TRUCK SAFETY COALITION

Parents Against Tired Truckers and Citizens for Reliable and Safe Highways

The Facts on Longer Trucks

Proposals to allow longer trucks on our nation's roadways will jeopardize safety, further damage our infrastructure, produce greater unfunded costs, and create a less efficient multimodal freight system.

The proposed 33-foot double-trailer trucks are 10 feet longer than the trailers they would replace and are 17 feet longer than the 53-foot single-trailer trucks on the road today. If passed, the proposed legislation allowing these trucks would override the laws of many states. No other mode of freight transportation—aviation, water, or rail—causes such a significant economic and human toll on the American public. Currently, there is no independent, peer-reviewed research on the operational and safety issues associated with the use of 33-foot trailers. Only nonobjective and biased industry-funded research has been used to support longer trailers. Moreover, public opinion polls show that the American public has consistently affirmed their overwhelming support for truck size limitations. A Lake Research Partners' national survey shows that a strong majority of Americans believe longer trucks to be less safe. In fact, eight out of ten (82 percent) Americans think trucks pulling double or triple trailers "are more dangerous than those pulling just a single trailer."[i]

Longer Trucks Will Be More Dangerous to Motorists, Motorcyclists, Bicyclists and Pedestrians

- Every year on average 4,000 people are killed in truck crashes in the U.S. and another 100,000 are injured. 2013 U.S. Department of Transportation (U.S. DOT) data reveals fatality figures have increased for the fourth year in a row—a 17 percent increase in truck crash deaths since 2009. More staggering, the number of people injured in these crashes has increased by 28 percent in the same amount of time.[ii]
- Ninety-eight percent of fatalities in two-vehicle crashes between a large truck and a passenger car are the occupants of the passenger vehicle.[iii]
- The annual cost to society from crashes involving Commercial Motor Vehicles (CMVs) is estimated to be over $99 billion.[iv]
- Nearly all of the large multi-trailer combination trucks, as well as single unit trucks, examined in the 2000 Comprehensive Truck Size and Weight Study had worse roll stability, and in some instances by wide margins, than the standard five-axle semitrailer combination loaded to 80,000 lbs.[v]
- An analysis of Trucks Involved in Fatal Accidents Survey (TIFA) data indicates that single-trailer combination vehicles with six or more axles have a fatal crash involvement rate significantly higher than the rate for all single-trailer trucks.[vi]
- A study conducted by the Multimodal Transportation & Infrastructure Consortium (MTIC) shows that double-trailer configurations have a 11 percent higher fatal crash rate than single-trailer trucks. The same study found a higher fatal crash involvement rate for triples compared with both doubles and singles.[vii]

Longer Trucks Compromise Operating Characteristics

- As truck length increases, passing and merging become more difficult—increasing the odds of failure to pass.[viii]
- Increasing 28-foot double-trailer trucks to 33-foot double-trailer trucks results in a six-foot wider turning radius. This means greater hazards to pedestrians and motorists in their path, as well as more damage to infrastructure.[ix]

Longer Trucks Will Cause More Damage to Our Fragile Infrastructure

- The Federal Highway Administration estimates that $146 billion in capital investment would be needed on an annual basis over the next 20 years to significantly improve conditions and performance.[x]
- The American Society of Civil Engineers (ASCE) gave our nation a grade of D+ on our infrastructure. Our roads were graded D and bridges, C+.[xi]

Longer Trucks Will Result in Increased Costs to Tax Payers

- We lack the resources to appropriately maintain and replace our infrastructure. The Highway Trust Fund is now projected to go broke in fiscal year 2014. State highway departments are also running out of money for key highway projects. Cities and schools across the U.S. are forced to cut budgets to do more with less.
- Unintended Costs Will Result from Longer Trucks
    - **Highway hardware** - costs to assess guard rails, crash pads, rail crossings, etc. and the costs for replacement when assessment determines the hardware is insufficient;
    - **Accessory infrastructure** - costs to assess bridge and roadway ratings and capacity, to produce and install signs and warnings, to make improvements to accommodate larger trucks, to repair pavement torsion caused by non-steering axles (also called tire scrubbing), and to maintain roadway and bridge infrastructure at increased rates of wear and damage;
    - **Truck facilities** - cost for improvements necessary to accommodate larger trucks, new or modified weight scales, new and modified parking and fuel facilities.
- According to the 2007 Transportation for Tomorrow report, mandated by Congress, heavy trucks were underpaying their fair share for highway use. The report also found that user fee fairness could be achieved through weight-distance taxes and heavy trucks should pay an infrastructure damage fee. Moreover, Heavy Vehicle Use Tax—which only contributes $1 billion annually to the Highway Trust Fund—had not been changed since the early 1980s.[xii]

Longer Trucks Will Mean Less-Efficient Freight Transportation

- One intermodal train can take nearly 300 trucks off the highway, is three times as fuel efficient as trucks, and emits two-thirds the amount of greenhouse gases as trucks.
- Increasing trailers to 33-feet would result in a less productive use of intermodal rail. The most efficient intermodal cars for trailers were specifically designed to carry six, 28-foot trailers end to end. If trailers are lengthened to 33-feet, thousands of rail cars would only be able to carry 3 trailers per trip. That is a 41 percent reduction in intermodal efficiency.
- Replacing the thousands of railcars would cost approximately $1 billion and those costs would most likely be passed on to shippers (the vast majority opposed increasing the trailer length).

Longer Doubles are Premised on "Junk Science" and Flawed Analysis Conducted by Industry-Funded Research

- The Woodrooffe study,[xiii] on which many of the safety and efficiency claims for double 33s are based, was produced under contract to Federal Express (FedEx) and ConWay. It contains three serious flaws:
    - It makes the spurious assumption that two trailers of different lengths (28 v 33 feet) would both be filled to equal weights despite carrying different volumes of freight;
    - It ignores the fact that 33 foot trailers would weigh more when empty than 28 foot trailers, which would decrease the calculated efficiency estimates on those portions of trips when operating below capacity or empty; and,
    - It miscalculates the comparative increase in payload (volume) of 33 foot trailers as compared to 28 foot trailers.

Both Law Enforcement Officers and Truck Drivers Consider Longer Trucks More Dangerous

- In the MTIC study, 21 Officers were interviewed and 20 officers indicated "that longer and heavier trucks would be 'more dangerous' because the additional length and weight would add new factors to an already complicated chain of events."[xiv]
- Likewise, surveyed truck drivers are consistent in their opinion that heavier and/or longer trucks impact safety. Eighty-eight percent believed that a higher use of longer combination vehicles (LCVs) would negatively impact highway safety.[xv]

Congress Must Improve Truck Safety Rather Than Increase Truck Length

- More than one in every five trucks inspected are placed out-of-service for vehicle deficiencies that prevent it from continuing to operate.[xvi]
- Unmaintained braking systems are already a leading factor in truck crashes. Brakes have been cited in 29.4 percent of commercial motor vehicle crashes as an associated factor. According to the Commercial Vehicle Safety Alliance (CVSA), during its annual *Brake Safety Week*, the Out-of-Service (OOS) rate for all brake-related violations was 16.2 percent. This was higher than each of the previous four years.[xvii]

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[i] Lake Research Partners (May 14, 2008), Relaxing Safety Standards that Allow Larger Trucks on the U.S. Highway Survey (**Question Wording:** Thinking about large trucks driving on American highways, do you think trucks pulling double or triple trailers behind them are more safe, as safe, or not as safe as large trucks pulling only one trailer behind them?).

[ii] 2013 Motor Vehicle Crashes: Overview, NHTSA, DOT HS 812 101, Dec. 2014; and Quick Facts 2013, NHTSA, DOT HS 812 100, Dec, 2014.

[iii] Traffic Safety Facts 2011: A Compilation of Motor Vehicle Crash Data from the Fatality Analysis Reporting System and the General Estimates System, NHTSA, DOT HS 811 754, available at http://www.nrd.nhtsa.dot.gov/Pubs/811754AR.pdf

[iv] 2014 Pocket Guide to Large Truck and Bus Statistics: Update October 2014, FMCSA, available at http://www.fmcsa.dot.gov/sites/fmcsa.dot.gov/files/docs/FMCSA%20Pocket%20Guide%20to%20Large%20Truck%20and%20Bus%20Statistics%20-%20October%202014%20Update%20%282%29.pdf

[v] Comprehensive Truck Size and Weight, US DOT, Aug. 2000, Vol. 3, Chapter 8, p. VIII-12, http://www.fhwa.dot.gov/reports/tswstudy/Vol3-Chapter8.pdf

[vi] 2000 USDOT study

[vii] Multimodal Transportation & Infrastructure Consortium (November 21, 2013). "An Analysis of Truck Size and Weight: Phase I – Safety," Executive Summary, available at http://www.mticutc.org/assets/pdf/An_Analysis_of_Truck_Size_and_Weight_-_MTIC_Logo.pdf. ; Memorandum from J. Matthews, Rahall Appalachian Transportation Institute, Sep. 29, 2014

[viii] Hanley, P. F. and D. J. Forkenbrock (2005). "Safety of passing longer combination vehicles on two-lane highways." Transportation research.

[ix] 2000 USDOT study

[x] 2013 Status of the Nation's Highways, Bridges, and Transit: Conditions and Performance, Chapter 8, FHWA 2014, available at http://www.fhwa.dot.gov/policy/2013cpr/pdfs/cp2013.pdf.

[xi] ASCE Report Card for America's infrastructure 2013

[xii] Report of the National Surface Transportation Policy and Revenue Study Commission, Transportation for Tomorrow, Dec. 2007, available at http://www.transportationfortomorrow.com_report/pdf/final_report.pdf

[xiii] Woodrooffe, J., De Pont, J., (2011, April 11) *Comparative Performance Evaluation of Proposed 33 ft Double Trailers Combinations with Existing 28 ft Double Trailers*.

[xiv] 2013 MTIC Study

[xv] 2013 MTIC Study

[xvi] Motor Carrier Safety Progress Report (as of 9/30/13), FMCSA, available at http://www.fmcsa.dot.gov/facts-research/art-safety-progress-report.htm.

[xvii] CVSA Press Release, September 2015, *Brake Safety Week*.