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| **UTC Project Information** | |
| Project Title | MPC-385 – Educational and Workforce Development Proposal: STEM Outreach at Colorado State University |
| University | Colorado State University |
| Principal Investigator | Rebecca Atadero |
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| Funding Agencies | USDOT, Research and Innovative Technology Administration |
| Agency ID or Contract Number | DTRT12-G-UTC08 |
| Project Cost | $2,000 |
| Start and End Dates | January 1, 2012 – December 31, 2013 |
| Project Duration | 2 Years |
| Brief Description of Research Project | Colorado State University recently launched the CSU STEM Center. This center is devoted to enhancing teaching at the K-12 and undergraduate levels, with a great deal of emphasis placed on the preparation of teachers in STEM fields. As part of the MPC activities at CSU, we will partner with the STEM Center to teach teachers about transportation, so they in turn can reach many K-12 students. Undergraduate students in the Department of Civil and Environmental Engineering will be hired to help prepare activities related to the importance of transportation infrastructure (based in part on the research projects conducted at CSU) for K-12 teachers to use in their classrooms. The CSU STEM Center will help us ensure that the activities developed meet Colorado curricular requirements so that they can be readily adopted by teachers. The activities will be designed in an active learning style, and will include simple physical demonstrations and assignments to promote critical thinking by students. We plan to develop activities appropriate for students in elementary and secondary schools. The STEM Center will help us reach audiences of teachers (pre-service teachers working on their licensure and working teachers in the region) to ensure that the activities are widely disseminated. The STEM Center can also provide evaluation efforts for these K-12 outreach components to ensure they are effectively reaching students.  These activities will help increase the awareness of transportation careers in elementary and secondary school children, and ensure that transportation is associated with STEM activities in schools. The activities will be designed to ensure that they are relevant and interesting to both boys and girls, in an effort to promote greater future representation of women in transportation. By involving undergraduate students to help prepare the activities we will be 1) helping these students themselves learn more about transportation fields and career paths, and 2) teaching the undergraduate engineers about the importance of outreach. |
| Describe Implementation of Research Outcomes (or why not implemented)  Place Any Photos Here |  |
| Impacts/Benefits of Implementation  (actual, not anticipated) |  |
| Web Links   * Reports * Project Website |  |