



America's "Failing" Infrastructure?

By Charlie Curnow

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On August 1, 2007, during the evening rush hour, the I-35W Mississippi River Bridge in Minneapolis, Minnesota collapsed, killing 13 people and injuring 145. The bridge's collapse symbolized, critics said, the sad state of the country's quickly crumbling roads and bridges, illustrating the need for massive new investments in infrastructure projects.

Whether the Minnesota bridge catastrophe was truly symptomatic of systemic failure or simply an unfortunate but relatively isolated incident, however, remains up for debate. In fact, once one looks past the politics of infrastructure investment to the hard data, there's reason to believe the latter.

The American Society of Civil Engineers, a professional organization for engineers who design, build and maintain public works projects such as roads and bridges, has been one of the loudest voices in that debate. In January 2009, just in time for Congress to vote on its stimulus package, the ASCE gave the country's infrastructure a "D" grade overall, a "C" for bridges and a dismal "D-" for roads in its national infrastructure report card.

Their message hit home. President Obama cited the ASCE report card last March when he announced \$29 billion in new outlays for roads and bridges passed under the American Recovery and Reinvestment Act, pushing total spending to \$351.5 billion over five years. Even after those funds were announced, the ASCE called for an additional \$1.176 trillion investment in infrastructure over the next five years across all infrastructure categories, including areas such as public transit and drinking water facilities, for a total investment of \$2.2 trillion. And it called for that largest portion of that investment, \$949 billion, to be set aside for roads and bridges, including \$549.5 billion beyond budgeted and stimulus spending.

But is the nation's infrastructure really "failing," as the ASCE claims in its government relations literature? Headline-grabbing catastrophes aside, both long-term trends in road and bridge quality and highway accident rates suggest that the ASCE's low overall grades for the nation's infrastructure may stand on an unstable foundation.

After all, the ASCE is a professional association of civil engineers, funded largely by civil engineers, to advance to interests of civil engineers. Its members both depend on government infrastructure contracts for their paychecks and give the



ASCE the bulk of its financial support. The ASCE's largest source of funding is membership dues, according to its 2007 annual report, followed by publication sales and conferences and seminars, most of which it gears toward an audience of civil engineers.

What do the objective data show? As the ASCE and other infrastructure critics note, traffic congestion does indeed remain a persistent problem, especially in urbanized areas. U.S. travelers wasted 4.2 billion hours stuck in traffic in 2007, equivalent to one full work-week per traveler, and wasted 2.8 billion gallons of fuel, or three week's worth of gas for every traveler, according to the Texas Transportation Institute's 2009 Urban Mobility Report. This resulted in a total cost in wasted fuel and lost productivity of \$87.2 billion, or more than \$750 for every traveler. After rising for more than two decades, however, these figures have leveled off in recent years. The average U.S. traveler wasted one less hour stuck in traffic in 2007 than he did the year before, and wasted one less gallon of gas.

Furthermore, even though congestion can suggest that traffic is straining against infrastructure capacity, the country has yet to see any dramatic decline in actual road conditions. While the percentage of vehicle miles traveled on roads with acceptable ride quality, a measure of surface roughness, did fall by 1.7 percentage points between 1995 and 2004, to 84.9 percent, the percentage of vehicle miles traveled on roads with "good" ride quality, a higher standard included in figures for acceptable quality, increased from 39.8 percent in 1995 to 44.2 percent in 2004, according to the Department of Transportation's 2006 Status on the Nation's Highways, Bridges and Transit, a primary source for the ASCE report. And while 26.9 percent of U.S. bridges are "deficient," according to a 2008 Department of Transportation survey, meaning that they have either deteriorated significantly or no longer meet current design standards but not necessarily that they are unsafe, that deficiency rate is down, from 27.5 percent, since 2002.

Ride quality could hardly be better on many functional-class roads such as highways or in many rural areas. A respectable 97.8 percent of vehicle miles traveled on rural interstates occurred on highways with acceptable road quality in 2004, compared with 72.4 percent on urban interstates. And 94.5 percent of rural vehicle miles traveled in 2004 occurred on roads with acceptable ride quality in 2004, while 58.3 percent occurred on roads with good ride quality.

Trends in highway fatalities and crash rates also suggest long-term improvements to the country's infrastructure. The national fatal crash rate per 100 million vehicle miles traveled, regarded as the best single measure of highway safety because it measures accident risk relative to traffic exposure, has fallen from 1.39 in 1999, the first year in which the statistic was measured, to 1.16 in 2008, according to the National Highway Traffic Safety Administration's



Fatality Analysis Reporting System Encyclopedia. The fatality rate per 100 million vehicle miles traveled has fallen steadily from 1.73 in 1994 to 1.27 in 2008. And, in absolute terms, the annual number of fatalities has fallen from 40,716 in 1994 and to 37,261 in 2008. Certainly, other factors such as improved medical response and vehicle design may play a role. All told, however, these statistics suggest that American roads are safer now than they have been in decades.

Digging holes

Going back to the time of John Maynard Keynes, who wrote in Chapter 16 of *The General Theory of Employment, Interest and Money* that governments could pay people to "dig holes in the ground" to boost employment during recessions if low interest rates failed to revive economic activity, infrastructure has been a favorite target of stimulus spending. New bridges and repaved roads serve as tangible symbols of taxpayer money at work, and they allow policymakers to claim that they are expanding the economy's long-term productive capacity.

New infrastructure projects only help the economy in the long run, however, if the old infrastructure is already failing. While new roads and bridges are among the most direct ways to expand capacity, they are also among the most notorious outlets for Congressional pork. For every Minnesota bridge disaster, there is an Alaskan bridge to nowhere. As policymakers consider new stimulus measures in the coming months to help lower persistent unemployment, they should think carefully about whether new infrastructure projects will yield any real benefit to the economy in the long run, or whether they are just paying people to dig holes and fill them up again.

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