UTC PROJECT DESCRIPTION

PROJECT NUMBER:
02209

PROJECT TITLE:
High School Transportation Education Program

PRINCIPAL INVESTIGATOR:
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PROJECT OBJECTIVE:
The objective of the project is to expand an existing program sponsored by the Alabama Department of Transportation to include:

- The development of a program web page to serve as a recruiting tool and convey up-to-date information on the program;
- Conduct a year end reception for all participating students and their families with local officials and transportation professionals;
- Involve undergraduate and graduate students in developing and delivering papers and presentations derived from the program; and
- Facilitate the dissemination and transfer of knowledge gained from conducting such a program through papers and conference presentations to audiences (e.g., Institute of Transportation Engineers, ASCE, American Society for Engineering Education).

PROJECT ABSTRACT:
The Alabama Department of Transportation and the Department of Civil and Environmental Engineering (CEE) at The University of Alabama at Birmingham have recently begun a program to introduce high school students in Jefferson County to the transportation profession(s). The program is directed toward local high schools with large concentrations of minority students. The objective of this work is to provide education and mentoring to the students of the Jefferson County Youth Transportation Program, which may encourage them to pursue careers in transportation. Under the current program, a faculty member from CEE department will conduct lectures and organize field trips for four separate groups (from four different high schools) of students during four six-week sessions.

PROJECT TASK DESCRIPTIONS:
1. Involve UAB students in developing and updating course materials (e.g., PowerPoint presentations, handouts, student involvement activities).
2. Involve UAB students in identifying, coordinating, and implementing transportation-related field trips.
3. Involve UAB students in developing a web page for the program.
4. Involve students in delivering lectures to high school students. Students will make presentations to the high school students and direct student involvement activities.

5. Involve UAB students and faculty in preparing papers and presentations about the program for in preparing lecture notes (e.g., PowerPoint presentations) and course material development.

6. Explore the feasibility of extending the program to a larger geographic area as well as the applicability to one or more of the historically black colleges in the state (e.g., Alabama A&M, Miles College, Tuskegee, Alabama State).

7. Summarize all project efforts in a final report for submittal to the UTCA.

MILESTONES AND DATES:
Task 1 Jan-Feb 2002
Task 2 Jan-Mar 2002
Task 3 Feb-Dec 2002
Task 4 Feb-Dec 2002
Task 5 July-Dec 2002
Task 6 June-July 2002
Task 7 Oct-Dec 2002

TOTAL BUDGET:
One-year project; UTCA $48,429; Total budget $48,438.

STUDENT INVOLVEMENT
One undergraduate and one graduate student from the CEE Department at UAB will be involved in this project.

RELATIONSHIP TO OTHER RESEARCH PROJECTS:
The proposed research will augment the minority inclusion components of the UTCA Project 01326, “Transportation Summer Institute,” currently being conducted by Dr. Kate Leonard.

TECHNOLOGY TRANSFER ACTIVITIES:
The project will have a large technology transfer component via journal publications and conferences presentations describing the successes and challenges of conducting such a large scale high school education effort. The exposure will be very positive for the UTCA and will display to the nation Alabama’s commitment to diversity in our transportation educational and professional programs.

POTENTIAL BENEFITS OF THE PROJECT:
The project directly supports the “diversity” aspect of the UTCA theme. The program will not only provide an educational experience for participating students, it will also serve as a recruiting tool for transportation-related educational programs and, most importantly, show that the educational system is interested in these students and has opportunities to offer. The project will also serve as an educational opportunity to the UAB students involved. It will display to them the need and opportunities for diversity in the engineering workplace and educational establishments. It will also allow them opportunities to develop their own
educational and organizational skills that will result in them being better mentors as they develop their own careers.

TRB KEYWORDS:
Education, Outreach, Professional development.