

Fix it First: Fighting Climate Change with Smarter Highway Spending

**Alexander Laska**

Transportation Policy Advisor, Climate and Energy Program

[@ThirdWayEnergy](https://twitter.com/ThirdWayEnergy)

Key Takeaways

Over the past few decades, the U.S. has spent tens of billions of dollars on highway widening projects in the hopes of reducing congestion. In reality, these projects often result in worse congestion and higher emissions.¹ A “Fix it First” policy would focus federal funding towards maintaining what we already have, rather than building new highway lanes that exacerbate our problems. Whether through a stimulus bill or the surface reauthorization, any major highway investment must address this issue to help the United States meet its climate goals.

Congress should include Fix it First in any stimulus or surface reauthorization

The Senate Environment and Public Works Committee passed a highway bill in 2019 that offered modest improvements over current law by creating new grant programs to reduce congestion and emissions. But the bill ignored the elephant in the room by boosting funding for the largest highway formula programs without refocusing them on repair and maintenance. Unless Congress addresses this issue head-on, it will be increasingly difficult to achieve our climate goals.

The House-passed *Moving Forward Act* (H.R. 2) better demonstrated how to tackle this problem,² with several provisions that reorient highway spending towards Fix it First. These include:

- Prioritizing repair and maintenance in the two largest federal highway funding programs;
- Requiring states that want to use federal highway dollars to build new capacity to present a financial plan to maintain that new infrastructure for its entire life; and
- Requiring states to take into account *all* of the costs of any new highway capacity, including costs related to emissions and impacts on connectivity.

Highway expansion makes traffic worse

When you add more lanes to a highway, congestion does improve at first, and drivers are able to get where they're going faster. But the benefits are short-lived. People who were making fewer highway trips to avoid traffic are now ready to get behind the wheel more often. They're even willing to make long-term decisions that *require* them to drive more. For instance, faster travel times encourage people to choose homes that are farther away from their work, shopping, and social lives. As more drivers decide to make more highway trips, congestion spikes back up to previous levels or higher—only now people must drive even farther on clogged roads. Any congestion relief you might get from widening a highway disappears entirely within five years.³

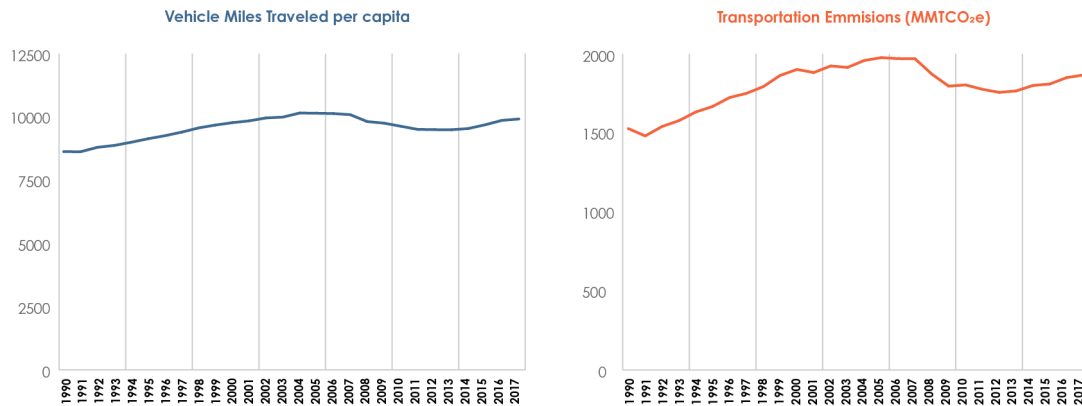
Adding lanes is adding to the climate problem

As congestion gets worse, so do emissions. Because people are driving farther and stuck in traffic for longer, their cars are polluting more. All this extra driving is why transportation emissions have continued to rise, even as our cars have gotten more fuel efficient.⁴ There's no question that replacing gas-powered vehicles with zero-emission vehicles (ZEVs) will play a big role in decarbonizing surface transportation, but transitioning to 100% ZEVs will likely take too long to meet our climate goals on its own.⁵ That's why America must also take major

take too long to meet our climate goals on its own. That's why America must also take major steps to reduce vehicle miles traveled (VMT).



People are Driving More—and it's Making Emissions Worse



Source: Davis, Jeff. "U.S. VMT Per Capita By State, 1981–2017." The Eno Center for Transportation, 2017, www.enotrans.org/eno-resources/u-s-vmt-per-capita-by-state-1981-2017/.

Fix it First

There's a better path forward—one that allows us to manage our highway system in a way that's more environmentally and economically sustainable. America has over \$550 billion in road and bridge repair needs. That number will keep growing every time we build another highway that worsens congestion and that we can't afford to maintain for its entire life. Instead, we should focus on "fixing it first," by prioritizing critical maintenance and repair projects on our highway system. This isn't radical: it's actually a more responsible and pragmatic way to fund our highway infrastructure than what we're doing now. In addition to avoiding the congestion and emissions that come with highway widening, Fix it First has many other benefits:

It creates more jobs: Maintenance and repair projects create more opportunities for workers than new construction projects, creating as much as 16% more jobs per dollar invested.⁶ Maintenance and repair projects are more labor intensive: without the need to acquire land or right-of-way, a larger share of project funding goes to workers. Maintenance and repair also create jobs faster, since new construction projects have to go through lengthy environmental and design reviews. Despite these facts, states chose to spend an average of one-third of their Recovery Act funds constructing new roads.⁷ A Fix it First policy would ensure states pursue the projects that will get the most Americans back to work and get money into the economy the quickest.

It's fiscally responsible: Prioritizing maintenance and repair makes good fiscal sense.⁸ It's cheaper to keep a bridge in good condition, for example, than it is to replace one that's

crumbling. For every dollar we spend to keep our roads in good condition now, we can avoid spending \$7 in needed repairs later.⁹

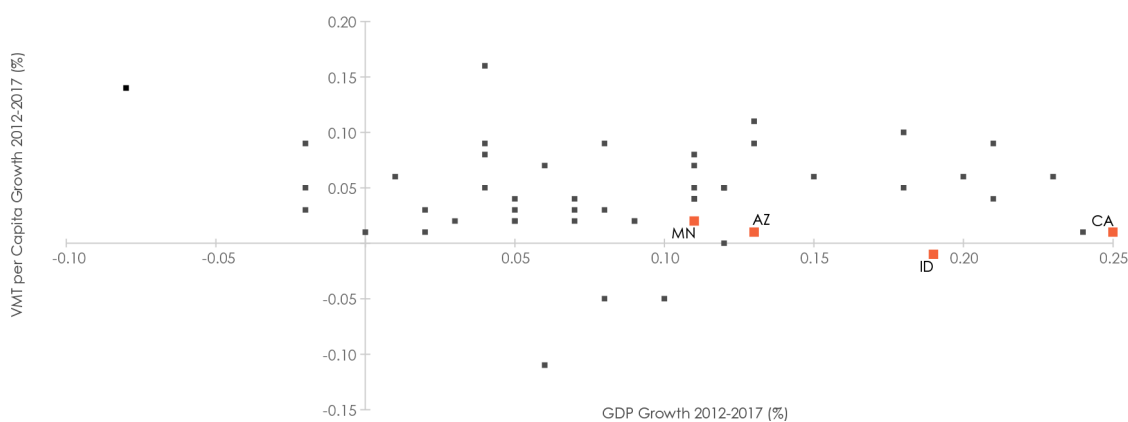
It still allows for new construction: Fix it First doesn't mean no new construction of highways or bridges—it just means that we focus the bulk of federal funding on repair and maintenance, while ensuring any new construction projects will truly improve connectivity, won't lead to more congestion and emissions, and that we can afford to keep them in good condition.

Economic growth is not tied to more driving

Despite conventional wisdom, the idea that more driving is an inevitable part of economic success just isn't true. Data from the past five years shows there's no correlation between a state's economic growth and its growth in VMT. In fact, some states with the highest GDP growth, like Arizona, California, Idaho, and Minnesota, also had among the lowest VMT growth.¹⁰ More driving is not inevitable—it's something we've chosen to encourage through our highway policy, and something we can choose to stop without harming our economy.



Vehicle Miles Traveled & Gross Domestic Product Have a Weak Relationship



Source: State VMT data from FHWA; State GDP data from Bureau of Economic Analysis.

TOPICS

TRANSPORTATION 15

ENDNOTES

1. Handy, Susan and Marlon G. Boarnet, "Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions." University of California-Davis and

University of Southern California, Sep 30 2014. ww2.arb.ca.gov/sites/default/files/2020-06/Impact_of_Highway_Capacity_and_Induced_Travel_on_Passenger_Vehicle_Use_and_Greenhouse_Gas_Emissions_Policy_Brief.pdf

- 2.** Laska, Alexander and Rayla Bellis, “House Transportation Bill Goes Big on Climate.” Third Way and Transportation for America, June 12, 2020, thirdway.org/blog/house-transportation-bill-goes-big-on-climate
- 3.** Hymel, Kent, “If You Build It, they Will Drive: Measuring Induced Demand for Vehicle Travel in Urban Areas.” *Transport Policy*, Volume 76, April 2019, Pages 57–66, [sciencedirect.com/science/article/abs/pii/S0967070X18301720](https://www.sciencedirect.com/science/article/abs/pii/S0967070X18301720)
- 4.** Prieto, Andres and Emily Mangan, “Transportation Emissions Keep Rising.” Third Way and Transportation for America, June 18, 2020, www.thirdway.org/blog/transportation-emissions-keep-rising
- 5.** Milovanoff, Alexandre et al, “Electrification of light-duty vehicle fleet alone will not meet mitigation targets.” *Nature Climate Change*, September 2020, doi.org/10.1038/s41558-020-00921-7
- 6.** Smart Growth America’s analysis of Recover Act reports found that money spent on highway and bridge repair projects created 16% more jobs per dollar than money spent on new road and bridge construction. See: “Recent Lessons from the Stimulus: Transportation Funding and Job Creation.” Smart Growth America, February 2011, Page 2, smartgrowthamerica.org/wp-content/uploads/2016/08/lessons-from-the-stimulus.pdf
- 7.** “Learning From the 2009 Recovery Act: Lessons and Recommendations for Future Infrastructure Stimulus,” Smart Growth America, April 2020, Pages 4–5, smartgrowthamerica.org/app/uploads/2020/04/SGA-T4A-Lessons-from-the-2009-Stimulus.pdf
- 8.** Groups like Taxpayers for Common Sense support requiring states to spend more of their federal highway funding on repair and maintenance, and to prove they can afford to maintain any new roadway capacity, because it’s a smarter use of taxpayer dollars. See “Repair Priorities.” Taxpayers for Common Sense and Transportation for America, May 2019, Page 24, www.taxpayer.net/wp-content/uploads/2019/05/TCS-T4A-Repair-Priorities-2019-Report.pdf
- 9.** “Rough Roads Ahead: Fix them Now or Pay For it Later,” American Association of State Highway and Transportation Officials (AASHTO) and Transportation Research Interdisciplinary Perspectives (TRIP), 2009, Page 29, www.autoevolution.com/pdf/news_attachments/one-third-of-the-us-roads-are-in-ruin-6698.pdf
- 10.** State VMT data retrieved from the Federal Highway Administration Traffic Volume Trends: www.fhwa.dot.gov/policyinformation/travel_monitoring/tvt.cfm. State GDP data retrieved from Bureau of Economic Analysis: apps.bea.gov/itable/iTable.cfm?

ReqID=70&step=1#reqid=70&step=1&isuri=1