



COMMITTEE ON
SCIENCE, SPACE, & TECHNOLOGY
Lamar Smith, Chairman

S. 3084, American Innovation and Competitiveness Act, as Amended

S. 3084, American Innovation and Competitiveness Act, represents a bicameral, bipartisan agreement that maximizes basic research by improving transparency and accountability, reducing administrative burdens for researchers, and reforming federal science agencies to increase the impact of taxpayer-funded research.

The bill incorporates House passed provisions from H.R. 1806, America COMPETES Reauthorization Act of 2015; H.R. 5312, Networking and Information Technology Research and Development (NITRD) Modernization Act of 2016; H.R. 1119, Research and Development Efficiency Act; H.R. 1162, Science Prize Competition Act; H.R. 1156, International Science and Technology Cooperation Act; H.R. 1764, United States Technology Officer Act; H.R. 1924, Hispanic Opportunity Program in Education and Science Act; H.R. 3293, Scientific Research in the National Interest Act; H.R. 5049, NSF Major Facility Research Reform Act; H.R. 5636, National Institute of Standards and Technology Campus Security Act; H.R. 5639, NIST Improvement Act of 2016.

Title I – Maximizing Basic Research

Accountability and Transparency

- Improves the National Science Foundation (NSF) grant-making process, requiring transparency and affirming research funded through the merit review selection process must be in the national interest by meeting one of seven broader impact goals.
- Requires NSF to address concerns about waste and abuse by improving oversight of large research facility construction, updating a conflicts of interest policy, and requiring transparency of the use of rotator personnel.
- Directs NIST to develop and implement a strategic plan to improve laboratory programs. Updates the outdated definition of 'standard reference data.'
- Assures accountability for cases of research misrepresentation, and directs the commission of a National Academy of Sciences study on reproducibility and replication issues in research.
- Updates and renames NSF's Experimental Program to Stimulate Competitive Research (EPSCoR) for underutilized regions to reflect its established record.
- Improves accountability of NIST's campus security.

Improving Research Coordination

- Updates and improves the Networking and Information Technology Research and Development (NITRD) program, which coordinates the Federal R&D investment portfolio in unclassified networking, computing, software, cybersecurity.
- Directs research to help better protect Federal computer systems from cyber threats, including research to improve agency accountability by evaluating

challenges to Federal agencies' implementation of NIST standards for federal information systems.

- Elevates cybersecurity of election systems by providing NSF grant awarding authority and NIST research authority to address relevant concerns.
- Improves coordination of research across the federal government in neuroscience, the physical sciences, and chemistry

Title II – Administrative Regulatory Burden Reduction

- Establishes an interagency working group to reduce administrative burdens on federally-funded researchers by providing recommendations on issues such as micro-purchase approval and grant sub recipient monitoring. Directs the working group to develop a uniform grant format for Federal science agencies and establish a centralized researcher profile database.
- Establishes a body under the National Science and Technology Council to identify and coordinate international science and technology cooperation and identify barriers.
- Authorizes NIST to host, participate in, and support scientific and technical workshops.
- Requires the heads of relevant Federal science agencies to revise current policies and streamline processes for attendance at scientific and technical workshops while ensuring appropriate oversight, accountability, and transparency.
- Repeals a significant number of obsolete federal agency reporting requirements as well as previous authorizations for programs that have not been implemented.

Title III- Science, Technology, Engineering, and Math Education

- Requires NSF to develop and implement practices for increasing the retention of teachers funded under the Robert Noyce Teacher Scholarship Program.
- Improves coordination and improvement of STEM education programs across the federal government by requiring the Committee on STEM Education of NSTC (CoSTEM) to collaborate with a STEM Education Advisory panel of outside experts to guide federal STEM education program decision making.
- Improves that National Space Grant College and Fellowship program to train a STEM workforce in the fields of space and aeronautics.
- Expands computer science education programs at NSF.
- Authorizes additional programs in informal STEM, undergraduate STEM education, STEM mentoring, STEM fellowships, STEM workshops, and expanding STEM opportunities.
- Authorizes NIST to support, promote, and coordinate activities and efforts to enhance public awareness and understanding of measurement sciences, standards and technology at the national measurement laboratories.

Title IV – Leveraging the Private Sector

- Expands opportunities for science prize competitions by reducing barriers to public-private partnerships and providing participants with IP protections.
- Expands opportunities for crowdsourcing research input and citizen science participation by organizations and individuals to benefit Federal science agency missions. Requires report to include analysis of benefits of crowdsourcing or citizen science projects over other options available to the agencies.
- Authorizes the NIST Director to serve as the President's principal adviser on standards policy pertaining to the Nation's technological competitiveness and innovation ability.
- Modifies NIST's Visiting Committee on Advanced Technology's membership to include a majority of members from U.S. industry.

Title V- Manufacturing

- Updates NIST's Manufacturing Extension Partnership (MEP) program for small and medium sized businesses by adjusting the federal cost-share requirement and implementing new accountability and oversight requirements.

Title VI – Innovation and Technology Transfer

- Promotes entrepreneurship by authorizing and expanding NSF's Innovation Corps program to promote entrepreneurship education, training, and mentoring of federally-funded researchers.
- Authorizes and expands grants to translate federal funded research into commercial applications.
- Promotes expansion of research into optics and photonics to promote U.S. competitiveness in that industry
- Authorizes the position of United States Chief Technology Officer as one of the OSTP Associate Directors.
- Directs the commission of a study on technology for improving emergency notifications on campuses.