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RESEARCH
SERVICES SECTION

TECHNICAL SUMMARY

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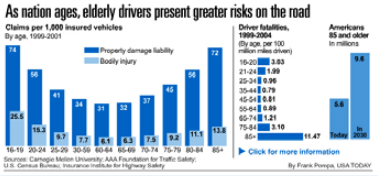
PROJECT COST:
$50,000



Older drivers display an increased crash risk after age 65 years.

Generational Perspective on Teen and Older Drivers on Traffic Safety in Rural and Urban Communities

What Was the Need?

A 2002 National Safety Council report indicates that road traffic injuries are the most common cause of death in the United States for all age groups up to 75 years, with the rate of fatal crashes higher in rural areas. Teen, young adult and senior drivers have the highest fatality rates. Research further indicates that most crashes are the result of driver impairment or high-risk driving behavior.

Why are rural crashes more common? Why are teen and senior drivers experiencing the highest fatality rates? An LRRB-funded study completed in 2007 explored this topic through surveys and driving simulator tests, concluding that driver perceptions of risk that fed into high-risk behavior (speeding, nonuse of seat belts, driving while impaired) were correlated with age and residency (rural versus urban). More investigation was needed to further understand these connections in order to tailor effective safety interventions to specific categories of high-risk drivers.

What Was Our Goal?

The goal of the current project was to provide information to further improve the effectiveness of Minnesota traffic safety programs through additional investigation into the experiences and perceptions of teen and senior drivers in rural and urban communities. Specifically, researchers wanted information about:

- Perceptions of crash risk, safe driving practices, driving ability and the importance of personal mobility to quality of life.
- Perceptions of the suitability and effectiveness of various types of safety interventions, such as the current Graduated Driver Licensing program and enforcement campaigns targeted toward specific behaviors (such as driving while impaired) in particular geographic areas.

What Did We Do?

The first phase of the project consisted of a series of 12 focus groups—with 116 participants—to gauge attitudes and experiences on these topics. Participants were from one rural area and one urban area of Minnesota, and were recruited for three subgroups: teen drivers, senior drivers (65 years or older), and parents of teen drivers.

In the second phase of the project, researchers evaluated surveys that were completed by the participants before they attended the focus group. These surveys solicited information about participants' self-reported driving behavior, perceptions of driving risk and the effectiveness of traffic safety interventions. Survey questions were formulated in consultation with the Minnesota Department of Public Safety and officials affiliated with Mn/DOT's Toward Zero Deaths initiative.

What Did We Learn?

Researchers learned that teen and senior drivers from both rural and urban communities rely on driving to preserve their independence and avoid inconveniencing others. While these drivers share a common driving purpose, researchers noted differences with regard to self-reported crash risk:

- Rural residents, regardless of age, reported less frequent use of seat belts.

continued

"This study indicates a difference in perception between age cohorts with regard to crash risk: Distractions were problematic for teens, while senior drivers cited the deterioration of perceptual, cognitive and psychomotor processes."

–Gordy Pehrson,
Traffic Safety/Youth Alcohol Coordinator, Minnesota Office of Traffic Safety

"Teen driver support systems like Smart Technology give teen drivers immediate feedback about driving performance and provide the opportunity to improve teen driver behavior, especially within the first six months to one year of driving."

–Michael Manser,
Director, HumanFIRST Program, ITS Institute, University of Minnesota

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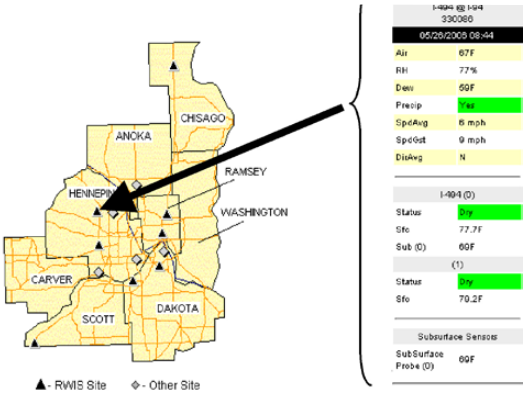

Speed alerts, which use an in-vehicle computer and GPS to warn teen drivers about risky driving speeds, were among the elements of Smart Technology discussed in focus groups.

- Urban drivers reported more frequent driver errors and traffic violations.
- Teens driving in urban environments reported more episodes of aggressive and impaired driving, moving violations and lapses in attention (distraction).
- Seniors attributed crashes to slower reaction times, poorer vision, reduced hearing or other physical problems.

Participants' perceptions of safety interventions also differed, as evidenced by the following:

- Teen drivers were significantly less receptive to enforcement as a safety intervention than senior drivers.
- Teens felt the use of Smart Technology to monitor driving behaviors such as speed and seat belt use could have positive safety effects, but an acceptable program would need to balance factors such as cost, robustness and limitations on driving patterns.
- While most teens felt the current GDL program, which is intended to reduce risk exposure and improve teen driving, had allowed them to improve their driving skills, they were less certain that the GDL program had made them safer. Most teens were against limits on the number of passengers and nighttime driving for newly licensed drivers, citing inconvenience.
- Mobility programs (private, nonprofit community organizations that provide transportation and mobility services to seniors) were better received by seniors in urban areas, provided the programs were convenient, safe, affordable and flexible.
- Seniors were receptive to mandatory driver's license retesting, but felt that it should be convenient, fairly administered and related to driving behavior, not a specific age.

What's Next?

Potential policy recommendations and suggestions for future research arising from this project include targeting traffic safety campaigns in rural areas that encourage seat belt compliance; developing safety policy for teen drivers that addresses driver distraction, especially in urban areas; developing safety policy for senior drivers that focuses on sensory-motor functioning; identifying ways to tailor the GDL program to optimally meet the needs of teens and parents; and investigating the feasibility of implementing mobility systems, especially in rural areas, as well as the barriers to program use and sustainability.

This Technical Summary pertains to Report 2008-36, "Generational Perspective on Teen and Older Drivers on Traffic Safety in Rural and Urban Communities," published September 2008. The full report can be accessed at http://www.lrrb.org/PDF/200836.pdf. *The 2007 study that served as a precursor to this study is described in brief at* http://www.lrrb.org/PDF/200741TS.pdf*; the full report is available at* http://www.lrrb.org/PDF/200741.pdf.