

Highlights of GAO-13-612, a report to congressional committees

## Why GAO Did This Study

Scientific and technological innovation and a workforce educated in STEM fields are critical to long-term U.S. economic competitiveness. Leaders in government, business, and education have expressed concern about the nation's ability to compete with other technologically advanced countries in these fields. In this context, Congress passed COMPETES 2007 and reauthorized the act with COMPETES 2010, each with the overall goal of investing in research and development to improve U.S. competitiveness. Among other things, the acts specifically authorized funding for certain programs.

COMPETES 2010 mandated GAO to evaluate the status of authorized programs. GAO examined (1) the extent to which funding was appropriated under the authorization of COMPETES 2007 and COMPETES 2010 and (2) what recent evaluations suggest about how programs for which the acts specifically authorized funding are working. To answer these questions, GAO reviewed relevant federal laws, interviewed agency officials, and reviewed program evaluations for quality and content.

This report contains no recommendations.

## AMERICA COMPETES ACTS

## Overall Appropriations Have Increased and Have Mainly Funded Existing Federal Research Entities

## What GAO Found

In fiscal years 2008-2012, \$52.4 billion was appropriated out of the \$62.2 billion authorized under the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science Act of 2007 (COMPETES 2007) and the America COMPETES Reauthorization Act of 2010 (COMPETES 2010). Almost all of these funds went to the entire budgets of three existing research entities-the National Science Foundation (NSF), the National Institute of Standards and Technology (NIST), and the Department of Energy's (DOE) Office of Science (Science)-including all of the programs and activities the entities carry out. Appropriations for NSF, NIST, and Science generally increased under the acts but did not reach levels authorized by the acts. In addition to authorizing the budgets of these entities, COMPETES 2007 and COMPETES 2010 specifically authorized funding for 40 individual programs, including some programs within and some outside of these entities. Among those 40 programs, the 12 programs that existed before COMPETES 2007 received appropriations and continue to operate. Six of 28 newly authorized programs were also funded. Of these 6 programs, 1-DOE's Advanced Research Projects Agency-Energy, set up to develop new energy technologies—is continuing operations, 3 were not funded in fiscal year 2012, and 2 were not fully implemented as of May 2013. For the 22 programs that were not funded, agency officials generally said that they did not request funding in their budget submissions; most often this was because agencies had similar programs under way or could pursue similar objectives within current programs. For example, Science said it did not request funding for the Discovery Science and Engineering Innovation Institutes because it would have duplicated other Science programs.

For the fully implemented programs for which the COMPETES Acts specifically authorized funding, recent evaluations generally reported positive results, and some evaluations provided suggestions for improvements. Recent evaluations have been conducted for almost all of the programs that were implemented, or for aspects of those programs. For example, studies of the Robert Noyce Teacher Scholarship Program found that the program has increased the number of qualified science, technology, engineering, and mathematics (STEM) teachers, but also suggested that retention of teachers in high-need schools could be improved.

Appropriations under COMPETES 2007 and COMPETES 2010 in Fiscal Years 2008-2012 Dollars in billions			
	64%	National Science Foundation	\$33.2
	28%	DOE's Office of Science	\$14.6
	8%	National Institute of Standards and Technology	\$3.9
	<1%	Other	\$0.5

View GAO-13-612. For more information, contact Frank Rusco at (202) 512-3841 or ruscof@gao.gov.

Sources: GAO analysis of data from Congresssional Research Service reports and relevant federal agencies.

Note: Because of rounding, percentages do not add to 100, and dollars do not add to \$52.4 billion.