



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

For Immediate Release
April 17, 2018

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Statement from Lamar Smith (R-Texas)

Markup of the *Innovations in Mentoring, Training, and Apprenticeships Act* (H.R. 5509)

Chairman Smith: This morning the committee will consider H.R. 5509, the Innovations in Mentoring, Training, and Apprenticeships Act. This legislation was introduced by Majority Leader McCarthy. I have cosponsored this measure and I hope others will too.

H.R. 5509 is the product of a hearing held by the Research and Technology Subcommittee in February. Members and witnesses discussed innovative workforce training approaches aimed at boosting STEM education and careers in order to meet current and future STEM professional and technical workforce needs. A special thanks to Chairwoman Comstock and Ranking Member Lipinski for holding that hearing.

Meeting our growing workforce needs in all areas of science and technology is essential for our economic competitiveness.

For instance, according to a recent study, there will be a need for 3.5 million skilled manufacturing workers over the next decade. But it is anticipated that 2 million of those jobs will go unfilled unless we recruit and educate a whole host of high-skilled manufacturing workers.

H.R. 5509 continues the bipartisan progress this committee has made to improve and expand science, technology, engineering and mathematics (STEM) education programs and create new pathways to STEM careers.

Research shows that direct knowledge and hands-on work experience with STEM occupations and opportunities stimulate interests in STEM studies and careers among students at every level. To this end, H.R. 5509 directs the National Science Foundation (NSF) to fund initiatives that support innovative partnerships between academic institutions and local industries.

The NSF is to offer at least \$5 million per year over the next four years for competitively awarded grants to community colleges to develop new STEM courses and degrees. These programs will combine formal education with on-the-job work experiences, such as apprenticeships and internships, by partnering with local employers.

The bill also requires at least \$2.5 million per year over the next four years for the NSF to award research grants to measure student outcomes and the effectiveness of computer-based and online courses for technical skills training.

Successful workforce development programs extend beyond the four walls of classrooms and laboratories. One primary example is at Wichita State University, which Mr. Marshall and I visited last year.

During his testimony, Dr. John Bardo, the president of Wichita State University, discussed the university's testing of its applied learning initiative.

The university found that, on average, newly graduated engineers take two years to contribute to the bottom line for their employers. However, when Wichita State University students were given an opportunity to participate in an apprenticeship program prior to graduation, that timeline to profitability was cut to six months.

The pending legislation directs the NSF to award at least another \$2.5 million per year for the next four years for universities to partner with local employers and offer paid apprenticeships and other applied learning experiences to STEM students.

Not only can we learn from successful programs here in the United States, it is also important to examine how other developed nations address their skilled technical workforce needs. This bill directs the NSF to commission research that compares and contrasts skilled technical workforce development between the United States and other developed nations and to report the results to Congress.

H.R. 5509 requires the NSF to conduct research to improve the efficiency of the skilled technical labor markets and examine the skilled technical workforce to have a clear understanding of workforce trends and needs.

The Innovations in Mentoring, Training, and Apprenticeships Act, H.R. 5509, is a significant step in the right direction towards ensuring the United States' competitiveness in the global economy of today.

The initiatives in this legislation will leverage the hard work and ingenuity of women and men of all ages, education levels and backgrounds to grow and meet the demand for a STEM-capable workforce.

I encourage my colleagues to support this bill and I yield back the balance of my time.

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Markup of the *NASA Authorization Act of 2018* (H.R. 5503)

Chairman Smith: The NASA Authorization Act of 2018 is a crucial step in continuing the greatness of American space exploration.

The act ensures that NASA will focus on its priority missions, leverage private sector partnerships and entrepreneurship and continue space research that will launch America toward new scientific discoveries and worlds. NASA's funding amounts to \$20.74 billion or one-half of one percent of the federal budget.

Consistent with the core policy tenants of the president's budget request, the 2018 NASA Authorization act maintains a balanced portfolio across a broad array of NASA priority programs and initiatives.

It funds deep space exploration systems above the president's request to expedite the Space Launch System and Orion Spacecraft.

It funds science above the president's budget request to allow NASA to move forward with a number of programs including a Mars Sample Return Mission and Europa exploration.

The committee has ongoing concerns that NASA has been given responsibility for Earth science activities that compete for funding with NASA's core functions in space exploration and aeronautics. A good example is Landsat. In the past both USGS and NOAA have been responsible for development and operation of Landsat satellites.

But now, NASA is responsible for mission and development activities, including Landsat 9, along with an activity to design and build a full-capability Landsat 10 satellite.

In the omnibus appropriation bill, 11 of the 12 other agencies conducting Earth science research received budget increases, such as: NOAA; DOE; United States Geological Survey; Agriculture; EPA; NSF; the Smithsonian; DOT; HHS; DoD; and even the United States Agency for International Development. However, NASA has, for too long, conducted Earth science work for the benefit of other agencies without reimbursement.

To make certain NASA's funding authorization is truly focused on space exploration and aeronautics, this act aligns funding accordingly and directs reimbursement to NASA for Earth science work undertaken for the benefit of other agencies. This reimbursement directive serves to offset NASA funding reductions in Earth science relative to the president's budget request. However, Earth science still receives \$1.45 billion, or seven percent of NASA's entire budget.

The act supports the president's proposal to restructure and increase funding for NASA's space technology programs to better align to NASA human and robotic exploration needs. This is a good step forward for NASA. As a critical component to NASA's exploration agenda, for too long space technology investments lacked the focus and attention they deserve.

The act includes a number of provisions increasing transparency into NASA's management of major programs and ensuring that contractors are held responsible for poor performance.

Just three weeks ago, Congress was notified that the James Webb Space Telescope (JWST) is delayed yet again. In fact, it has been delayed no less than three times, originally scheduled for launch in 2007, then 2014, then 2018 and now for 2020. And the cost has increased from \$1 billion to \$8 billion.

While this committee supports JWST, NASA and its contractors must be held accountable.

The committee looks forward to the Independent Review Board's report this summer, which will determine the revised cost-estimate for the program and help define a way forward for this space telescope program.

That brings me to the Wide Field Infrared Space Telescope (WFIRST). This committee has consistently supported WFIRST, but the recent cost growth and independent review team findings are similar to problems incurred on JWST. The act strikes a balance, capping spending if WFIRST moves forward and providing a set-aside in FY19 of \$180 million to address justified recommendations of the JWST and WFIRST program reviews that are pending.

We have explored Near-Earth Object (NEO) defense at committee hearings. The administration prioritized this mission and requested \$150 million for NASA's Planetary Defense program. NASA must complete its NEO survey. Supporting projects such as the NEOCam mission could go a long way to accomplishing this task.

Testimony before this committee has also highlighted that we are on the verge of a breakthrough in the search for life that could change the way humanity views its place in the universe. In the 2017 NASA Transition Authorization Act, NASA was given a

new statutory directive for NASA to “search for life’s origin, evolution, distribution, and future in the universe.” This act directs and authorizes funds to achieve that purpose.

It was my hope that today we would have a bipartisan markup. In fact, discussions have been ongoing for weeks and draft bill text was exchanged three weeks ago. An offer was made, and rejected, to fund Earth Science at the NASA-requested or omnibus levels. Though I expect that to continue to be discussed today.

The U.S. has led the world in space exploration for 50 years, and we must ensure that the U.S. continues to do so for the next 50 years. We must also continue to invest in NASA as the only American agency responsible for space exploration.

I thank Chairman Babin for introducing this bill. It redoubles our commitment to U.S. leadership in space for decades to come.

Before I close, I want to thank the committee staff who have devoted so much time and effort for months, including this past weekend – I know we were all there on Sunday, for example, and Saturday - to negotiate and perfect this bill. They are Mike Mineiro, Ryan Faith, Sam Amber, Sara Ratliff, Molly Fromm, Tom Connally, and recently departed for active Naval duty, Tom Hammond, as well as Chairman Babin’s staffer Steve Janushkowsky. Thank you all.

I strongly recommend this bill and urge my colleagues to actively support it.

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