

Improving Transportation Economic Impact Methods



Client

Facts

Period

2007Project Country

"From the ancient days to the mid twentieth century, no one would think of assessing the full economic benefit of transportation investment as merely the value of savings in time and vehicle operating cost for existing travelers. It would be unthinkable to assess the job and income benefits of new transportation without also considering factors such as accessibility to markets, scale economies from market expansion, cross-border trade, intermodal connectivity or reliability. But then again, they did not have computer models to oversimplify the assessment process." --EDR Group, Evolution of Methods for Assessing Economic Development Impacts of Transportation.

New Perspectives on Transportation Investment Benefits. New research and studies by Economic Development Research Group have illuminated the importance of viewing transportation project benefits in terms of their full roles affecting economic growth and productivity -- which are tied to impacts on multi-modal access and connectivity. This is illustrated by emerging trends for all modes of travel:

Aviation. The traditional view of airport benefits -- documenting the jobs and income created by an airport and visitors -- is no longer sufficient. Today, those impacts are swamped by the more important role of airports in facilitating business activities that depend on cargo and staff access to national and international markets. That access is also facilitated by closer integration of airport use with road systems. These changes were highlighted in a recent presentation by staff of EDR Group at the 2007 International workshop on Measuring the Economic Significance of Airports.

Railroads. The separation of public planning for roadways and private planning for railroads is fading. Today, rail freight is increasingly being seen as a way to reduce the growth of trucks and highway congestion, and these quality of life and economic development benefits are driving public-private partnerships. These new views were highlighted in a recent presentation by Global Insight and EDR Group at the 2007 TRB Annual Conference Session on Railroad Investments and a new national NCHRP report.

Highways. The traditional measurement of highway investment benefits focused on car and truck travel time and cost. However, that approach is being shaken up as highway benefits are increasingly being viewed in terms of their connectivity and access to airports, marine ports, rail terminals and border crossings, for container cargo as well as passenger travel. This broader perspective is reflected in EDR Group's contributions to the new USDOT Guide to Quantifying the Economic Impacts of Federal Investments in Large-Scale Freight Transportation Projects.

Public Transit. The traditional measurement of transit benefits, focusing on job creation and dependent population sectors, is no longer seen as sufficient. Increasingly, regional business organizations are taking a lead in demonstrating the value of integrated multi-modal investments that see transit as a way of increasing labor market access while reducing congestion for truck movements. This new view of transit's role in assisting freight flow is also reflected in studies conducted by EDR Group for regional business groups in Chicago (IL), Portland (OR) and Vancouver (BC).

Borders and Gateways. While borders, gateways and international trade have often not been a major part of state and national transportation investment decision-making in the past, new changes in globalization are making connectivity and access to these facilities increasingly important. This is reflected in the bi-national CanAm Connections study (EDR Group, technical director) and hearings of the National Surface Transportation Policy Board.

New Tools. Despite having separate air, sea, rail and roadway planning by different groups within many state and federal agencies, there is a widespread recognition that the value of transportation investments can be more fully captured through a multi-modal framework. The new Transportation Economic Development Impact System (TREDIS) is gaining widespread recognition as a way to recognize the multi-modal connectivity value of investments in any mode of transport, and as a way of distinguishing local, regional and national perspectives on economic impacts and benefits. This system also incorporates the USDOT Guide to Quantifying Economic Benefits of Multimodal Freight Projects.

Towards the future. EDR Group remains committed to continuing research that helps improve the economic evaluation of transportation investments. Our current research is focusing on threshold effects - the fact that some business productivity and growth effects are not triggered until certain threshold levels of market size and market access improvement are achieved. That effect was documented in a recently completed statistical analysis by EDR Group, "Sources of Regional Growth in Non-Metro Appalachia" (published in early 2007). In addition, some business savings benefits are not triggered until certain minimum levels of travel time delay and uncertainty are met. All of these impacts are being incorporated into the multimodal TREDIS system, which is being used for studies of the states of Oregon, Pennsylvania, Maine, Wisconsin and California.

Recent Professional Presentations and Articles by EDRG staff on this topic include:

Towards Broader Views of Airport Economic Significance: Intermodal Perspectives, TRB Workshop on the Economic Significance of Airports, 2007. (pdf)

Linking Rural Transportation Planning to Regional Development, National Association of Development Organizations, 2006. (pdf)

Industries on the Interstate: What is the Best Location, Transportation Research News Magazine, May 2006. (pdf)

International Conference on Transportation and Economic Development, 2006. "Towards a New Framework for Evaluating Economic Development Impacts of Proposed Transportation Projects"

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