

Heavier Drivers Consume More Fuel

November 1 2006

The rising incidence of obesity in the United States doesn't just lead to diabetes, high blood pressure and elevated cholesterol, it also increases fuel consumption in passenger vehicles, according to a study by Virginia Commonwealth University and the University of Illinois at Urbana-Champaign.

Americans have gained an average of 24 pounds since 1960, and that has resulted in an extra 938 million gallons of fuel consumed annually, according to the study, which will be posted online in the October-December issue of *The Engineering Economist* journal.

The researchers, Laura A. McLay, Ph.D., an assistant professor in VCU's Department of Statistical Sciences and Operations Research, and Sheldon H. Jacobson, a professor of computer science and director of the simulation and optimization laboratory at UIUC, based their conclusions on data collected from the U.S. Department of Health and Human Services for the period covering 1960 to 2002.

The calculations were based on non-commercial, passenger vehicles -- cars and light trucks -- and ruled out factors that would decrease fuel efficiency such as increasing the cargo weight or decreased maintenance.

"The key finding is that nearly 1 billion gallons of fuel are consumed each year because of the average weight gain of people living in the United States since 1960 -- nearly three times the total amount of fuel consumed by all passenger vehicles each day based on current driving habits," McLay and Jacobson wrote. "Moreover, it is estimated that over

39 million gallons of fuel are consumed annually for every one pound increase in average passenger weight.

"Although the amount of fuel consumed as a result of the rising prevalence of obesity is small compared to the increase in the amount of fuel consumed stemming from other factors such as increased car reliance and an increase in the number of drivers ... it still represents a large amount of fuel, and will become even more significant as the rate of obesity increases," according to the study.

The study reports that in 2002, an estimated 65 percent of Americans were overweight, and more than 30 percent were considered obese, defined as having a body mass index of more than 30.

Source: Virginia Commonwealth University

Citation: Heavier Drivers Consume More Fuel (2006, November 1) retrieved 23 April 2024 from <https://phys.org/news/2006-11-heavier-drivers-consume-fuel.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.