



Highlights of [GAO-11-134](#), a report to the Subcommittee on Select Revenue Measures, Committee on Ways and Means, House of Representatives

Why GAO Did This Study

Road, rail, and waterway freight transportation is vital to the nation's economy. Government tax, regulatory, and infrastructure investment policies can affect the costs that shippers pass on to their customers. If government policy gives one mode a cost advantage over another, by, for example, not recouping all the costs of that mode's use of infrastructure, then shipping prices and customers' use of freight modes can be distorted, reducing the overall efficiency of the nation's economy.

As requested, this report (1) describes how government policies can affect competition and efficiency within the surface freight transportation sector, (2) determines what is known about the extent to which all costs are borne by surface freight customers, and (3) discusses the use of the findings when making future surface freight transportation policy. GAO reviewed the transportation literature and analyzed financial and technical data from the Department of Transportation (DOT), the Army Corps of Engineers (Corps), and the Environmental Protection Agency to make cross-modal comparisons at a national level. Data limitations and assumptions inherent in an aggregate national comparison are noted in the report.

GAO is not making recommendations in this report. GAO provided a draft of this report to DOT and the Corps. DOT provided technical suggestions and corrections, which were incorporated as appropriate. The Corps had no comments.

View [GAO-11-134](#) or key components. For more information, contact Phillip R. Herr at (202) 512-2834 or herrp@gao.gov, or James R. White at (202) 512-9110 or whitej@gao.gov.

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SURFACE FREIGHT TRANSPORTATION

A Comparison of the Costs of Road, Rail, and Waterways Freight Shipments That Are Not Passed on to Consumers

What GAO Found

Public spending, tax, and regulatory policies can promote economic efficiency in the freight transportation sector when they result in prices that reflect all marginal costs (the cost to society of one additional unit of service). These costs include private costs; public costs, such as infrastructure maintenance; and external costs, such as congestion, pollution, and accidents. When prices do not reflect all these costs, one mode may have a cost advantage over the others that distorts competition. As a consequence, the nation could devote more resources than needed to higher cost freight modes, an inefficient outcome that lowers economic well-being. Inefficient public investment decisions can result when all construction and other fixed costs are not passed on to the beneficiaries of that investment.

GAO's analysis shows that on average, additional freight service provided by trucks generated significantly more costs that are not passed on to consumers of that service than the same amount of freight service provided by either rail or water. GAO estimates that freight trucking costs that were not passed on to consumers were at least 6 times greater than rail costs and at least 9 times greater than waterways costs per million ton miles of freight transport. Most of these costs were external costs imposed on society. Marginal public infrastructure costs were significant only for trucking. Given limitations in the highway, rail, and waterway economic, financial, technical, and environmental data available for the analysis, GAO presents conservative estimates.

While freight costs are not fully passed on to consumers across all modes, a number of issues are important for decision makers to consider when proposing policy changes to align prices with marginal costs or reduce the difference between government fixed costs and revenues. Costs can vary widely based on the specific characteristics of an individual shipment, such as the geography and population density of the shipment's route, and the fuel-efficiency of the specific vehicle carrying it. Policy changes that align prices with marginal costs on a shipment-by-shipment basis would provide the greatest economic benefit, but precisely targeted policy changes can result in high administrative costs. By contrast, less targeted changes—such as charging user fees based on average costs, subsidizing more efficient alternatives, or broadly applying safety or emissions regulations—can change the overall distribution of freight across modes, but may provide fewer benefits. Although the current configuration of transportation infrastructure can limit the shifting of freight among modes, price changes can prompt other economic responses. Over the longer term, there is greater potential for responses that will shape the overall distribution and use of freight services.