Guest Commentary

High-Speed Rail for California: The Unasked Questions

By David Levinson

Plans are in the works to put before the voters of California a $6 billion general obligation bond that would be but the first major increment of debt to plan and build a high-speed train system in this state.

The bond proposal is in legislation (SB 1856 by Senator Jim Costa) pursuant to the business plan of the California High-Speed Rail Authority. This high-speed rail (HSR) proposal would connect San Diego with San Francisco and Sacramento by a grade-separated rail line, serving trains traveling at about 200 miles per hour.

The primary proponents of the plan (the taxpayer-funded California High Speed Rail Authority) claim the train will generate $888 million per year by serving 32 million passengers along the corridor (typical fares between $20 and $30 per trip). Thus it is asserted that the train will pay for itself. It may even turn an “operating profit.”

However, the proponents leave out one difficult fact when claiming “profitability.” It is estimated that the capital costs of the system are $26 billion. Unfortunately, money doesn’t grow on trees, and it is unlikely that voters will be able to count on the “train fairy” from Washington, D.C. to provide the $26 billion required. There are about 34 million people in California. Dividing the capital costs by the population gives us about $760 per California resident (or over $3,000 for a family of four). This is a tax that Californians will have to pay to cover the capital costs of this train, to ensure it earns an “operating profit.”

If the bond measure passes, these costs will be paid for with bonds – a sensible way to finance sensible projects. But the bonds just transfer the cost from the present to the future. The implication is that, in nominal terms, the actual dollars paid will be higher since residents will also have to pay interest on the bonds. This analysis, to give the benefit of the doubt to the HSR Authority, ignores two historical properties of new passenger rail systems in the United States (as well as other large infrastructure projects, including the new Denver Airport and Boston’s Big Dig): they tend to underestimate costs (actual costs are higher than predicted) and they tend to overestimate demand (actual ridership tends to be lower than forecast). Both of those properties make sense when you consider the incentive of the rail agency is to get the project approved, the future can always make up the deficit.
Is this subsidy (over $3,000 per family) warranted to provide for a transportation mode that is slower than existing private air travel, just so it can be competitive on price? (If the HSR passengers had to pay for the capital costs, it would not be price-competitive, and probably would serve no riders). Subsidies for transportation are justifiable in certain cases. For instance, we as a society subsidize urban public transit to provide mobility options for the working poor, and enable them to hold jobs. Are the riders of this train likely to be working poor? No, in contrast, they are likely to have above-average incomes, as they are professionals who must travel between the power centers of California’s capital and largest cities. This subsidy thus transfers money from the poor to subsidize the rich.

Proponents may also argue that we should subsidize rail because we subsidize other modes. This is a spurious argument for two reasons. First, two wrongs don’t make a right. If there were subsidies in air travel and highways, that doesn’t justify similar subsidies in high speed rail, rather it argues for eliminating those subsidies. Second, highways and air travel basically pay for themselves. Highway user fees (gas taxes, motor vehicle property taxes, tolls, etc.) exceed highway expenditures. Similarly air transportation user fees cover the costs of airports, new security measures, and air traffic control.

Proponents then argue for the environmental benefits of high-speed rail. When they do so, they conveniently exclude two major costs of high-speed rail, the noise pollution and the land consumed (trains are noisier than cars, and rails affect a lot more land than airports). However, even after adding the external effects of air pollution and noise pollution to highways and air transportation, the subsidy required by high-speed rail is significantly larger. Adib Kanafani, a transportation engineer with the University of California at Berkeley, estimated that the subsidy for high speed rail would be 20 times the subsidy for air transportation and 85 times the subsidy for highways on a per-passenger-mile basis.

If the train runs electrically, there will less pollution resulting from train travel than from gasoline-powered cars, since electricity generation tends to pollute less (and pollute farther away from population centers). But there is one major cost they also exclude: the environmental impacts of construction itself. While this is hard to estimate, we can consider the energy consumed in constructing the track, since pollution is proportional to energy burned. A study of Bay Area Rapid Transit (BART) by Charles Lave, a transportation economist at the University of California at Berkeley, estimated that more energy was used to build the system than will ever be saved by it, and BART is a much smaller system requiring much less tunneling. At a minimum, the claims of environmental benefits should not be taken at face value.

There has been significant lobbying for HSR by engineering consultants, construction companies, rail car manufacturers, and local developers. Many of the companies involved are foreign-owned and controlled, including those that built the heavily subsidized systems in France and Japan. They clearly see the very concentrated benefits of a huge construction project – the proposed California High Speed Rail line would be more expensive than every other active HSR proposal in the country put together. While the benefits are concentrated, the losers, those who would pay the regressive taxes to cover the bonds, are diffuse. The $760 per person spread over 20 or 30 years is less than a dollar a day. While the money adds up, few will see the loss so directly to actively oppose the project.

A key question has never been asked: What is the best use of more than $26,000,000,000? The HSR Authority never examined alternatives. Its mandate was to justify a new piece of infrastructure. For that amount of money it would be very easy to improve air travel in the Central Valley, along with many other things that the HSR is supposed to accomplish. HSR is the least cost-effective way to provide transportation services between the valley and the coast, or between northern and southern California.