Center for the American Dream
of mobility and home ownership

Issue Backgrounder
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Don't Lock-in Nineteenth-Century Technology

Rail transit is not and will never be a remedy for possible future oil shortages.

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One of the strangest arguments made in favor of spending billions of dollars on rail transit is that we will need it when we run out of oil. "We are going to run out of oil in ten to twenty years," rail advocates claim, "so we should build rail lines now to be ready when people can no longer afford to drive."

It is nice of them to plan ahead using other people's money, but the economy doesn't work that way. Oil is finite, and eventually we may run low. But gasoline is not going to sell for $1.29 one day and be gone the next. Instead, oil prices will increase gradually as oil companies access more expensive sources.

As prices increase, people will buy more fuel-efficient cars and trucks. That is how people responded to the oil shocks of the 1970s. Today, we drive more than twice as many miles as we did thirty years ago, yet gasoline consumption has gone up by less than 50 percent.

If fuel prices rise high enough, people will adopt other technologies such as electric cars, fuel-cell-powered cars, or maybe even coal-fired steam cars. Improvements in these technologies will reduce their cost, possibly even making them less expensive than gasoline-powered cars today. But because we can't predict today which technology will make the most sense in the future, we shouldn't lock ourselves into any particular technology.

The first six letters of the second row of my computer keyboard are "QWERTY," so it is often called a Qwerty keyboard. This keyboard was supposedly designed in the nineteenth century to be slow and cumbersome so that typists wouldn't jam the primitive, slow-moving mechanisms of the day.

In 1932, a man named August Dvorak designed a keyboard that supposedly allowed typists to work much faster. But after seventy years, hardly anyone uses the Dvorak keyboard. Instead, we are "locked in" to using an inefficient keyboard because it is just too much trouble for everyone to learn a different keyboard.

This is supposed to be an example of market failure and is often cited to justify government intervention in the marketplace. Actually, it turns out to be just an urban legend. There is little evidence that Qwerty was designed to slow typists down, and recent tests found that Dvorak keyboards are, at most, only about 4 percent faster than Qwerty. That's hardly enough to get excited about. Nevertheless, we are supposed to be on guard against getting locked into inefficient technologies, such as VHS instead of Beta, Windows instead of Macintosh, and so forth.

So it is ironic that those who least trust markets want to lock us into specific transportation technologies today, years or possibly decades before oil prices start rising. They want to subsidize fuel-cell research, mandate the sale of electric automobiles, and build expensive rail-transit lines in our cities.

No one knows which technology will replace petroleum-powered internal-combustion engines. It could be fuel cells, it could be electric, it could be solar, it could be something no one today knows about.

One thing is certain, however: Rail transit will never replace automobiles. First, it is too limiting. Eighteen-mile-per-hour light-rail lines, such as the one in Denver, or even 30-mile-per-hour subway lines, such as the one in Washington, DC, cannot possibly give people the same mobility we expect from automobiles. That's one reason why, despite DC's great rail system, 21,000 fewer DC-area commuters rode transit to work in 2000 than in 1990.

Second, rail is too expensive. Even if every seat on every train were full, rail would cost many times more than auto driving costs today. The few people who ride rail transit now can afford to do so because the vast majority of people who drive subsidize them. But if we all used rail, we would have to pay the full cost.

Americans today spend 8.5 percent of their personal incomes on autos and driving, down from more than 10 percent a few decades ago. If we all rode transit, we would have to spend well over 20 percent of our incomes on transportation—even more if we all rode rail transit—and it would still take us far longer to reach our destinations.

Rail's high cost helps explain why Americans didn't travel much in 1920, the peak year for both intercity passenger trains and rail transit. The average American at that time traveled less than 1,500 miles a year on intercity trains and urban transit. Today the average American travels ten times as many miles a year by auto alone.

The other reason Americans didn't travel much in 1920 was that they didn't earn as much. Though transit fares were only a nickel, few Americans earned enough to pay those fares twice a day, every working day of the year. The automobile has given people access to more and better jobs today, so after adjusting for inflation we earn at least five times as much money as people did eighty years ago.

So we don't want the government to lock us into any technology. We especially don't want to spend billions of dollars building a nineteenth-century rail system in our twenty-first century cities.