

1. Report No. SWT-2017-13		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle Economic Factors and Retail Sales of New Vehicles in the United States				5. Report Date August 2017	
				6. Performing Organization Code 383818	
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9. Performing Organization Name and Address The University of Michigan Sustainable Worldwide Transportation 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 Information about Sustainable Worldwide Transportation is available at http://www.umich.edu/~umtriswt .					
16. Abstract <p>Typical analyses of vehicle sales do not differentiate between retail sales of individual vehicles and fleet sales of multiple vehicles to commercial, rental, and governmental entities. In contrast, this study examined the relationship between several economic factors and seasonally adjusted retail sales of new light-duty vehicles (cars, SUVs, pickup trucks, and vans). The size of the U.S. population was also included in the analysis. Multiple linear regression was used to model the relationship in the United States for monthly data over a 10-year period from January 2007 through December 2016.</p> <p>The results indicate that the unemployment rate, the price of gasoline, and population size were significant predictors of retail sales; both higher population and higher gas prices were associated with higher retail sales, and higher unemployment rates were associated with lower retail sales. Because the best-fitting regression model provided a reasonably good fit to the data (accounting for 84% of the variance in retail sales), this model was then used to predict future retail sales for 36 scenarios defined by the combinations of three levels of population size, three levels of gasoline price, and four levels of unemployment. For each population level, the highest retail sales were predicted for a combination involving the lowest unemployment rate and the highest price of gasoline. Conversely, the lowest retail sales were predicted for a combination involving the highest unemployment rate and the lowest price of gasoline.</p>					
17. Key Words retail sales, cars, light trucks, unemployment, income, price of gasoline				18. Distribution Statement Unlimited	
19. Security Classification (of this report) None		20. Security Classification (of this page) None		21. No. of Pages 12	
22. Price					