

Why GAO Did This Study

Concerns about the weak economy, congestion in the transportation system, and the potentially harmful effects of air emissions generated by the transportation sector have raised awareness of the potential benefits and costs of intercity passenger and freight rail relative to other transportation modes such as highways. GAO was asked to review (1) the extent to which transportation policy tools that provide incentives to shift passenger and freight traffic to rail may generate emissions, congestion, and economic development benefits and (2) how project benefits and costs are assessed for investment in intercity passenger and freight rail and how the strengths and limitations of these assessments impact federal decision making. GAO reviewed studies; interviewed federal, state, local, and other stakeholders regarding methods to assess benefit and cost information; assessed information on project benefits and costs included in rail grant applications; and conducted case studies of selected policies and programs in the United Kingdom and Germany to learn more about their policies designed to provide incentives to shift traffic to rail.

What GAO Recommends

GAO recommends DOT conduct a data needs assessment to improve the effectiveness of modeling and analysis for rail and provide consistent requirements for assessing rail project benefits and costs. DOT, Amtrak and EPA provided technical comments, and DOT agreed to consider the recommendations.

View [GAO-11-290](#) or key components. For more information, contact Susan Fleming at (202) 512-4431 or flemings@gao.gov.

INTERCITY PASSENGER AND FREIGHT RAIL

Better Data and Communication of Uncertainties Can Help Decision Makers Understand Benefits and Trade-offs of Programs and Policies

What GAO Found

Although implementing policies designed to shift traffic to rail from other modes may generate benefits, and selected European countries' experiences suggest that some benefits can be achieved through these types of policies; many factors will affect whether traffic shifts. The extent to which rail can generate sufficient demand to draw traffic from other modes to achieve the desired level of net benefits will depend on numerous factors. Some passenger or freight traffic may not be substitutable or practical to move by a different mode. For example, certain freight shipments may be time-sensitive and thus cannot go by rail. Another key factor will be the extent to which sufficient capacity exists or is being planned to accommodate shifts in traffic from other modes. How transport markets respond to a given policy—such as one that changes the relative price of road transport—will also affect the level of benefits generated by that policy. Experiences in selected countries suggest that varying amounts of mode shift and some benefits were attained where decision makers implemented policies to move traffic from other modes to rail. For example, a road freight pricing policy in Germany resulted in environmental and efficiency improvements, and freight rail grants in the United Kingdom led to congestion relief at the country's largest port. Pursuing policies to encourage traffic to shift to rail is one potential way to generate benefits, and other policies may be implemented to generate specific benefits at a potentially lower cost.

Information on the benefits and costs of intercity passenger and freight rail is assessed to varying degrees by those seeking federal funding for investment in rail projects; however, data limitations and other factors reduce the usefulness of such assessments for federal decision makers. Applicants to two discretionary federal grant programs—the Transportation Investment Generating Economic Recovery program and the High-Speed Intercity Passenger Rail program—provided assessments of potential project benefits and costs that were generally not comprehensive. For instance, applications varied widely in the extent to which they quantified and monetized some categories of benefits. In addition, GAO's assessment of selected applications found that most applicants did not provide key information recommended in federal guidance for such assessments, including information related to uncertainty in projections, data limitations, or the assumptions underlying their models. Applicants, industry experts, and Department of Transportation (DOT) officials GAO spoke with reported that many challenges impacted their ability to produce useful assessments of project benefits and costs, including: short time frames in which to prepare the assessments, limited resources and expertise for performing assessments, poor data quality, lack of access to data, and lack of standard values for monetizing some benefits. As a result, while information on project benefits and costs was considered as one of many factors in the decision-making process, according to DOT officials, the varying quality and focus of assessments resulted in additional work, and the information provided was of limited usefulness to DOT decision makers.