

Comprehensive Truck Size and Weight Limits Study
Supplemental Overview: Questions and Answers
June 5, 2015

The U.S. Department of Transportation is releasing for public comment and peer review the results of a comprehensive study of certain safety, infrastructure and efficiency issues surrounding the Federal truck size and weight limits and the potential impacts of changing those limits. This study is required by the Moving Ahead for Progress in the 21st Century Act (MAP-21; P.L. 112-141, §32801).

Did the Study reach any significant findings?

The technical materials accompanying this letter yield one significant finding: efforts to assess the full effects of the size and weight of various trucks are hindered by many of the same significant data limitations identified in previous studies. **The Department finds that the current data limitations are so profound that no changes in the relevant laws and regulations should be considered until these data limitations are overcome.**

What other findings are in the Study?

In reviewing the results of the 2014 Study, we found some predictable results in the performance and effect of various types of vehicles on the highway system and infrastructure. While technology improvements and advancements in vehicle components contribute incrementally to overall safety and system preservation, trucks of all types continue to be involved in crashes across the country. We also expect that, and the Study showed, the diversion of goods from one truck type to another will cause heavy goods to move to trucks of heavier weights and other types will move into trucks offering additional cubic and floor space.

What are the data limitations?

There are many areas of insufficient data or no data. For example, the lack of descriptive information in crash reports – especially the weight of the commercial motor vehicle at the time of an incident -- undermines our ability to conduct adequate highway safety and truck crash analyses. The Department was able to identify significantly higher crash rates in six-axle trucks compared to five-axle trucks in Washington State; the lack of available and consistently reported data from other States represented a significant limitation. The potential for data weaknesses was highlighted by an independent peer review and could not be overcome as the Study progressed. Other data limitations, which are fully explored in the five technical studies, include:

- The absence of weight data in crash reporting, which prevents us from knowing whether trucks were fully loaded, at legal capacity for that axle configuration, had unevenly distributed weight, or were running overweight prior to a crash.
- Small or non-existent data sets for crashes and citation and violation data sets in certain alternative configurations.

- The lack of an acceptable model that estimates the impact of trucks of varying weights on bridge decks and long-term deck maintenance costs over time and across the national network.
- Limited publicly available data, which affected our ability to estimate impacts on short line and regional railroad movements.
- Difficulty separating truck weight enforcement program costs from overall truck safety enforcement cost.

How did US DOT deal with the known limitations?

The Department could not overcome the known data limitations. The Comprehensive Truck Size and Weight Study completed by the Federal Highway Administration in 2000 identified many of the data insufficiencies. For the current Study, the Department sought the input of the public and subject matter experts in an effort to overcome limitations in both data and models and to produce a Study that was data-driven, transparent, bias-free and accountable to the public. We held several public meetings and webinars to solicit feedback on the data, methodology, prior work, as well as to share the status of the Study effort. Additionally, we made information on the project plans available on our website, and invited comments from the public. We used only data available to the public to maximize the transparency of the Department's work.

What steps did US DOT take to ensure that appropriate research methods were followed and what were the results?

The Department engaged an expert panel of independent peer reviewers convened by the Transportation Research Board (TRB) to review the draft work plan and desk scans. In its first report in April 2014, the panel acknowledged weaknesses in the available methods and data; however, notably, the panel was not able to identify modeling approaches or data sets that were superior to those the Department employed, given the timeframe of the Study. The panel cautioned against applying limited data on a national scale to predict the outcome of regulatory change, as it could magnify the effects of data weaknesses and lead to erroneous conclusions. We agree with the concerns shared by the TRB in their review regarding the work done on the Study's Desk Scans. We have taken action to address these concerns.

How should future studies be structured to yield measurable, reliable results?

In many ways, this Study yielded more questions than it sought to answer. Another Study effort, conducted with more time and more money, would not yield more reliable results. To make a genuine, measurable improvement in the knowledge needed for these study areas, a more robust Study effort should start with the design of a research program that can identify the areas, mechanisms and practices needed to establish new data sets and models to advance the state of practice. This research plan could be developed by an expert panel, such as the TRB, and should include a realistic estimation of timelines and costs. It would be some time before sufficient data can be compiled by the Department and other public and private entities to be able to begin a more comprehensive analysis.

What are the Department's recommendations?

The Department finds that the current data limitations are so profound that no changes in the relevant laws and regulations should be considered until these data limitations are overcome.

What are the remaining actions?

The Department will conduct a fourth public input session; meet with the independent peer review team managed by the TRB to launch the final phase of review; release desk scans and synthesis of research incorporating comments received from the first phase of the peer review; prepare and submit a Report to Congress that considers the input we receive. The Department will continue to review public comments on the Study even after the TRB releases its peer review findings as it develops the Final Report to Congress.