

Project Title –																				
University – University of Florida																				
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Funding Source(s) and Amounts Provided (by each agency or organization)																				
Total Project Cost – \$77,790																				
Agency ID or Contract Number – 2012-009S																				
Start and End Dates – 7/1/12 to 01/22/2015																				
Brief Description of Research Project - This project plans to use a series of one-day workshops aimed at presenting engineering, particularly transportation engineering, as a viable career option for girls, namely sophomore and junior high school level girls. An accompanying website will be used to help market the events as well as continue the learning experience by providing resources to supplement the concepts learned during the workshops. The website will also serve as a resource to high school teachers.																				
Describe Implementation of Research Outcomes (or why not implemented) - Used a series of one-day workshops targeted at middle and high school-level girls in order to introduce engineering, particularly transportation engineering, as a viable career option for girls. Experiential hands-on activities, speakers, role models, and mentoring opportunities served to engage and inspire. An accompanying website helped market the events as well as continued the learning experience by providing resources to supplement the workshops.																				
Place Any Photos Here –																				
<p><b>Table 2-1. Participant Summary for Introduce a Girl to Engineering</b></p> <table border="1"> <thead> <tr> <th>Date</th> <th>Event</th> <th>Location</th> <th>Participants</th> </tr> </thead> <tbody> <tr> <td>2/14/2013</td> <td>Introduce a Girl to Engineering Workshop</td> <td>Raleigh</td> <td>30</td> </tr> <tr> <td>2/19/2013</td> <td>Introduce a Girl to Engineering Workshop</td> <td>Winston-Salem</td> <td>44</td> </tr> <tr> <td>3/13/2013</td> <td>Introduce a Girl to Engineering Workshop</td> <td>Greenville</td> <td>27</td> </tr> <tr> <td></td> <td></td> <td>TOTAL</td> <td>101</td> </tr> </tbody> </table>	Date	Event	Location	Participants	2/14/2013	Introduce a Girl to Engineering Workshop	Raleigh	30	2/19/2013	Introduce a Girl to Engineering Workshop	Winston-Salem	44	3/13/2013	Introduce a Girl to Engineering Workshop	Greenville	27			TOTAL	101
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**Table 2-2. Participant Summary for Transportation YOU**

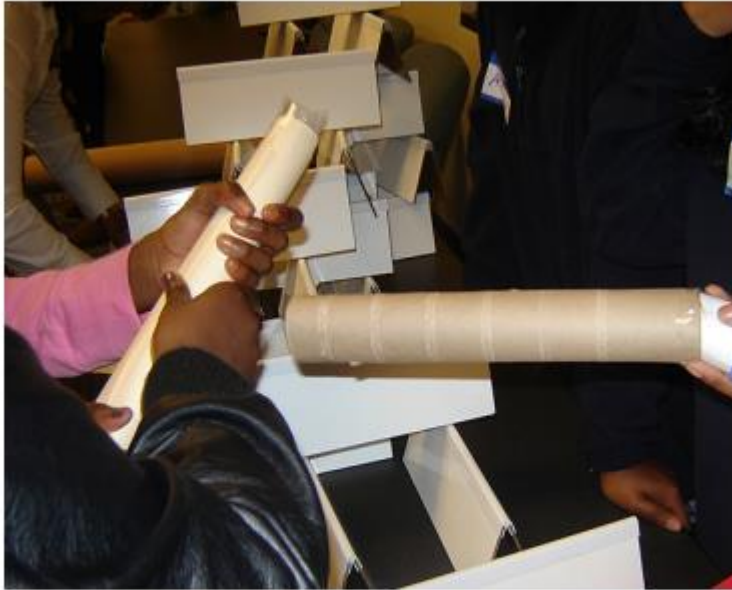
Date	Event	Location	Participants
12/13/2012	Transportation YOU Workshop	Raleigh	19
2/23/2013	Transportation YOU Workshop	Raleigh	7
4/25/2013	Transportation YOU Workshop	Raleigh	5
11/14/2013	Transportation YOU Workshop	Raleigh	13
		TOTAL	44

**Table 2-3. Participant Summary for Florida Workshops**

Date	Event	Location	Participants
1/26/2013	Engineers Change the World Workshop	UF Campus	8
3/7/2013	Engineers Change the World Workshop	Boone High/Orlando	15
4/10/2013	Engineers Change the World Workshop	Lincoln Middle	20
4/13/2013	Engineers Change the World Workshop	Jacksonville	19
5/14/2013	Engineers Change the World Workshop	Mebane Middle School	12
7/22/2013	Engineers Change the World Workshop	Bishop Middle	7
7/24/2013	Engineers Change the World Workshop	Lincoln Middle	9
10/19/2013	Engineers Change the World Workshop	Arlington Middle School	11
		TOTAL	101



**Figure 2-1. Participants at the Introduce a Girl to Engineering workshop construct a safety restraint for an egg.**



**Figure 2-2. Transportation YOU participants build a curvy roadway in a highway design activity**



**Figure 2-3. Workshop participants test the output of their hot chocolate machine.**



**Figure 2-4. Workshop participants display the LEGO® robots they programmed and tested.**

Impact/Benefits of Implementation (actual, not anticipated) - CTE and UF collaborated with the NCDOT, and WTS to offer workshops that introduced transportation engineering and STEM principles to girls middle and high school aged girls. Fifteen workshops reached a total of 246 girls in North Carolina and Florida. Experiential activities, speakers, role models, and team-building skills were used to introduce the girls to the field of engineering and to encourage them to view science, technology, engineering, and math as something that will be useful to them and have fun applying. Qualitative analysis of open-ended questions, questions asked by workshop participants, and comments by resource teachers, parents, and engineers from the DOTs and WTS indicated that students gained an understanding of the different types of engineering and learned about the kinds of work done by transportation engineers. Exposure to the concepts presented in these workshops provided the 246 participants with an opportunity to explore engineering careers and interact with professionals in the field. Some may go on to pursue careers in transportation engineering; some will choose different engineering fields, while others will realize the importance of how STEM education can be applied in other technical disciplines.

Project Website –

Final Report on STRIDE Website:

[http://www.stride.ce.ufl.edu/uploads/docs/STRIDE\\_Engineering-For-Girls-Too-FINALReport\\_Martin\\_2012-009S.pdf](http://www.stride.ce.ufl.edu/uploads/docs/STRIDE_Engineering-For-Girls-Too-FINALReport_Martin_2012-009S.pdf)

Final Report on TRB/TRID: <https://trid.trb.org/view/2015/M/1343105>