Suppose all the nation's bridges are repaired or replaced. Next problem: How to fund their maintenance.

The irony of the collapse of a roadway bridge in Pittsburgh, PA on the same day—January 28, 2022—that President visited the city to talk about the Bridge Investment Program, a part of the recently passed Infrastructure Investment and Jobs Act, captured our attention. The collapse of the four-lane Forbes Avenue Bridge made the case for the need to invest in bridge repair more clearly than anything the President could have said.

This story caught our attention because it highlights an issue that we have addressed in this column at least three times since November 2015 (columns 797, 798, and 1095 at www.agpolicy.org). We have been concerned about the potential for rural bridge collapse/closures that could impose higher production costs on farmers who would have to take the long way around to get from one field to a nearby field, not to mention the potential loss of life they might incur as the result of a rural bridge collapse.

While it does not separate out rural bridges from urban ones, the US Department of Transportation Federal Highway Administration (USDOT-FHA) compiles an annual analysis of Bridge Condition by Highway System—the 50 states plus the US Virgin Islands, Puerto Rico, Guam, and the District of Columbia—(https://tinyurl.com/2p8kr72r). The bridge counts are divided into three categories: good, fair, and poor, plus the sum of fair and poor.

To be fair, we did not find a definition of what constitutes a bridge for the USDOT-FHA count, particularly the inclusion or exclusion of the smaller culvert-like structures that dot unpaved rural and township roads. These may or may not be included in the count. If these smaller structures are not included, it would be useful to have a count and analysis of them even if it is not compiled on an annual basis. The information for this could come from state compilations of data from the offices of county highway engineers.

In 2021, the percentage of bridges in the fair-plus-poor column ranges from 26.2 percent of 14,987 bridges in Georgia to 83.3 percent of the 24 bridges in the US Virgin Islands. Of the 619,622 bridges included in the USDOT-FHA count, the percentage of fair-plus-poor bridges accounts for 55.1 percent of all bridges.

The state with the largest number of bridges (55,175), not surprisingly, is Texas with 8.9 percent of all bridges in the US. It also has fewer FP bridges than average (49.6 percent). Of the 50 states, Rhode Island has the smallest number of bridges (779). Of those 78.4 percent fall into the fair-plus-poor category. Of the 54 states included in the analysis, 19 have a below the average percentage of fair-to-poor bridges. But, one bridge, if it collapses, is one too many.

It is one thing to find the money to build a bridge no matter how big or small (it impresses constituents) and it is another to fund a regular maintenance program (it is virtually invisible to the taxpayer and voter).

From our perspective the Bridge Improvement Program (BIP), as important as it is, is a stopgap measure that will address the worst of the worst, but it is not a permanent solution. During the years that the BIP provides funds for the repair of one set of bridges, there will be many other bridges that will fall from the good category to the fair category and from fair to poor.

So, if the federal government is not going to fund the day-to-day costs of bridge maintenance, who is?

We have programs to fund road maintenance on a regular basis, though even there it is often inadequate. This happens because road failure is visible; we can see it and feel it. When a pothole develops, you can bet your bottom dollar that dozens will call their public officials.

But let hidden concrete bridge supports deteriorate or iron supports develop significant rust and not one sees it. Highway workers can make regular reports documenting the deterioration (that's probably how USDOT-FHA gets the information they need to group bridges into the three categories), but if constituents do not call in significant numbers, the problem is unlikely to be addressed.

So, suppose we were to listen to the highway workers and engineers and develop a regular bridge maintenance program, what is the funding mechanism and who is going to pay for it?

In rural counties where much of the land is agricultural, the largest source of funding for county government comes from property taxes. Now think about that! Who is going to get elected saying, "Vote for me because I will raise your property taxes to fix our bridges"?

And what is true of candidates running for local office is true of those running for state or federal office as well.

The next question is one of funding such a program. Raising motor fuel taxes at the federal or state level is not popular. Even a couple of years ago when gasoline prices had declined significantly, there was little support for increasing these taxes by even a nickel a gallon.

And even if we had done that, what is the long-term outlook for these taxes as people begin to shift to all-electric vehicles? Beyond raising money to fund motor fuel taxes, how are we going to pay for our highway system when most people are charging their cars in their garages. They may even be doing that with a solar array on the roof of their house.

In a modern mobile society, we are going to have to find an equitable solution to what economists would describe as economic externalities for most people. We don't bear the full cost of the transportation system we regularly use.

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