1626, a state-maintained road running roughly northwest from Hays to the Ashbrook neighborhood of Austin. The currently proposed extension would intersect with FM 1626 just south of Big Valley Road, four miles from where FM 1626 meets I-35. TxDOT has separated the other segments of the connector road into distinct projects; each piece must be evaluated on its own merits, as well as its connection to the larger concept.

Most of the money for the connection of MoPac to FM 1626 will come from the Texas Department of Transportation, which is providing $29 million in grant funding, and another $60 million in bond authorizations, which will be repaid by projected toll revenue.[124] An additional $5 million will come from Hays County, and $15 million more from Travis County.[125]

The money will be spent on a project that TxDOT admits would draw new traffic to MoPac, which is already being expanded in hopes of relieving existing congestion.[126] Continuing the road across FM 1626 and connecting directly to I-35 would be the next step, drawing even more traffic through the two busy roads.[127]

TxDOT predicts that building the new highway segment would increase the number of miles driven by an average of 15 percent on all roads in the surrounding area.[128] All of that traffic would result in more air pollution than would happen without the highway.[129]

Further compounding the project's environmental damage, nearly all of the road's planned route crosses above the Edwards Aquifer, which provides drinking water for 2 million Texans.[130] In addition, the road would pass 350 feet from the entrance to Flint Ridge Cave, a key part of the recharge system for the Edwards Aquifer, which is particularly vulnerable to pollution from surface water runoff from the highway.[131] The aquifer is also the source of Barton Springs, a key natural and recreational aspect of the Austin area that is also home to the federally endangered Texas blind salamander and Barton Springs salamander.[132]

The highway project's water pollution control plans allow for oil, grease and other pollutants resulting from construction and use of the highway to enter the area's surface water and groundwater.[133]

The money intended for State Highway 45 Southwest could be used to help support other transportation priorities in the area. The surface conditions of existing roads in Austin and the surrounding counties, for example, are expected to decline from 2015 through 2018, even with the level of investment currently scheduled.[134] There are 21 structurally deficient bridges in the region covered by the Capital Area Metropolitan Planning Organization.[135]

In addition, funds are needed to support the growing range of transportation options that are already enabling more residents in fast-growing

Austin to travel without adding to congestion on the roads.[136] For example, the city's transportation agency, Capital Metro, wants to spend $29 million to lay a second set of tracks to improve Red Line service into downtown, and another $111 million to buy additional rail cars, upgrade stations, and make other improvements to allow for even more passenger service.[137]

California: 710 Tunnel

Cost: $3.2 billion to $5.6 billion[138]

The most expensive, most polluting, least effective option for solving the San Gabriel Valley's transportation problems

A proposal to drill a pair of highway tunnels is the most expensive, most polluting, least effective option for solving the San Gabriel Valley's transportation problems.

A highway linking I-710 from Alhambra to I-210/SR-710 in Pasadena was first proposed in the late 1950s.[139] Ever since, efforts to build the highway have run into obstacles including insufficient funding, high environmental impact, and community objections.[140] In 1998, a proposal to build an eight-lane highway got so far as to receive final federal approval.[141] That, too, was halted by concerns about environmental protection and historic preservation.[142]

The project saw renewed life in 2008 when Los Angeles County voters approved Measure R, a half-cent sales tax increase over the next 30 years, slated to raise $40 billion to be spent on a wide range of transportation projects.[143] The majority – 65 percent – of that money was dedicated to improve the region's transit system, including expanding bus and rail service.[144] Among the projects included in the plan was a "SR 710 Gap Closure" project to connect the northern and southern spurs of the 710, which was allocated $780 million.[145]

A study released in March 2015 by the California Department of Transportation and the Los Angeles County Metropolitan Transportation Authority (Metro) identified four problems with the local area's transportation system: it is inefficient, freeways are congested, local streets are also congested, and the area is poorly served by transit.[146]

The report studied four major options for addressing these problems:[147]

- *Transportation System Management/Transportation Demand Management:* making improvements in surface streets and traffic signals to smooth traffic flow, and upgrading bus service and bicycling/pedestrian paths to reduce the need for individuals to drive.[148] This option was slated to cost $105 million.[149]
- *Bus Rapid Transit (BRT):* Significantly upgrading transit service in the area with additional buses, additional bus routes, and dedicated bus lanes during peak traffic hours.[150] This was expected to cost $241 million.[151]
- *Light Rail Transit (LRT):* Building a new light rail line from the East Los Angeles Civic Center to the existing Fillmore station on the LA Metro's Gold Line, plus adding feeder bus routes and boosting frequency on existing routes to improve access to the stations built along the route.[152] The projected cost of that project, which included boring two 4.5-mile train tunnels, is $2.4 billion.[153]
- *Freeway Tunneling:* Boring one or two double-decker tunnels from I-710 in Alhambra, north of I-10, to SR 710 just south of the I-210/SR 134 interchange in Pasadena.[154] Various options have been considered for charging tolls to some or all vehicles; possible restrictions on truck traffic are also under discussion, as is the possibility of adding an express bus route using the tunnel system.[155] Boring one tunnel would cost $3.2 billion; the two-tunnel variant would cost $5.6 billion.[156]

The tunnel option would cause the most pollution of all the options, both during construction and during regular daily use.[158] In fact, the tunnel would increase global warming pollution because it would boost the area's vehicle-miles traveled and the number of trips taken beyond what would happen if the tunnel were not built, and would induce demand for both new car and truck traffic.[159]

The freeway tunnel is also likely to be the least effective at solving the area's transportation problems. Consultants hired by project opponents have reported that the tunnel would cause traffic to get substantially worse around its endpoints.[160] Rather than solving congestion, the tunnel project would simply move traffic congestion from one place to another – specifically, to the tunnel itself and roads leading to and from it.[161]

An analysis of official traffic demand forecasts by Nelson\Nygaard Consulting Associates found that the tunnel's hypothetical congestion would be nonsensical, as "traffic would begin [backing up] at 7 a.m. and the queue would get longer and longer during the

Map: CalTrans

The area around the 710 corridor. The tunnel would connect the two pieces labeled 710 above and below South Pasadena.

day. . . . [A]t 7 p.m. the queue would reach 3 hours in length. It would take much longer than 3 hours for such a queue to clear because vehicles would continue to arrive after 7 p.m."[162]

Across the wider area around the tunnel location, very few drivers – between 7 and 13 percent – would see any improvement in their trip duration.[163] Some drivers, on the other hand, would see their trips worsen as a result of the tunnel's construction.[164]

In the meantime, demand for transit service is growing in the area. Ridership in Pasadena and Alhambra is expected to increase 40 percent from 2012 to 2035, with more people taking more of their trips on transit.[165]

The BRT and LRT options could boost transit ridership by an additional 10 percent and the share of all trips that happen on transit by as much as 5 percent in 2035, while the freeway options would do nothing to boost transit ridership.[166]

An alliance of five cities, including Glendale, Pasadena, La Cañada Flintridge, Sierra Madre and South Pasadena, is among those who have called for the Caltrans/Metro report to be scrapped and redone to provide substantive options for addressing the problems the area faces.[167] A coalition of local governments and citizen groups has proposed a $705 million project that would meet many of the communities' needs at a far lower cost, including expanding transit and investing in bicycle and pedestrian routes.

Colorado: Widening I-70 in Denver

Potential savings: $58 million[168]

Widening a highway while it undergoes much-needed replacement would waste tens of millions of dollars

The need to tear down the viaduct carrying I-70 through the center of Denver is clear. The bridge, which was built in 1964, first had detectable cracks in 1981.[169] Since then, the bridge has required many repairs. A major 1997 project installed rods intended to reduce cracking.[170] In 2005, the weight of vehicles on the viaduct was limited in hopes of extending the bridge's life.[171] But the bridge continued to crumble. By 2010, the bridge was considered "structurally deficient," a federal designation indicating significant problems in its structure.[172]

A $30 million maintenance project in 2010 was expected to give the viaduct another 10 to 15 years of service.[173] But just four years later, the Colorado Department of Transportation announced that some of the work done in 1997 was failing.[174] The repairs themselves needed to be repaired.[175]

The viaduct is also an eyesore whose removal has been sought by the local community for many years.[176] Since it was built, neighbors have complained that it divides their community, which is one of Denver's poorest.[177]

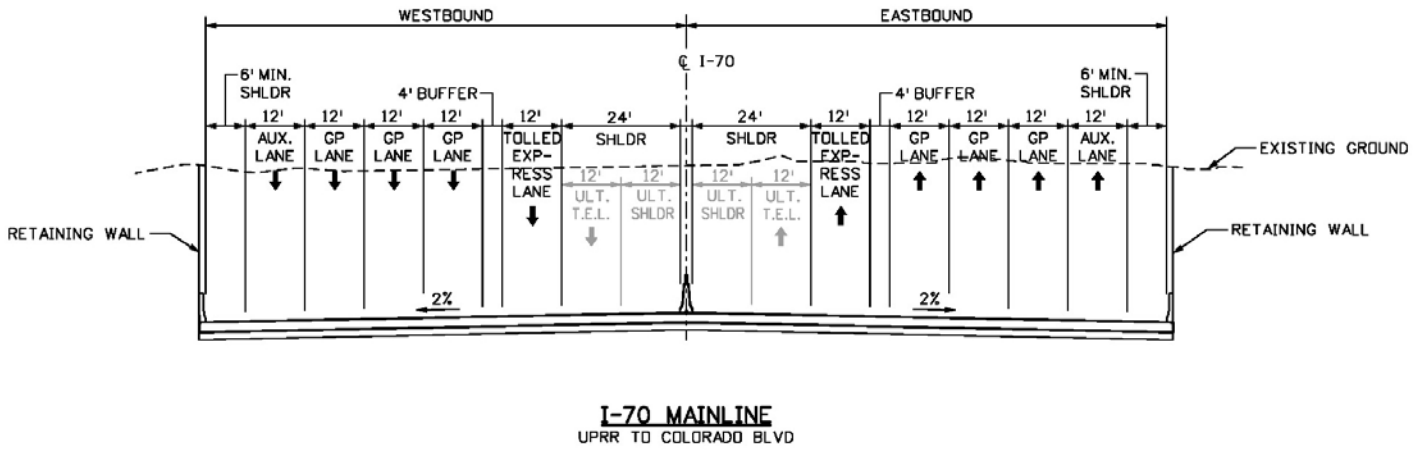
The Colorado Department of Transportation (CDOT) has proposed to replace the viaduct with a trench for the highway, and partially cover the road with a park.[178] In September 2015, CDOT put out a formal call for private companies willing to finance and build the project.[179]

However, CDOT is also proposing to widen the highway. Originally, CDOT wanted to widen a section of I-70 from I-25 to Tower Road to 10 lanes, up from four- and six-lane segments today, for a total cost of $1.8 billion.[180] Without enough money, the agency scaled the work back to just the area around the failing viaduct, for a cost of $1.17 billion.[181] But its plans to widen the road remain.[182] (See Figure 5.)

There is another major step CDOT could take to reduce the cost: It could decide not to widen the highway.

The agency says in an online fact sheet that the additional cost of expanding the highway from eight lanes to 10 would be "very modest."[184] Without detailed evaluations of six- and eight-lane options, cost comparisons have proven difficult.

Figure 5. Dimensions of the I-70 East Trench[183]



In 2008, however, CDOT provided the savings associated with a narrower highway. Its original Draft Environmental Impact Statement estimated that building an eight-lane trench instead of a 10-lane one would save $58 million, in part because of reduced need to acquire additional private property on which to dig the trench, but also because of reduced construction costs.[185] Since then, CDOT has done no additional cost analysis on a narrower project that has been made readily available to the public.

Perceived need for highway expansion is already under scrutiny in Colorado. Expert reviewers from the American Planning Association's Transportation Planning Division suggested in October 2014 that CDOT consider options for I-70 expansion with fewer than 10 lanes, because the state's review process had not yet done so.[186] Their report had several criticisms of the existing proposal, including:

- CDOT did not evaluate options with fewer than 10 lanes, instead focusing on one that would "maximize rather than minimize impact on the abutting . . . neighborhoods."[187]
- In examining the options it did evaluate, CDOT used an outdated traffic modeling system, which had been supplanted in 2010.[188] That old system assumes that people won't change their travel habits when using routes that are commonly congested, and does not account for the increased traffic created by highway expansion projects.[189]
- CDOT also used an out-of-date model for determining how highway expansion projects drive development and land-use decisions, which in turn influence traffic levels.[190] The department erroneously assumed land-use patterns would remain the same whether the highway was expanded or not; had CDOT properly incorporated the effects of highway construction on development and resulting traffic, it would likely have found worse traffic outcomes than it did.[191]

North Carolina: I-77 Express Lanes

Cost: $647 million[192]

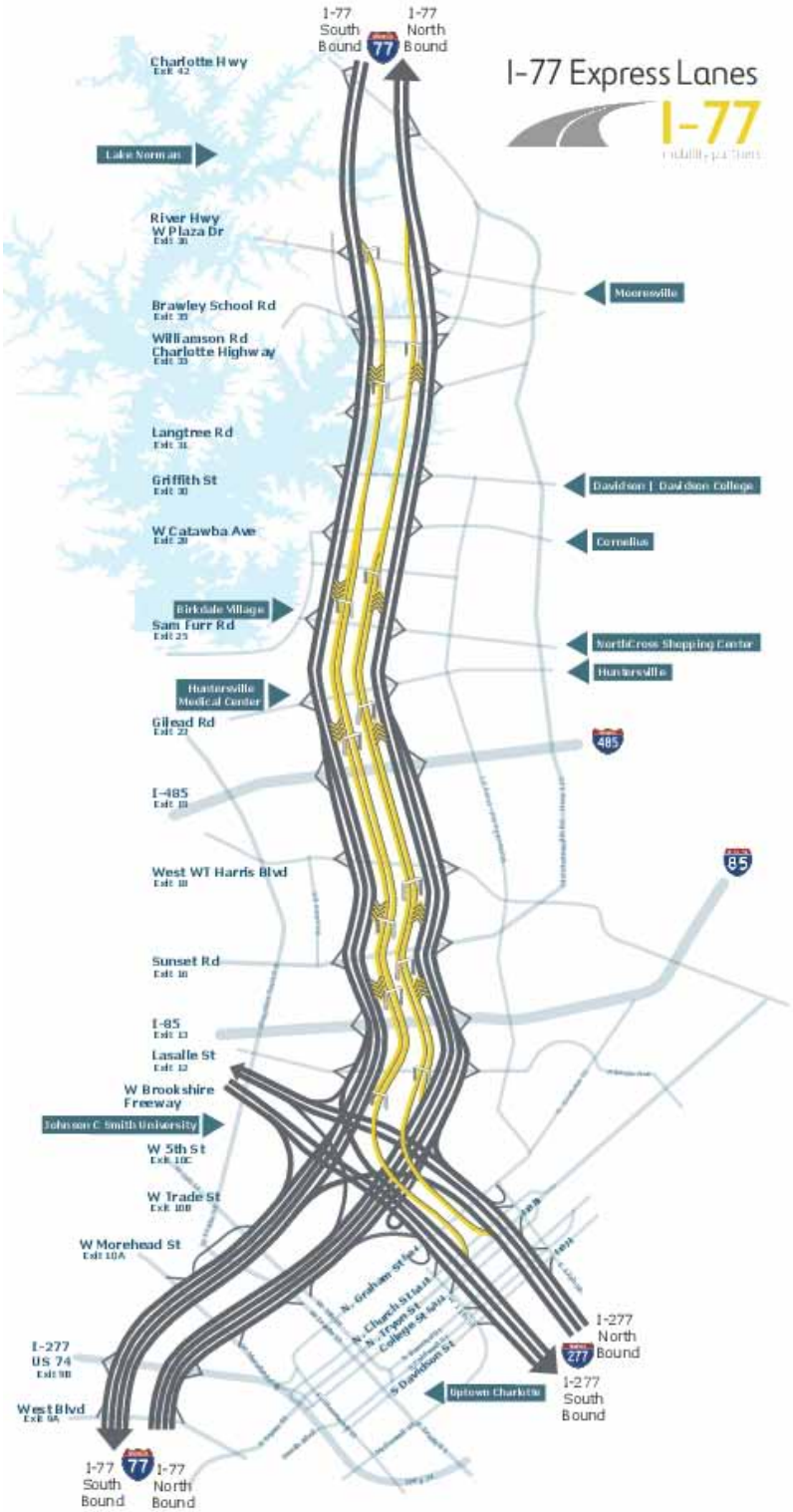
In 2014, the project scored low when assessed according to state criteria governing transportation project investments

A highway project that doesn't merit funding through North Carolina's normal transportation prioritization process is moving forward in part because a private company is willing to contribute some money – but taxpayers are still going to have to put up hundreds of millions of dollars.

I-77 has a carpool lane running in each direction from the I-277 spur into Uptown Charlotte, and extend-

ing 26 miles north to Mooresville. The state Department of Transportation has a plan to convert those carpool lanes into tolled express lanes that would be available for solo drivers while remaining free for carpoolers. These are sometimes called HOT (High Occupancy/Tolled) lanes. The proposal would also actually widen the highway between Charlotte and Cornelius (exit 28), where an additional express lane would be built in each direction. Between exits 28 and 36, the single converted carpool lane would be the only express lane.[193]

Map: North Carolina Department of Transportation



There would be no charge for buses, motorcyclists or cars with three or more occupants (including the driver), but beyond that, tolls would be set by the private contractor and would vary based on times of day.[194]

Early proposals suggest a round-trip journey between Mooresville and Charlotte during peak hours could cost as much as $10 each way.[195] That amount could double (in constant dollars) by 2035, according to project documents.[196]

Total toll payments are expected to be $13 billion over the life of the state's 50-year contract with the company, according to documents.[197]

In 2014, the project scored low when assessed according to state criteria governing transportation project investments, the NCDOT's chief deputy secretary told local officials in May 2015.[198] There are so many projects ahead of it on the priority list that the department didn't anticipate the express lanes would be funded for at least 20 years.[199]

The state did not want to wait that long, so it has constructed a complex set of taxpayer subsidies to cover nearly two-thirds of the project's cost.

NCDOT is putting up $95 million.[200] A loan under the federal Transportation Infrastructure Finance and Innovation Act (TIFIA) will provide $189 million, and $100 million would come from private activity bonds issued by the North Carolina Local Government Commission.[201]

That financing package, backed by 50 years of expected revenue from tolls, and up to $75 million in additional NCDOT funding if the tolls don't generate

enough money, has been rated one step above "junk" by the bond-rating agency Fitch.[202]

The company chosen to build and maintain the highway for 50 years is called Mobility Partners, a subsidiary of Cintra, a major international construction firm.[203]

The 50-year contract between NCDOT and Mobility Partners hamstrings public planning efforts by requiring the state to compensate Mobility Partners for any projected revenue losses that might result from other transportation improvements in the region. Projects that could divert traffic away from the toll lanes, such as adding additional free road lanes or expanding transit service, would trigger the state's penalty payments.[204]

That requirement, as well as lack of transparency surrounding the deal in general, has led to significant public outcry, including by local officials and government bodies.[205] County and municipal officials along the highway's route have passed resolutions questioning the project and asking that it at least be delayed.[206]

Surprising many local residents, Cintra began construction in mid-November 2015, though state and local officials were still debating whether to approve or oppose the project.[207]

Map: Washington State Department of Transportation

Washington: Puget Sound Gateway Project

Cost: $2.8 billion to $3.1 billion[208]

State data show that the project would substantially increase traffic on I-5

The state is proposing to spend billions of dollars on a highway to relieve congestion in a way that will not do so, in an area where traffic has not grown for more than a decade, and where other pressing needs for transportation funding exist.

The Washington Department of Transportation (WSDOT) has proposed construction of a $2.8 billion to $3.1 billion project between Seattle and Tacoma:[209] expanding State Route 167 between Tacoma and Puyallup by two lanes and State Route 509 from Kent to Burien by two lanes.[210] Also proposed is adding two new express lanes to Interstate 5 between the ports of Tacoma and Seattle, which could be used by drivers willing to pay for an expedited trip through the new lanes.[211]

Toll revenue would only contribute $330 million toward the total cost of the project from the time it is completed in 2021 until 2060.[212] WSDOT has already warned that more than a billion dollars in additional state borrowing will likely be needed to cover the project's costs.[213]

Justification for the project relies on claims by WSDOT that expanding routes 167 and 509 will bolster Washington's export economy by increasing the ease and efficiency of the transport of commercial goods along the routes and to the ports.[214]

WSDOT also claims the project would reduce congestion through the region. But the state's own data show that building the project would substantially increase traffic on I-5, inducing cars and trucks to drive nearly 2 million more miles a year on the highway by 2030, and drivers to spend more than 25,000 hours behind the wheel on I-5 in that year than if the project was not built.[215]

In addition, traffic on routes 167 and 509 remained stagnant between 2003 and 2014.[216] During that same period, I-5 saw as many locations with stagnant or decreasing traffic as with increasing traffic.[217] (See Figures 6, 7 and 8.)

WSDOT is an agency with a long history of very costly, often unnecessary, highway construction projects. Other project supporters include real-estate developers hoping the expanded road will encourage sprawl, including in a 4,000-acre, 5,900-suburban home development under way in the region.[221]

Properly directed investment in Washington's transportation system is badly needed, and the billions being proposed for the Puget Sound Gateway would find very productive uses if they were available for other purposes instead.

For example, to fully replace all of the structurally deficient bridges in Washington would cost $1.2 billion – far less than the Gateway project. Repairing them to good condition without rebuilding them would cost $847 million.[222]

The Gateway funding – or even what is left of it after fixing all of the state's structurally deficient bridges – could also provide a significant boost to transit service in the Puget Sound region. The local transit agency, Sound Transit, is developing a $15 billion

Figure 6. Annual Average Daily Traffic, Route 167, 2003-2014[218]

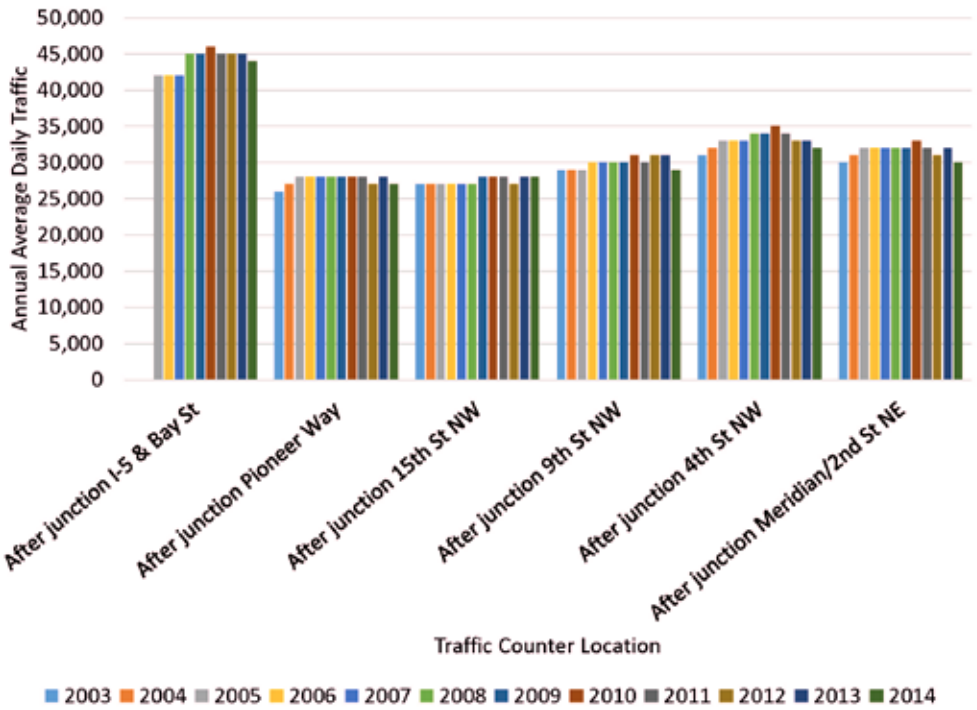
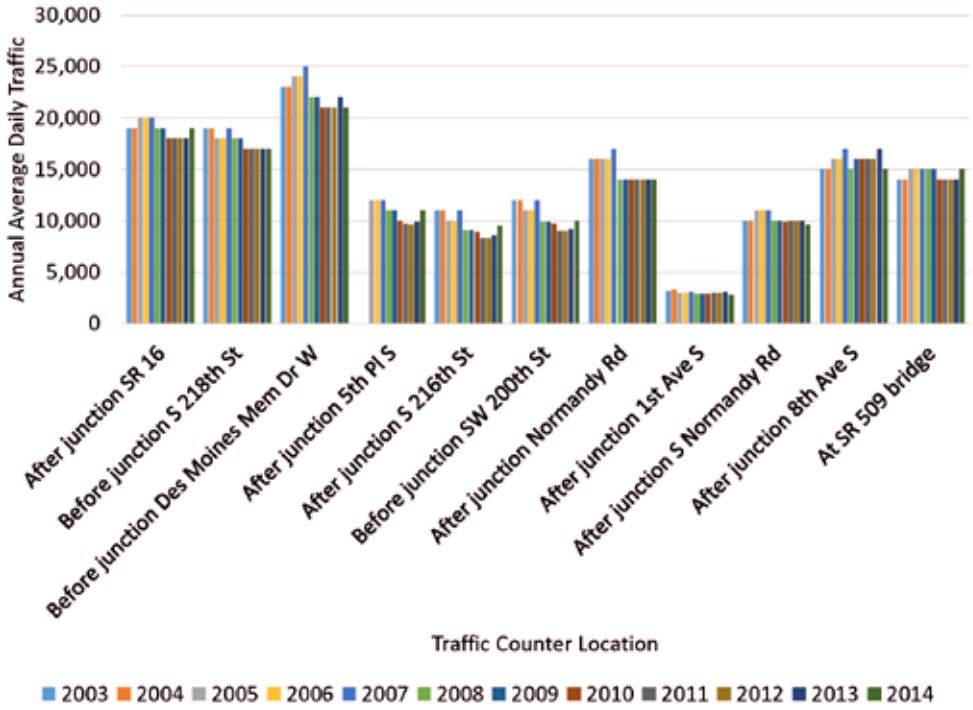


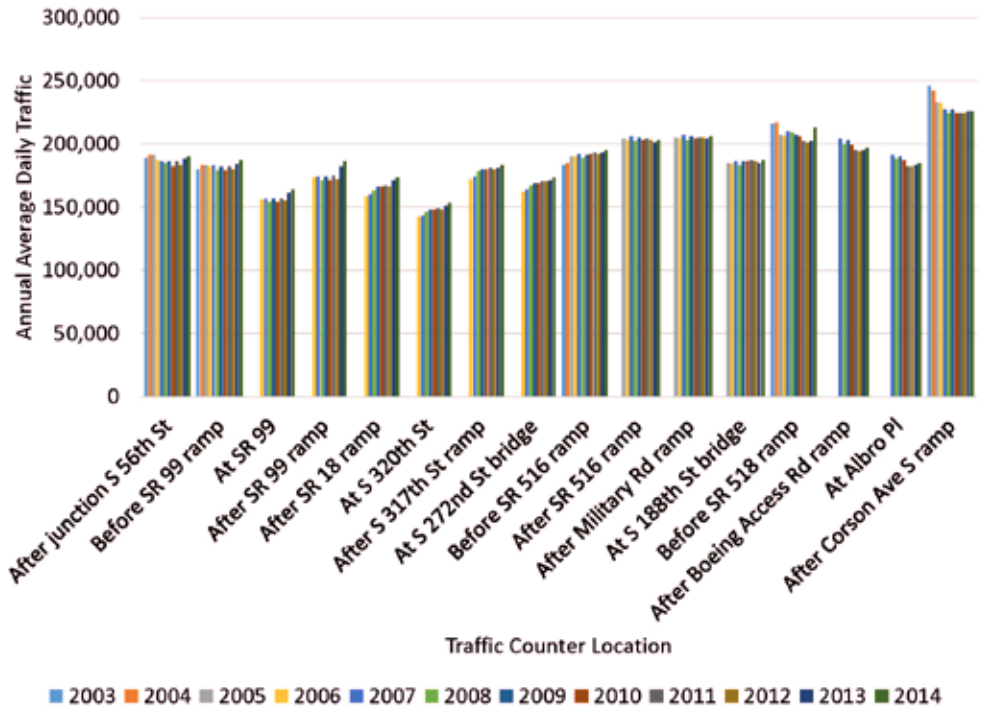
Figure 7. Annual Average Daily Traffic, Route 509, 2003-2014[219]



proposal that, if approved by voters in 2016, would increase local taxes to pay for significant investment in the Puget Sound regional transit system.[223]

Adding state and federal funds from the Gateway project could either allow additional service improvements or relieve pressure on local taxpayers.

Figure 8. Annual Average Daily Traffic, Interstate 5, 2003-2014[220]



Texas: State Highway 249 Extension

Cost: $337 million to $389 million[224]

The project documents use outdated driving projections that do not reflect current travel trends in the area

Citing outdated traffic projections, the Texas Department of Transportation claims it needs to spend between $337 million and $389 million building a 30-mile six-lane highway from Pinehurst in Montgomery County through Todd Mission in Grimes County to College Station.

Having in April 2015 opened a $335 million, six-lane, six-mile tolled expansion of State Highway 249 from the Sam Houston Parkway to Tomball in Harris County, the Texas Department of Transportation is working to extend the highway another 30 miles, all the way to College Station, home to Texas A&M University.[225]

The project is proposed in two phases, first connecting Pinehurst to Todd Mission and then reaching to Navasota, a suburb of College Station.[226]

The first phase, which if approved could see work begin in 2016, would run through an area that is already suffering from ozone air pollution, to which vehicle traffic is a major contributor.[227]

In May 2015, TxDOT approved searching for a private company to build the second phase of the highway, despite objections from residents who said it would displace farms and ruin the rural character of the communities it would pass through.[228] They also complained that TxDOT had promised local governments additional transportation funding, which they said changed the views of local officials who had originally opposed the project.[229]

In making the decision, state officials paid lip service to "demand for more travel options" besides highways, according to a *Houston Chronicle* account of the meeting.[230] No element of the highway extensions include any elements of public transit or other methods aimed at reducing Texans' need to drive.

The project documents cite population growth and prospective sprawling development as reasons the road may be needed, but they use outdated driving projections that do not reflect current travel trends in the area.

TxDOT expects vehicle traffic on one road in the area to quadruple from 2015 to 2040.[231] State traffic projections represent average annual growth rates of between 3.7 and 5.5 percent.[232] But data at TxDOT traffic counters in the area show that from 2007 to 2013, the growth was far lower, between zero and 4 percent a year.[233]

Iowa: U.S. 20 Widening

Cost: $286.4 million[234]

Iowa Transportation Department Director Paul Trombino said the state's existing road system was already bigger than could affordably be maintained

Money that could be used to repair Iowa's deteriorating roads and bridges is instead being spent on constructing new highways.

In June 2015, the Iowa Transportation Commission, the public body that sets the state's transportation priorities, voted to spend $286 million on widening 40 miles of U.S. 20 between Moville and Early from two to four lanes.[235] The road passes through a rural area of northwest Iowa where population has barely changed since 2005, and isn't expected to change through at least 2040.[236] State transportation officials want to draw more truck traffic to and through the area, diverting some of the congestion now facing I-80 to U.S. 20 instead.[237]

The state is saying the road needs to be built now to accommodate traffic that may develop more than 20 years into the future. Yet its projection of future traffic expects vehicle travel increases on that section of road far faster than recent data suggest.[238]

The existing two-lane rural highway can handle the traffic volume expected in 2039 in most locations, based on actual recent traffic growth. Iowa's highway design guidelines for two-lane rural arterials specify that they can handle more than 5,000 cars a day.[239] If the 2011 through 2014 average growth rate were to remain stable through 2039, four of the nine relevant traffic counters on U.S. 20 would not see numbers exceeding 4,751 and a fifth would be at 5,154.[240] Iowa's highway design guidelines are not as specific as other states, but according to Wisconsin's highway design guidelines, the existing road could handle up to 8,700 cars a day.[241] Only one of the nine traffic counters, east of Correctionville, would see daily traffic exceeding that level in 2039.[242] To the extent that segment sees such a traffic increase, more localized solutions could be explored, rather than widening miles upon miles of highway two decades in advance.

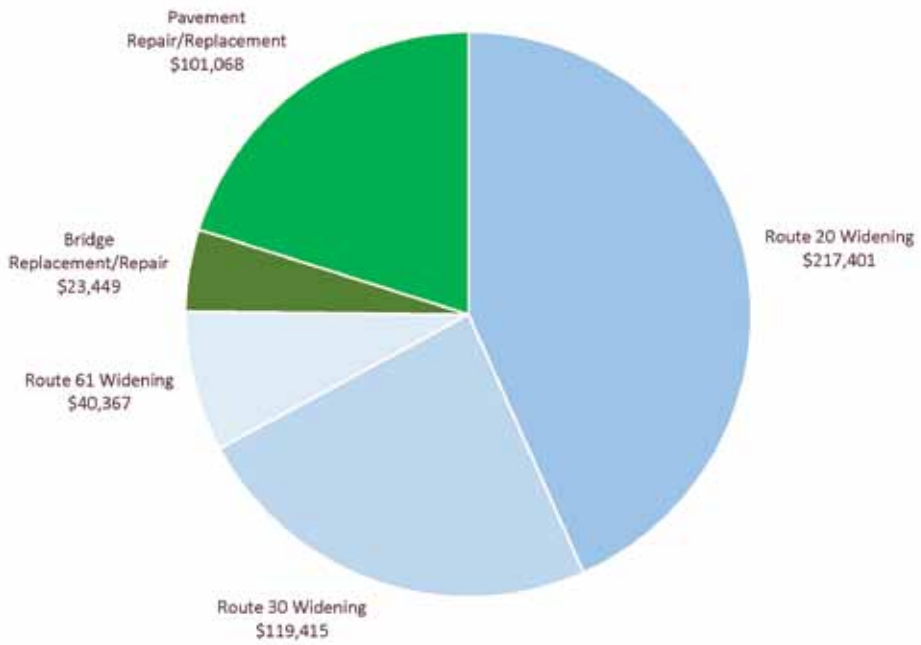
The money slated to be spent on this unnecessary highway expansion could be used to restore Iowa's existing roads, which are in bad shape and getting worse.[243] In 2015, Iowa lawmakers passed an increased gas tax expected to raise $500 million between 2016 and 2020.[244]

The statement of legislative intent attached to the hike says, "It is the intent of the general assembly that one hundred percent of the revenue produced as a result of the increase in the excise taxes . . . shall be used exclusively for critical road and bridge construction projects that significantly extend the life of such assets."[245]

Editorializing in support of the bill, the state's largest newspaper, the *Des Moines Register*, wrote that the "money is needed to meet the most critical needs on Iowa's 114,000-mile road system, where many aging roads and bridges need repairs, according to state studies."[246]

And yet, very little of the $500 million in new revenue is being spent on fixing pavement and bridges.[247] Just more than three-quarters of the money is going to projects that expand highways, the biggest of which is the U.S. 20 expansion.[248] (See Figure 9.)

Figure 9. Allocation of Dollars from Increased Gas Tax Revenue, 2016-2020 (in thousands)[249]



The U.S. 20 highway expansion project will eat up more than 40 percent of the gas tax windfall – $217 million – to the exclusion of other pressing needs.[250] The remaining $69 million being spent on the project from other state transportation funds could also be used to improve the state of Iowa's roads. Rebuilding all 62 structurally deficient bridges on the state's federally funded highways would cost $61 million.[251]

Even the head of the state's transportation department knows spending so much on highway expansion is the wrong direction for transportation spending. In July 2015, Iowa Transportation Department Director Paul Trombino said the state's existing road system was already bigger than could affordably be maintained. "We have to shrink the system," he told the Cedar Rapids *Gazette*.[252]

He called for using the gas tax money not as a catalyst for spending billions more on new construction, but rather to fund badly needed repairs to existing roads and bridges.[253]

His plea came a month too late: The State Transportation Commission, which determines the priorities of projects Trombino and his department must undertake, had already approved the U.S. 20 widening.[254]

New Mexico: Paseo del Volcan Extension

Cost: $96 million[255]

A major landholder is behind a call to build a taxpayer-funded road that will open thousands of acres of desert to sprawling development

The idea of building a road through the desert northwest of Albuquerque first surfaced in 1990 as a way to enable sprawling development.[256] Getting local, state and federal financing for a road through the vacant region was crucial to the profit dreams of Westland Development, the private company formed to manage an enormous tract of land initially granted in 1692 by the king of Spain to New World settlers.[257]

By 2001, a plan for the road had been approved by federal regulators.[258] But in 2010, with the road still unbuilt, Westland Development sold many of its assets at auction.[259]

In 2015 the land's new owners, Western Albuquerque Land Holdings, tried to revitalize plans for the $96 million, 30-mile road, whose route would start near the Santa Ana Star Center on Unser Boulevard in Rio Rancho, heading west and then south through Sandoval and Bernalillo counties to connect with I-40 beyond Petroglyph National Monument.[260]

Map: New Mexico Department of Transportation, City of Albuquerque

They didn't bother updating the original document claiming the road was needed. Finalized in 2001, it says, "The 20-year growth projected for northwest Albuquerque and the Rio Rancho portion of Sandoval County would be accompanied by additional travel demand."[261] From 2000 to 2010, the Albuquerque metropolitan area's population grew an average of 2.0 percent a year, but vehicle-miles traveled grew far less quickly: 1.3 percent annually, on average.[262]

The road would encourage sprawl. It would only "touch the fringes of" the Albuquerque metropolitan area, according to an article in *Albuquerque Business Journal*.[263] Western Albuquerque Land Holdings already has $30 million invested in water and sewer lines in the Estrella area, through which the Paseo del Volcan would run.[264] And just across I-40 from where Paseo del Volcan would end, the company is proposing a development called Santolina, a 22-square-mile sprawling residential, commercial and industrial project that would include 38,000 homes.[265] That project has drawn significant criticism from residents concerned about how much water the project would require.[266]

Rather than build the new road, some local officials would prefer to make modest – and cheaper – changes to existing roads in the area.[267]

State officials say that completion of Paseo del Volcan remains decades away and that the money for land acquisition is only a down payment for the loop road.[268] But that hasn't stopped them from beginning to acquire the land needed to build the Paseo del Volcan.[269]

About $8 million in state and federal dollars are slated to be spent by late 2015 to buy 82 acres where an interchange may one day be.[270] Another $22 million of taxpayer funds are expected to be spent on buying property.[271] Western Albuquerque Land Holdings sees so much potential profit from the road that it agreed to donate 3,250 acres of land to allow construction of the road through its holdings.[272]

Ohio: Portsmouth Bypass

Cost: $429 million[273]

The Ohio Department of Transportation claims no transportation outcomes or benefits, apart from allowing drivers to avoid several traffic lights

A major highway project that scored near the bottom of the state's priority list is under way in a county, and a state, where driving has declined and existing roads are in desperate need of repair.

In June 2015, a private contractor for the Ohio Department of Transportation began preliminary work to build a 16-mile, four-lane highway bypassing Portsmouth, a 20,000-person city across the Ohio River from Kentucky in southern Ohio.[274] It would roughly parallel State Route 335/489 from Sciotoville

as far north as Shumway Hollow Road, and then cut northwest to Lucasville.[275] The department claims no transportation outcomes or benefits, apart from allowing drivers to avoid several traffic lights, but nevertheless says the project would forestall feared future congestion at several intersections on U.S. 23 by building a road to draw traffic elsewhere.[276]

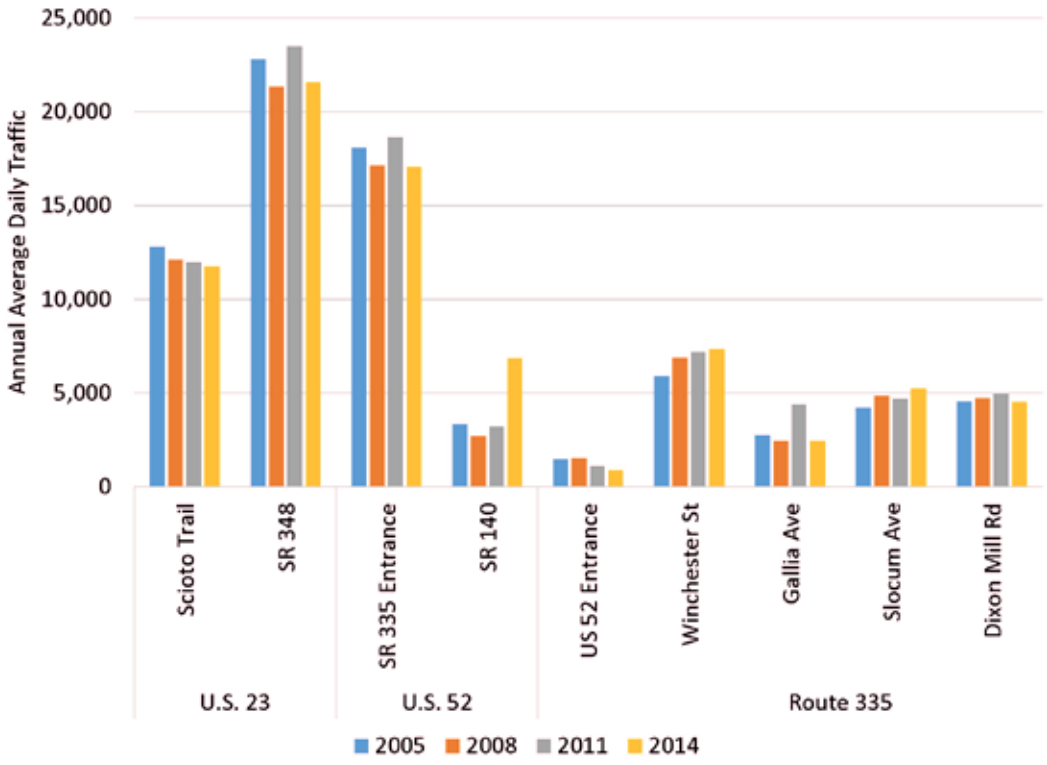
The Portsmouth Bypass, recently officially renamed the Southern Ohio Veterans Memorial Highway, would be among Ohio's most expensive road projects ever and its first ever public-private partnership for highway construction.[277] The corporate partner is the Portsmouth Gateway Group, led by a construction firm called Dragados, the company in charge of a multi-billion-dollar tunnel-boring project that stalled under Seattle in 2013.[278] (See below, "Catching Up on Boondoggle Projects from 2014.")

The construction is slated to cost $429 million, and the company expects to spend $557 million over 35 years of operating and maintaining the highway.[279] State funds spent over that period will total $1.2 billion.[280] The money will primarily come from taxpayer subsidies, in the form of direct government investment, government loans, and tax-advantaged bonds.[281] Those subsidies would encumber future budgets, eating up money that could be used in the future for education, health care and other necessities.

Building a new road is out of step with recent trends in Scioto County: Vehicle-miles traveled in the county fell an average of 0.2 percent a year from 2004 to 2014, according to state DOT data.[282] Traffic on the roads that would be bypassed by the new highway has been stagnant for nearly a decade.[283] (See Figure 10.)

The state has serious needs competing for its scarce transportation dollars. The Portsmouth Bypass is not one of them: It scored lower than all but three other projects statewide when reviewed in both 2011 and 2012.[285]

Figure 10. Annual Average Daily Traffic, Major Roads Around Portsmouth, Ohio, 2005-2014[284]



The state's existing roads are also crying out for repair. In 2013, 15 percent of major Ohio roads were in poor condition, causing Ohio motorists to incur $3.3 billion – $413 each – per year in extra costs related to driving on roads in need of repair.[286]

In March 2015, local governments across the state begged the state transportation department to invest in fixing the state's existing roads.[287] Yet on March 31, 2015, the Federal Highway Administration announced it would loan the state $209 million for the project through the Transportation Infrastructure Finance and Innovation Act (TIFIA) program. And less than two weeks later, the state of Ohio signed a contract to begin building the road.[288]

Pennsylvania: Mon-Fayette Expressway: Route 51 to I-376

Cost: $1.7 billion[289]

Alternative ways to spend the billions of taxpayer dollars would expand transportation options for area residents and bring more economic opportunity than the highway

Plans to build a new toll road, criticized for its potential to damage communities and harm economic development opportunities, were resuscitated in 2015. It is being justified using traffic predictions for 2020 that were made more than a decade ago.[290]

Photo: Jon Dawson, Flickr user jmd41280

The interchange of Pennsylvania Turnpike 43, U.S. 119, and Pennsylvania Route 51 at the southern end of the Mon-Fayette Expressway.

The Pennsylvania Turnpike Commission and the state Department of Transportation have been trying to build a highway from rural western Pennsylvania into downtown Pittsburgh through the Monongahela Valley since the 1960s.[291] First, it was billed as a way to support the region's industrial boom; later, after the collapse of the steel industry, supporters of the road project argued it would bring economic revitalization to the area by connecting it to downtown Pittsburgh.[292]

By 2002, the four-lane Mon-Fayette Expressway had reached from northern West Virginia to Jefferson Hills.[293] The remaining segments, connecting Route 51 to I-376 in suburban Monroeville and, via a spur, downtown Pittsburgh, were under official consideration.[294] A project analysis by community members and experts determined that building the rest of the proposed route would harm the local communities and reduce – rather than increase – the likelihood of economic recovery in an area that was the epicenter of the steel

Highway Expansion Money Could Be Used for Other Transportation Priorities

In many cases, money intended for boondoggle highway projects can be shifted to other transportation needs.

Federal transportation funds often come with significant flexibility for states willing to use it. States can determine what share of federal formula funding goes toward maintenance of existing roads versus creation of new highway capacity.[305] States also have the power to transfer money from highway construction and expansion to address other transportation needs, including investing in transit, and expanding bicycle and pedestrian routes.[306] The FAST Act transportation funding bill passed in December 2015 expands states' flexibility in determining how to spend federal transportation funding.[307]

Between 2007 and 2011, the Federal Highway Administration allocated about $53 billion to the states in funds that allowed flexible reallocation away from highway construction projects.[308] This amount represented "about 29 percent of total federal-aid highway funding" distributed to the states, according to a Government Accounting Office report.[309] Transferring funds is simple – for funds allocated under the Surface Transportation Program, the state department of transportation must simply send a letter to the Federal Highway Administration asking that the funds be transferred.[310] The additional flexibility under the FAST Act may be even less onerous, because the money is given to states in block grants.[311]

From 2007 to 2011 states chose to transfer about $5 billion – less than 10 percent of the available funding – from highway funding to transit projects.[312] Four states – California, New Jersey, New York and Virginia – accounted for more than half of that transferred total.[313] And seven states – Arkansas, Delaware, Hawaii, Mississippi, North Dakota, South Dakota and Wyoming – did not transfer any money away from highway funding.[314]

At the state level, many states have flexibility in allocating gas tax revenue among highway maintenance and expansion projects, though 22 states have constitutional limits preventing use of gas tax income on non-highway projects.[315]

boom and its subsequent collapse.[295] The groups called instead for investment in transit, bicycle and pedestrian routes, and improving existing roads.[296]

The Mon-Fayette project stalled in 2009 for lack of funding.[297] In 2015, the state DOT and the Turnpike Commission restarted the project, with a modification that both reduced its cost and reduced the road's already limited economic benefits.

The proposed project would now run 14 miles from Route 51 in Jefferson Hills to I-376 in Monroeville.[298] A connection from that extended highway that would have run along the Monongahela River into downtown Pittsburgh was canceled because it would have required displacing homes and businesses, damaged the environment, and eaten up precious transportation funding, the Turnpike Commission's chairman told Pennsylvania legislators in June 2015.[299]

Eliminating the direct link to Pittsburgh, however, undercuts much of the economic development rationale for the project, leaving Monongahela Valley residents with transportation access to Pittsburgh little better than that which existed before the project.

In 2002, community groups and local experts were already researching and publishing information about alternative ways to spend the billions of taxpayer dollars that would expand transportation options for area residents and, their analyses argued, would bring more economic opportunity than the highway.[300]

In July 2015, Wilkins Township commissioners voted unanimously to send a letter to the Pennsylvania Turnpike Authority recommending the $1.7 billion slated for the new highway be spent on public transit instead.[301] The commissioners also expressed concern that the highway would increase noise and air pollution in their community.[302]

The state has other transportation needs as well. Statewide, 5,050 bridges are structurally deficient, giving Pennsylvania the second-highest percentage of bridges in poor condition in the U.S.[303] Replacing them all would cost $4.5 billion; repairing them would cost $3.1 billion.[304] The money slated to be spent on the Mon-Fayette extension could make significant progress toward remedying those dangers.

Autonomous Vehicles May Reduce the Need for Road Expansion

The pending advent of autonomous vehicles has the potential to reduce traffic congestion and increase the amount of traffic that can be moved on a given stretch of highway, according to four separate reports from the Victoria Transport Policy Institute, Fehr and Peers, the Center for Urban Transportation Research, and the RAND Corporation.[316] With proper policy planning and design engineering, fully autonomous vehicles could travel in narrower lanes with shorter following distances, at higher speeds, with increased passenger safety.[317]

Depending on the success of the efforts toward those beneficial outcomes, and the speed at which autonomous vehicles are introduced to the market – which some believe could be sold in large numbers as soon as the end of this decade – large highway expansion plans may result in the creation of additional capacity that soon becomes obsolete.

While there is much uncertainty, the emergence of autonomous vehicles provides yet another reason why decision-makers should be cautious about expensive highway expansion projects that are already of dubious benefit to the public.

Catching up on Boondoggle Projects from 2014

Those 12 projects are just examples of the misplaced spending priorities of transportation planning officials across the country. In 2014, our initial *Highway Boondoggles* report highlighted 11 other proposed highway projects, slated to cost at least $13 billion, which also served as examples of the need for a new approach to transportation spending. Some of those projects have since been canceled or put on hold; others are proceeding. To follow is an update on each of the projects.

Arizona and Nevada: Interstate 11

Under Construction

Construction on the $2.5 billion expansion of U.S. 93 through the desert between Phoenix and Las Vegas began in April 2015. The project has significant political support in Nevada and Arizona local and state governments. The first phase being built is a 15-mile, $318 million segment in Nevada, and is expected to be completed in 2018.[318]

The second phase will be in Arizona, where the state Department of Transportation is assembling a $15 million Tier 1 environmental impact statement for its share of the project, which is estimated to be ready in 2018.[319]

In March 2015, Senators John McCain and Jeff Flake of Arizona introduced the Intermountain West Corridor Development Act to Congress, which intends to substantially increase the amount of Arizona land designated for the interstate. The proposed act is currently under review by the Committee on Environment and Public Works. If Interstate 11 is completed as planned, 1,673 acres of publicly owned land will not be enough to build the road; private landowners in Arizona and Nevada would have 1,065 acres of land taken.[320]

California: Tesoro Extension

On Hold

The Tesoro Extension project is a proposed $200 million extension of an existing toll road that would be built and operated by the California Transportation Corridor Agencies (TCA). The project is currently on hold due to the inability of the TCA to secure a permit for water pollution that would result from the project's construction and operation. That permit was denied in March 2015 by unanimous vote of the San Diego Regional Water Quality Control Board. Key to the decision was the fact that approval of the 5.5-mile Tesoro would pave the way for a larger, related project extending the road another 11 miles, which would disrupt several local watersheds. The board decided that, by submitting a report on waste discharge for only the first phase of a larger project, the TCA failed to respond to known future water quality impacts that would result from later phases.[321]

While construction of the Tesoro Extension has not been started and cannot be completed without a water permit, TCA remains confident in the eventual success of the project and has urged highway supporters to lobby the Water Quality Control Board, arguing that the Tesoro Extension Project is "good

for drivers, water, and the environment." TCA continues to justify the extension by referring to future population growth projections in Orange County and stoking fears of future traffic congestion, despite data suggesting that traffic may not grow as quickly as previously anticipated and despite the failure of other toll roads in the area to attract enough traffic to meet initial revenue expectations.[322]

Colorado: C-470 Express Lanes

Study and Review

The Colorado 470 Tolled Express Lanes is a $230 million proposal to add new tolled express lanes along an existing 12-mile stretch of roadway southwest of Denver. The project is currently in the public review stages as the Colorado Department of Transportation (CDOT) awaits approval of its Environmental Impact Statement by the Federal Highway Administration.[323] In February 2015, concerns were raised during public meetings with CDOT that the express lanes would cause significant noise pollution for nearby residents. According to state and federal standards regarding noise pollution, homeowners projected to experience noise pollution above 66 decibels as a result of the project have the opportunity to vote on whether a barrier should be constructed to mitigate noise concerns. Before a vote can be conducted regarding construction of potential noise barriers, which would be built as a final step in the construction process, CDOT must first complete several pre-construction requirements. CDOT estimates that it will complete these initial requirements by early 2016, and begin construction of the express lanes by summer 2016.

Georgia: Effingham Parkway

Study and Review

The Effingham Parkway is proposed to run parallel to the existing Georgia Route 1. In March 2015, Effingham County officials and the Georgia Department of Transportation held a public conference to discuss plans for the 6.36-mile parkway, which will connect U.S. 30 to Bluejay Road.[324] Reportedly, hundreds of locals attended the conference, which was only the first of many to be held concerning the proposed road. According to a concept plan, 33 homes are within the geographical range of the project and so are at risk of displacement. County Administrator Toss Allen stated, however, that there is room to make adjustments as necessary in order to avoid displacing as many individuals as possible.[325] Allen also said negotiations to purchase right-of-way from property owners living within the project zone would begin in April 2017, final plans would be finished in April 2018, and a construction contract would be awarded in October 2018.[326]

Illinois and Indiana: Illiana Expressway

Suspended

The Illiana Expressway was a proposed $1.3 billion to $2.8 billion highway intended to stretch from I-55 in Illinois to I-65 in Indiana, covering a largely rural region. In January 2015, Illinois Governor Bruce Rauner issued an executive order calling for a careful review of the state's budget deficit, which suspended planning or development of any major interstate construction projects pending further analysis of costs and benefits. Lance Trover, a spokesperson for the governor, reported on January 15, 2015, that, despite the Federal Highway Administration's December approval of plans for the expressway, the project fell under the demands of the executive order and would thus be subjected to critical consideration.[327]

In late May 2015, a coalition of environmental advocacy groups filed suit against the two states and the Federal Highway Administration, saying the road's approval was based on bad population and financial projections, and did not properly consider the highway's environmental effects.[328] A federal judge agreed, invalidating the Federal Highway Administration's approval of the project.[329]

On June 2, 2015, Rauner officially took the controversial road off the Illinois Department of Transportation's (IDOT) list of proposed transportation projects, saying, "It is the determination of the IDOT that the project costs exceed currently available resources."[330]

Michigan: Widening I-94 through Detroit

Study and Review

The I-94 expansion project in Detroit is a proposed $2.7 billion widening of Interstate 94 through the heart of Detroit. Currently, the Michigan Department of Transportation (MDOT) is reevaluating its original plan, which would displace many homeowners, and result in the destruction of an historic 82-year old recording studio. Recently, that studio was awarded historical designation status, which may impede MDOT's plans.[331] While developers of the original plan promised that it would encourage economic growth in an underprivileged area of Detroit, opponents have argued that the expansion of already existing roadways is a wasteful and unaffordable expenditure when so many of Detroit's roads and bridges are in desperate need of repair.[332] Doubt regarding whether Michigan can afford highway expansion projects was reinforced during the 2015 legislative debate about transportation funding, which resulted in a gas tax hike and an annual allocation of $600 million from general state funds, with most of the money going toward repair and maintenance of the state's roads.[333]

North Carolina: I-26 Connector

Study and Review

The I-26 connector is a proposed expansion of North Carolina's I-240, which connects I-26 southwest of Asheville to several other highway routes northwest of the city. Since it was added to a long list of potential highway improvement projects, the I-26 project has shifted regularly off and on the North Carolina Department of Transportation's (NCDOT) set of top priorities.[334]

As of November 2015, public commentary was strongly against a 12-lane expansion of the highway being pushed by NCDOT, slated to cost between $600 million and $800 million.[335] NCDOT expects a final environmental impact study to be published in late 2016 or early 2017, with construction to begin in 2021.[336]

But the project does not have funding allocated at any point in the next 10 years.[337] And Zahid Baloch, NCDOT's chief engineer, told an Asheville news outlet there are many other obstacles, including the challenging task of convincing the federal government to allocate funds for the project when the project is being designed in collaboration with a private consulting firm. Baloch said he expects that NCDOT would not even begin to consider acquiring properties for the project until 2019 or 2020.[338]

Ohio: Cleveland Opportunity Corridor

Under Construction

The Cleveland Opportunity Corridor is a $331 million, five-lane, three-mile road project, which will connect I-490's south end to the northeastern University Circle neighborhood.[339] In March 2015, the Ohio Department of Transportation (ODOT) began the first stage of construction on the Opportunity Corridor. The Cleveland Opportunity Corridor Partnership, a non-profit organization of citizens and officials, continues to work closely with ODOT throughout the course of project development in hopes of encouraging dense development in the corridor.[340] Concerns remain, however, that the project will simply turn into a high-speed passageway from the suburbs to University Circle, with little benefit for residents of Cleveland's "forgotten triangle." ODOT estimates that the project will be completed by 2019.[341]

Texas: Dallas Trinity Parkway

Under Significant Revision

The $1.5 billion Dallas Trinity Parkway was a proposal for a six-lane, nine-mile tolled highway that would run along the Trinity River between I-35 and U.S. 75. In April 2015, federal officials approved the project, despite the fact that it was under significant fire from the community, including planning professor Alex Krieger, one of the people who originally proposed a roadway along that route.[342]

In August 2015, the city council voted unanimously to limit city expenditures to a reduced version of the project, a four-lane highway without tolls.[343] The decision does not kill the six-lane version, and still leaves room for its construction at some point in the future, but it does represent a significant step away from the original plan.[344]

In October 2015, state and local officials began a series of public meetings discussing future transportation options in downtown Dallas.[345] Those meetings will not discuss the future of the Trinity Parkway, but will explore options if the highway is built, and if it isn't.[346] It was not yet clear whether the smaller version of the project could be constructed under the auspices of the federal approval for the larger six-lane highway.[347]

Washington: Alaskan Way Viaduct

Under Construction

The Alaskan Way Viaduct is a bored tunnel that, if completed, would stretch two miles and serve as the replacement route for the damaged double-decked elevated section of State Route 99.[348] The replacement of the Viaduct remains behind schedule, with great uncertainty about its timeline for completion and ultimate cost.[349] The project's tunneling machine, the largest of its kind in the world, struck an underground pipe only about one-ninth of the way into its dig and was subsequently stuck underground for nearly two years. Although Bertha, as the machine is called, has finally been extracted for repairs and in December 2015 resumed tunneling, the damage to the machine has proven more extensive than was initially expected.[350] The unexpected tunneling mishap may exceed its projected overrun cost of $125 million.[351]

Meanwhile, land in downtown Seattle near the tunnel's repair pit has sunk, leading to questions about whether the previous viaduct – which has remained in operation during construction of the new road – will be able to remain open until the project's completion.[352] Over the past eight years, the viaduct gradually sank five inches, and in November 2014, it sunk a sixth inch, which was the original threshold for safe settlement of the viaduct. Officials at the Washington State Department of Transportation (WSDOT) claim that the current level of settlement does not threaten the safety of the viaduct.[353]

The public is likely on the hook for significant cost overruns as a result of Bertha's hiatus. In May 2015 a review panel issued a non-binding ruling that the state is at fault for not telling the tunnel-boring contractors about the existence of the pipe along the tunnel route.[354] WSDOT estimates that the delays to date will cost an estimated $78 million.[355] Eight companies providing the state with cost-overrun insurance on the project have filed suit to avoid paying $143 million in costs to repair Bertha, in part saying the machine was not built to handle the soil conditions beneath Seattle.[356]

Making matters even worse, an oversight panel tasked with protecting the public interest in efficient spending on the project was disbanded in June 2015, leaving the complex project without a key element of scrutiny.[357]

Wisconsin: I-94 Expansion in Milwaukee

Study and Review

The Wisconsin Department of Transportation proposes to build two new traffic lanes along a 3.5-mile corridor west of downtown Milwaukee. That is a slightly scaled-down version of the original plan to construct a double-deck highway on part of the route.[358] Community advocacy has stalled the project. Notably, a study on the traffic projections that were used to justify 11 state highway projects completed by 1000 Friends of Wisconsin, a non-profit land use group, found that Wisconsin Department of Transportation (WisDOT) traffic projections exceeded actual traffic growth by 75 percent.[359] Potential investments that could more effectively spend less money were highlighted in a December 2014 proposal by the Coalition for More Responsible Transportation, including WISPIRG Foundation and other community organizations.[360] According to the Draft Environmental Impact Statement (DEIS) submitted to the Federal Highway Administration by WisDOT in late 2014, the project is estimated to cost between $825 million and $1.15 billion. The DEIS reports that construction is scheduled to begin in 2019.[361] However, there is no state funding in the pipeline.[362] In addition, WisDOT has a history of having proposed major highway expansions that are successfully challenged by civil-rights lawsuits arguing the agency doesn't provide enough transit options for non-driving populations.[363]

Policy Recommendations

America has a tremendous need for investment in transportation. Across the nation, aging roads and bridges – many of them nearing the end of their useful lives – need to be repaired or rebuilt. Our transit and passenger rail systems require repairs and technology upgrades to meet 21st century needs. And an increasing number of Americans are seeking more and better transportation options, including improved public transportation, better infrastructure for bicycling and walking, and access to new transportation services such as carsharing and bikesharing.

Expanding highway capacity should be low on the nation's list of transportation priorities. Yet, current state and federal transportation policies result in tens of billions of dollars being spent each year on new highway capacity – even as the federal Highway Trust Fund receives repeated bailouts.

The projects highlighted in this report illustrate the need for a fundamental rethink of America's transportation policy priorities – one that focuses resources on maintaining existing infrastructure and expanding the transportation choices available to Americans. The projects profiled in this report should be cancelled or updated to be more in tune with emerging transportation trends and community needs.

Specifically, policymakers should:

1. **Invest in transportation solutions that reduce the need for costly and disruptive highway expansion projects.** Investments in public transportation, changes in land-use policy, road pricing measures, and technological measures that help drivers avoid peak-time traffic, for instance, can often address congestion more cheaply and effectively than highway expansion.

2. **Adopt fix-it-first policies** that reorient transportation funding away from highway expansion and toward repair of existing roads and investment in other transportation options. As first suggested by Smart Growth America and Taxpayers for Common Sense, this includes more closely tying states' allocations of federal transportation funding to infrastructure conditions, encouraging states to ensure existing roads and bridges are properly maintained before using funds for new construction or expansion projects. To most effectively meet this goal, government agencies should provide greater public transparency about spending plans than is currently standard, including future maintenance expenses.

3. **Give priority funding to transportation projects that reduce growth in vehicle-miles traveled**, to account for the public health, environmental and global warming benefits resulting from reduced driving.

4. **Analyze the need for projects using the most recent data and up-to-date transportation system models**. Planning should include full cost-benefit analyses, including the costs to maintain newly constructed highways. Models should reflect a range of potential future trends for housing and transportation, incorporate the availability of new transportation options (such as carsharing, bikesharing and ridesharing), and include consideration of transit options. Just because a project has been in the planning pipeline for several years does not mean it deserves to receive scarce taxpayer dollars.

5. **Apply the same scrutiny to public-private partnerships** as to those funded solely by taxpayers.

6. **Invest in research and data collection** to better track and react to ongoing shifts in how people travel.

Appendix: Protecting the Public from the Potential Pitfalls of Privatization[364]

With federal and state transportation budgets stretched thin, public officials eager to pursue highway expansion projects increasingly consider so-called "public-private partnerships," or PPPs.

The idea behind PPPs is to share the cost, risks and rewards of transportation projects between government and private entities. PPPs can take many forms – from structures in which the vast majority of the risk and reward accrue to the public to those in which the private sector takes near-complete responsibility for financing, building and operating a road.

Several of the projects highlighted in this report are toll roads to be built through PPPs. At their best, PPPs promise to leverage the experience and unique capabilities of private sector firms to build transportation projects more quickly and cheaply than the public sector could do through traditional forms of private contracting. However, PPPs also bring with them a number of potential dangers for the public interest:

- **Risk may turn back on the public:** PPPs are often sold to the public and decision-makers as ways to reduce the financial risk to the public of transportation projects, but private investors seek to minimize potential risk on their long-term investment. Since events over several decades may unfold in unanticipated ways, the public sector can end up taking on a greater share of risk than originally understood. Whereas high-profile highway PPPs in the middle of last decade generally took the form of granting long-term leases for toll concessions, in recent years private toll road financiers have been far less willing to assume the risk that projected driving increases won't materialize. Recent deals are far more likely to be based on an "availability payment" model, where the government assumes the chief risk of lower-than-projected traffic volume and promises to pay the toll road builder and operator for ongoing availability of the lanes.
- **Loss of control over transportation policy**: Especially when private sector entities structure deals to recoup their investment in highway projects through tolls or other user fees, PPP contracts often include provisions that are intended to assure private entities of revenue. Those provisions include "non-compete" or "compensation" clauses that limit government's ability to make improvements on adjacent roads without also compensating the private entity. These provisions limit the public's control over transportation policy by adding potentially prohibitive costs to normal policy decisions. At worst, public officials may feel compelled to make transportation decisions based on what is best for the toll road operator as opposed to what is best for the public as a whole.
- **Poor decisions based on less visible costs:** Politicians can view private investment through

PPPs as "free money" that enables the construction of projects that would otherwise be more politically difficult to finance through the traditional method of issuing public bonds or raising public tolls. The money that will be paid to PPPs is a kind of off-budget debt that will be paid later in some form by the public.[365] That disconnection can grease the wheels for projects that might otherwise not get built, but it can also create a bias in favor of projects favored by PPP financiers, even when they do not merit being the highest priority.

Projects that shift responsibilities toward the private sector still have broad and long-term ramifications for the transportation system as a whole, and are typically locked in with multigenerational contracts. It is imperative that governments subject PPP projects to evaluation and transparency standards at least as rigorous as those that apply to more traditional publicly financed projects.

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