Abstract

This study examined recent trends in fuel consumption by light-duty vehicles (cars, pickup trucks, SUVs, and vans) in the U.S. fleet. The period examined was from 1984 through 2011. This is a follow-up study to Sivak (2013a; 2013b), in which I analyzed the corresponding trends in the number of registered light-duty vehicles and distance driven.

Although the report also presents trends in the total fuel consumption, of primary interest were the fuel-consumption rates per person, per licensed driver, per household, and per registered vehicle. All of these rates reached their maxima in 2003 or 2004—several years prior to the beginning of the current economic downturn—and decreased by 13% to 17% by 2011. These maxima coincide with the maxima in the distance-driven rates. However, the decreases in the fuel-consumption rates between the peaks and the 2011 values (13% to 17%) are greater than the corresponding decreases in the distance-driven rates (5% to 9%), reflecting the added contribution of the improved vehicle fuel economy.

Because the onsets of the reductions in the distance-driven rates were not the results of short-term, economic changes, and because of the expected continuation of the improvements in vehicle fuel economy, the 2004 maxima in the fuel-consumption rates have a good chance of being long-term peaks as well.

The combined evidence from this and the previous two studies indicates that—per person, per driver, and per household—we now have fewer light-duty vehicles, we drive each of them less, and we consume less fuel than in the past: The current fuel-consumption rates are lower than the corresponding rates in 1984—the first year of this analysis.

The best estimates of the current annual fuel-consumption rates are as follows: 398 gallons per person, 585 gallons per licensed driver, 1,033 gallons per household, and 530 gallons per registered vehicle.