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16. Abstract <p>This report explores ways in which the properties of trucks and regulations governing them might be modified to improve freight efficiency and reduce fuel use and emissions in the challenging world of transportation economics and environmental stewardship.</p> <p>Trucks are the dominant mode of non-bulk commodity freight transport in the U.S. Compared to all other modes combined (rail + water + air + pipelines), trucks transport approximately twice the amount of freight by weight and approximately 1.8 times the amount of freight by value. Trucking has the most extensive distribution network of any transport mode, having access to over 3.9 million miles of roadways. Improvements in truck freight efficiency can be expected to show direct improvement of the nation's overall transportation system.</p> <p>This study has identified four key focus areas that influence truck and truck freight efficiency.</p> <ol style="list-style-type: none"> 1. Tire rolling resistance 2. Aerodynamics 3. Engine efficiency 4. Truck size and weight regulation <p>Each of the four focus areas are discussed in terms of past and present performance, along with projections to the future.</p> <p>The final section of the report presents estimated potential realistic improvements for each of the four key focus areas, as well as the respective levels of technical challenge.</p>					
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