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

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 federally-funded 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

Full-year CR will forfeit significant funding for key science agencies

Difference in funding between a year-long CR and House/Senate Appropriations Committee-approved funding levels:
- $225M NSF
- $411M DOE Office of Science
- $12M NIST STRS

-$648M

R&D Investments Fuel U.S. Competitiveness

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.