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The Virtues of Investing in Transportation

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Jim Wilson/The New York TimesImproving the existing transportation infrastructure can create jobs and increase productivity, studies have found. Construction began last year to replace Doyle Drive, which carries commuters between the Golden Gate Bridge and downtown San Francisco.

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Years of underinvesting in the nation's transportation infrastructure are apparent in congested roads, freight bottlenecks, airport delays and overcrowded or nonexistent public transit operations. Yet the heated debate in Washington about how much and how fast to slash government spending is overlooking how a significant, sustained increase in infrastructure investment would create jobs and strengthen the nation's competitiveness.

Infrastructure spending, adjusted for inflation and accounting for the depreciation of existing assets, is at about the same level it was in 1968, when the economy was one-third smaller. Public investment on transportation and water infrastructure as a share of gross domestic product has fallen steadily since the 1960s and now stands at 2.4 percent, compared with 5 percent in Europe and more than 9 percent in China.

Experts differ on how much more is needed but agree the amount is substantial.

The American Society of Civil Engineers, for example, estimates that we need to spend an additional $110 billion a year to maintain the transportation infrastructure at current performance levels. The Congressional Budget Office reported in May that simply maintaining the current performance of the system would require the federal government to increase its annual spending on highways by about one-third, while state and local governments that account for about 55 percent of capital spending on the highway system would have to increase their annual spending by similar or larger amounts.

Financing highway projects whose economic benefits exceed their costs would necessitate more than a doubling of federal investment on highway infrastructure from its 2010 level of $43 billion. All these estimates apply only to shortfalls in economically justifiable spending on transportation and highways; they do not include other critical infrastructure areas, like water, energy and broadband.

Government spending on infrastructure raises demand, creates jobs and increases the supply and growth potential of the economy over time. The C.B.O. says infrastructure spending is one of the most effective fiscal policies for increasing output and employment and one of the most cost-effective forms of government spending in terms of the number of jobs created per dollar of budgetary cost.

Studies indicate that each $1 billion of infrastructure spending creates 11,000 (estimate of the President's Council of Economic Advisers) to 30,000 jobs (estimate of the Department of Transportation for infrastructure spending on highways) through direct and indirect effects.

Most of these jobs are added in construction and related sectors, hard hit by the housing crisis, and most of them are relatively well paid, with wages between the 25th and the 75th percentile of the national wage distribution.

Public infrastructure enables the private sector. A modern transportation infrastructure improves private-sector productivity by reducing production and transportation costs, and facilitating trade, economies of scale and efficient production methods.

Not surprisingly, the quality of transportation infrastructure is a major factor affecting business decisions about where to locate production, and the eroding quality of infrastructure is making the United States a less attractive place to do business.

According to the 2010-11 competitiveness report of the World Economic Forum, the United States now ranks 23rd among 139 countries on the overall quality of its infrastructure — between Spain and Chile. In 1999, the United States ranked seventh.

The Obama administration's budget request for $556 billion for the reauthorization of the surface transportation bill over the next six years is an important first step. But how the money is spent also matters. Because of political considerations, a large fraction of federal infrastructure spending currently finances projects aimed at building capacity rather than maintaining existing capacity.

Yet recent evidence indicates both that the returns on projects to expand capacity have been falling over time and that projects to maintain capacity often enjoy higher returns.

In a time of budget austerity, the allocation of scarce federal dollars for infrastructure must be guided by cost-benefit analysis — rather than by earmarks and formula-based grants, as is currently the case. That's why the Obama administration is calling for the use of performance criteria and "race to the top" competition among state and local governments to allocate federal spending among competing projects.

That's also why both the administration and a bipartisan group — led by Senators John Kerry, Democrat of Massachusetts; Kay Bailey Hutchison, Republican of Texas; and Mark Warner, Democrat of Virginia — have proposed the creation of a national infrastructure bank.

Such a bank would focus on transformative projects of national significance, like the creation of a high-speed rail system or the modernization of the air traffic control system. Such projects are neglected by the formula-driven processes now used to distribute federal infrastructure funds among states and regions.

The bank would also provide greater certainty about the level of federal funds for multiyear projects by removing those decisions from the politically volatile annual appropriations process and would select projects based on transparent cost-benefit analysis by independent experts.

The bank would be granted authority to create partnerships with private investors on individual projects, and these would increase the funds available and foster greater efficiency in project selection, operation and maintenance. Such partnerships — common in Europe and other parts of the world — often result in earlier completion of projects, lower costs and better maintenance of infrastructure compared with investments made solely by public entities.

Despite rapid growth in the last decade, such partnerships are still rare in the United States. Why? Because infrastructure decisions are fragmented, with states, cities and municipalities owning their own assets and applying their own political and economic criteria to potential deals with private investors. Several states do not have legislation authorizing partnerships and no guidelines exist for how decisions will be made.

One obstacle may be gone: Representative James Oberstar, Democrat of Minnesota and the previous chairman of the House Transportation and Infrastructure Committee, opposed these partnerships and urged state and local officials to avoid them. He lost his seat in 2010, and Representative John Mica, Republican of Florida, who now heads the committee, supports the partnership concept.

Improving infrastructure investment decisions through cost-benefit analysis and public-private partnerships is one way to realize larger returns on scarce investment dollars.

Applying congestion pricing or tolls and fees to make private users pay a larger share of the total cost of their infrastructure use is another. Drivers do not currently pay the full costs of their driving, and those substantial costs — including traffic delays, accidents and damage to roads — are borne by other drivers and society.

Congestion pricing and more reliance on tolls would relieve the economic and social costs of congestion; it would give clearer signals about the demand for different types of infrastructure, and it would reduce the required amount of infrastructure investment. The Federal Highway Administration estimates that widespread use of congestion pricing would reduce the necessary investment in highways by about $20 billion a year. But congestion pricing, despite its successes in London and elsewhere, is likely to encounter vociferous opposition, as Mayor Bloomberg learned when he proposed a reasonable plan for New York City.

Even as we slash other forms of government spending, we must invest more in our infrastructure.