Pre-Collegiate Initiative
National Society of Black Engineers
Michigan Technological University Chapter

Alternative Spring Break in Detroit
Conducting Engineering Outreach
March 6-9, 2012
NSBE’s Mission

“To increase the number of culturally responsible Black engineers who excel academically, succeed professionally, and positively impact the community.”
The MTU-NSBE Team = 8 college students (6 from Detroit)
Traveled 550 miles to “reach out” and “give back” to their hometown schools.

Goal of the Trip
To create awareness of the crucial role of engineering in our world and encourage students to consider engineering as a future career.
Visits to Elementary/Middle/High Schools

- Visited six K-8 schools and one high school;
- Split into 4 pairs of MTU-NSBE students to make classroom presentations;
- Presented to 320 students per school;
- Spoke to students about going to college, introduced students to engineering, and engaged them in an engineering activity.
The entire class participated in the short activity “Let’s Communicate.”

Here students proudly display their successful completion of the activity--‘creation of the SAME structure--through effective communication and without looking!’
Middle & High School got to do some hands on engineering during the Classroom Presentations
K-6 Families enjoy Engineering Nights at 3 Elementary Schools in Detroit

- Engaged students and parents in doing a variety of fun engineering activities.

- Families attended two of the 6 engineering challenges offered (35 min each)
K-6 Family Engineering Nights

Families engaged in short Opener Activities in the Cafeteria

- Domino Diving Board
- Boxing Beans
- All the Right Tools
- Let’s Communicate
K-6 Family Engineering Nights
More Engineering Challenges for Families

Assembly Line
Give Me A Hand
Launcher
The Michigan Tech NSBE Chapter Reached over 2500 students in Detroit schools from March 6-9, 2012!!

I know you have had a significant impact on DPS students.
Alycia Meriweather, Director, Office of Science, Detroit Public Schools

I learned a great deal and got to share my passion for engineering with so many younger students. I hope some will consider engineering as a future career.
Ornella Nkurunziza, MTU-NSBE student

"I'm proud of the efforts of the Michigan Tech--NSBE students in reaching out to so many Detroit students. I hope we see more Detroit youth considering careers in engineering.”
Timothy Schulz, Dean, College of Engineering, Michigan Tech University
Measuring the Impact of Family Engineering Events

1. Was Family Engineering Night a worthwhile activity for your family? 100% YES Why?
   • We learned through the hands-on activities - they were fun!
   • We had a good time working together.
   • We really enjoyed ourselves and learned a lot.
   • All of my family liked it. It was fun. Thanks.
   • Great instructors.

2. Were the activities age-appropriate for your children? 100% YES
   • They were simple but challenging
   • Not too difficult but not easy
   • All the activities were awesome
   • Anybody can do them
   • They were able to understand the concepts
   • Designing, exploring, creating
Measuring the Impact of Family Engineering Events (cont’d)

3. What did you learn about engineering tonight?
   - How important engineering is and why they make so much money
   - It helps the Earth
   - Teamwork
   - A lot! They make everything!
   - Engineering plays a role in everything; engineering is all around us.
   - That engineers do ‘everything.’ They have many jobs.
   - Planning, team work, trying hard to make it work.

4. After your experience tonight, does your family have a better understanding of how engineering impacts our daily lives? 100% YES

5. After your experience tonight, are you now more likely to encourage your child to consider a career in engineering? 95% YES
To Find Out More:

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National Society for Black Engineers
http://www.nsbe.org