

**Written Testimony of
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Chairman Hatch, Ranking Member Wyden, and members of the Committee on Finance, thank you for the opportunity to testify before you about the critical issues facing our nation's transportation system.

No country can have first-rate infrastructure without first-rate engineers. I am proud to represent Purdue University, a land-grant school with a long history of infrastructure research and the second largest engineering program in the country. We are home to the Center for Aging Infrastructure, the Center for Road Safety, and the annual Road School, a conference that for the last 100 years has attracted thousands of infrastructure professionals who gather to share best practices.

We graduate quality engineers who are prepared to maintain the structures of our past and to invent the infrastructure we will need in the future. Through research and our growing engineering programs, Purdue supports infrastructure that is cheaper, safer, more resilient and more environmentally friendly.

My interactions with the next generation of American engineers make me confident in the nation's technical ability to build infrastructure that is state of the art. I am less optimistic about how we go about approving and financing the projects these engineers will oversee.

Nine years ago, as a first-term governor, I was on the Hill, testifying hopefully with then Gov. Tim Kaine about these same issues, which were highly topical already. Federal progress since then has been disappointing, and we now have an even bigger problem today than we did back then. The size of our infrastructure gap presents a growing challenge. We cannot continue to be timid and traditional in our actions. We need new thinking and strong partnerships that harness the potential of private dollars. Public-private partnerships (P3s) are not a complete answer for all our challenges, but Congress will not find a complete answer without them.

I wish I could come here highlighting progress, but instead the facts require that I give a very similar message today as I gave nine years ago: We may be a very innovative country in other areas, but the way we approve and finance infrastructure projects is antique compared to the rest of the world. We will never bring our economic endoskeleton up to date with the regulatory morass we have created; we will never assemble the resources to rebuild without involving private capital as a significant part of the solution.

Regulatory Efficiency

While the financing of infrastructure is of vital national interest and the jurisdiction of this committee, upgrading our nation's roads, ports and bridges will depend at least equally on a national agreement to reexamine the system that makes "shovel ready projects" a myth. No conversation about infrastructure would be complete without acknowledging that the permitting process is costly and broken.

At the center of the need for reform is the National Environmental Policy Act of 1969, which requires all federal agencies to generate detailed assessments of the environmental impact of "major federal actions." The implementation of NEPA has evolved over time, becoming more burdensome with every decade. According to one observer, in the 1970s a final EIS was typically 22 pages long. Today, an EIS commonly exceeds a thousand pages, despite regulations directing that statements should normally be less than 150 or 300 pages, depending on the complexity of the assessment.¹

Similarly, forty years ago it took the Federal Highway Administration two years on average to complete an EIS.² Today, it typically takes 7 years.³ Wasting time and money has become the standard operating procedure.

This contrasts with much of the developed, environmentally conscious world. In Canada, regulations stipulate that after a 20-day public comment period, that nation's environmental assessment agency has 25 days to determine whether an environmental assessment is needed. If one is necessary, the agency has 1-2 years to complete the assessment.⁴ Likewise, European Union regulations allow for a maximum of three and a half years for cross-national energy infrastructure projects.⁵

Our inability to meet such standards in this country stymies growth and is costly to the environment. How many gallons of gasoline are wasted as Americans sit idly on congested roads? How many pollutants are emitted while projects that improve energy efficiency are mired in red tape? In my state, we reduced collective emissions by thousands of tons per year by clearing out a backlog of some 450 expired air and water permits. In some cases, these had been pending for more than 20 years, even though new permits invariably require lower limits and tighter restrictions than the expired version. Moving fast in government is one of the most pro-environment things you can do. As much as anyone, the most devout of

¹ Todorovich, P., & Schned, D. (2012). Getting Infrastructure Going. RPA. Also, 40 CFR 1502.7 - Page

² FHWA, & Louis Berger Group, Inc. (2001). Evaluating the Performance of Environmental Streamlining: Phase II.

³ FHWA. (2011). Estimated Time Required to Complete the NEPA Process. <http://www.environment.fhwa.dot.gov/strmlng/nepatime.asp>

⁴ Canadian Environmental Assessment Act, 2012 (S.C. 2012, c. 19, s. 52).

⁵ Regulation (EU) No 347/2013 Of the European Parliament and of the Council of 17. (2013).

environmentalists need efficient permitting and economic growth if they are to realize their goals and the purpose of NEPA.

The overarching problem is a culture where the burden of proof is always on the pro-growth side, which has to prove that creating a new job won't hurt the environment, in even some infinitesimal way, interfere with some previously unheard of species, or disrupt some ground of alleged, often highly debatable historical value. Our national interests would be better served if we switched the presumption so that requests for more study beyond a reasonable review would need to prove that the additional delays wouldn't unnecessarily cost jobs and hinder growth. Today's regulatory regime can fairly be described as cruel in the damage it inflicts on unemployed and underemployed Americans.

As the chair of Common Good, Philip K. Howard has stated, "Red tape is not the same as good government...Congress must create clear lines of authority to make decisions....[A]n environmental official should have responsibility to draw lines on how much review is sufficient. Similarly, one agency should have overriding permitting authority, balancing the concerns of other agencies and departments."

Sen. Portman and Sen. McCaskill's "Federal Permitting Improvement Act," which was recently reported out of the Committee on Homeland Security and Governmental Affairs with strong bipartisan support, is a good first step. Quantifying the costs and benefits of federal regulations is a goal of Indiana's Sen. Dan Coats through the "Sound Regulation Act" which he will soon reintroduce and which will hopefully lead to more reasonable policies.

The role of Public-Private Partnerships

A notable exception to our national capital deficit is in Indiana, now in year nine of a 10-year, multi-billion dollar infrastructure plan with no new debt, no new taxes and no significant permitting delays.

When I became Governor of Indiana, my administration inherited a transportation infrastructure gap of at least \$3 billion, equal then to 10 years of new road construction.

We looked at every option to address this funding shortfall, including raising the state gas tax, indexing the gas tax, transferring state sales tax on gasoline revenue to transportation, issuing more debt, increasing heavy truck fees, and increasing vehicle registration fees, to name just a few. After assessing the traditional options it became clear that we would never break ground on our backlog of 200-plus priority projects with a business-as-usual approach.

Instead of allowing long-sought, long-delayed projects to languish on the drawing board, we launched a search for partners who could augment state resources through a series of P3s. These partnerships varied significantly in size, location and circumstance, but each had at least one thing in common — they allowed the state

to build vastly more than Indiana could have by traditional means alone. While the complete highlight list is long, three partnerships in particular illustrate the problem-solving way we approach every infrastructure challenge.

Ohio River Bridges Project

Southeastern Ind. and Louisville, Ky. comprise one metropolitan community separated by the Ohio River. For decades, both states struggled to implement plans to improve transportation between the cities, and to better connect the regions economically. The question of how to finance and efficiently construct two necessary new bridges, various interchanges and miles of roadway was a subject of much debate.

Initially, both states planned to pay for the project with state and federal tax revenue, but that proved cumbersome, dilatory and unrealistic. A breakthrough came when the Indiana and Kentucky legislatures gave a bi-state authority the power to explore innovative project delivery options, including a P3. That resulted in Indiana taking the lead on what's known as an "availability payment" P3 on the new East End Crossing, in which a private partner will bear the risk of building and financing the bridge, while the state, in partnership with Kentucky, will maintain authority over tolls. Using revenue from the tolls and other state funds, Indiana will now compensate its private sector partner as milestones are met during construction and operation of the East End Crossing.

The partnership streamlined the project and saved the state millions. For example, after the market had spoken, the actual cost to build the East End Crossing Bridge was \$225 million lower (or 23 percent less) than the original estimate. The agreement also committed our partner to decades of operations and maintenance services, saving the state tens of millions of dollars in future expenses, and guaranteeing that Indiana will receive a bridge that is in excellent condition at the end of the 35-year concession. Most importantly, over the next 50 years the project is expected to generate an average of 15,000 jobs a year and a total of \$30 billion in personal income and \$87 billion in economic output for the region.⁶ Construction will not be complete until late 2016, but the region has already reported the addition of 5,000 new jobs and millions of dollars in business expansion along the river.⁷

Cline Avenue Bridge

The Indiana Harbor Canal extends from Lake Michigan into the Indiana community of East Chicago, near the Illinois border. For most of the last 35 years, the Cline Avenue Bridge has passed over the canal, connecting several commercial sites in the area. The lengthy bridge, which was financed using traditional methods, opened in 1983 and should have lasted for at least another 25 years without serious issues.

⁶ Economic Impact Study of the Ohio River Bridges Project, 2014 Update.

⁷ Inside Indiana Business (2015). Regional Approach Boosts Jeffersonville.

But in 2009, the state discovered significant weaknesses in the bridge's structural integrity and was compelled to condemn it a short time later.

Although the bridge was an important asset in the community, the expected usage levels could not justify the enormous expense it would take to rebuild the structure in its original form. Our cost-benefit analyses concluded that unless we could find a way to make taxpayer funds go farther, the wisest action would be to help the community adapt to life without a bridge by strengthening the surrounding roads.

For months, that outcome seemed the most likely. But in an arrangement becoming more and more common throughout the world, we were eventually able to craft an agreement with a private partner to construct a replacement bridge. Under the agreement, the partner is building the structure using entirely private funds, with no risk or cost to government at any level. The contract also obligated the partner to invest \$3 million in improvements on the state road that leads to the new bridge, and to return a share of all toll revenue back to the local community for economic development.

Indiana Toll Road / Major Moves

By far the most successful of our efforts to find new revenue for infrastructure came through a P3 agreement that leased the 50-year-old Indiana Toll Road. The agreement was unique in the United States, but fairly common globally.

Nations such as Australia and the United Kingdom have long understood that, just as many business units are more valuable if separated from their conglomerate parent, an asset like a highway can be worth vastly more under different management. If it were merely a matter of bringing forward money that would otherwise come in over the years, such a tactic would make little sense. The goal is to capture far more value than an asset would be worth operated in public hands.

Under these partnerships, many existing roads, bridges, and other public facilities are operated by private companies who are more efficient in running them and have private funds to upgrade and maintain them better than the governments that contracted with them for the operations. There is nothing remotely radical about this idea; these are simply a new form of regulated public utility, like our electric companies, few of which are owned by government.

The Indiana Toll Road, which runs 156 miles from Illinois to Ohio, was an obvious candidate to become such an asset. At the time, instead of making money for the state, the road had operated at a loss for five of the previous seven years. It was badly in need of an expansion, repairs and the installation of electronic technology that makes tolling convenient. In political hands, it was a chronically underperforming asset. Political timidity had kept tolls locked at the same price since 1985. In one section, motorists waited in a long line to pay a political patronage worker 15 cents in cash.

Even if we raised the tolls, there was little reason to believe that the governors who would come after me would have the inclination or the political ability to do the same. I once asked how much it cost to collect that 15-cent toll on the road and the answer came back at 34 cents. I joked that we would have been better off with the honor system and a fishbowl for occasional donations.

The estimated net present value of the road in state hands was no more than \$1.92 billion. Even that valuation assumed the state would begin raising tolls with inflation, a total change in the state's historic behavior. It made for an easy decision when we received a high bid of \$3.85 billion, three times the road's realistic status quo value, to enter into a long-term agreement that, under intensive state oversight, would give a private concessionaire the responsibility to upgrade, operate, and maintain the road in exchange for the right to collect tolls. To acquire revenues of that magnitude, we would have had to roughly triple our gas tax, an economically ruinous and politically impossible idea.

As thrilled as we were with the bid, we knew the details of the contract would determine whether the deal was good for Indiana in the long run. We negotiated a highly detailed legal document that keeps rigorous oversight of the road in state hands. Performance expectations were clearly identified for a long list of metrics including litter removal, pavement quality, pothole repair, sign maintenance and safe lighting, with penalties and fines for shortfalls. The agreement also obligated the private operator to upgrade the road, add electronic tolling, expand lanes, and make other improvements valued at about \$450 million — in addition to the original \$3.85 billion.

The agreement locked in the 1985 toll rates for passenger car drivers for an additional 10 years, and it limited increases in rates to inflation, GDP growth or 2 percent. If the concessionaire makes a profit on the tolls, it will pay income taxes, and unlike with government procurement, it pays sales taxes on all its purchases.

An often overlooked benefit of P3s is that when agreements are properly constructed, as ours was, the P3 shields taxpayers from some of the risks that are unavoidable with the construction and operation of any infrastructure. For instance, our transaction shifted the risk that revenues might not meet expectations away from Hoosier taxpayers and back on our private partner. The timing of the agreement, made months before the economy imploded, could not have been more fortuitous for the state. Absent our transaction, the state would have endured disappointing toll revenues as the economy collapsed and more drivers stayed home.

Instead, that burden fell on the lessee. Indiana taxpayers had already received the nearly \$4 billion lease payment in upfront cash, and the agreement was locked in place. Even when traffic levels were still not meeting expectations years later and the concessionaire succumbed to bankruptcy, all of the taxpayer protections and

benefits were preserved. The lease simply shifted to another lessee and the agreement continued unchanged.

Of crucial importance, every penny of the \$4 billion went to long-term purposes. Whether in business or government, no asset should be monetized for current operational spending. The only defensible transactions are those that redeploy the proceeds to a different long-term capital purpose that yields a higher ROA. That was a non-negotiable tenet of our 2006 proposal, and we stuck to it.

After paying off the 50-year-old toll debt, we created a \$500 million dollar permanent trust fund that earns interest for future projects. We invested the rest in a 10-year transportation plan. Known as “Major Moves,” it’s paying for 104 new roadways by 2015, the rehabilitation or replacement of 1,000 bridges, and more than 6,000 miles of highway to be resurfaced. We became the only state in the union to have a fully-funded, 10-year infrastructure plan that required no new taxes and no new debt.

Congressional support for innovation and new revenues

P3s are more the rule than the exception in Asia, Europe and the developing world. The United States, in so many ways the world’s leading innovator, lags behind in the area. While that is starting to change, most U.S. P3s are designed to directly finance new construction, or so called greenfield projects. These partnerships, as in the case of the Ohio River Bridges project, diversify risks across sectors and allow public investments to go farther. But in contrast to P3s on existing assets, they still create new debt.

In addition to P3s on greenfield projects, Congress should also encourage states to create new revenue by making P3s on existing assets common. As my state proved through the Indiana Toll Road, these so called recycled assets can be very effective at creating new and unprecedented means to finance new infrastructure. And again, I cannot stress enough that all new revenue generated by these agreements should go towards long-term infrastructure funding, as we did in Indiana. It would be irresponsible to use the funds for current government operations.

The most basic way to promote P3s on existing assets is to make sure our tax code doesn’t discourage them. One issue Congress should address is how the law treats tax-exempt government bonds when a government enters into a P3. For example, as we were negotiating the Indiana Toll Road partnership, Indiana still owed \$200 million on 50-year old tax-exempt bonds, a common scenario for large infrastructure. Current law does not allow such debt to continue into public-private partnerships. Before the program could go forward, we either had to pay off the debt or refinance it as taxable bonds at a higher interest rate.

Because we achieved such a spectacular lease payment, 19 times the outstanding debt, it was no problem to pay it off and we did so immediately and eagerly. But for other potential agreements, the tax code has been an impediment both practically

and politically. For instance, some commentators blame the P3 tax penalty as one factor in the collapse of a deal explored by Mayor Rahm Emmanuel to lease the Midway Airport.

The P3 tax penalty contrasts starkly with the practice in Australia, the global leader in this area. Not only does Australia refrain from penalizing P3s on existing assets, its federal government has set aside \$4 billion USD to reward states and territories that make such agreements. As long as the new revenues from the private partner “are allocated to new infrastructure investment,” states receive a 15 percent bonus from the national government.⁸

According to former U.S. Associate Attorney General John Schmidt, Australia expects to earn \$200 billion from P3s on existing infrastructure. Here in the United States, untapped potential revenues appear to exceed half a trillion dollars.⁹ The valuation Indiana received for the Toll Road lease was so high, no state is likely to repeat our success to the same degree. But significant revenue potential remains and it would be senseless to leave the option out of the toolbox as we look to expand the resources available for U.S. infrastructure investment.

With the persistent and growing shortfall in the Highway Trust Fund, Congress must consider alternative funding sources for our surface transportation infrastructure. One such alternative would be to reform and expand the existing programs that permit state tolling of new, expanded or reconstructed interstate facilities. Tolls, after all, are simply a direct “user fee” and are thus consistent with the principle of user-pays/user-benefits on which the Highway Trust Fund was founded. If the federal tolling programs were expanded or liberalized, more states would have the opportunity to explore and pursue P3 projects, with these user fees serving as the funding source.

Conclusion

Throughout this testimony I have focused on the “how” of infrastructure approval and funding instead of the “why”. I have assumed it unnecessary to describe the near unanimous consensus among economists and policy experts that smart investments in infrastructure are essential for our economy and our future. I felt certain that each of you understands the problems we face and the economic potential we can reap through large-scale infrastructure investments. If any issue is ripe for bipartisan cooperation in a Congress that needs more bipartisanship, this is that issue.

The future engineers and infrastructure scholars at Purdue University are ready to get to work building the next generation of American infrastructure. But real

⁸ Commonwealth of Australia. (2014). Budget 2014-15. <http://budget.gov.au/2014-15/content/glossy/infrastructure/download/Infrastructure.pdf>

⁹ Schmidt, J. (2015). A Sane Way to Upgrade Bridges, Ports and Transit. Wall Street Journal.

progress must start with Congress through an agreement that fixes our broken permitting system and maximizes funding dollars by incentivizing effective public-private partnerships.