UTC RESEARCH PROJECT DESCRIPTION

PROJECT NUMBER: 05312

PROJECT TITLE: Management of Functionally Impaired Drivers

PRINCIPAL INVESTIGATORS:
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PROJECT OBJECTIVE:
American society is undergoing a major demographic transformation, which is resulting in a larger proportion of mature individuals in the population. Some believe this demographic change, coupled with the increasing mobility of the mature population poses a serious highway safety issue. This issue is complicated since seniors want to maintain their independence, yet the nation needs to protect all drivers. This research addresses that situation; the major objectives are identification of high-risk older drivers and recommendation of guidelines to diminish the number of accidents attributable to them.

PROJECT ABSTRACT:
Older drivers have specific issues that need to be addressed including changes in sensory, motor, and cognitive skills that may affect driving ability. Motor impairments include lack of neck and limb mobility, whereas sensory declines primarily involve visual impairments. Cognitive impairments include decreased speed of processing and reaction time as well as changes in visual search and visual attention. Alternatives to address these limitations and impairments will be investigated in this project as they relate to driver safety. This will be accomplished by technology transfer activities and analyses of available screening data, crash statistics and accident reports. Data analysis will be conducted using UTCA data as well as other sources including a study of 900 older drivers from Alabama who completed extensive functional performance batteries. Alabama regulations and constituent issues will be taken into consideration in evaluating the various alternatives. Recommendations will be made including an implementation plan and a possible pilot program outline.

PROJECT TASKS:
Task 1) Alternatives – Develop alternative approaches from programs in other states, literature, and organizations for older drivers (technology transfer).
Task 2) Collect Alabama Driver Data – Review accident data and reports, and summarize Birmingham older driver screening data and surveys.
Task 3) Implementation Plan for Alabama – Develop recommendations for management and for assessing the acceptability of age-based licensing changes on older drivers.
Task 4) Technology Transfer – Develop the project final report and a technical paper.

MILESTONES AND PROJECT SCHEDULE:
Task 1: Jun-Aug 2005
Task 2: Jul ’05-Jan ’06
Task 3: Dec ’05-Apr ’06
Task 4: Aug ’05-May-06

BUDGET:
One-year project – UTCA $49,990; cost share $50,381; Total Budget $100,371.

STUDENT INVOLVEMENT:
The project will fund three undergraduate or graduate student researchers, one from each of the associated departments. The research will fulfill either their senior project or master’s research requirements. It is anticipated that all three will be either female or from underrepresented groups.

TECHNOLOGY TRANSFER ACTIVITIES:
One of the goals of this project is to ascertain how other communities are addressing the concerns and constraints of an aging population, thus technology transfer to Alabama will be accomplished during this study. The team members will prepare documents of activities in the form of required UTCA reports, and also present their recommendations to the state in whatever forum will be most beneficial. Additionally, a manuscript documenting the research results will be submitted to a peer-reviewed journal for publication.

TRB KEYWORDS:
Alertness, safety, crash data analysis, older drivers, state regulations and vehicle crashes