

Technical Report Documentation Page

1. Report No. UMTRI-2012-27		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle Benefits of Recent Improvements in Vehicle Fuel Economy on Overall Fuel Consumption and Emissions				5. Report Date October 2012	
				6. Performing Organization Code 383818	
7. Author(s) Michael Sivak and Brandon Schoettle				8. Performing Organization Report No. UMTRI-2012-27	
9. Performing Organization Name and Address The University of Michigan Transportation Research Institute 2901 Baxter Road Ann Arbor, Michigan 48109-2150 U.S.A.				10. Work Unit no. (TRAIS)	
				11. Contract or Grant No.	
12. Sponsoring Agency Name and Address The University of Michigan Sustainable Worldwide Transportation				13. Type of Report and Period Covered	
				14. Sponsoring Agency Code	
15. Supplementary Notes The current members of Sustainable Worldwide Transportation include Autoliv Electronics, Bridgestone Americas Tire Operations, China FAW Group, General Motors, Honda R&D Americas, Meritor WABCO, Michelin Americas Research, Nissan Technical Center North America, Renault, Saudi Aramco, Toyota Motor Engineering and Manufacturing North America, and Volkswagen Group of North America. Information about Sustainable Worldwide Transportation is available at http://www.umich.edu/~umtriswt .					
16. Abstract <p>For the past several years, we have calculated (on a monthly basis) the average, sales-weighted fuel economy of all light-duty vehicles (cars, pickup trucks, vans, and SUVs) sold in the U.S. The results indicate that, from October 2007 to September 2012, the average fuel economy has improved by 18%, from 20.1 mpg to 23.8 mpg. This brief note quantifies the consequences of this improvement on overall fuel consumption and vehicle emissions.</p> <p>Because of their improved fuel economy, the vehicles sold since October 2007 saved a <i>cumulative</i> total of about 6.1 billion gallons of fuel—equivalent to the current total consumption of all vehicles in the U.S. for about 13 days. This reduction in the amount of fuel translates to a reduction of about 120 billion pounds of carbon-dioxide emissions.</p> <p>In terms of the <i>current</i> savings, for the most recent month—September 2012—the savings amount to 293 million gallons of fuel, or about 5.7 billion pounds of carbon dioxide. These savings are equivalent to about 2.9% of the average monthly consumption of fuel and of carbon-dioxide emissions from all light-duty vehicles on the road.</p>					
17. Key Words vehicle fuel economy, vehicle emissions, fuel consumption, recent trends				18. Distribution Statement Unlimited	
19. Security Classification (of this report) None	20. Security Classification (of this page) None	21. No. of Pages 7	22. Price		