



BHEF 2006 Issue Brief

Congressional Response to Ensuring America's Competitiveness

Congress has taken an active role in understanding and responding to the underlying problems that confront America's competitiveness in the global economy. During the 109th congressional session, numerous pieces of legislation have been introduced addressing the importance of mathematics and science in the global economy. The two pieces of legislation that have gained the most support are the Senate's Protecting America's Competitive Edge (PACE) Act and the House's "Innovation" bills. The PACE Act, a package of three bills, enhances America's competitiveness through programs targeted at math and science education, research, and industry incentives. The House's "Innovation" package, also comprised of three bills, seeks to improve K-12 student performance in mathematics and science as well as to attract individuals to earn degrees and pursue careers in science, technology, engineering, and mathematics (STEM).

At BHEF's summer 2006 meeting, Senator Jeff Bingaman (D-NM) discussed why he, along with Senator Lamar Alexander (R-TN) and Representatives Sherwood Boehlert (R-NY) and Bart Gordon (D-TN), commissioned the National Academies to recommend actions that would enhance STEM in America. He also detailed the PACE legislation, including its importance for the American economy. At the same meeting, Congressman Sherwood Boehlert discussed his efforts in commissioning the National Academies to deliver recommendations on how to enhance STEM. He also discussed the House Science Committee's recent hearings on this topic, and shared details about the "Innovation" legislation, including its role in maintaining America's future economic and national security.

Quick Facts

Fact 1

The PACE Act and the "Innovation" package are widely supported, comprehensive Congressional efforts to sustain America's global competitiveness.

Fact 2

The PACE Act and the Innovation package provide opportunities for business to proactively address the STEM challenges facing the U.S.

Fact 3

The competing demands of the federal deficit coupled with the Administration's ACI proposal make funding the PACE and Innovation programs a challenge.

Fact 1: The PACE Act and the Innovation package are two of the most widely supported and comprehensive Congressional efforts to sustain America's global competitiveness. Though numerous pieces of legislation addressing STEM issues have been introduced in the House and the Senate, the majority of them arguably can be categorized as message bills, designed to invigorate conversation and create talking points for Congressional members with their constituents. In contrast, both the PACE Act and the Innovation package are actively supported by Committee chairs who possess the political capital to determine what issues Congress will address.

Senate PACE Act

In January 2006, Senator Domenici (R-NM), Chair of the Energy and Natural Resources Committee, and Senator Bingaman (D-NM), the Committee's ranking member, along with Senators Alexander (R-TN) and Mikulski (D-MD) introduced the Protecting America's Competitive Edge (PACE) Act, a package of three bills that incorporate the recommendations made by the National Academies in the report *Rising Above the Gathering Storm*. To date, over 60 Senators have co-sponsored the legislation, making it the most widely supported piece of Senate legislation on STEM issues. BHEF has followed the PACE Act with interest, as many of its provisions align with the Forum's STEM initiative to identify promising strategies for strengthening the educational STEM pipeline.

House "Innovation" Package

In spring 2006, the House Science Committee, chaired by Congressman Sherwood Boehlert (R-NY), held a series of hearings on math and science education and research and how these issues impact America's competitiveness. The hearings served to guide a package of three "Innovation" bills introduced by the Committee in May. These bills collectively aim to strengthen America's competitiveness by improving STEM education. They also stimulate university and industry research in the physical sciences. The "Innovation" package creates few new programs, instead it primarily builds upon and expands existing initiatives at the National Science Foundation and the Department of Energy. Many of the programs supported by this package align with BHEF's STEM Initiative.

Fact 2: The PACE Act and the "Innovation" package provide opportunities for business to proactively address the STEM challenges facing the U.S. The problem of declining global competitiveness requires a comprehensive and deliberate strategy. Both the PACE Act and the Innovation package begin to make headway in this regard by including a number of opportunities for businesses to become involved in STEM education and research. The PACE Act in particular provides financial incentives for education agencies to create partnerships with business as well as substantial tax credits for STEM-related business activity.

Major Business Provisions in STEM Legislation
Senate PACE Act
Establish new office within Department of Energy to support ground-breaking research through awards, contracts, and agreements with public and private entities, including business.
Provide grants to non-profit entities to improve AP/IB instruction and increase the number of students enrolled in AP/IB. Grantees shall involve business and community organizations.
Support the development of science parks through infrastructure planning grants and loan guarantees.
Double the current R&D tax credit (to 40%) and expand the credit to allow 100% of the cost of all research conducted by small businesses.
House Innovation Package
Improve science and math K-12 instruction through potential partnerships with business.
Require an assessment of the ability of science graduates to gain industry employment.
Provide grants to early career scientists while encouraging them to seek additional industry support.

Fact 3: The competing demands of the Administration's ACI proposal coupled with the federal deficit make funding the PACE and Innovation programs a challenge. The Administration's American Competitiveness Initiative seeks \$5.9 billion to increase investments in research and development, strengthen education, and encourage entrepreneurship. At the same time, one of President Bush's second-term priorities is to reduce the overall federal deficit. His fiscal year 2007 budget request holds overall discretionary spending below the rate of inflation and cuts spending in non-security discretionary programs. These priorities limit opportunities to fund other math and science and research initiatives. Both the PACE Act and the "Innovation" bills provide authorizing legislation only. If Congress passes either the PACE or Innovation bills, there is no guarantee their programs will receive funding in the short-term.