Do More Vehicles Make More Miles?

A snapshot analysis of the National Household Travel Survey 2001

One of the most striking changes in the landscape of American travel over the last quarter century is the nearly doubling (181 percent increase) in household vehicles. The rate of increase in cars, vans, and SUVs for personal travel is six times the rate of population increase. In 1969 there were 72.5 million household vehicles serving 197.2 million people, in 2001 there were 203.9 million household vehicles serving 277.2 million people.

Much of this growth has been in households with multiple vehicles. Whereas the number of households with one car has remained about the same over the last thirty years or so (30.3 million in 1969 and 33.7 million in 2001), the number of households with three or more vehicles increased nearly nine times (from 2.9 million in 1969 to 25.3 million in 2001).

Annual Vehicles Miles of Travel by Households, 1969 - 2001

	1969	1977	1990	2001
Total Household Vehicles	72,500,000	120,098,000	165,221,000	203,872,000
Annual VMT per Household	12.412	12,035	18,161	21,252
Persons per Household	3.2	2.8	2.6	2.6
Vehicles per Household	1.2	1.6	1.8	1.9

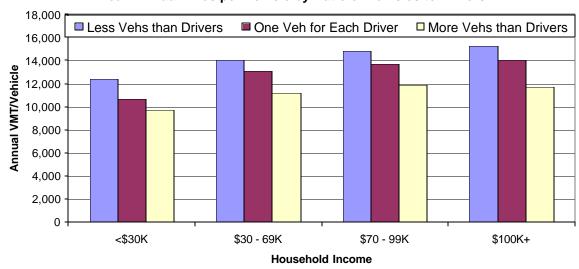
Source: NPTS/NHTS Data Series

In concert with the growth in vehicles is a growth in vehicle miles of travel. The average vehicle miles traveled per household has grown from 12,412 miles per year in 1969 to 21,252 in 2001. Since the vehicle travel by household members is spread over more vehicles, annual miles for each individual vehicle is declining slightly.

Households in the same income group that have more vehicles than drivers account for more trips and more miles of travel than households with fewer vehicles than drivers. However in the households with more vehicles than drivers the annual mileage accumulation for each vehicle in the household is considerably less than those households with the same number of drivers but fewer vehicles.

That is, within the same income group the average miles per household vehicle is less when the vehicles in the household outnumber the drivers (see Figure 1). Overall, a vehicle in a household with fewer vehicles than drivers is driven 23 percent more miles than in households where there are more vehicles than drivers (13,512 miles per year versus 11,030).

Mean Annual Miles per Vehicle by Ratio of Vehicles to Drivers



Source: 2001 NHTS

Mean Annual Miles per Vehicle							
	Less Vehs	One Veh for	M	lore Vehs			
Income	than Drivers	each Driver	th	nan Drivers	All		
<\$30K	12,426	6	10,684	9	,737	10,609	
\$30 - 69K	14,067	7	13,109	11	,194	12,489	
\$70 - 99K	14,820)	13,682	11	,837	12,976	
\$100K+	15,300)	14,050	11	,728	13,120	
All	13,512	2	12,473	11	,030	12,039	

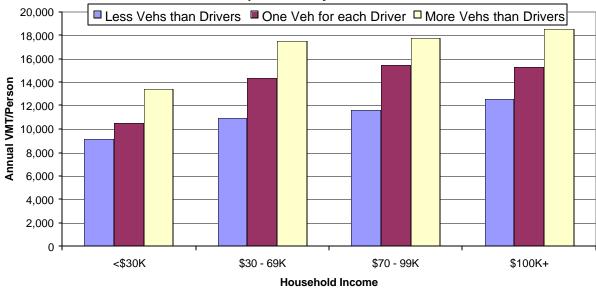
After looking at the average miles *per vehicle*, a separate question is whether these added vehicles actually add substantially to vehicle miles of travel by household members. That is, do people in households with a lot of cars travel more miles than people in households where there is just one car, or less, for each driver?

Figure 2 shows the annual vehicle miles *per driver* for households with fewer vehicles than drivers, households with one vehicle for each driver, and households with more vehicles than drivers.

Even within the same income class, people in households with more vehicles available than drivers in the household travel substantially more miles per person than people in households where there are fewer vehicles than drivers.

Overall, individual drivers in high income households (\$100K or more in annual income) with more vehicles than drivers travel 47 percent more miles than people in households with fewer vehicles than drivers (see Figure 2), an average annual miles per driver of 18,515 versus just 12,599 for drivers in high-income households with fewer vehicles available.





Source: 2001 NHTS

Mean Annual Miles per Person Less Vehs than One Veh for each More Vehs than

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Income	No Vehs	Drivers	Drive	er Driv	ers All	
<\$30K	2,84	8	9,152	10,498	13,389	10,387
\$30 - 69K	2,71	1 1	0,952	14,383	17,477	14,556
\$70 - 99K	5,77	2 1	1,633	15,434	17,742	15,751
\$100K+	6,59	3 1	2,599	15,276	18,515	15,817
All	3,85	4 1	0,478	13,596	16,898	13,783

For more information, visit our website at:

http://nhts.ornl.gov

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