America’s transportation infrastructure is at a crossroads. Years of underinvestment coupled with declining revenues and a “no new taxes” attitude have built into a crisis. The average annual cost of maintaining the nation’s roads, bridges and transit systems is about $277 billion, but the annual amount of transportation revenues at all levels of government—including federal and state fuel taxes, tolls and fares—is only about $219 billion, according to the National Cooperative Highway Research Program.

Unless there are innovations and new money, roads, bridges and mass transportation systems will fall further into decline and disrepair. Short-term fixes have been exhausted and the long-term options will be politically painful.

The extent of the shortfall was obscured while federal stimulus money helped states pay for thousands of smaller transportation projects in 2009 and 2010. But the short-term successes of the stimulus could not fix the growing gap between available revenue and what is actually needed to maintain our transportation infrastructure.

Meanwhile, states still await reauthorization of federal transportation legislation that will add certainty to a very unstable existing situation, but will likely fall short of expectations for bringing new money to the equation. The key problems are declining revenue from the gas tax and increasing costs to maintain the system.

A FEDERAL SHOT IN THE ARM

President Obama made clear that the $787 billion federal stimulus package in 2009 was intended not only to help pull the economy out of a tailspin, but to provide desperately needed money for essential infrastructure projects.

The act provided states with $48.1 billion

Dropping revenue from the fuel tax poses a dilemma for how to pay for maintaining and improving roads and bridges.

BY JAMES B. REED AND JAIME RALL

James B. Reed directs the Transportation program at NCSL. Jaime Rall tracks a range of transportation issues for NCSL.
for highways, transit and other transportation projects as part of the largest new investment in infrastructure since building the interstate highway system in the 1950s. By the end of 2010, stimulus funds had supported more than 10,000 backlogged projects, according to the U.S. House Transportation and Infrastructure Committee. More than a thousand bridges had been repaired or built, 35,399 miles of roads improved, and hundreds of projects suddenly made possible.

“These funds allowed us to put people back to work, while at the same time getting to a large backlog of much-needed improvements. We were able to rehab long deteriorated roads and improve the safety of our system.”

—MINNESOTA SENATOR D. SCOTT DIBBLE

CHRONIC SHORTFALL

Recession-driven declines in overall driving coupled with larger numbers of fuel-efficient vehicles have resulted in lower gas tax revenues. At the same time, the cost of building and repairing roads continues a steady climb.

The nation faces a shortfall of $58 billion a year just to maintain highways and transit systems, and $119 billion a year to improve them, according to the National Cooperative Highway Research Program.

The unprecedented investment of the federal recovery act failed to fill even a single year’s gap. Even with the stimulus funds, 21 states cut transportation programs in FY 2010 and at least 11 plan to do so in FY 2011, including nine that did in 2010.

“The systemic failure of current financing has made clear,” stated a blue ribbon study in Arkansas, “that the traditional approach to highway, road, street and bridge maintenance and construction is, in its present form, no longer sustainable when measured against a changing economic and technological environment, erosion of purchasing power and continuing escalation of costs.”

Current revenues simply fail to meet current needs. At least a dozen other recent state studies on transportation essentials and revenue options come to the same conclusion.

“The ARRA funding certainly was a help,” says Oklahoma Senator Gary Stanislawski. “But a one-time infusion of resources did not help solve the transportation infrastructure problem that the states—and our nation—are facing. No state possesses the resources to keep pace with the structural funding gap.”

or the first time in recent memory, no state raised its gasoline tax this past year, though six states raised other transportation funding sources like vehicle registration fees and sales taxes

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<thead>
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<th>PROJECTS</th>
<th>COMPLETED</th>
<th>UNDERWAY</th>
<th>OVERALL ARRA EFFORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highways and Bridges</td>
<td>• 7,719 projects worth $7.7 billion</td>
<td>• 12,603 projects worth $24.9 billion</td>
<td>• 1,264 bridges improved, replaced or built</td>
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<tr>
<td>Transit</td>
<td>• 3,059 capital assistance projects worth $1.8 billion</td>
<td>• 4,836 capital assistance projects worth $5.6 billion</td>
<td>• 4,870 passenger facilities and 324 maintenance facilities constructed or rehabilitated</td>
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Sources: American Association of State Highway and Transportation Officials, November 2010; U.S. House Transportation and Infrastructure Committee, January 2011.
devoted to transportation. Meanwhile, projects pile up.

So what is the cost of letting things go?

“All available research confirms both the strategic benefits of transportation investment as well as the dramatic decline in available transportation revenue,” says Dan Murray, a researcher at the American Transportation Research Institute. “Continued under-investment in roads and bridges has played a leading role in traffic congestion and all that comes with it; namely pollution, safety degradation, longer transit times and increased logistics costs. Worse, our recalcitrance for funding transportation will ultimately lead to higher inflation, lower productivity and a continued decline in our global competitiveness.”

A Michigan transportation study found underinvestment in transportation infrastructure cost $7 billion annually in wasted fuel, lost time, vehicle maintenance costs, medical costs, lost productivity and property damage caused by congestion, poor pavement condition and crashes.

**SHRINKING FEDERAL ROLE?**

States have been waiting for a long time for reauthorization of a sweeping new federal transportation bill that will supply new money and potentially change the way federal funds are distributed. Short-term extensions of the existing law have not been enough. Congress has had to transfer $35 billion from the general fund to the Highway Trust Fund since mid 2008 to make up for shortfalls, mainly from the gas tax.

New leadership in Congress seems to be moving toward a downsized federal role because of an unwillingness to raise the gas tax and a growing concern about the federal deficit.

“Today, our government, elected leaders, and Americans everywhere have no choice but to do more with less,” said U.S. Representative John Mica of Florida after his selection as the new chair of the Transportation and Infrastructure Committee. “This will also be the [committee’s] mandate.”

As one of its first acts, the new House adopted a rule change that makes federal funding for transportation programs subject to the annual appropriations process for the first time since 1998. This change could result in lower spending levels for state transportation programs.

If the gas tax does not increase and other sources of revenue are not found, there will be a substantial cutback in money available for roads and bridges, according to Ken Orski, a longtime transportation consultant and former...
Transportation experts agree the current transportation funding system based largely on the gasoline and diesel tax is not sustainable. These are three ideas transportation experts think may help address the issue.

1. Public-Private Partnerships

Twenty-nine states and Puerto Rico have authorized public-private partnerships for transportation projects. The trend grew in 2010 as 21 states and the District of Columbia considered 52 legislative measures concerning transportation partnerships. Of those, seven states adopted 11 measures, including a comprehensive public-private partnership enabling statute in Maine.

Though public-private partnerships are not optimal for many transportation projects, they have been shown to reduce upfront public costs by completing projects more quickly. These arrangements use financial and other resources in the private sector to build infrastructure. Tolls or other public revenue such as taxes or vehicle fees are needed to pay back the private investment.

2. Mileage Pricing

A mileage pricing system assesses a tax based on the number of miles a vehicle is driven. The system is considered one of the best ideas for replacing the gas tax, according to numerous studies, research and actual trials. It’s been widely embraced by transportation advocates and subject to analysis in as many as 16 states. It was tested in a Portland, Ore., pilot project in 2007. The state’s transportation department concluded the mileage fee concept was “feasible as an alternative revenue collection system for replacing the gas tax as the fundamental way the state pays for road work.” The state hopes to roll the program out statewide after some additional fine tuning.

There are other obstacles to a mileage-based fee system, however. The Texas Department of Transportation studied the issue, including listening to several citizen focus groups, and concluded the public does not understand the current gas-tax-based system let alone a mileage fee system.

“The public also has concerns about the technologies needed for a mileage fee system,” the Texas study found. “They don’t want to be forced to install equipment in their vehicles that could track their movement. Furthermore, in the public’s view too many other simpler solutions have not yet been attempted.”

3. Consolidation

Consolidation of transportation functions, agencies and even jurisdictions is another emerging solution. In 2009, Massachusetts combined seven disparate transportation agencies into one transportation department to make the system more efficient, and a department report for 2010 found the consolidation is saving at least $100 million per year. Also in 2009, North Carolina enacted legislation that transferred the functions and funds of the state’s Turnpike Authority to the department of transportation. The bill’s fiscal note anticipated that the transfer would lower the authority’s budget by $2.3 million per year.

Nixon administration official.

“The future annual highway program would need to be cut back by $7 billion to $8 billion and the transit program by $3 billion from the current FY 2010 levels, once the funds from the recent transfer of general revenues have been exhausted,” he told state lawmakers last year in discussing projected tax receipts.

With no increase in the federal gas tax, future estimated annual revenue for the Highway Trust Fund will be about $35 billion a year for highways and $5.5 billion a year for transit, according to the Congressional Budget Office. Previously, revenue for the fund amounted to $39.6 billion for highways and $5 billion for transit.

The shrinking revenue stream is a cause of great concern for states, but just getting a long-term federal bill would provide some measure of assurance. Officials at state departments of transportation and their contractors who provide jobs say they need certainty to plan into the future.

Senator Bruce Starr of Oregon believes “one of the main things government should do is to provide transportation infrastructure,” and is urging fellow lawmakers to “communicate with their members of Congress to get reauthorization done.”

“If not,” he says, “all states will suffer by losing millions in federal transportation funds and being unable to do long-range planning.”

Check out an interview with three state lawmakers on the transportation challenges facing states and find out more on how ARRA money was spent on transportation-related projects at www.ncsl.org/magazine.