

TITLE: The Identification of High-Risk Drivers through Age-Mediated Point Systems

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PROTECT OBJECTIVE:

To determine if there is quantitative justification for applying age-mediated intervention programs to older drivers.

SUMMARY:

Studies have consistently shown that while young drivers pose the greatest accident risk, there is evidence of an increase in the accident rate among older drivers at about 70 years of age. Evidence suggests that the increase in the accident rate among older drivers is attributable to age-related deterioration in driver competency. Following the teen years, California's license control programs identify high-risk drivers based on points only and therefore may not be sensitive to age-related changes in driver performance among older persons.

Analyses were conducted on the possible interactive relationship between age and driving record. Results from both descriptive and inferential analyses indicated that older drivers exhibit a steeper increase in future accident risk at successive incident levels, relative to drivers in general. For example, within the group of drivers who have 5 convictions in 3 years, a rate of 361 accidents per 1000 drivers was predicted in the next 3 years among the general population, 395 accidents among drivers 60-69, and 431 accidents among drivers 70 and above. The difference between 431 and 361 represents an increased accident expectancy of 19%.

Although it was stated that a number of interpretations might be advanced to explain the direction of the results, the most intuitively plausible is that unlawful driving may interact with changes due to aging to produce an accentuated level of risk. Another possibility offered is an age-exposure interaction in which the elevation is mediated by increased mileage expected of drivers with elevated traffic citation and accident frequencies. It was concluded that, statistically, older drivers tend to represent a higher relative accident risk at elevated point counts. However, the issue as to whether the results warrant implementation of a modified point system as a device for selecting out accident-prone older drivers could not be answered unequivocally from the analyses presented. The report advises that such a decision should be based, in part, on further investigation of the mechanisms underlying the age interaction and on the nature and effectiveness of the interventions.

IMPLEMENTATION STATUS OF FINDINGS AND RECOMMENDATIONS:

At the time of this writing, the department is developing procedures to initiate nonobtrusive driver improvement and education interventions for drivers aged 70 and above at a lower point count level.

SUPPLEMENTARY INFORMATION:

Paper presented at the *Conference on Driver Competency Assessment*, San Diego, California, October 24-26, 1990. Also published in *Journal of Safety Research*, 23(2), 81-93, 1992