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According to the National Science Foundation's (NSF) Science and Engineering Indicators 2018 report released on January 18, the U.S. is currently the global leader in science and technology (S&T), though our nation's share of global S&T activities is declining as others continue to rise. As countries across the world have increasingly come to view scientific and technical capabilities as engines of economic growth, many have been escalating efforts and heavily investing to improve their S&T capabilities. Building on their relative strengths, China's rapid, unprecedented, and sustained growth has been accompanied by S&T developments in India, South Korea, and other Asian countries.

This year's report indicates that, in a global context, the U.S. invests the most in research and development (R&D), attracts the highest venture capital, awards the most advanced degrees, and is the largest producer in high-technology manufacturing sectors. However, U.S. leadership in the global science and engineering (S&E) landscape is being challenged. While the U.S. led in R&D expenditures in 2015 at \$496 billion – comprising 26 percent of the global total – China was a close second at 21 percent. China has rapidly grown its R&D spending since 2000, at an average rate of 18 percent annually, with its focus primarily geared toward development rather than basic or applied research. Meanwhile, R&D spending in the U.S. only grew by four percent during the same time frame.

Along with the report, the National Sciences Board (NSB) released a policy companion statement that addresses the need to grow a STEM-capable U.S. workforce. The statement notes that the number of Americans with a four-year degree in S&E grew by 53 percent between 2000 and 2014; in China, this number increased by 360 percent. China's investment in higher education and R&D has fueled the growth of its high-technology industries. The NSB emphasizes that, "As a nation, we must work together to ensure all segments of our population have access to affordable, high-quality education and training opportunities beginning as early as kindergarten and lasting well beyond graduation."

The NSF's Science and Engineering Indicators is a biennial, congressionally mandated report on U.S. progress in S&T. The report was also accompanied by a digest that includes 42 indicators highlighting issues of current opportunity or concern for policymakers.

Source: National Science Foundation
