

FAST, FASTER, FASTEST

HIGH-SPEED, INTERCITY PASSENGER RAIL IS GAINING MOMENTUM IN THE UNITED STATES. BUT ARE FAST TRAINS A SMART PUBLIC INVESTMENT?



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MALCOLM SMITH, NEW YORK SENATE PRESIDENT PRO TEM

BY JAIME RALL

Americans love trains. They evoke nostalgia for a golden age of industry when our cities grew up around rail lines and passenger trains were the fastest, most dependable and most luxurious way to travel.

The rise of commercial aviation and the interstates in the mid-20th century sent passenger rail into a steep decline. The nation now has only two-thirds the rail miles it had in 1916, and some passenger routes take hours longer today than they did during the Great Depression.

Fast-forward to 2009 when President Barack Obama announced his vision for high-speed, intercity passenger rail: Sleek, fast trains similar to the advanced systems in Europe and Asia that will whisk Americans hundreds of miles without the hassles of airports or highway traffic. The president’s vision has captured the public’s imagination, and recent boosts in federal funding for high-

speed rail initiatives have raised hopes that the vision will become a reality.

“The president’s vision has captured the public’s imagination, and recent boosts in federal funding for high-speed rail initiatives have raised hopes that the vision will become a reality,” says New York Senate President Pro Tem Malcolm Smith. “Suddenly, high-speed rail is a high-profile transportation issue.”

But many questions remain unanswered and the rhetoric is flying. Those who advocate passenger rail see it as an environmentally friendly and much-needed option that will transform how Americans travel. Others warn it will be an expensive boondoggle that cannot deliver on its promises. The question facing the states is whether investing in high-speed rail is smart public policy.



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WHAT IS HIGH-SPEED RAIL?

The term “high-speed rail” is often associated with Japanese “bullet trains” and the *Train à Grande Vitesse* or TGV in France, both of which travel at average speeds of more than 260 mph on some routes. In 2008, Congress defined high-speed rail more modestly as “intercity passenger rail service that is reasonably expected to reach speeds of at least 110 mph.”

Today, only three routes are high-speed by this definition: the Keystone Service in Pennsylvania, the Empire Line in New York and the Acela from New York to Washington, D.C. Even these trains attain high speed only on small portions of track.

Unlike more advanced systems around

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the world, which run on grade-separated, dedicated tracks, American passenger trains almost always share track with slower freight trains and also contend with curving tracks, old signaling systems and other obstacles.

FEDERAL POLICY

Since World War II, federal transportation investment has focused on highways and aviation. Unlike those modes, passenger rail has no dedicated revenue source or trust fund. And the discrepancy between rail and highway investment is striking. From 1990 to 2007, Congress provided \$4.17 billion for high-speed rail development. In contrast, federal-aid highways received more than nine times that amount—more than \$39 billion—in 2007 alone.

Since 1992, 10 “high-speed rail corridors” have been federally designated, based on their potential for development. They are in California, Florida, Pennsylvania, Texas-Oklahoma and New York, as well as the Midwest, Pacific Northwest, Southeast, Gulf Coast and New England. Along with the Northeast Corridor from Boston to Washington, D.C., these routes reach 34 states and total more than 9,500 route miles.

States have long advocated for federal funds for state-supported, intercity passenger rail. In 2008, the passage of the Passenger Rail Investment and Improvement Act signaled a major federal policy shift. The act reauthorized Amtrak, required national and state rail plans, and approved nearly \$5 billion over five years for three new grant programs for intercity and high-speed rail.

ADMINISTRATION BACKING

Last April, Obama called for robust, efficient high-speed rail service in 100- to 600-mile intercity corridors. He also confirmed that the designated corridors were potential recipients of federal funding.

There was nothing new in talking about high-speed rail. The real innovation from the current administration was not naming the corridors or identifying the grant programs, but providing far more money than what was previously authorized.

An \$8 billion “down payment” from the American Recovery and Reinvestment Act was provided through existing grant programs to jump-start the nationwide improvement of passenger rail. In December, Congress approved \$2.5 billion more for high-speed rail

in FY 2010 appropriations—\$1.5 billion more than the president had requested. More funding is expected from federal budgets over the next four years and from legislation authorizing federal surface transportation programs.

STATES IN MOTION

States quickly pursued the new money. For the initial \$8 billion in federal stimulus money, states submitted 259 applications for a total of \$57 billion.

In January, the U.S. Department of Transportation awarded the \$8 billion in grants to 31 states to develop 13 routes across the country. These included funds for smaller projects and planning, to lay the groundwork for future development.

Most of the money was awarded to develop new, large-scale high-speed rail programs. California received \$2.25 billion and Florida \$1.25 billion to build new, dedicated, European-style systems between the states’ major cities. Seven Midwest states received a total of \$2.62 billion to upgrade existing lines to make them faster and better serve existing markets.

The state role in passenger rail can include infrastructure planning, development and



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funding. Left without a federal funding partner for decades, however, many states have had limited or no passenger rail programs. In 2005, only about half the states had dedicated rail offices in their transportation departments, and some of those were handling solely freight—not passenger—systems.

Still, that means about half the states are actively supporting passenger rail, despite 50 years of federal financial neglect. As of 2005, at least 22 states were subsidizing Amtrak, passenger rail or commuter rail with state money. Many states—including California, Florida, Illinois, New York, North Carolina, Pennsylvania, Virginia and Washington—have established rail governance structures. In 2009, Texas joined them by legislatively creating a rail division, partly to catch up with development efforts in other corridors.

Even in states with plans for high-speed rail, development efforts have stalled in the absence of federal funding. California and the Midwest coalition have been planning their systems for more than 12 years, the Pacific Northwest since 1992, and the Gulf Coast states since 1982. For some of these states, the Obama initiative is finally getting their projects moving.

Any federal funds will come with clear expectations for state involvement, according to Joseph Szabo, administrator of the Federal Railroad Administration. “While FRA writes the checks, it is really state DOTs that will have responsibility for implementing these programs,” he says.

State legislators also have a key role, says Minnesota Senator D. Scott Dibble. They need to “oversee and provide the policy framework and the political leadership. Legislators need to pay attention and engage at the state, regional and federal levels. The alternative is to have this issue completely pass you by.”

ON THE RIGHT TRACK?

Amid all the enthusiasm for high-speed rail, questions remain about whether it is a smart policy choice. Advocates of high-speed rail have claimed it can relieve highway and airport congestion, lessen greenhouse gas emissions, limit dependence on foreign oil, and support economic growth. But some—including the Reason Foundation, the Cato Institute and Harvard economist Edward Glaeser—have suggested high-speed rail cannot deliver on these promises.

Part of the problem is that predictions about

high-speed rail are based on uncertain estimates of its costs and ridership. Models often use data from Asia and Europe, which have only limited applicability to the United States. They also sometimes project other variables decades into the future, such as population growth, fuel prices, economic growth and air-fare costs.

Here’s what we do know: First, high-speed rail is an expensive proposition. Incremental improvements in the Midwest will cost \$3.1 million per mile; California’s new, faster system will be about \$65 million per mile. Most systems will require substantial up-front public investments and perhaps long-term operating subsidies.

Second, the public benefits of those investments will vary by project, and those benefits and are hard to predict.

High-speed rail may work best in corridors with large, dense populations and congestion on existing modes of transportation, and where frequent, reliable service can be provided, according to a study by the U.S. Government Accountability Office.

Even in those areas, however, economic viability is not guaranteed.

“As these initial dollars are put on the table,” says Dibble, “we need to be very rigorous in making sure that we are building the right facilities and that the business cases are very sound.

“High-speed rail can be a fantastic investment for the economy, for individual lives, and for the environment,” he says. “But investing in a project that is a failure will affect the whole movement toward building a robust nationwide passenger rail network.”

Success will depend on the basics, says Florida Senator Paula Dockery. “The key is that the trains have to run on time, be clean, be safe, and take the people where they want



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to go. If you make it easy to use, it becomes a viable alternative.”

In a time of fiscal crisis, high-speed rail likely will be weighed carefully against other spending priorities, including existing, underfunded transportation infrastructure. With scarce state funds, few in-country rail experts and no existing high-speed rail industry, states that want these systems may find it challenging to develop the capacity and expertise to do their part.

This leaves state policymakers in a familiar situation: Making difficult decisions based on competing priorities, careful deliberation and often conflicting information.

“The long-term success of rail in this country and in your individual states and regions,” says Karen Rae, the railroad administration’s deputy administrator, “depends upon state legislatures understanding the goals of the program, the potential benefits, and then just doing the tough thing you do all the time: figuring out how that fits into your larger transportation goals.”

THE FUTURE OF HIGH-SPEED RAIL

Although high-speed rail may be gaining momentum, its future is uncertain.

Building a national high-speed rail network would take decades of sustained federal commitment. Though the \$10.5 billion given so far is a start, the National Surface Transportation Policy and Revenue Study Commission estimated the capital cost of re-establishing the national passenger rail network by 2050 at over \$357 billion. Without a dedicated funding source, high-speed rail projects must compete with other demands on federal funds and may give way to other policy priorities in the future.

“Whether or not the enthusiasm of this administration will grow into a sustainable, long-term program, only time will tell, says New York’s Smith.

Minnesota’s Dibble thinks there is momentum building.

“The excitement, imagination, and possibilities that are out there for building a comprehensive network of high-speed, intercity passenger rail,” he says, “really speaks to the need to create a much more reliable program with the kind of political and institutional commitment that will stand the test of time.”

CHECK OUT more about high-speed rail at www.ncsl.org/magazine.



Talk about high-speed rail in the United States often refers to the model systems in Asia and Europe.

Even President Barack Obama made the point last year. “All of you know this is not some fanciful, pie-in-the-sky vision of the future,” he said. “It’s been happening for decades. The problem is it’s been happening elsewhere, not here.”

Here is a quick picture of what’s happening elsewhere.

◆ Japan unveiled the world’s first high-speed rail line in 1964: the Shinkansen bullet train between Tokyo and Osaka, which averages 150 mph. Since then, seven other high-speed lines have been added, both before and after privatization in 1987. The system currently serves about 300 million passengers per year and continues to expand based on a national master plan. Right now, a new Tokyo-Osaka line is being built to carry passengers at more than 300 mph.

◆ France opened its first *Train à Grande Vitesse* or TGV line from Paris to Lyon in 1981. In 2007, a TGV train broke the world speed record at 357 mph. Every year, more than 100 million passengers ride the 1,180 miles of TGV, which connect major cities in France and link to Germany, Belgium and England. France is currently pursuing a plan to build 1,200 additional miles of high-speed rail before 2020.

◆ Spain’s first high-speed rail line, from Madrid to Seville, opened in 1992; more people now travel between those cities by rail than by car and air combined. In 2007 and 2008, additional lines were built from Madrid to Barcelona and Valladolid, and from Córdoba to Malaga. Today, the 981-mile system serves 9 million passengers per year. Spain’s most recent national transportation plan calls for \$103.9 billion to develop 5,592 miles of high-speed rail.

◆ China has embarked on the fastest expansion of high-speed rail in the world. The country started its service only three years ago and plans to invest more than \$1 trillion to develop more than 8,000 miles of high-speed rail by 2020. Last year, China unveiled the world’s now fastest high-speed train, which averages 217 mph. By 2012, China will have spent \$300 billion and may have more miles of high-speed rail service than any other nation.

True high-speed rail that travels at more than 150 mph requires exclusively dedicated track with no grade crossings, no freight traffic and no sharp curves. These systems are costly. France invested \$10.6 billion and Spain \$1.3 billion in passenger rail in 2003 alone; Japan spends about \$2 billion a year on the Shinkansen. So far, only California and Florida plan to build similar systems in the United States.