early three years ago the Wisconsin Policy Research Institute published my policy study which found that it would be feasible to use tolls and private management to pay for the rebuilding and modernization of the entire Interstate highway system in Wisconsin.1 This costly $3.1 billion project will be needed within the next decade but, I argued, will be difficult for Wisconsin to afford, given a projected shortfall of $8.9 billion over the next 25 years in transportation revenues versus spending needs. Since the Interstates carry the highest traffic volumes, they are the one portion of the state’s highway system which could attract investor interest.

If the project were offered to the private sector on a 25-year franchise basis, the study showed it could attract equity and debt investment—in other words, the needed $3.1 billion could be provided by investors, rather than having to come from limited gas-tax revenues (which could then be used for other needed highway purposes, reducing the projected shortfall by one-third). But of course the price for this would be the tolls charged to use what has historically been a set of “free” public highways.

Reaction to the report was predictable. It made both the news pages and the editorial pages of virtually every newspaper in the state. And most of the comments were negative. There is a deep-seated resistance to paying tolls for what people have always gotten for free. And there’s the understandable concern about not “paying twice” for the same highway—one in gasoline taxes and a second time in tolls. Yet the critics refused to confront the looming $9 billion shortfall identified not by me but by the Wisconsin Department of Transportation. The reality represented by that number means there are really only three choices:

1. accept much higher gasoline taxes, to cover the shortfall,
2. don’t expand the highway system to keep pace with growth and don’t properly maintain it over the next 25 years, or

Robert Poole is president of the Reason Foundation in Los Angeles. A former aerospace engineer, he received his B.S. and M.S. from MIT. He has advised both the U.S. and the California Departments of Transportation on pricing and public-private partnerships.
3. accept tolls on the high-traffic routes in order to keep gasoline taxes at moderate levels, while maintaining a high-quality highway system.

What a Difference Three Years Makes

In the nearly three years since the study was published, several major changes have occurred in the highway field—changes which significantly affect the study’s results. On the one hand, Congress last spring enacted the largest six-year surface transportation measure in history. Called TEA-21, it boosts possible highway spending by some 40 percent (assuming Congress appropriates the full amounts permitted by the legislation). Different states fared differently under the bill, but Wisconsin stands to gain up to 48 percent more federal transportation funds over the next six years than during the last six years under the previous bill (ISTEA). That sounds more impressive than it actually is. Federal funds constitute about 16 percent of total highway spending in Wisconsin. So the 48 percent increase in that one component translates into just a 7.5 percent increase in total spending. That is likely to cover less than half of the projected shortfall. So Wisconsin still has a problem with properly maintaining and modernizing its highway system.

But Congress did more than simply give the states more money. It also created two innovative programs that permit and encourage states to use tolls on their Interstate highway systems. The first is called the Value Pricing program. It authorizes up to 15 urban Interstate projects that can make use of tolls to smooth out traffic flow and reduce congestion. Thus, Milwaukee’s entire Interstate-based freeway system could be designated as a Value Pricing project and be rebuilt with market-based tolls—with the active encouragement of the Federal Highway Administration.

Second, Congress also included a pilot program under which up to three states can rebuild and modernize a major Interstate facility as a toll road—again, with federal blessings and encouragement. States are invited to submit proposals to the feds for candidate projects. They must be able to demonstrate—as Wisconsin could—that conventional funding sources will not be sufficient to carry out the project. Toll revenues may be used to pay off the debt incurred in the reconstruction, for operating and maintenance costs, and to provide a return on investment to investors in the project. The private sector may be involved in construction, management, and operation of the toll road, as long as legal and administrative control is retained by the state.

This new program removes a major cost that had been factored into the 1996 study. Under previous law, any move to put tolls on an Interstate highway would have required that all previous federal aid be repaid. Using an optimistic interpretation of how the feds would define that provision, I had estimated an up-front cost of $220 million in grant repayments. That cost need no longer be incurred.

Another major change in the past three years is technological. The 1996 study assumed the use of electronic toll collection as it existed in 1996. That is, it assumed that about half of the users of a tolled Interstate system would pay by means of dashboard-mounted electronic tags at 65 mph, while the other half would still line up at toll booths. That meant constructing conventional toll plazas throughout the state, at significant cost, and staffing them with expensive toll-collectors. True, they were only half as large as would have been needed for a conventional toll road in pre-electronic-toll days. But they were still a considerable cost—and an eyesore.

As of 1998, toll booths and massive toll plazas are no longer needed at all. For more than a year Toronto’s new Highway 407 has been serving over 110,000 vehicles per day with a fully automated toll collection system requiring no toll booths whatsoever. Regular users have electronic tags, and their accounts are debited each time they drive beneath a gantry outfitted with the equipment to read the tag’s account number. Other users are billed, based on a video reading of their license plate number. The technology, developed and implemented by Raytheon’s Hughes Transportation Management Systems, has been working flawlessly for over a year.
same technology has been selected for the $1.1 billion Cross-Israel Highway, and similar technology is being used on the $1.3 billion Melbourne Citylink in Australia.

The implication for Wisconsin is that toll booths and toll plazas would no longer be needed in a tolled Interstate system. That would cut an estimated $155 million from the capital costs assumed in my study. Adding that saving to the $220 million not needed in federal grant repayment lowers the up-front cost from $3.1 billion to $2.7 billion. And the total annual operating costs—without that army of toll collectors—would be about 25 percent less. (Policing and maintenance costs would be unaffected.)

One other change concerns financing. My study assumed, as was common in the early 1990s, that a project franchised to the private sector would issue taxable bonds at ordinary commercial interest rates (the study assumed 10 percent). But recent privatized toll road projects in Missouri, South Carolina, and Virginia have worked out partnership arrangements with state governments under which a special-purpose nonprofit corporation is created to issue tax-exempt debt for the toll road project, under IRS revenue ruling 63-20. The Southern Connector toll road in Greenville, South Carolina, was financed under this approach earlier this year, at an interest rate below 6 percent. Thus, the interest costs assumed in my study could be as much as 40 percent lower, permitting the tolls to be lower and the project to be more easily financeable.

But Can It Be Done?

In short, the project outlined in the 1996 study has become dramatically more feasible—legally, technologically, and financially. But the major obstacle to making it a reality remains—opposition to paying tolls, expressed in politically effective ways. No sooner had TEA-21 passed than a coalition of auto and truck organizations announced that they would put money and legal talent into challenging any state’s attempts to make use of the Interstate reconstruction-with-tolls pilot program. All the time-worn arguments about “paying twice” were trotted out yet again, and the program was derided as unnecessary given the huge increase in federal funding incorporated in TEA-21. So the question is: do such proposals have any realistic chance of being implemented, either in Wisconsin or anywhere else?

In terms of organized opposition, the trucking associations are probably the most formidable. So for any such project to be implementable, it would have to offer sufficiently large benefits to trucking companies as to make it worth their while to pay tolls. One such possibility is to rebuild the Interstate to include special heavy-duty trucks-only lanes, able to take large combination vehicles (LCVs) that are the key to higher trucking productivity but are currently not allowed on Wisconsin highways (but which are allowed on Midwestern toll roads). A “heavy-weight tollway” design would be required for these lanes, including thicker pavements and stronger bridges and interchange ramps. Such provisions might be sufficiently attractive to the trucking industry to gain its support.

Automobile associations strongly oppose allowing LCV trucks to gain access to highway systems where they are not currently allowed. But if Wisconsin’s SuperInterstate provided separate lanes for cars and heavy trucks, those organizations might see this as a major auto-friendly benefit. Whether that, combined with user-friendly automated toll...
collection, would suffice to overcome their traditional opposition to tolling remains to be seen. Yet another argument in favor of tolling Wisconsin’s major through highways is that residents of other states would pay a significant fraction of the tolls, whereas today Wisconsin residents have to pay tolls for the upkeep of the major Illinois highways when they cross the border.

While the inherent feasibility of rebuilding and modernizing Wisconsin’s Interstates is now greater than before, implementing such a project would require skillful political leadership. No less than the Governor and his transportation director would have to get solidly behind the project, leading an effort to inform opinion leaders and the business community about the still-serious highway funding shortfall in Wisconsin and the advantages of a toll-road approach to resolving it. Whether such leadership will materialize on this issue remains to be seen.

NOTES:

3 Sec. 1216 of TEA-21, Innovative Surface Transportation Financing Methods, subsection (b) Interstate System Reconstruction and Rehabilitation Pilot Program.