

OLDER CARS, OLDER DRIVERS



The aging of the private (household-based) vehicle fleet has been noted for some time--the average vehicle in 1977 was just under 7 years old. Forty years later, in 2017 the average household vehicles was over ten years old (10.3), while half of all household vehicles were older than 9 years (median). Table 1 shows the trends in vehicle age by vehicle type from the National Household Travel Survey data series.

Table 1 – Average Age (years) of Vehicles in the Household Fleet

Average Vehicle Age for Household Vehicles							
	1977	1983	1990	1995	2001	2009	2017
All	6.6	7.6	7.7	8.3	8.9	9.4	10.3
Auto	6.4	7.2	7.6	8.2	9.0	9.6	10.1
Van	5.5	8.5	5.9	6.7	7.6	8.7	10.7
Sport Utility	NA	NA	NA	6.6	6.4	7.1	8.3
Pickup	7.3	8.5	8.4	9.7	10.1	11.1	13.1
Other Truck	11.6	12.4	14.5	14.9	17.7	17.8	17.3
RV/Motor Home	4.5	10.7	10.4	13.2	13.5	15.5	15.8

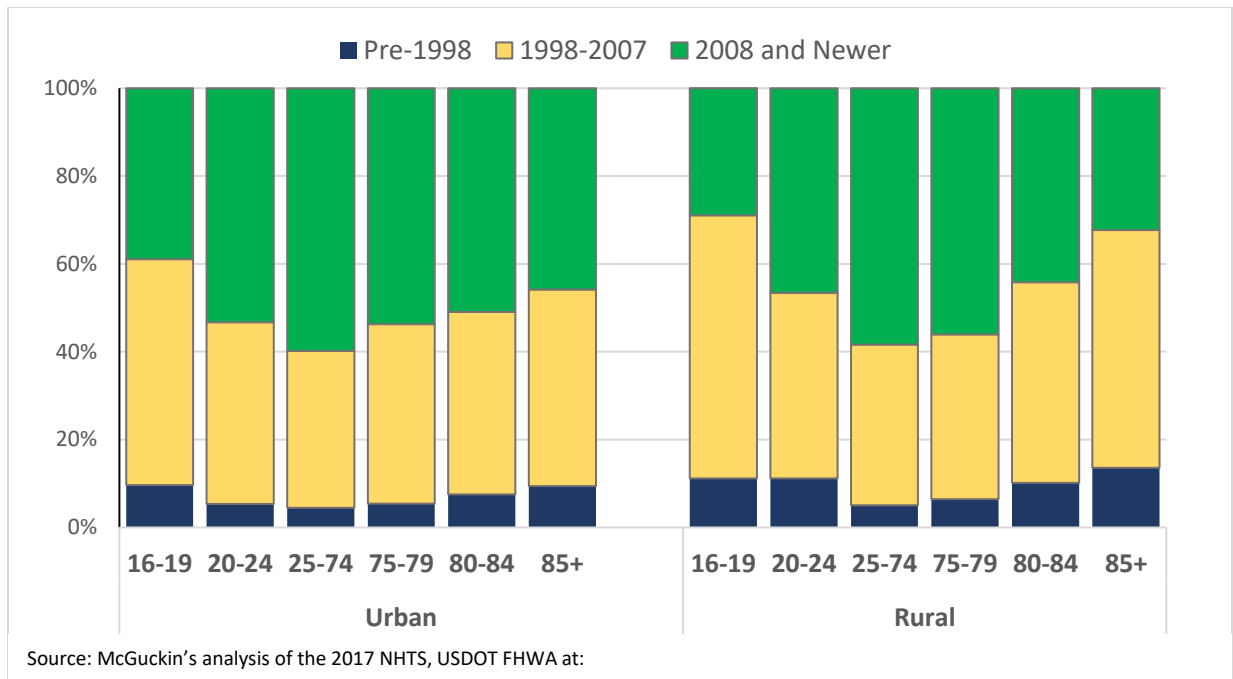
Source: The 2017 National Household Travel Survey Summary of Travel Trends, USDOT, FHWA at https://nhts.ornl.gov/assets/2017_nhts_summary_travel_trends.pdf

Tracking the age of the private fleet is important--the longer people keep their cars the greater amount of time it takes for any new vehicle technology to penetrate the market in a significant way, slowing the adoption of safety and environmental improvements.

For example, in the 1990s airbags were required as standard equipment, and in 1998 passenger-side airbags were made standard. However, according to the 2017 NHTS, about seven percent of the vehicles in daily use today are older than 1998. In 2007, Electronic Stability Control (which uses computer-controlled braking) was mandated on all passenger and light-duty vehicles. According to the 2017 NHTS, 36 percent of the vehicles in daily use are model years between 1999 and 2007. Nationwide, therefore, fully 43 percent of household-based vehicles may not have these two standard safety technologies (they were options but not mandated).

As shown in Figure 1, the youngest drivers and the oldest drivers are the most likely to drive older vehicles—over half of these drivers are in pre-2007 model year vehicles. The differences are even greater for people living in rural areas, where over 11 percent of drivers aged 16-19 and 20-24 and almost 14 percent of drivers 85 and older are driving cars 20 years old or older (pre-1998 model years). In addition, another sixty percent of teen drivers in rural areas, and 54 percent of the oldest drivers are in vehicles from the 1998-2007 model years.

Figure 1 Percent of Drivers in Different Age Groups Driving Older Vehicles, Urban and Rural Residents



Younger and older drivers are more likely to be in crashes and therefore are a focus of safety concerns. Older drivers drive far fewer miles than younger drivers, but in a crash of the same severity are more likely to be injured or die. And importantly, older drivers are driving more than previous generations: the most recent data from the NHTS shows that drivers over the age of 65 are the only age group to increase the miles driven compared to people of the same age in previous surveys.

By 2030 all baby-boomers will be over the age of 65. This cohort is perhaps the most critical as they will have driven all their lives and will expect to continue driving. If travel demand from this demographic group continues to grow a key component of increasing safety and maintaining personal mobility will be new vehicle technology. In addition to the many new safety features in this model year, planners are discussing the impact of even greater automation of the fleet to contribute significantly to safety and system performance. The data indicate that if a new technology were introduced to the fleet today it would take more than a decade to be available for half of the vehicles in daily use. And the most vulnerable drivers would likely be the last to have a vehicle with the latest features.

