



Closing the China-US transportation gap

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A major gap between Chinese and American infrastructure costs us hundreds of billions of dollars a year. That is the gap in the number of miles of freeways in each country.

You probably thought I was referring to the high-speed rail gap. After all, China has 22,000 miles of high-speed rail lines; the United States has essentially none.

High-speed rail, however, is a functionally obsolete technology that is slower than flying, less convenient than driving, and far more expensive than either. Nor is it environmentally green: constructing high-speed rail infrastructure produces tens of thousands of tons of greenhouse gases per mile, emissions that in most cases will never be made up for by any operational savings.

Building 22,000 miles of high-speed rail helped put China's state railway company nearly \$850 billion in debt, which is so unsustainable that China has slowed construction of more such rail lines. Meanwhile, both driving and air travel in China are growing much faster than rail travel. In the decade ending in 2019, for example, China's rail travel grew by 80 percent, but air travel grew 186 percent.

The important infrastructure gap is in freeways. China opened its first freeway in 1998 and by the end of 2019 it had built 93,000 miles while the United States had under 67,000. Moreover, China is building about 4,000 new freeway miles a year while the United States has built fewer than 800 miles a year.

Freeways carried the average American almost 4,000 miles in 2019 and many are filled to capacity for several hours of the day. For comparison, Amtrak carried the average American just 19 miles in 2019 and wasn't able to fill more than half of its seats.

Freeway driving is growing so much faster than freeway miles that, according to the Texas Transportation Institute, traffic congestion costs American commuters \$166 billion a year, and costs shippers even more. Building more freeways would save time, money and fuel.

The United States and China each have about the same amount of land area and about the same number of motor vehicles. China's eagerness to build so many freeways shows that it realizes something that American political leaders have forgotten: highways drive economic growth.

Freeways have several advantages over high-speed rail lines. First, they can pay for themselves. America's Interstate Highway System was paid for entirely out of user fees such as gasoline

taxes. China's freeways are paid for out of tolls. By comparison, most of China's high-speed rail lines, says a Chinese transportation economist, are "bleeding red ink."

Second, U.S. freeways connect with 2.9 million miles of other paved roads, so people exiting a freeway can continue to their final destinations without changing vehicles. President Obama's 2009 high-speed rail plan included six different rail systems that didn't even connect with each other, much less other roads.

Third, freeways carry both passengers and freight, while high-speed rail systems can only carry passengers, greatly limiting their usefulness. America's freeways carry more than 25 percent of all passenger-miles and 25 percent of all ton-miles of freight shipped in the United States. Even if the nation built a high-speed rail network as big as China's — which would cost trillions of dollars — it would probably carry only about 2 percent of passengers and no freight.

Finally, the pandemic has reminded us of the importance of resilience, and motor vehicles and highways are the most resilient transportation we have. To keep operating during the pandemic, Amtrak needed a billion dollars of subsidies on top of the \$2.2 billion in federal and state subsidies it normally gets, while highways are there when needed regardless of available funding.

The gap between China and U.S. freeway systems developed because an anti-highway lobby made up ridiculous stories about the evils of personal mobility. Supposedly, we shouldn't build more roads because people will use them. Instead, they want us to spend billions building light rail and high-speed rail that would mainly be used by economic elites.

This is both inane and socially unjust. Although American auto ownership rates are much higher than in China, about 7 million low-income households in the U.S. lack access to an automobile. Numerous studies show that automobility helps people out of poverty far better than free transit, while the costs of congestion fall mostly on the working class, whose hours and job locations are less flexible than many middle-class workers.

The United States shouldn't build new freeways just because China has more. It should build them wherever they can pay for themselves because automobility greatly contributes to economic productivity, reduces poverty, and can be as environmentally green as any other passenger technology.

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