UMTRI-2016-4

JANUARY 2016

# RECENT DECREASES IN THE PROPORTION OF PERSONS WITH A DRIVER'S LICENSE ACROSS ALL AGE GROUPS

MICHAEL SIVAK BRANDON SCHOETTLE



# RECENT DECREASES IN THE PROPORTION OF PERSONS WITH A DRIVER'S LICENSE ACROSS ALL AGE GROUPS

Michael Sivak Brandon Schoettle

The University of Michigan Transportation Research Institute Ann Arbor, Michigan 48109-2150 U.S.A.

> Report No. UMTRI-2016-4 January 2016

		Technical Report Documentation Page
1. Report No.	2. Government Accession No.	3. Recipient's Catalog No.
UMTRI-2016-4		
4. Title and Subtitle		5. Report Date
Recent Decreases in the Proportion of Persons with a Driver's		January 2016
License across All Age Groups		6. Performing Organization Code
		383818
7. Author(s)		8. Performing Organization Report No.
Michael Sivak and Brandon Schoettle		UMTRI-2016-4
9. Performing Organization Name and Address		10. Work Unit no. (TRAIS)
The University of Michigan		
Transportation Research Institute		11. Contract or Grant No.
2901 Baxter Road		
Ann Arbor, Michigan 48109-2	150 U.S.A.	
12. Sponsoring Agency Name and Address		13. Type of Report and Period Covered
The University of Michigan		
Sustainable Worldwide Transportation		14. Sponsoring Agency Code
http://www.umich.edu/~umtriswt		
15. Supplementary Notes		

16. Abstract

This study examined changes in the United States from 1983 to 2014 in the percentage of persons with a driver's license as a function of age. Also included are the data for 2008 and 2011. The data came from the Federal Highway Administration.

The following are the three main findings:

- For 16- through 44-year-olds, there was a continuous decrease in the percentage of persons with a driver's license for the years examined. For example, the percentages for 20- to 24-year-olds in 1983, 2008, 2011, and 2014 were 91.8%, 82.0%, 79.7%, and 76.7%, respectively.
- *For 45- through 69-year-olds,* there was an increase in the percentage of persons with a driver's license from 1983 to 2008, followed by a continuous decrease from 2008 to 2014. For example, the percentages for 60- to 64-year-olds in 1983, 2008, 2011, and 2014 were 83.8%, 95.9%, 92.7%, and 92.1%, respectively.
- *For those 70 years and older,* there was an increase in the percentage of persons with a driver's license from 1983 to 2008, followed by an increase from 2008 to 2011, and a decrease from 2011 to 2014. The percentages for 1983, 2008, 2011, and 2014 were 55.0%, 78.4%, 79.2%, and 79.0%, respectively.

17. Key Words	18. Distribution Statement		
Driver's licenses, age, trends			Unlimited
19. Security Classification (of this report)	20. Security Classification (of this page)	21. No. of Pages	22. Price
None	None	8	

# Contents

Introduction	1
Method	1
Results	1
Discussion	4
Summary	5
References	6

#### Introduction

In 2011, we documented the fact that, in the United States, the proportion of young persons with a driver's license decreased substantially from 1983 to 2008 (Sivak and Schoettle, 2011). During the same period, the proportion of older persons with a driver's license increased substantially. (Similar trends were later observed for several other countries [Sivak and Schoettle, 2012].) This brief note provides an update on driver-licensing trends in the United States through 2014.

#### Method

Of interest in this study were recent changes in the proportion of persons with a driver's license as a function of age. The years examined were 1983 and 2008 (the same as in Sivak and Schoettle, 2011), 2014 (the latest year available), and 2011 (the midpoint between 2008 and 2014). The data came from FHWA (annual).

## Results

The results are shown in Table 1 and Figure 1. The main findings are summarized in Table 2.

Age	1983	2008	2011	2014
16	46.2	31.1	27.5	24.5
17	68.9	50.0	45.0	44.9
18	80.4	65.4	60.3	60.1
19	87.3	75.5	69.3	69.0
20-24	91.8	82.0	79.7	76.7
25-29	95.6	86.3	87.5	85.1
30-34	96.5	90.6	89.1	86.6
35-39	94.9	91.7	90.2	87.9
40-44	92.2	91.9	91.6	89.1
45-49	92.5	93.0	91.9	90.5
50-54	91.4	94.2	92.2	91.2
55-59	88.2	94.9	93.2	91.8
60-64	83.8	95.9	92.7	92.1
65-69	79.2	94.0	93.0	91.4
≥70	55.0	78.4	79.2	79.0

Table 1Licensed drivers as a percentage of their age-group population.

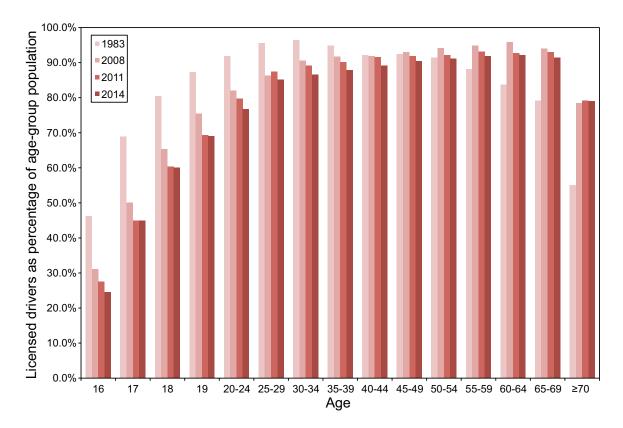


Figure 1. Licensed drivers as a percentage of their age-group population.

Age	Main findings	
16-44	A continuous decrease in the proportion of persons with a driver's license for the years examined*	
45-69	An increase in the proportion of persons with a driver's license from 1983 to 2008, followed by a continuous decrease from 2008 to 2014	
≥70	An increase in the proportion of persons with a driver's license from 1983 to 2008, followed by an increase from 2008 to 2011, and a decrease from 2011 to 2014	

Table 2 The main findings.

\* For 25- to 29-year-olds, there was a decrease from 1983 to 2008, an increase from 2008 to 2011, and a decrease from 2011 to 2014.

### Discussion

#### Changes in the percentage of persons with a driver's license from 1983 to 2014

Column 2 in Table 3 shows the percentage changes in the percentage of persons with a driver's license from 1983 to 2014. For example, the first entry—for 16-year-olds—is -47.0% (24.5 is 47.0% less than 46.2).

For persons younger than 55 years, there was a decrease in the percentage of persons with a driver's license. Furthermore, the magnitude of this decrease was largest for the youngest (-47.0% for 16-year-olds), and it decreased monotonically with age.

Age	Change from 1983 to 2014	Change from 2008 to 2014	Change from 2011 to 2014
16	-47.0%	-21.2%	-10.9%
17	-34.8%	-10.2%	-0.2%
18	-25.2%	-8.1%	-0.3%
19	-21.0%	-8.6%	-0.4%
20-24	-16.4%	-6.5%	-3.8%
25-29	-11.0%	-1.4%	-2.7%
30-34	-10.3%	-4.4%	-2.8%
35-39	-7.4%	-4.1%	-2.5%
40-44	-3.4%	-3.0%	-2.7%
45-49	-2.2%	-2.7%	-1.5%
50-54	-0.2%	-3.2%	-1.1%
55-59	+4.1%	-3.3%	-1.5%
60-64	+9.9%	-4.0%	-0.6%
65-69	+15.4%	-2.8%	-1.7%
≥70	+43.6%	+0.8%	-0.3%

Table 3 Changes in the percentage of persons with a driver's license from 1983 to 2014, from 2008 to 2014, and from 2011 to 2014.

#### Changes in the percentage of persons with a driver's license from 2008 to 2014

The changes in the percentages of persons with a driver's license from 2008 to 2014 are shown in column 3 of Table 3. For all age groups, except the oldest group ( $\geq$ 70), there was a decrease in the percentage of persons with a driver's license. The decrease was largest for 16-year-olds (-21.2%), and 17-year-olds (-10.2%). The decreases for 18- through 24-year-olds were in the upper single digits; for those 25 through 69, the decreases were in the lower single digits. For those 70 years and older, there was an increase in the proportion of persons with a driver's license (+0.8%).

#### Changes in the percentage of persons with a driver's license from 2011 to 2014

Column 4 of Table 3 shows that for all age groups there was a decrease in the percentage of persons with a driver's license from 2011 to 2014. These decreases ranged from -0.2% to -3.8%, except that the decrease for 16-year-olds was -10.9%.

#### **Summary**

This study examined changes in the United States from 1983 to 2014 in the percentage of persons with a driver's license as a function of age. Also included are the data for 2008 and 2011. The data came from the Federal Highway Administration.

The following are the three main findings:

- For 16- through 44-year-olds, there was a continuous decrease in the percentage of persons with a driver's license for the years examined. For example, the percentages for 20- to 24-year-olds in 1983, 2008, 2011, and 2014 were 91.8%, 82.0%, 79.7%, and 76.7%, respectively.
- For 45- through 69-year-olds, there was an increase in the percentage of persons with a driver's license from 1983 to 2008, followed by a continuous decrease from 2008 to 2014. For example, the percentages for 60- to 64-year-olds in 1983, 2008, 2011, and 2014 were 83.8%, 95.9%, 92.7%, and 92.1%, respectively.

• *For those 70 years and older,* there was an increase in the percentage of persons with a driver's license from 1983 to 2008, followed by an increase from 2008 to 2011, and a decrease from 2011 to 2014. The percentages for 1983, 2008, 2011, and 2014 were 55.0%, 78.4%, 79.2%, and 79.0%, respectively.

## References

- FHWA [Federal Highway Administration]. (annual). *Highway statistics*. Available at: <u>https://www.fhwa.dot.gov/policyinformation/statistics.cfm</u>
- Sivak, M. and Schoettle, B. (2011). Recent changes in the age composition of U.S. drivers: Implications for the extent, safety, and environmental consequences of personal transportation. *Traffic Injury Prevention*, 12, 588-592.
- Sivak, M. and Schoettle, B. (2012). Recent changes in the age composition of drivers in 15 countries. *Traffic Injury Prevention*, 13, 126-132.