

Arizona Key Commerce Corridors



Client

Facts

Period 2004

Project Country

For Arizona DOT, EDR Group, under subcontract to Parsons Brinkerhoff, developed a methodology for assessing the productivity effects of enhancing supply chain and market access as a result of improvements in interstate commerce corridors. The methodology was then applied for six “key commerce corridors” (KCCs).

Using TREDIS® software and extension models for additional productivity analysis, EDR Group identified the economic development impacts that would accrue to Arizona from 1) reduced transportation costs for freight shippers and for auto commuters moving through metropolitan areas, and 2) expanded interstate market access for Arizona manufacturers and distributors. The latter analysis relied on a statistical (elasticity) model to show how longer distance accessibility improvements could affect supply chain productivity by expanding access to resource and intermediate goods suppliers, reducing delivery/ distribution times to buyer markets, and improving connectivity to major freight nodes such as air cargo airports, major intermodal freight facilities, and border crossings. This process also used a methodology of “supply chain back-tracing” to derive productivity changes by industry and location. It built on origin-destination and inter-industry commodity trade data, as well as operational efficiency metrics in the TREDIS database.

An explicit part of this analysis was the calculation of effects on access to major US West Coast ports and investments in improving corridor performance tied to reduced delays and improved reliability. These effects were assessed on a multi-state, regional basis in order to assess broader effects on the competitive position of the state for attracting new business and growing existing business.

Contact Persons