



## Science, Engineering & Technology

### America's Workforce Crisis

The United States is falling dangerously behind other nations in developing its future workforce of scientists, engineers, and technology experts.

America now faces a future of intense global competition with a startling shortage of scientists. Only 18 percent of US high school seniors are proficient in science (NAEP 2005). A mere 5 percent of current US college graduates earn science, engineering, or technology degrees compared to 66 percent in Japan and 59 percent in China.

Couple these statistics with the fact that current scientists and engineers are retiring in record numbers, and it becomes clear that America faces a crisis in its ability to keep up with increasing demand for professionals trained in these fields.

To ensure global competitiveness, we must act now to prepare the next generation of science, engineering, and technology leaders.

### One Million New Scientists. One Million New Ideas.™

The 4-H Youth Development Program is directly connected to the research and resources of the 106 land-grant universities and colleges of the Cooperative Extension System. This connection strategically positions 4-H to strengthen US global competitiveness and leadership.

For more than a century, 4-H has engaged our country's youth in the building blocks of economic success. This has meant a solid focus on agricultural science, electricity, mechanics, entrepreneurship, and natural sciences. Today, 4-H out-of-school opportunities also exist in subjects like rocketry, robotics, bio-fuels, renewable energy, and computer science.

4-H Science, Engineering and Technology programs reach more than 5 million youth with hands-on learning experiences to encourage young minds and to fill the pipeline of young leaders proficient in science. These experiences are supported by more than a half million dedicated adult volunteers who are placing 4-H youth on a path towards successful careers.

The 4-H Science, Engineering and Technology Program must be part of the long-term solution for improving science literacy and aptitude of America's youth. 4-H will address our nation's critical challenge by preparing **1 million new young people** to excel in science, engineering, and technology by 2013. As a public-private partnership, 4-H can focus a variety of resources and expertise to strengthen young people's discovery and exploration of science. We believe fostering passion in science today will shape education and career decisions tomorrow.

Support 4-H and help maintain America's leadership in science, engineering, and technology innovation. Together, we can build the next generation of great thinkers.

[www.4-H.org](http://www.4-H.org)

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