RESEARCH PROJECT DESCRIPTION

PROJECT NUMBER:
01467

PROJECT TITLE:
Data Analysis Capability for the Enrichment of Highway Safety Programs

PRINCIPAL INVESTIGATORS:
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PROJECT OBJECTIVE:
Continue the innovation of the CARE system while satisfying current reporting, evaluation and problem identification requirements.

PROJECT ABSTRACT:
The Critical Analysis Reporting Environment (CARE) is recognized nationally as one of the most advanced software packages applied to traffic safety problem identification and evaluation. However, for CARE to bring about the return of which it is capable, there must be an improved information technology infrastructure established that includes more accurate and timely reporting and entry of crash and violation incidents. A task force has been established within the context of Section 411 to develop a strategic plan for upgrading the State’s entire traffic safety
information technology infrastructure. The CARE project team will work in harmony with this plan to assure that the most effective and efficient systems are implemented. In particular, emphasis will be on restraint, alcohol and corridor projects. Deliverables include the statewide problem identification portion of the Highway Safety Program (HSP) and the production and distribution of *Alabama Traffic Crash Facts 2001*.

**PROJECT TASK DESCRIPTIONS:**
1. Development Information Technology Infrastructure.
2. Develop CARE Capabilities.
4. Training.

**MILESTONES AND DATES:**
- Begin project – Oct. 1, 2001 – Initiate training, initiate systems analysis to determine requirements for infrastructure technology improvements, and initiate plan to modify current plan for statewide problem identification and evaluation.
- Jan 1, 2002 – Continue training, begin development of IT infrastructure, and continue development of CARE capabilities.
- Apr-June 2002 – Continue training, design module extensions, and continue development of BASE modifications.
- July 2002 – Continue training, reach full-scale development of IT infrastructure and CARE capability development, and continue to modify the problem identification/evaluation capability of CARE.
- Aug-Sep 2002 – Continue training, continue development of CARE capabilities, and produce and distribute Alabama Traffic Accident Facts.

**TOTAL BUDGET:**
One-year project: Alabama Department of Economic and Community Affairs $243,006, University of Alabama $34,993; total funding $277,999.

**STUDENT INVOLVEMENT:**
One undergraduate student will be involved in conducting this project.

**RELATIONSHIP TO OTHER RESEARCH PROJECTS:**
This project is a continuation and expansion of UTCA project 01464, “Application of Information Technology to Traffic Safety in Alabama,” also conducted by Dr. Brown. It is also similar to several other efforts conducted by the PI for other state and local transportation agencies.

**TECHNOLOGY TRANSFER ACTIVITIES:**
The project will feature a continuing series of training sessions for practicing safety personnel, involving use of CARE to investigate crash situations and to draw conclusions regarding appropriate safety programs.

**POTENTIAL BENEFITS OF THE PROJECT:**
This project offers incremental improvements to the capability to conduct safety studies and to select safety countermeasures. In effect, the project allows additional optimization of safety funding, and will consequently decrease crashes, injuries and fatalities.

TRB KEYWORDS:
CARE, traffic safety programs, optimization, information mining, crash reduction, information technology.