

Build Research Capacity to Broaden Opportunities

ACTION

Members of Congress should include language in authorization bills for the federal science agencies to enable and incentivize our top research universities to create meaningful lasting partnerships that strengthen the research capacity at emerging research institutions (ERIs), including MSIs, TCUs, HBCUs, and the regional colleges and universities with smaller research activities, which are often in underserved regions.

Background

Research Experiences are Key to a Strong STEM Workforce

Research participation is a high-impact practice for strengthening and diversifying the STEM workforce. STEM students who engage in research experiences are more likely to pursue careers in a STEM field, go to graduate school, and report more satisfaction with their education, among many other positive impacts.

“Most [...] studies find evidence for a causal relationship between Undergraduate Research Experience participation and subsequent persistence in STEM.”

National Academies of Science
Undergraduate Research Experiences for STEM Students: Successes, Challenges, and Opportunities (2017)

“Honestly, before that I didn’t see myself as a researcher, [...] this kind of convinced me to consider going to grad school and pursuing higher degrees.”

Madeline Stalder, Fort Lewis College recent graduate, on her participation in the research experiences at the NSF-funded PEAQS PREM (NSF DMR-1827847) and STROBE STC (NSF DMR-1548924) centers.

Current Lack of Federal R&D Funding for Emerging Research Institutions Limits Impact

We are actively neutralizing one of our key competitive advantages – our nation’s diversity.

Historically, the colleges and universities that educate and train the majority of people from underrepresented groups have received a disproportionately low fraction of federal science and engineering R&D funds. **These students are being excluded from the future STEM workforce by having either limited or no opportunity to engage in research.**

In 2018, 637 institutions received federal funding for research and development in science and engineering

■ 78% of the institutions



% of federal S&E R&D funds received



% of total students served



% of total URM students served



% of Pell grant recipients served

Proposed Legislative Solutions

Congress should include language in authorization bills for the federal science agencies, including NSF and DOE Office of Science, that requires the agencies to:

- Enable and incentivize our top research universities to create meaningful lasting partnerships that strengthen the research capacity at emerging research institutions (ERIs)
- Strongly encourage research proposals directly from ERIs.
- Track statistics on awards to emerging research institutions.
- Conduct a comprehensive portfolio analysis of the awards for ERIs and identify best practices and methodologies for increasing funding to these institutions.

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