

ECONOMIC ANALYSIS AT THE STATE, METROPOLITAN, AND PROJECT LEVELS

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The public has an implicit understanding of the value of transportation and its role in economic development. Moreover, we all recognize that transportation operates in a new economic context, dominated, for example, by just-in-time delivery and a global economy. The American Association of State Highway and Transportation Officials, the National Governors Association, and others have documented the central role of transportation in both of these aspects of the new economy. Research efforts over the past decade have underscored the importance of transportation to the economy, and we are on the verge of a high payoff from this research.

Many organizations have performed research and published materials that provide a solid, quantitative basis for the public's general understanding of the linkage between transportation and the economy. At the national level, the Federal Highway Administration (FHWA) has published the results of research on industry cost savings from highway investments. At the state level, David Winstead reported how the Maryland State Highway Agency has looked closely at the impacts of the state highway system on the state economy. Also, the Wisconsin Department of Transportation has looked at similar questions. The Chicago Federal Reserve Bank has performed studies of economic linkages in the Midwest. And, as Barbara Fraumeni discussed, the Bureau of Transportation Statistics together with the Bureau of Economic Analysis have developed a transportation satellite account that documents transportation's impact on the gross domestic product.

But these examples are just the beginning. We can look forward to FHWA's construction of capital stock accounts for highways, expansion of FHWA's cost savings research to cover the passenger side, and work from the American Public Transit Association concerning the economic impacts of transit systems. And one of the most exciting prospects is for new applications of the Commodity Flow Survey and American Travel Survey to specific projects. For example, during the great Wilson Bridge debate in Washington, D.C., CFS and ATS were used to show the scale and impact of that bridge in the national economy. Two percent of the value of everything in America that moves by truck crosses that bridge each year; that type of information can be very powerful in informing investment decisions related to individual projects.

Current research also explores additional aspects of the new economy, including industry cost reductions, synergy between regions and niche markets, and personal travel

and tourism. For example, the Federal Reserve Bank's research analyzes the transport and industrial characteristics that contribute to the Midwest's comparative advantage. The analysis finds that significant levels of trade are occurring not only between but also within industries. It also finds that industries are highly motivated to seek out high-quality but low-cost inputs. It also reports that the keystone of this new economy lies in communications and transportation, particularly given the transportation system's role in broadening the total "marketshed" in which firms can search for suppliers.

Above all, the future is going to be dominated by increased "niche-iness," such that an understanding of the economy will depend, more than ever, on an understanding of small markets that are difficult to measure. This new world will make immense demands on our descriptive capabilities, both statistically and analytically, and from a transportation perspective, this applies to both freight and passenger movements.

So what does this brave new world look like? Certainly transportation and GDP are, and will remain, aligned. More consumption will occur per capita, and more passenger travel will occur per unit of GDP. On the freight side, we will see fewer ton miles per unit of GDP. This does not necessarily mean less freight, but rather a world in which shippers produce and transport ever more valuable commodities. This focus on high-value commodities suggests that shippers will be more tolerant of relatively high-cost transportation. Indeed, modern communications and modern transportation, with its great speeds, has nearly destroyed distance. The issue, instead, is time.

On this last point, and in response to a comment from Dr. Robert Martinez in the audience, I recognize that from another point of view, the reliability of freight delivery can trump the issue of the time it takes to deliver the product. As Dr. Martinez says, in the coming years the real challenge facing freight providers—and by extension, the transportation system—will be reliability. Indeed, if freight providers could guarantee shippers 100 percent reliability in on-time deliveries, the shippers (and recipients) would likely register far less concern about time-in-transit.

Finally, we also need to take the new population into account. We will have skilled workers, but they will be in great demand and at a premium. The population will be older. At the same time, the big question will center on who will be immigrating here, and where they will locate. The question of location ties closely to the matter of communications, because we are looking at a population that can live and work almost anywhere. What lies ahead? An affluent, but challenged, society. We already have a lot of high-payoff research in hand. We must use it, expand it, and apply it to the transport challenges we face in the coming years.