

# IMPACT of PHILANTHROPY

Your giving counts. It helps us continue our work to promote public understanding of engineering, encourage students to pursue an engineering education, and contribute to debate and action on critical national and global issues. NAE programs like [America's Energy Future](#) and [Frontiers of Engineering](#) are almost entirely funded by private support. Others, including the [Deepwater Horizon](#) study and the [Rising Above the Gathering Storm](#) report were primarily government funded but used private funds to supplement their budgets and expand their reach. Keep reading to learn about reports, programs and activities that would not have been possible without private philanthropy.

Did you know  
**30%**  
of NAE's  
budget comes  
from private  
support?



The America's Energy Future effort is designed to provide an authoritative analysis of technology options and their costs and impacts to help make sensible decisions about the nation's energy future. This series of reports has had a wide-ranging impact on energy conversations, and is frequently cited by Secretary of Energy Steven Chu.

**RISING ABOVE THE GATHERING STORM** In 2005, a joint committee composed of members of all three academies - the NAE, the National Academy of Sciences, and the Institute of Medicine - published the Rising Above the Gathering Storm report outlining the erosion of U.S. advantages in the marketplace, and especially in science and technology industries. The report helped bring about the America COMPETES Act, signed into law by President George W. Bush in 2007. This piece of legislation prioritized research and development, and science, technology, engineering and mathematics education. The act also emphasizes energy research to reduce dependence on foreign energy and invest in new green energy programs.

**GRAND CHALLENGES** In 2008, the NAE convened a committee of leading technical thinkers to outline the Grand Challenges for Engineering for a new generation. The Challenges cover topics ranging from preventing nuclear terror to enhancing virtual reality to making solar energy more economical. The project has garnered attention from the White House, and has inspired a grassroots effort to encourage science and technology education. For example, the Grand Challenges serves as a frame for STEM curriculum at a North Carolina high school.

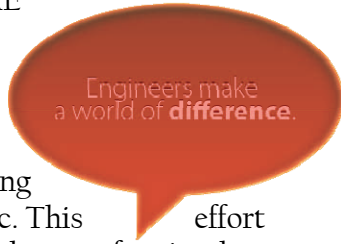


The mission of the Frontiers of Engineering (FOE) program is to bring together outstanding young engineers (ages 30-45) from companies, universities and government to discuss leading-edge research in technology and bridge traditional disciplines in order to transfer techniques and approaches across fields. Since its inception in 1995, the program has brought together 3,500 young engineers to exchange ideas across the U.S. and around the world.

For more information on giving to the NAE, please visit [www.nae.edu/giving](http://www.nae.edu/giving), or contact Radka Nebesky at 202.334.3417 or [Rnebesky@nae.edu](mailto:Rnebesky@nae.edu).

## CHANGING THE CONVERSATION

Polling and other research over the past decade has shown that the public has a limited understanding of what engineers do and how engineering impacts their everyday lives. In response to this problem, the NAE is working to “re-brand” engineering to increase favor and understanding among the public. This effort revolves around the use of simple, effective messages across all sectors of engineering.

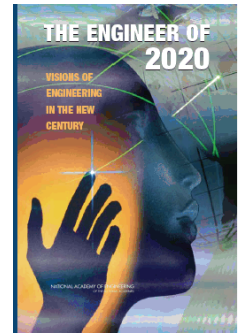


**FRONTIERS OF ENGINEERING EDUCATION** brings together engineering educators to encourage dialogue among faculty to promote innovative engineering education. This series of symposia focuses on emerging leaders in the field of engineering education, and aims to equip them with the capacity to broaden their collaboration and incorporate innovative teaching methods into their curriculum. Ultimately, this program has the potential to enhance the recruitment of young people to the engineering profession through improvements to engineering education, and also to raise the visibility of the field and emerging leaders within it.

## Engineer Girl!

Ten years ago, NAE launched EngineerGirl!, a website aimed at middle school-aged girls to encourage them to consider engineering as a profession by showing them the positive impact engineers have on society. The website now averages 12,000 unique users per month, and is the go-to resource for students, parents, teachers, guidance counselors and others doing engineering outreach who are interested in learning about engineering careers and the various engineering disciplines.

**ENGINEER OF 2020** This a two-phase vision-casting initiative meant to anticipate the engineering environment of the future, and prepare a new generation to meet the challenges they will face. The project encourages educators in engineering to be open to new teaching and training approaches. The framework developed at the Engineer of 2020 Summit has been adopted by universities across the country, including MIT and Purdue.



**NEWS AND TERRORISM** This series of workshops was designed as a war game exercise with a focus on the media’s role in communicating information to citizens. The program has been successful at connecting journalists with technical experts from the NAE to improve reporting on the scientific aspects of terrorism.



**DEEPWATER HORIZON** In May of 2010, Secretary of the Interior Ken Salazar asked the NAE and the National Research Council to conduct an independent, science-based analysis of the root causes of the Deepwater Horizon oil spill. The committee has two main goals: to examine and identify probable causes of the explosion which led to the uncontrolled release of oil and gas into the Gulf of Mexico, and to identify and recommend industry-wide management and safety standards to

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