



MEGAREGION FREIGHT MOBILITY THE IMPACT OF NEW TECHNOLOGIES

Efficient, competitive, transportation modes and systems underpin vibrant, growing economic regions and their impacts apply to increases in state, multi-state and national gross domestic product. U.S. freight volume is expected to increase forty-five percent by 2045. Much of this freight traffic will be concentrated in megaregions. Developing methods and strategies for the efficient flow of freight is vital to ensuring future economic competitiveness. The goal of this project is to create a framework for planners to estimate the economic impacts of new truck technologies designed to improve both operating efficiencies and safety.

The project will identify a range of technologies being tested for fuel and safety efficiencies. It will first identify supported research by U.S. truck, engine, transmission, tire and brake manufacturers and group them into immediate, intermediate and long term adoptions, the latter defined as over 5 years. The impetus created by autonomous vehicles in the auto sector is being replicated in the trucking sector and while a driverless truck is not an immediate prospect in this work, the ability of trucks systems to monitor the highway around the truck and recognize safety signals—speed limits, bridge height, weather conditions, accidents and the position of all users relative to the truck—will bring a range of social benefits that can be incorporated into highway planning.

The final report extends the U.S. Department of Energy SuperTruck Program findings and provides estimated Class 8 tractor and trailer impacts for model years 2018, 2021, and 2025 as they relate to fuel consumption, safety, and exhaust emissions. The inadequacy of current U.S. Federal and State fuel taxes to meet future metropolitan, regional, and national highway system maintenance, expansion, and reconstruction is noted.

The final report was completed in October 2018.

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Megaregion (MR) Freight Mobility:
Impact of Truck Technologies
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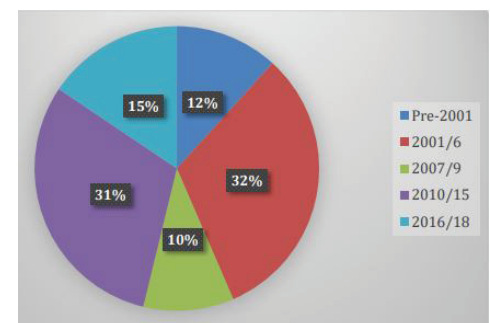
Project Information Form:
<http://sites.utexas.edu/cm2/files/2018/03/Year-1-Robert-Harrison-Improving-Megaregion-MR-Freight-Mobility.pdf>

Final Report:
http://sites.utexas.edu/cm2/files/2018/11/Year1_Harrison_Megaregion-Freight-Mobility-Impact-Truck-Technologies.pdf



TEXAS

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2018 U.S. Class 8 Ages