

What is the federal role in sustaining U.S. innovation leadership?

- ***Fuel for economic expansion***
Economists agree that more than 50% of economic growth can be traced to investments in R&D. Just as today's quality of life, medical advancements, national security advancements, and economic competitiveness result from investments in S&T made years ago, today's investment in research will secure future economic benefits for generations to come.
- ***Long-term***
The federal government can take on long-range, strategic projects outside of the scope of private industry. Private funding tends to cycle with business patterns and focus on short-term results. However, since the 1980's there has been a dynamic shift in the sources of funding for R&D, and U.S. private sector investments now far exceed federal support, providing for over 68% of all domestic R&D. Of these private funds, 71 percent were for development, not basic research.
- ***Growing competition***
The U.S. faces competition from new centers of innovation. For example, the U.S. share of worldwide high-tech exports has been in a 20-year decline. From 1980 until 2001, the U.S. share fell from 31 percent to 18 percent. At the same time, the global share for China, South Korea, and other emerging Asian countries increased from just 7 percent to 25 percent.
- ***Meeting tomorrow's S&E workforce needs***
Since 1980, the number of Science & Engineering (S&E) positions in the U.S. has grown at almost five times the rate of the U.S. civilian workforce as a whole. However, the number of S&E degrees earned by U.S. citizens is growing at a much smaller rate.

Why should the National Science Foundation receive more funding now?

- ***A foundation for the nation's S&T portfolio***
NSF is the only agency whose ultimate mission is to support cutting-edge science. NSF supports high-risk science and engineering at the frontiers of knowledge, and incorporates those frontiers into ongoing programs that provide knowledge and service to society. NSF accounts for less than 4 percent of federal R&D spending, but supports close to 50 percent of non-medical basic research in academia.
- ***Educating tomorrow's scientists***
Through graduate fellowships, research funding, and the Math & Science Partnership program, NSF helps train the next generation of America's scientists and engineers from K-12 to the graduate level. NSF's Math & Science Partnership program creates partnerships among scientists and school districts to improve K-12 education.
- ***Bipartisan support***
In 2003, Congress passed the NSF Authorization Act (P.L.107-368) that authorized doubling NSF's budget over five years. While current budget realities may make that a difficult goal to attain, Congress has been clear that NSF funding is a long-term priority that warrants increases.

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