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HAS MOTORIZATION IN THE U.S. PEAKED? PART 8: TRAVEL TIMES IN 2004 AND 2014

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16. Abstract

In a previous study, I showed that distance driven per person in the United States peaked in 2004 and then decreased by about 9% by 2013. In this study, I examined the changes in travel times from 2004 to 2014. The data came from the American Time Use Survey (ATUS)—a representative nationwide survey of how, where, and with whom Americans spend their time. The relevant parts of the ATUS dataset were the entries for travel associated with different classes of activities. The ATUS travel data are for all travel modes combined, not just driving.

The main findings of this study are as follows:

- The sum of the average travel times in connection with all activities decreased by about 10% from 2004 to 2014.
- The proportion of persons traveling in connection with the various activities tended to decrease.
- However, for those persons who traveled in connection with the activities, the sum of the average travel times for the various activities did not change.

The main implications of the present results are that the total travel time per person decreased substantially from 2004 to 2014, and that this decrease is due to a decrease in the proportion of persons engaged in the trips, and not an overall reduction of the duration of the trips.

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Contents

Introduction

This is the eighth in a series of reports that examines recent motorization trends in the United States. Part 7 (which summarized Parts 1, 2, 3, and 5, and extended the data through 2013) examined the changes from 1984 to 2013 in the number of registered light-duty vehicles, and the corresponding changes in distance driven and fuel consumed (Sivak, 2015). The units of the analyses were both the absolute numbers and the rates per person, per driver, per household, and (where appropriate) per vehicle. The main finding of that study was that the respective rates all reached their maxima around 2004, with the distance driven per person decreasing by 9.1% from 2004 to 2013. I argued that, because the onsets of the reductions in these rates preceded the onset of the recession in 2008 by several years, the reductions in these rates are not the consequence of economic factors alone. Instead, these reductions primarily reflect fundamental, noneconomic changes in society (such as increased telecommuting, increased use of public transportation, increased urbanization of the population, and changes in the age composition of drivers).[1]

The present report provides an analysis of travel times in 2004 (the peak year in terms of distance driven per person) and 2014 (the latest available year). The source of the data was the American Time Use Survey (ATUS).

The first seven reports in this series dealt exclusively with driving. In contrast, this study examines travel in general, and thus includes all modes of travel. However, in the United States, private vehicles are used for the vast majority of all trips (currently about 83% of all trips; National Household Travel Survey, 2011). Thus, the information about travel times included in ATUS likely applies to driving as well.

[1] Part 4 (Sivak, 2014a) examined recent changes in households without a light-duty vehicle from 2005 to 2012, while Part 6 (Sivak, 2014b) analyzed the relationship between road transportation and economic activity since the end of the Second World War.

Method

The data for this analysis came from ATUS—the American Time Use Survey (Bureau of Labor Statistics, 2015). ATUS measures the amount of time people spend doing various activities, such as paid work, childcare, volunteering, and socializing. ATUS provides nationally representative estimates of how, where, and with whom Americans spend their time. It is an annual time-diary study that is funded by the U.S. Bureau of Labor Statistics and fielded by the U.S. Census Bureau.

The present analysis used the following three variables from ATUS:

- Average hours spent traveling per day by activity for all persons
- Average percentages of persons traveling per day by activity
- Average hours spent traveling per day by activity for persons who traveled in connection with the activity

Weekday and weekend activities are combined. Therefore, the information is an average applicable to every day. The data are for persons 15 years of age and older. Two years were analyzed, 2004 (the peak year in terms of distance driven per person) and 2014 (the latest available year).

Results

Average time spent traveling per day by activity for all persons

Table 1 presents the average time spent traveling per day by activity for all persons. The main finding in Table 1 is that the total average time spent traveling for all activities decreased by 9.8% for men and women combined—from 1.23 hours to 1.11 hours. This decrease was greater for men than for women (10.9% vs. 9.2%).

Activities for which average travel time decreased included eating and drinking (from 0.13 hours to 0.10 hours), purchasing goods and services (from 0.30 hours to 0.27 hours), caring for and helping nonhousehold members (from 0.08 hours to 0.05 hours), work (from 0.28 hours to 0.27 hours), education (from 0.04 hours to 0.03 hours), and leisure and sports (from 0.23 hours to 0.21 hours). (These values are for men and women combined.)

Table 1
Average hours spent traveling per day by activity for all persons.

Travel related to*	Total		Men		Women	
	2004	2014	2004	2014	2004	2014
Personal care	0.01	0.02	0.02	0.02	0.01	0.02
Eating and drinking	0.13	0.10	0.14	0.11	0.12	0.09
Household activities	0.04	0.04	0.04	0.04	0.05	0.04
Purchasing goods and services	0.30	0.27	0.27	0.24	0.33	0.29
Caring for and helping household members	0.08	0.08	0.06	0.06	0.11	0.11
Caring for and helping nonhousehold members	0.08	0.05	0.09	0.04	0.08	0.05
Work	0.28	0.27	0.35	0.34	0.21	0.21
Education	0.04	0.03	0.03	0.03	0.04	0.03
Organizational, civic, and religious activities	0.04	0.04	0.04	0.04	0.04	0.05
Leisure and sports	0.23	0.21	0.25	0.23	0.21	0.20
All activities	*1.23*	*1.11*	*1.29*	*1.15*	*1.20*	*1.09*

* The original ATUS data also include an entry labeled "Travel related to telephone calls." However, because the average hours per day for this was zero in 2004 and "approximately zero" in 2014, the entries for this category are not included in this table nor in the tables to follow.

Average percentages of persons traveling per day by activity

Table 2 lists the average percentages of persons traveling per day by activity. This percentage decreased from 2004 to 2014 for all activities, except for personal care, which showed an increase (from 2.4% to 2.6%). This pattern was present for all persons combined, as well as for men and women analyzed separately. For all persons, the largest proportional decrease was for travel associated with caring for and helping nonhousehold members (from 12.7% to 8.1%), education (from 6.1% to 4.7%), household activities (from 9.6% to 8.2%), eating and drinking (from 26.0% to 22.5%), and purchasing goods and services (from 44.5% to 41.4%). These decreases were followed by decreases in travel time associated with caring for and helping household members (from 14.0% to 13.1%), leisure and sports (from 35.6% to 33.4%), work (from 38.5% to 36.2%), and organizational, civic, and religious activities (from 9.0% to 8.6%).

Table 2
Average percentages of persons traveling per day by activity.

Travel related to	Total		Men		Women	
	2004	2014	2004	2014	2004	2014
Personal care	2.4	2.6	2.5	2.9	2.3	2.4
Eating and drinking	26.0	22.5	27.9	23.8	24.2	21.2
Household activities	9.6	8.2	8.7	7.7	10.5	8.7
Purchasing goods and services	44.5	41.4	39.6	37.2	49.1	45.4
Caring for and helping household members	14.0	13.1	10.6	9.8	17.2	16.2
Caring for and helping nonhousehold members	12.7	8.1	11.5	7.1	13.9	9.1
Work	38.5	36.2	44.5	41.3	32.9	31.4
Education	6.1	4.7	6.0	4.3	6.2	5.0
Organizational, civic, and religious activities	9.0	8.6	8.2	7.1	9.8	10.0
Leisure and sports	35.6	33.4	36.1	34.1	35.1	32.7

Average time spent traveling per day by activity for persons who traveled in connection with the activity

Table 3 presents the average time spent traveling per day by activity for persons who traveled in connection with the activity. The main finding here is that, for persons who traveled in connection with the activity, the sums of the average travel times in 2004 and 2014 were similar. This was the case for all persons (5.93 hours vs. 5.96 hours), as well as for men (6.11 hours for both years) and women (5.74 hours vs. 5.79 hours).

Travel times decreased for some activities, but increased for others: *Decreases* occurred for eating and drinking (from 0.49 hours to 0.44 hours), purchasing goods and services (from 0.67 hours to 0.65 hours), and caring for and helping nonhousehold members (from 0.65 hours to 0.61 hours); *increases* occurred for personal care (from 0.62 hours to 0.64 hours), household activities (from 0.45 hours to 0.46 hours), caring for and helping household members (from 0.61 hours to 0.64 hours), work (from 0.73 hours to 0.76 hours), education (from 0.61 hours to 0.64 hours), and organizational, civic, and religious activities (from 0.46 hours to 0.48 hours). (These values are for men and women combined.)

Table 3
Average hours spent traveling per day by activity for persons who traveled in connection with the activity.

Travel related to	Total		Men		Women	
	2004	2014	2004	2014	2004	2014
Personal care	0.62	0.64	0.62	0.64	0.62	0.64
Eating and drinking	0.49	0.44	0.50	0.44	0.49	0.44
Household activities	0.45	0.46	0.45	0.49	0.45	0.44
Purchasing goods and services	0.67	0.65	0.68	0.65	0.67	0.65
Caring for and helping household members	0.61	0.64	0.58	0.61	0.62	0.66
Caring for and helping nonhousehold members	0.65	0.61	0.76	0.63	0.57	0.59
Work	0.73	0.76	0.79	0.82	0.65	0.68
Education	0.61	0.64	0.59	0.67	0.62	0.60
Organizational, civic, and religious activities	0.46	0.48	0.46	0.50	0.45	0.48
Leisure and sports	0.64	0.64	0.68	0.66	0.60	0.61
All activities	*5.93*	*5.96*	*6.11*	*6.11*	*5.74*	*5.79*

Conclusions

The main findings of this study are as follows:

- The sum of the average travel times in connection with all activities decreased by about 10% from 2004 to 2014.
- The proportion of persons traveling in connection with the various activities tended to decrease.
- However, for those persons who traveled in connection with the activities, the sum of the average travel times for the various activities did not change.

The main implications of the present results are that the total travel time per person decreased substantially from 2004 to 2014, and that this decrease is due to a decrease in the proportion of persons engaged in the trips, and not an overall reduction of the duration of the trips.

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