

Highway Conditions, Congestion Key Factors in Supply Chain Reliability

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The National Highway Freight Network includes 47,279 miles of Interstate highways represent.

Map: USDOT Federal Highway Administration

Improving the performance of the nation's supply chain will require improvement to the conditions of U.S.'s network of roads and bridges, and a solution to highway congestion, according to a TRIP report.

TRIP's report — [The U.S. Freight Network's Critical Role in the Supply Chain](#) — examines the latest information on the condition and reliability of the nation's supply chain and the critical role of the U.S. freight transportation network in keeping the economy moving.

According to the report, which cited Texas Transportation Institute data, increasing traffic congestion resulted in a 77% increase in traffic delays for commercial trucks from 2000 to 2019, increasing from 219 million hours to 387 million hours.

Congestion on this network can cause unpredictable reliability, impact delivery times and costs, and hinder the delivery of goods, supplies and raw materials. This could in turn disrupt manufacturing supply chains and prolong the time it takes for customers to receive orders.

Decreased reliability also requires drivers to budget extra time, track routes in real time and make route adjustments to account for inconsistent travel times and delays. The inability to predict travel times may lead to delayed deliveries or schedule changes, which can increase the cost of freight operations or deliveries and result in lost pay to truck, TRIP officials said in the report.

The National Highway Freight Network, established by Congress in 2015, includes 47,279 miles of Interstate highways represent — the largest portion of the 57,994-mile network.

Improvement to this network will require an increase in investment since the condition of the network can greatly impact the delivery of goods, according to the report. TRIP cited a 2021 report from the U.S. Department of Transportation, which calls for a 55% increase over current levels of annual investment in roads, highways and bridges.

According to the report, 4% of bridges and pavement on the National Highway Freight Network are rated in poor condition.

Annually, 19.7 billion tons of freight are shipped to and from sites in the U.S. The majority of freight shipped in the U.S. are transported by trucks, which carry 72% of freight by value and 64% by weight annually. An additional 7% by value and 3% by weight are shipped annually by multiple modes, which includes trucks, according to the report.

TRIP is a nonprofit organization that researches, evaluates and distributes economic and technical data on surface transportation issues. TRIP is sponsored by insurance companies, equipment manufacturers, distributors and suppliers; businesses involved in highway and transit engineering and construction; labor unions; and organizations concerned with efficient and safe surface transportation.