Investing in Our Future: Maintaining U.S. Leadership in R&D

ACTION

Members of Congress must prioritize science when completing FY 2024 appropriations and provide robust increases to the federal science agencies in FY 2025 appropriations.

Fundamental research is essential to U.S. competitiveness. Federal funding directly impacts the future US STEM workforce

More than 85% of the long-term growth of the U.S. economy is attributed to advances in science and technology.

Physics research programs help generate the STEM workforce demanded by our high-tech economy. Roughly 50% of new PhDs in physics take jobs in the private sector.

Increasing International Competition Threatens U.S. Standing as a Global Leader in STEM

Congress must fulfill the "and Science" portion of the CHIPS and Science Act to remain a global leader in science and technology. By not providing robust funding for the federal science agencies, as authorized in CHIPS, Congress will curtail opportunities for talented students and researchers.

R&D Investments Fuel U.S. Competitiveness

STEM Workforce Readiness



>40,000 grad students & 8,000 postdocs supported by research awards from NSF and DOE Office of Science in 2022

>\$3.5 Billion invested in workforce development programs (K-12, technical, high-skilled STEM) in 2017-2021

Federal R&D Catalyzes American Innovation



>2850 startups across **50** states funded by NSF, DOE, and NIST to bring federallyfunded research products to the market

Continuing Resolutions Negatively Impact U.S. Science

Failing to complete appropriations for 2024 will mean:

- · Fewer future high-skilled STEM workers
- Project initiation delays, allowing competitors to gain ground





Difference in funding between a year-long CR and House/Senate Appropriations Committee-approved funding levels

Robust Investments in Federal R&D Is Essential to Future U.S. Innovation and Growth

For the U.S. to maintain its competitiveness, Congress must pass robust and sustained appropriations increases to the federal R&D agencies for FY24 and FY25. Not investing in R&D today will create missed opportunities in critical areas that will take years, if not decades, to recover from.

The American Physical Society is a nonprofit membership organization working to advance and diffuse the knowledge of physics through its outstanding research journals, scientific meetings, and education, outreach, advocacy, and international activities. APS represents over 50,000 members, including physicists in academia, national laboratories, and industry in the United States and throughout the world. APS Government Affairs | davis@aps.org | (202) 846-8096 | cvd.aps.org

