

MAP-21 Comprehensive Truck Size and Weight Study

Essential Corrective Measures that Must be Taken to Make the Truck Size and Weight Study Credible

The MAP-21 Comprehensive Truck Size and Weight Study (Study) must be put on hold, and there should not be any release of technical information or data, until each of the following flaws are addressed and resolved:

1. The Study must not rely on industry supplied data. This permits the introduction of sample and self-selection bias as the regulated industry can select crash data which best supports the outcome they favor and omit or withhold data that contradicts the industry position.
2. The Study must not rely on crash data that comes from a small number of western states and other largely rural states with low population densities that are not representative of nationwide operations and may have very different highway operating environments and restrictions.
3. The Study cannot use a “static” view of freight demand. The Study must account for the predicted increases in overall freight and truck tonnage in coming years – a 63% increase according to the Federal Highway Administration’s (FHWA) own estimates – which will dramatically increase the number of trucks on the road. The Study must also take into account the increase in shipper demand resulting from comparatively lower truck freight costs. Failure to appropriately account for these factors will impact nearly all calculations in the Study, including estimates of financial, safety and environmental impacts.

The Study must use a proper modal shift methodology. The Study makes faulty and unrealistic assumptions about rail transportation pricing used to determine rail-to-truck freight diversion. Use of actual rail rate data, including the Surface Transportation Board’s (STB) Carload Waybill Sample, could remedy the problem. The modal shift analysis must also consider the effects of bridge postings on truck mileage because of rerouting and the impact of truck and size and weight increases on short line railroads. All of these factors will impact the Department of Transportation’s (DOT) truck vehicle miles traveled (VMT) estimate.

4. The Study must prepare a full Environmental Impact Statement of allowing bigger and heavier trucks by examining a realistic model of diversion of freight from rail to trucks and the increased energy use and pollution that will result. The combination of the static freight view and the improper modal shift model will significantly underestimate the future impact of shifting freight volume from more efficient and safer freight modes to over-the-road trucks.

5. The Study cannot assume that bigger, heavier trucks will result in fewer trucks because historically it has never happened. No analysis is presented to justify this assumption. Furthermore, the Study contains no examination of the opportunities for improved efficiency and excess capacity in the current fleet.
6. The Study must include Turnpike and Rocky Mountain Doubles. These are the longest trucks (120 ft. vs. triples at 110 ft. and heavy singles at 74 ft.) and the heaviest trucks (140,000 lbs. vs. triples at 110,000 lbs. and 129,000 lbs., and singles at 97,000 lbs.). Failure to include a specific analysis of the safety and infrastructure impacts of these vehicles is a serious flaw in the Study evaluation.
7. The bridge analysis must enhance the sample size beyond looking at just 0.1 percent of all bridges in only 3 geographical categories. Moreover, the sample must account for the current and predicted future state of bridge infrastructure. The sample must account for at-risk bridges, including those that are load-posted (weight limited) and the nearly one-quarter of bridges which are structurally deficient or functionally obsolete, and the proportion of bridges which may become so in the foreseeable future.
8. The Study must examine and assess the impact that longer and heavier trucks would have on the nation's most vulnerable roads and bridges. Thirty-two percent of America's major roads are in poor or mediocre condition. The Study must extend the highway networks being studied to include state, county and local roads. The Study is only proposing to include about 250,000 miles of highway (Interstates, National Highway System (NHS) and National Truck Network) out of the 4 million miles of public roads. This is not a representative sample because almost every heavy truck trip begins and ends on the local networks and the current Study plan excludes the impact that heavy truck trips have on these roadways which are the nation's oldest roads and on which the pavements and bridges are built to the lowest standards.
9. The Study must take into account the real-world professional experience of law enforcement officers and truck drivers. Law enforcement officers have experience and training in heavy truck inspection and crash investigation. Professional truck drivers have experience operating and maintaining trucks of different weights and lengths. Their operating and professional experience is especially relevant in light of the inadequate crash rate data.

All these issues should have been considered and included by the Federal Highway Administration and its selected contractor at the beginning of the Study.