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The Problem With Fix It First

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"Fix-it-first" is a policy idea that sounds pretty good on first hearing, but could do real damage to sensible infrastructure investment. But "fix-it-first" is being put forth as a key principle for the federal reauthorization bill, so we need to subject it to critical analysis.

The basic idea is that federal (or state) policy should give much higher priority to maintenance and repair of highways and bridges than to capacity expansion. The idea is being advanced as especially important today, when highway tax money is scarce and we need to make tough priority decisions. "Fix-it-first" is superficially appealing because we know that elected officials are far more eager to cut ribbons on new projects than to spend more money on boring, non-photogenic maintenance. Advocates also cite econometric studies from reputable sources suggesting that the rate of return on highway investment has trended downward in recent decades, especially since completion of the original Interstate highway system. So, faced with a large funding shortfall and a large backlog of deficient bridges and deferred maintenance, why not put the major (or even entire) focus on fixing what we already have?

In various forms, that's the argument we've been hearing for more than a year. First out of the box was the left-wing Public Interest Research Group last year with "Road Work Ahead: Holding Government Accountable for Fixing America's Crumbling Roads and Bridges." This year we have a report issued jointly by Smart Growth America and Taxpayers for Common Sense: "Repair Priorities: Transportation Strategies to Save Taxpayer Dollars and Improve Roads." And the Brookings Institution has contributed "Fix it First, Expand It Second, Reward It Third," a more moderate version of the same agenda. This approach is also embedded in the Administration's transportation proposals, which emphasize "state of good repair" almost to the exclusion of capacity expansion. And this month Sen. Ben Cardin (D, MD) introduced a bill based on this idea, "The Preservation and Renewal of Federal-Aid Highways Act."

The fundamental flaw in all of these efforts is to assume that all maintenance and repair projects are more cost-effective than all new-capacity projects. There is strong evidence that this is not the case. For example, the U.S. DOT's latest Conditions & Performance Report used benefit/cost analysis to identify which kinds of highway investments were justified. Of the total capital investments it concludes are needed and justified by benefits exceeding costs, 48% were for maintenance and repair, 41% for capacity expansion, and 11% for environmental and safety improvements.

What kinds of capacity expansion projects would make sense? The largest single highway problem in this country is chronic metro-area congestion. One key factor in this problem is interchange bottlenecks. Last year in an article in my monthly e-newsletter, I reviewed a 2004 study of the subject by Cambridge Systematics, which made quantitative estimates of the benefits from rebuilding 24 major and 209 other interchange bottlenecks. Using conservative cost estimates and generic dollar values for savings of time and fuel, plus crash and injury costs, my ballpark estimate of the benefit/cost ratio was between 11 and 15. To be sure, congestion pricing would help a lot if it could be implemented, but the most realistic way forward on that is to implement networks of congestion-priced express lanes in the major urban areas (i.e., capacity expansion).

A second major need for highway investment is to rebuild the aging Interstate system as it reaches the end of its design life, replacing it with state-of-the-art facilities with more capacity in key corridors and adding selected new routes that did not make sense when the original map was drawn up in the 1940s.

Another basic flaw with a federal policy driven by "fix-it-first" is its implicit one-size-fits-all nature. But that does not reflect the reality of our 50 states. Slow-growth states like New York may well find that maintenance and repair projects yield higher benefit/cost ratios than capacity expansion in most cases. But that is unlikely to be true of fast-growing states like Arizona, Florida, and Texas. The Reason Foundation's 19th Annual Highway Report opens a window on the vast differences among states. Take rural Interstate conditions. Twenty-two states have zero percent miles in poor condition, while most of the rest have less than 3% in poor condition. Only seven states are worse than that, with New Jersey (6%), Alaska (11%), and California (16%) as the worst.

The real poster child for "fix-it-first" is deficient bridges. Those promoting the "crumbling infrastructure" idea always cite the total number, which is actually the sum of functionally obsolete bridges (14% of all bridges) and structurally deficient bridges (11.5%). Here again, the totals very enormously among the various states. Only 2.6% of Florida's bridges are structurally deficient, just 2.8% of Arizona's, and 3.4% of Texas's. On the other end of the scale, you have Pennsylvania with 27.2% of all its bridges structurally deficient, followed by Oklahoma (22.3%), Rhode Island (22.1%), and Iowa (21.8%). Nearly half the states are in the single-digit percentage for structurally deficient bridges, and most states have been working down their backlog over the past decade.

There is no one-size-fits-all. Highway and bridge conditions vary enormously around the country. And more importantly, some capacity expansion projects will have higher benefit/cost ratios (i.e., they will add more value per dollar spent) than some maintenance and repair projects. Mandating that all highways and bridges be brought up to an arbitrary standard of good repair, regardless of how much or how little traffic they serve, risks major misallocation of scarce capital investment dollars.