

Elderly Driving Statistics and Motor Vehicle Operation Laws:

A comparison between age groups and the effectiveness of age-based laws.

ANNUAL MILES DRIVEN

In 2001, there were approximately 26 million people over the age of 70 in the United States. 67 percent, or about 18 million, identify themselves as drivers. This only represents 10 percent of the total amount of drivers in the United States.

Between 1983 and 1995, average annual miles for the driving population increased by 44% for drivers 65 and older. Between 1995 and 2001, the rate continued to increase, this time by 29%. During the same time period, the 35-54 year old age group only saw a positive change of only 6%. Those over 60, however, still drove 55% fewer annual miles compared with drivers aged 35-60.¹

FATALITY and FRAGILITY

One commonly cited report by S. Lyman et al and the British Medical Association in 2002 predicted a 155 % increase in the number of older drivers involved in fatal crashes, and a 39% increase for all drivers.² In contrast to this study, the Insurance Institute for Highway Safety found that in actuality 22% fewer people 70 and over died in 2007 in comparison with 1997, even as the population grew 10%.³ The fatality risk among older drivers has declined with each subsequent generation. There has been a reverse trend for the youngest drivers, as their fatality risk has actually increased with each generation (see Graph 1).

Fatal crash involvement rates for drivers aged 75 and older were nearly as high as those for drivers aged 16-19 years old. Each age group's fatal crash involvement rates declined from 1997 to 2006, but the rate for drivers over 70 declined at a faster rate in comparison with 35-55 year olds each year.⁴

Motor vehicle crashes account for less than 1 percent of fatalities among people 70 and older, but rise per capita starting at age 70. Between April 2001 and March 2002, the rate of fatal crash involvement per 100 miles driven for older drivers was higher than any other age group besides teenagers (See graph 4). The over 85 age group had the highest, with a rate of

¹ Federal Highway Administration. 2001. National Household Travel Survey, 2001.

² "Older driver involvement in police reported crashes and fatal crashes: trends and projections." S. Lyman, S.A. Ferguson, E.R. Braver, and A. F. Williams. *Injury Prevention* 8.2 (June 2002): p.116

³ "Q&As: Older People." *Insurance Institute for Highway Safety*. April 2009.

⁴ "Older Drivers' Fatal Crashes Trend Down." *Insurance Institute for Highway Safety*. December 2008.

14.5%.⁵ This is due in part to the fact that older drivers are more susceptible to injuries and complications because of their fragility. Fragility begins to statistically increase starting with ages 60-64 and continues to increase noticeably with age. Compared with drivers in the 30-59 age range, older drivers were twice as likely to die in a car accident. Per licensed driver, drivers 75 and older kill fewer pedestrians, bicyclists, motorcyclists, and occupants in other vehicles compared with drivers aged 30-59. The majority of the harm caused by elderly drivers is inflicted on themselves and on other elderly passengers, as 75% of people who die in crashes involving elderly drivers are either an elderly passenger or driver themselves.⁶

One more important factor contributing to senior's fragility is the fact that over 80% of people 65 and older take at least one prescription medication daily. This can not only cause complications when injured, but many contain warnings about motor vehicle operation. Some of the most common medications (i.e. antidepressants, antihistamines, and hypoglycemics) have the potential to reduce one's ability to drive safely.⁷

INTERSECTIONS

Infrastructure change could greatly help elder drivers. Of the fatal collisions involving those over 70 years old, 40 percent occur at intersections, compared with only 23 percent of those involving 35-54 year olds. One of the major causes of these crashes is the failure to yield the right of way, especially in left turns. In drivers aged 35-54, only 26% were involved in intersection crashes because of a failure to yield. In drivers 80 and older, 58% were involved in crashes for the same reason, double the amount.⁸

One study found that certain modifications to intersections, such as having more visible traffic signs and dedicated left turn lanes and signals, resulted in a 13% greater reduction in injury crashes for drivers over 65 in comparison with drivers 25-64. In another study, injury crashes were reduced by 76 percent at intersections that had been converted to roundabouts, because they eliminate some of the most complicated aspects of traditional intersections.⁹

WHAT STUDIES ARE OUT THERE

The Insurance Institute for Highway Safety compiles crash statistics for different age groups and in different situations. One study shows that in states requiring an in-person renewal, drivers 65 and older did not show a change in fatality rates; however, for drivers over 85, there was a 17 percent drop. Another study shows that there was no significant change in injury crash rates between jurisdictions with mandatory age-based testing and that without.¹⁰ The effect of age-based regulations among older drivers has yielded conflicting results and has yet to be well established.

⁵ See appendix

⁶ *Ibid.*

McGwin, Gerald. "Medication Use and Motor Vehicle Collisions Among Older Drivers." *The University of Alabama at Birmingham*. February 2009.

⁸ Status Report. Insurance Institute for Highway Safety. Vol. 42, No. 3, March 19, 2007

⁹ "Q&As: Older People."

¹⁰ Langford, J.; Fitzharris, M.; Newstead, S.; and Koppell, S. 2004. "Some consequences of different older driver licensing procedures in Australia." *Accident Analysis and Prevention* 36:993-1001.

WHAT ARE OTHER STATES DOING

States have approached this issue differently- from having physician reporting laws, to mandatory retesting for crash involvement, to strictly forbidding retesting based solely on age. 18 states require that elderly drivers renew their licenses more often than younger drivers, but only two states (Illinois and New Hampshire) require road tests.¹¹ In Washington DC, the Senior Driver Empowerment Amendment Act of 2007 prohibits the DMV from requiring a written test or road test to renew a license simply because of age. Connecticut passed a bill that provides a discount on insurance premiums for senior drivers who take a driver safety course. However, according to the IIHS, safe driving courses for seniors have shown little evidence of being beneficial and have shown no reduction in crash risk among different groups.¹² California requires anyone involved in a single fatal crash or in three or more non-fatal crashes to be retested, or if they are over 70 years old and involved in any two crashes in a year. Pennsylvania has a law requiring physicians to report disabilities that may affect their patients driving to licensing agencies. Maryland also allows for state police and doctors to refer potentially dangerous drivers to the DMV Advisory Board.

WHAT IS THE CURRENT LAW?

The current law in Massachusetts (Chapter 90, Section 8c *Medical Advisory Board; standards of fitness for applicants for learner's permits of licenses*) centers its reissuance policy around functional ability, not age. Current law only requires a vision test every 10 years and renewal every 5.

WHAT BILLS ARE BEING INTRODUCED?

There are two Senate bills currently in front of the Transportation Committee for hearing regarding elderly drivers. They are: S1929 Presented by Brian A Joyce “An Act to Promote Safe Driving”; and S1901 Presented by Stephen J. Buoniconti “An Act relative to certain operators of motor vehicles.”

S1929 states that “the registrar shall require that all persons aged 85 or older who are seeking to renew their operator’s licenses take a vision and road test before being reissued such license.” It also calls for the registrar to create and implement a program to raise awareness about safe driving techniques. Variations of this bill have been introduced by Senator Joyce for the previous three sessions to no results.

S1901 says that the registrar, “having good cause to believe that an operator is incompetent or unqualified to retain his license,” may ask the licensee to submit to an examination at the discretion of the registrar. Good faith reports from family members, police officers, and physicians will be immune from any civil liability arising from the claim.

Representative Kay Khan has also presented a bill to the House, H2241, “An Act relative to impaired drivers.” H2241 also allows for physician reporting and immunity for good faith reports from doctors and physicians about their patients.

HEARINGS

¹¹ Larry Copeland. “States seek tests for older drivers.” *USA Today*. July 2009.

¹² “Q&As: Older People.”

The aforementioned bills were heard before the Committee on June 30th. Currently the Committee is trying to create a comprehensive bill to be released favorably. From the State House News Service Advances email for the week of July 5th:

[State Senator Steven] Baddour said “There’s seriousness that the Legislatures looking at this bill.” He said his co-chair Rep. Joseph Wagner would be open to testing drivers over a certain age if statistical evidence justified it...Baddour said he hoped the Legislature could get a bill to Patrick by Labor Day... Patrick said Thursday he looked forward to signing a sage driving bill [and that] he favored the concept of having drivers retested by that important details needed to be worked out.

However, what he took from it was that the issue is so complex that none of the bills before them would solve the problem as is.

CONCLUSION

The amount of elderly drivers on the road has increased as more are keeping their licenses longer and driving more. Compared with middle-aged drivers, those 75 and older have higher fatality rates per mile traveled. Even so, fatalities per capita have decreased 35% in the last 35 years and are now at their lowest level.

Seniors are increasingly self-limiting their driving. Drivers aged 80 and older are twice as likely to restrict their driving compared to 65-69 year olds. They do this by avoiding night driving, making fewer drips, traveling shorter distances, avoiding interstates, and driving familiar routes. The AARP supports in-person renewal and screening that is not aged based. "What determines your safety isn't your age but your ability."¹³

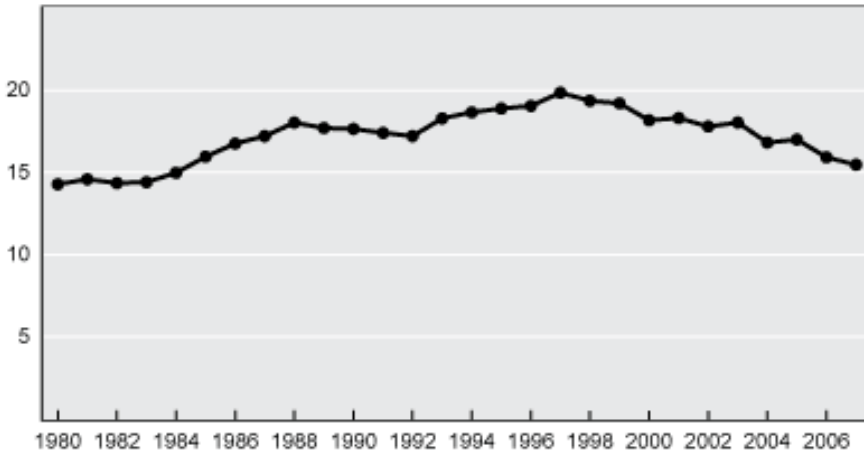
Artificial age limits on drivers does not stop the problem of unsafe driving habits. The AARP says that “skills vary widely at all ages. It is unfair to punish most elderly drivers for problems cause by only a few drivers.” Drawing an arbitrary age line at 85 disregards younger drivers that have potentially dangerous visual impairments and discriminates against perfectly healthy older drivers because of their age.

¹³ Copeland.

GRAPHS

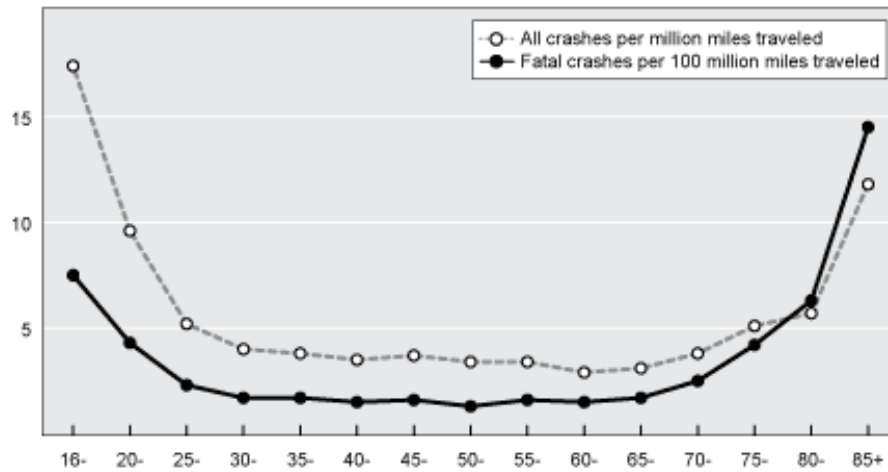
GRAPH 1

Number of fatal crashes among drivers 70 and older per 100,000 people 70 and older



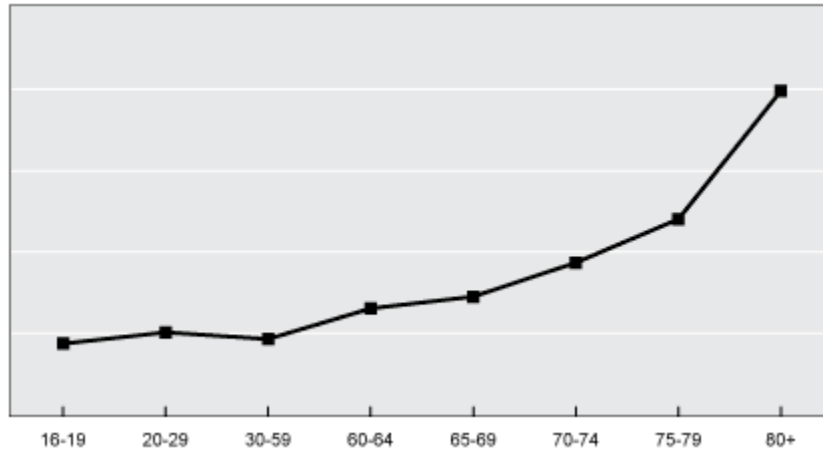
GRAPH 2

Number of crashes per mile traveled by driver age, 2001-02



GRAPH 3

Number of passenger vehicle driver deaths per 1,000 drivers involved in police-reported crashes by driver age, 2003-07



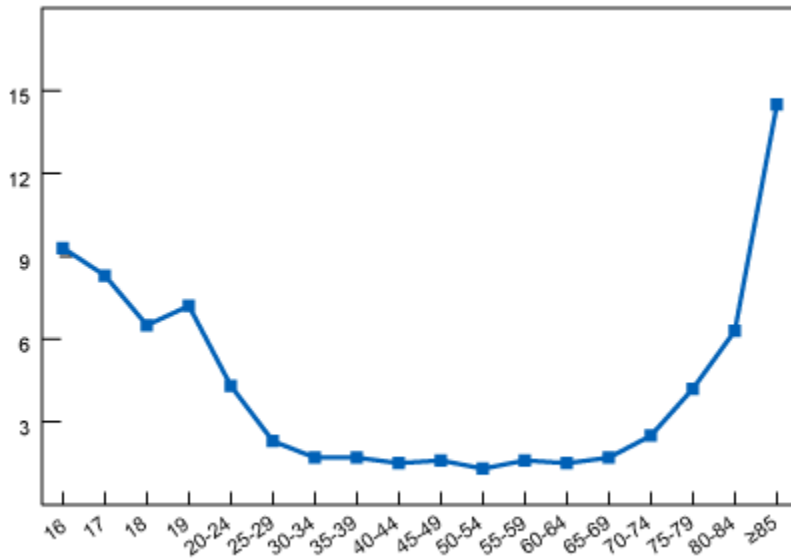
GRAPH 4

| Motor vehicle crash deaths per 100,000 people by age and gender, 2007 | | | | | | | | | |
|---|------------|--------|------|------------|--------|------|------------|---------|------|
| Age | Male | | | Female | | | Total | | |
| | Population | Deaths | Rate | Population | Deaths | Rate | Population | Deaths* | Rate |
| <16 | 33,333,507 | 1,139 | 3.4 | 31,819,438 | 883 | 2.8 | 65,152,945 | 2,022 | 3.1 |
| 16-19 | 8,824,724 | 2,803 | 31.8 | 8,384,083 | 1,384 | 16.5 | 17,208,807 | 4,188 | 24.3 |
| 20-24 | 10,852,937 | 4,380 | 40.4 | 10,179,459 | 1,299 | 12.8 | 21,032,396 | 5,680 | 27.0 |
| 25-29 | 10,776,189 | 3,000 | 27.8 | 10,281,517 | 931 | 9.1 | 21,057,706 | 3,932 | 18.7 |
| 30-34 | 9,906,361 | 2,178 | 22.0 | 9,626,859 | 686 | 7.1 | 19,533,220 | 2,864 | 14.7 |
| 35-39 | 10,654,911 | 2,278 | 21.4 | 10,521,549 | 744 | 7.1 | 21,176,460 | 3,022 | 14.3 |
| 40-44 | 10,963,823 | 2,208 | 20.1 | 11,021,006 | 852 | 7.7 | 21,984,829 | 3,060 | 13.9 |
| 45-49 | 11,302,842 | 2,379 | 21.0 | 11,558,531 | 882 | 7.6 | 22,861,373 | 3,261 | 14.3 |
| 50-54 | 10,292,071 | 2,095 | 20.4 | 10,721,316 | 774 | 7.2 | 21,013,387 | 2,869 | 13.7 |
| 55-59 | 8,847,222 | 1,721 | 19.5 | 9,389,037 | 663 | 7.1 | 18,236,259 | 2,384 | 13.1 |
| 60-64 | 6,927,866 | 1,178 | 17.0 | 7,547,951 | 539 | 7.1 | 14,475,817 | 1,717 | 11.9 |
| 65-69 | 5,019,063 | 880 | 17.5 | 5,733,378 | 454 | 7.9 | 10,752,441 | 1,334 | 12.4 |
| 70-74 | 3,867,910 | 793 | 20.5 | 4,731,798 | 475 | 10.0 | 8,599,708 | 1,268 | 14.7 |
| 75-79 | 3,106,968 | 745 | 24.0 | 4,217,914 | 502 | 11.9 | 7,324,882 | 1,247 | 17.0 |
| 80-84 | 2,205,705 | 613 | 27.8 | 3,492,924 | 458 | 13.1 | 5,698,629 | 1,071 | 18.8 |
| ≥ 85 | 1,776,799 | 554 | 31.2 | 3,735,499 | 458 | 12.3 | 5,512,298 | 1,012 | 18.4 |

*Total includes other and/or unknowns

GRAPH 4

Passenger vehicle fatal crash involvements per 100 million miles traveled by driver age, April 2001 to March 2002



Passenger vehicle fatal crash involvements per 100 million miles traveled by driver age, April 2001 to March 2002

| Age | Passenger vehicle fatal crash involvements | Miles traveled | Rate |
|-------|--|-----------------|------|
| 16 | 1,021 | 10,991,775,116 | 9.3 |
| 17 | 1,410 | 17,007,229,957 | 8.3 |
| 18 | 1,790 | 27,575,876,114 | 6.5 |
| 19 | 1,885 | 26,116,988,928 | 7.2 |
| 20-24 | 7,184 | 167,139,739,780 | 4.3 |
| 25-29 | 4,873 | 215,143,526,035 | 2.3 |
| 30-34 | 4,438 | 258,141,237,337 | 1.7 |
| 35-39 | 4,492 | 269,147,680,452 | 1.7 |
| 40-44 | 4,255 | 288,295,560,019 | 1.5 |
| 45-49 | 3,530 | 226,862,752,042 | 1.6 |
| 50-54 | 2,878 | 215,764,866,751 | 1.3 |
| 55-59 | 2,238 | 138,646,175,519 | 1.6 |
| 60-64 | 1,678 | 112,124,892,364 | 1.5 |
| 65-69 | 1,416 | 81,468,138,271 | 1.7 |
| 70-74 | 1,453 | 59,206,606,813 | 2.5 |
| 75-79 | 1,477 | 35,214,532,480 | 4.2 |
| 80-84 | 1,046 | 16,566,473,047 | 6.3 |
| ≥ 85 | 740 | 5,097,372,229 | 14.5 |

*All graphs are from : Q&As: Older People.” Insurance Institute for Highway Safety. April 2009.