

FY 2009 RESEARCH PROBLEM STATEMENT

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TITLE

IM-09-09 Causal Factors and Impacts of Continuing or Ceasing to Drive Among Older Adults

PROBLEM (Description of need)

As of January 2002, there were 428,305 drivers aged 65 and over in Oregon, and the population is aging at a dramatic rate. Between 2000 and 2010, the population of Oregonians aged 45 to 64 is expected to grow by a total of 26.5%, and that of people aged 65 and older is projected to increase by 18.29% (AoA, 2005). In the U.S., by 2030, the number of those aged 65 or older and who drive automobiles is expected to double nationally (Rosenbloom, 2003). By 2050, it is estimated that 15% of all drivers will be 65 years of age or older, which is equal to approximately 50 million drivers aged 65+ on U.S. roadways (Anstey et al. 2005; Carr, Shead, and Stroandt 2005; Rosenbloom 2003).

Questions exist concerning the safety of older drivers, what steps can be taken to improve driving safety among this population, what factors result in some older drivers voluntarily ceasing to drive or continuing to drive beyond the point where they should stop for safety reasons, and the transportation needs of these older adults.

Understanding the senior population of drivers is important for reasons of safety. Although older drivers, particularly those 80 years of age and older, tend to limit the total number of vehicle miles they travel, they are three times more likely to die from injuries attributed to a vehicle accident, and such accidents can involve other cars, pedestrians, and cyclists (Cobb, 1998). Also, despite the rapid growth in the number of older adults, the rate of mass transit use among this population has remained stagnant for more than two decades (Giuliano, Hu, and Lee, 2003). The increase in numbers of older drivers must be examined and planned for to ensure the safety of public roadways for all.

Understanding the reasons for ceasing or continuing to drive when not able to do so safely, the effects of ceasing to drive, and the transportation needs of older Oregonians are crucial for preparing for meeting the transportation needs of older adults in Oregon.

Earlier in 2007, to begin the effort to plan for the transportation needs of older adults in Oregon, a statewide mail survey completed by 500 older adults, drivers and voluntary ceasers, was conducted for ODOT, along with telephone interviews with a subsample of respondents (Neal, Baggett, Sullivan, & Mahan, 2007; see www.ioa.pdx.edu). A preliminary literature review had found no Oregon-specific study or any other statewide examination of either the reasons for voluntary driving cessation by aging drivers or their transportation needs after ceasing to drive. In addition, little or no data were found comparing current elderly drivers with former drivers in the same population, and few studies had examined alternative transportation needs, especially across geographic (e.g., urban versus rural) areas.

Among the results of the study conducted was the finding that those most likely to have chosen to stop driving were older, depressed females in poorer health who were living in senior housing, using alternative transportation when available, making fewer trips, and seeing fewer limitations associated

with using alternative transportation. Because this was a cross-sectional, not longitudinal, analysis, it was not possible, however, to determine causality (e.g., to know whether people became depressed as a *result* of ceasing to drive or being depressed *led* them to cease driving, or to know whether poor health was the *result* or *cause* of driving cessation). Moreover, information was inadequate to determine the decision trajectory, the impacts of decisions on individuals, and changes over time in acceptability and use of public and special transportation.

PROPOSED RESEARCH, DEVELOPMENT OR TECHNOLOGY TRANSFER ACTIVITY

Conduct longitudinal statewide research with a representative sample of older adults to better understand the factors that lead individuals to cease driving voluntarily and changes over time in acceptability and use of public and special transportation. Longitudinal research is needed before causality can be established, ideally following groups of individuals in particular age cohorts over time. Because changes in driving behavior appear to begin at about age 75, based on the findings of the previous cross-sectional study (Neal et al., 2007), the age groupings of 70 to 74, 75 to 79, 80 to 84, 85 to 89, and 90+ are suggested, along with random selection of participants. Such a panel study would include individuals who were forced to stop driving through the *Medically-At-Risk Program* (the previous research did not include this population) and would allow comparisons to be made between them and those who voluntarily chose to stop driving, as well as those who continued to drive.

BENEFITS

Enhanced transportation options are essential to preserving quality of life for older Oregonians who are no longer able to drive and those wishing to drive less over time. Understanding the factors affecting older Oregonians' decisions, over time, to continue or cease driving, including the existence of, awareness of and willingness to use transportation options, will inform the development of transportation plans for the future.

This information will assist the state in planning for the current and future transportation needs of the rapidly growing population of older Oregonians, both those who drive and those who have chosen to stop driving. It will help to identify where deficits in available transportation options exist and assess the quality of existing transportation options. It also will provide information needed to help develop enhanced marketing and delivery of transportation options, targeted at both older adults and their families and friends, to encourage use of transit.

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