

Need Statement-711 – Literature Search

Title: Truck Size and Weight and Vehicle Miles Traveled

Thursday, June 8, 2023

Prepared for: Dave Glyer

Prepared by: Jim Byerly, Electronic Resources Librarian

Resources searched: EBSCO, TRID, Transport Database, Web, MnDOT Library Catalog

Summary

Results are compiled from the databases named above. Links are provided for full text, if applicable, or to the full record citation.

Keywords

VMT, vehicle miles of travel, vehicle miles traveled, truck, size and weight, truck size, truck weight.

Relevant Results from TRID

Title: Taxed to death? Freight truck collision externalities and diesel taxes.

Author: Nehiba, Cody.

Citation: Regional Science and Urban Economics, Volume 85, Issue 0, 2020

<https://trid.trb.org/view/1729787>

Abstract: This paper decomposes the external accident costs of freight trucking into two components—truck miles traveled and truck weight. The effects of miles traveled and weight on accidents are then applied to an analysis of diesel fuel taxes, which reduce truck miles traveled and increase truck weight. Exploiting a unique data set of 3.5 billion truck-level observations, I find that both measures of trucking activity increase the quantity of collisions, and truck-weight increases skew the collision distribution toward fatal outcomes. Heavier trucks do not alter the truck-only collision severity distribution, suggesting truckers do not experience truck-weight externalities. The increase in fatal collisions caused by levying a diesel tax that prices carbon emissions offsets the gains from reductions in pollution, congestion, and total collisions. The \$0.37 per gallon diesel tax increase exacerbates the trucking accident externality to such an extent that it increases the external costs of trucking by \$55.7 billion/year while also creating deadweight loss in the trucking industry.

Relevant Results from the Web

[Minnesota Truck Size and Weight Project](#)

[Issues and Options for a Tax on Vehicle Miles Traveled by Commercial Trucks](#)

[NCHRP 20-07 Task 303 - Transportation Research Board](#)

[Exploring the Use of FHWA Truck Traffic Volume and Weight Data to Support National Truck Freight Mobility Study](#)

[Estimating the Rail-to-Truck Traffic Diversions Attributable to Increased Truck Size and Weight](#)

[MAP-21 Comprehensive Truck Size and Weight Limits Study](#)