

NAE identifies messages for improving public understanding of engineering

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WASHINGTON -- Encouraging young people to make a difference in the world through an engineering career is more likely to attract them than emphasizing the challenge of math and science skills, says a new report from the National Academy of Engineering that identifies messages for improving public understanding of engineering. The report, **CHANGING THE CONVERSATION: MESSAGES FOR IMPROVING PUBLIC UNDERSTANDING OF ENGINEERING**, recommends that the engineering community begin using tested messages in a coordinated communications strategy.

The four messages that tested best are:

- Engineers make a world of difference.
- Engineers are creative problem-solvers.
- Engineers help shape the future.
- Engineering is essential to our health, happiness, and safety.

"Improving public understanding of engineering will enable people to make more informed decisions about technology, encourage students to consider engineering careers, and ultimately sustain the U.S. capacity for technological innovation," said Don Giddens, dean of engineering at the Georgia Institute of Technology and chair of the committee that wrote the report.

Each year, the engineering community spends hundreds of millions of dollars to increase public understanding of engineering. However, most

of these outreach efforts are AD HOC, local in scope, poorly coordinated, and not evaluated for effectiveness. The NAE project represents the first-ever effort to use market research techniques to improve the public image of the engineering profession.

The report presents and discusses findings from qualitative and quantitative research, including an online survey of 3,600 people. In addition to testing the appeal, believability, and relevance of a handful of different messages, the project also collected data on a set of taglines, or slogans. Because African Americans and Hispanics are underrepresented in engineering schools and careers, the survey included large numbers of both groups.

"There are concerns about a possible shortage of engineers in the United States," said Giddens, "and it is clear that the engineering profession needs to attract a more diverse mix of the most capable students."

While less than 15 percent of adults or teens described engineers using the common stereotypes, such as "boring" or "nerdy," the research showed that many students don't enjoy math and science enough to become engineers.

Using the committee's research and expertise in engineering education and communications, the report offers tested messages that reposition engineering as a satisfying profession that involves creative ideas and teamwork -- not just personal benefits and technical skills. It also recommends strategies and tools that the engineering community may use to conduct more effective outreach.

Source: The National Academies

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