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Matt Burress, House Research  
Michael Peterson, Minnesota State Demographic Center

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## Older Drivers

The number of Minnesotans in their 60s and beyond is expected to increase dramatically in the coming decades, with one result being additional older drivers. There are a number of issues associated with senior citizens who drive, including driver and passenger safety and driver licensing. This publication discusses demographic trends and the policy context of senior citizens who drive.

*Note on A Changing Minnesota series: This publication is the first in an occasional series of joint publications between House Research and the State Demographic Center on demography and a changing Minnesota. The goal of this series is to meld data on Minnesota as a changing polity with an overview of statutes and public policies that are affected by those changes.*

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This publication discusses demographic trends and the policy context of senior citizens who drive. An unprecedented number of Minnesotans are becoming elderly, which will impact many systems including transportation. While transit is a choice or necessity for some older adults, the majority of this cohort of aging Minnesotans will likely maintain a driver's license—and the independence it brings—as long as possible. The state can anticipate more older drivers on its roadways than ever before, along with a greater percentage of older adults among all those driving.

Throughout this publication, “older drivers” generally refers to those age 65 and older (a common but not uniform threshold in discussions on the topic).

Various impacts can be expected from a marked increase in the number of older drivers. Some core questions concern (1) the nature of impacts on driving and safety as a result of the aging process; (2) whether policy responses are necessary; (3) the current policy structure; and (4) if policy changes are made, what approaches would be most effective in reducing in property damage, injuries, and fatalities from automobile crashes.

While the state's licensing regulations are outlined in a section below, it is worth noting that the range of possible policy responses or changes is broader. Potential areas include driver assessment mechanisms (such as medical exams and self assessments); training and awareness tactics like driver courses and medical provider training; traffic engineering changes; and maintaining mobility through other means such as transit.

## Demographic Trends

**By 2035, senior citizens will make up more than one-fifth of the state population.**

Minnesota is experiencing an overall aging of the population, as the bulge known as the Baby Boom<sup>1</sup> advances into retirement age. The first Baby Boomers turned 65 in 2011.

In 2010, Minnesota had approximately 685,000 total adults age 65 or older, of whom about 107,000 were age 85 or above. The size of both groups is expected to *double* by 2035, at which point older adults will make up 22 percent of the state's population (compared to an estimated 13.6 percent in 2012). During the 2010s, approximately 285,000 *additional* Minnesotans will reach age 65 or older followed by an estimated 335,000 added in the 2020s, according to Minnesota State Demographic Center projections.<sup>2</sup>

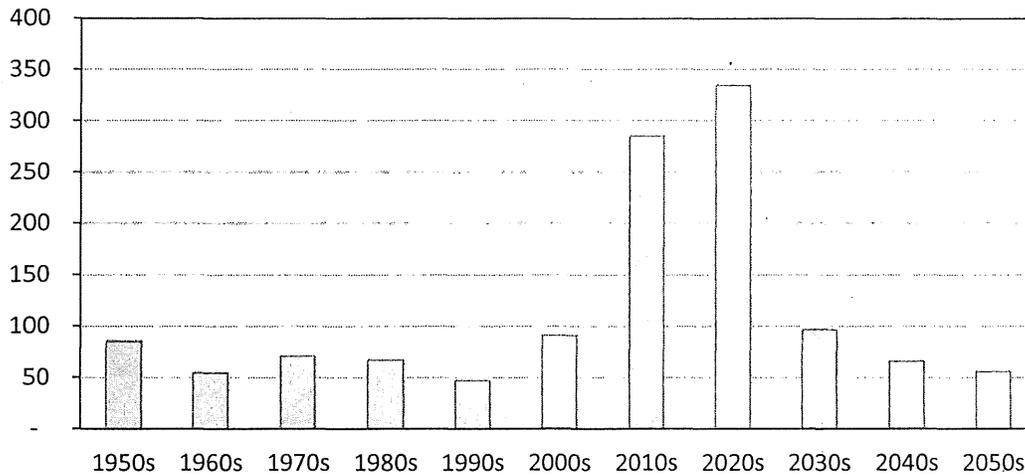
The rate of growth experienced in this population group in the current decade and the next will be unlike anything Minnesota has experienced in the past six decades.

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<sup>1</sup> Defined as those born between 1946 and 1964.

<sup>2</sup> All subsequent projections were also produced by the Minnesota State Demographic Center.

**Number of Additional Adults Age 65+  
(In Thousands)**



The beginnings of this trend can be observed in driver licensing. The total number of license holders has risen steadily over the past decade, increasing from 3.79 million in 2003 to nearly 4.04 million in 2012. This parallels overall growth in the state's population. Much of the growth in licensed drivers, though, is attributable to individuals age 65 and over (which may reflect the wave of Baby Boomers entering their 60s). Older drivers have accordingly increased as a share of the state's total driver's license holders. In 2012, license holders age 65 or older accounted for 16.9 percent of all those having a Minnesota license (at roughly 683,000), up from 14.3 percent in 2003 (or 543,000 licensed drivers).<sup>3</sup> Further, among those age 65 or older, the portion who hold a driver's license has increased in recent years.

Notably, the phenomenon of aging will be experienced differently across Minnesota. While the number of older adults within the eleven-county Twin Cities metropolitan area is greater, older adults make up a far larger share of the population in many counties throughout Greater Minnesota. In 2010, already more than one in five residents was an older adult in 22 counties. By 2030, 69 Minnesota counties are expected to have this high a share of residents who are 65 years or older, per State Demographic Center projections.

## Risks

### **Age-related health issues have an impact on driving safety.**

Studies and academic literature on aging motorists point to several factors that might raise the risk of motor vehicle crashes or the severity for a driver's health resulting from a crash. Age-related impacts on driving safety can be classified into:

- 1) **vision**, including visual acuity and other vision issues like macular degeneration, cataracts, glaucoma, and increased sensitivity to glare;

<sup>3</sup> Minnesota Department of Public Safety, *Minnesota Motor Vehicle Crash Facts, 2007, 2012, Table 2*, <https://dps.mn.gov/divisions/ots/reports-statistics/Pages/crash-facts.aspx> (accessed September 3, 2013).

- 2) **hearing impairment**, which may make drivers less aware of honking, sirens, and other external sounds as well as internal cues such as blinkers;
- 3) **cognitive ability**, such as longer reaction time, memory loss, diminished reasoning, and losses in multitasking capability, as well as side effects of medications (like drowsiness or confusion) and influences from health afflictions;
- 4) **motor function**, including loss of physical strength and flexibility, arthritis, muscle stiffness, and limited range of motion; and
- 5) **physical fragility**, or greater likelihood of being injured or killed.

## Evaluating Crashes

While there is a general consensus that potential risks of driving heighten as one ages into the 60s or 70s, research into details underlying the risks is ongoing. While by no means comprehensive, some aspects of aging driver analyses are worth highlighting.

**National crash rates are highest among youngest and oldest drivers when accounting for driving frequency.** Various reviews indicate, after accounting for miles traveled by car,<sup>4</sup> that both crash and fatality rates are highest for beginning drivers, drop off for drivers in their late 20s to 60s, and increase again for drivers in later years (starting in their upper 60s or early 70s). A similar pattern is observed in auto insurance claims, which provides another way to measure crash frequency. Some questions that have arisen regarding these findings include (1) whether the data collected is accurate regarding driving frequency and all types of crashes, and (2) the extent to which crashes among older drivers may be inflated due to operating more frequently on roads that have comparatively higher crash rates (i.e., city streets versus highways).

**Fragility seems to be a significant factor for older drivers.** There is evidence that higher fatality rates among older drivers may be a result of increased fragility rather than comparatively higher crash rates. As noted above, as part of aging a person becomes more susceptible to injuries, more significant medical issues, and greater likelihood of medical complications due to a crash compared to younger drivers. Physical susceptibility rather than driving ability impairments may be the factor holding most significance for older driver well-being.

**Minnesota crash and fatality rates are generally on a downward trend in recent years.** A picture of Minnesota-specific trends in older driver crashes can be observed through an analysis of reported crashes. Due to differences in approach, implications from this review might not match national crash rate research findings noted above (that crash rates per miles traveled increase among the oldest motorists).<sup>5</sup>

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<sup>4</sup> Raw counts of crashes by driver age are insufficient in providing a reasonable understanding of the issue. National data indicates that older drivers drive less as they age. Once they leave the workforce, older adults typically make fewer total trips by car and log fewer miles on the road. Accurately assessing the crash, injury, and fatality rates of older drivers requires adjusting for such change in travel behavior.

<sup>5</sup> The approach being presented focuses on change over time, adjusting for the number of driver's license holders in that age range (rather than population) to help account for changes in amount of driving due to numbers of drivers. Due to a lack of recent data, however, it does not account for overall miles driven in each year; conclusions from comparing across age groups is therefore cautioned against. Arguably, the lack of adjustment for

Over the past five years both crash rates and fatality rates for incidents involving drivers age 65 and over have generally decreased, after adjusting for the number of driver's license holders (but not for vehicle miles traveled, because of data limitations). This parallels an overall trend of reduced crashes and deaths in Minnesota across all age groups.



Between 2008 and 2012 for drivers age 65 and older, the crash rate decreased by an average of 2.7 percent per year (from 16.9 to 15.1 crashes per 1,000 license holders). For that same driver age group and time period, fatality rates from crashes dropped by an annual average of 6.4 percent (from 15.5 to 11.6 crashes per 100,000 licenses). It is worth noting that there was higher variation in fatality rates among drivers age 85 and older, and that a bump in the fatality rate for older drivers as a group occurred in 2011.<sup>6</sup>

Another way of evaluating crashes is through the share of total crashes and fatalities among drivers age 65 and over compared to all drivers. Looking from this perspective, the percentage of crashes involving older drivers has increased in recent years, from 7.5 percent in 2008 to 8.6 percent in 2012. The percentage for fatal crashes has been essentially unchanged although with higher year-to-year variation. The increase in the share of crashes might primarily be explained by the increase in the number of older drivers and therefore the share of total miles driven.

**One source of reduced driving among older drivers appears to be self-regulation.** Finally, a body of academic research indicates that as they age, drivers at least to some extent “self-regulate” by restricting their driving in some manner. Driver self-limiting can take various forms such as fewer trips, driving shorter distances, staying off of highways, or avoiding driving in unfavorable conditions or situations (like during rush hour, at nighttime, in bad weather, or in unfamiliar locations). Less clear are the causes of self-limited driving, which could result from self recognition of impairments, family or social feedback, driver regulations, or some combination.

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vehicle miles traveled raises issues in comparing rates *against* other age groups, but may not negatively impact an examination of trends *over time and within* this age group.

<sup>6</sup> Data is from *Minnesota Motor Vehicle Crash Facts* reports produced by the Minnesota Department of Public Safety, with analysis by House Research Department.

## Driver Licensing Policies in Minnesota

Driver and Vehicle Services (DVS), a division within the Minnesota Department of Public Safety, has purview over driver licensing as well as motor vehicle registration. While DVS administers driver licensing, many offices located throughout the state that actually provide driver-related services are privately owned or are operated by a local unit of government (such as a county). These “driver’s license agents” operate independently but under the authority and oversight of DVS. Driver’s license examinations—both the written knowledge exam as well as the road test—are only performed at offices staffed and operated by DVS.

**Driver’s license requirements.** There are exceptions, but among the requirements to obtain a driver’s license a person must:

- **Submit an application,** which includes answering questions about medical conditions. A physician’s statement is not initially required, but depending on information provided in the application, DVS may require a medical statement concerning whether the condition impacts ability to drive safely.
- **Pass a knowledge examination.** The test is administered by computer or paper and covers several traffic safety-related topics, some of which are mandated by state law. Minn. Stat. § 171.13, subd. 1.
- **Pass a road test.** This consists of “an actual demonstration of ability to exercise ordinary and reasonable control in the operation of a motor vehicle.” Minn. Stat. § 171.13, subd. 1. (A notable exception to this requirement is for someone who holds a license from another jurisdiction.)
- **Undergo vision screening.** To obtain an unrestricted license, an applicant must have a normal or corrected vision of 20/40 and meet a minimum degree of peripheral vision.<sup>7</sup> The screening does not evaluate other visual conditions like contrast sensitivity (ability to discern distinct objects) or useful field of view (both visual and cognitive handling of multiple events). The screening is performed by DVS staff.

DVS evaluates, on a case-by-case basis, situations where the visual acuity is worse than 20/70 but better than 20/100. Following Minnesota Rules, the department can issue a license to such individuals with driving restrictions, such as driving on roads with a particular maximum speed limit, limits on geographic travel, and limited times of day when driving is allowed. Minn. Rules, part 7410.2400.

**Driver’s license renewal.** A regular Minnesota driver’s license must be renewed every four years. Minn. Stat. § 171.27. The renewal must take place in person at a driver licensing station, and the process includes passing a vision exam. Once a person has first obtained a regular driver’s license, knowledge and road examinations are not typically required for license renewal. Either or both examinations can be required under various circumstances, however, such as for license reinstatement after driving privileges had been removed.

**Driver evaluation.** Within DVS there is a Driver Evaluation Unit that reviews driving privileges. Reviews take place on a case-by-case basis, but are not undertaken universally for all

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<sup>7</sup> The peripheral vision requirement is set under administrative rules at 105 degrees or better in the horizontal diameter (or side-to-side measurement). Minn. Rules, part 7410.2400, subp. 2.

drivers. Authority for the evaluation process comes from various state law provisions.<sup>8</sup> The Driver Evaluation Unit receives reports and information about a driver with potential licensing issues from various sources, which might trigger a driving privilege review. Referral is most typically provided by family members of a driver, law enforcement, or a physician. The department has established, under Minnesota Rules, requirements governing the process of driving privilege withdrawal due to physical and medical reasons. Minn. Rules, part 7410.

Minnesota law specifically prohibits examinations solely on the basis of age. Minn. Stat. § 171.13, subd. 3. This does not prevent case-by-case evaluations of seniors, as the evaluation system can be used for all drivers and is not initiated only due to a person's age.

## Driver Licensing Policies Across the States

Nationally, a number of licensing policies specific to older drivers have been implemented across various states. (The age varies, but generally they apply to drivers starting at age 65, 70, or 80.) Policies include:

- Shortening the length of the renewal cycle for older drivers in a number of states<sup>9</sup>;
- Requiring a vision test (which in some states begins at age 40);
- Requiring in-person license renewal for older drivers where renewals are otherwise allowed electronically or by mail;
- Requiring doctors to report medical conditions that could impair driving, required in a handful of states; and
- Requiring road exam upon license renewal for older drivers, mandated in a couple of states.

Some policies that states have implemented particularly for older drivers are currently addressed in Minnesota through more general licensing policy. An example is license renewal. Minnesota has a more frequent license renewal cycle—four years for all drivers—compared to several other states. A number of those states that accelerate the license renewal cycle for older drivers set the accelerated period at four (or more) years, with a general renewal cycle that is longer. Another example is in-person renewal. While some states mandate in-person license renewal starting at a particular age threshold, it is required for all renewals in Minnesota.

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<sup>8</sup> The department is restricted from issuing a driver's license to a person who is viewed as having a disability or disease that would prevent the person from "exercising reasonable and ordinary control over a motor vehicle." Minn. Stat. § 171.04, subd. 1. The Commissioner of Public Safety also has broad authority to require "physical and mental examinations as the commissioner finds necessary to determine the applicant's fitness to operate a motor vehicle safely." Minn. Stat. § 171.13, subd. 1. Further, the department can require examination "of any licensed driver, to determine incompetency, physical or mental disability or disease, or any other condition which might affect the driver from exercising reasonable and ordinary control over a motor vehicle." Minn. Stat. § 171.13, subd. 3.

<sup>9</sup> Renewals are typically four to six years but can range up to ten years, while shortened renewal cycles for aging drivers vary from two to five years. Insurance Institute for Highway Safety, "Older Drivers: Licensing Renewal Provisions," June 2013, <http://www.iihs.org/laws/olderdrivers.aspx> (accessed August 27, 2013).

## Implications

Whether or not policymakers conclude that short-term policy changes are necessary, the increase in older Minnesota drivers will likely continue to raise various policy questions. While a focus in this publication has been driver licensing, such regulations are just one of several avenues of potential policy response. Because many drivers will face a time in advanced age when driving is no longer safe, another line of analysis concerns the capacity and geographic distribution of other transportation options (such as transit service). Similar to the Towards Zero Deaths initiative among state agencies to reduce fatalities on Minnesota roadways, which is credited with some success, other potential avenues for policy development include engineering, education, and enforcement mechanisms. Finally, the potential front-line role families can play in monitoring and affecting older driver behavior—as well as how public policy may impact that role—is worth consideration.

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