

Highlights of GAO-18-545, a report to congressional committees

August 2018

## NIH RESEARCH

### Action Needed to Ensure Workforce Diversity Strategic Goals Are Achieved

#### Why GAO Did This Study

NIH's success depends on its ability to attract, retain, develop, and otherwise support biomedical investigators—including those employed in its intramural research program as well as those working in its extramural program at universities, academic health centers, and other research institutions. For decades, the agency has faced challenges in supporting early career investigators and those from underrepresented groups, including ethnic and racial minorities and women. The 21st Century Cures Act included provisions that NIH coordinate policies and programs to promote early research independence and enhance the diversity of the scientific workforce.

The act also contained a provision that GAO examine NIH's efforts. GAO reviewed the actions NIH has taken to support (1) investigators beginning their biomedical careers; and (2) investigators from underrepresented groups and women. GAO analyzed NIH data from fiscal years 2013 through 2017 on grant funding for investigators by career phase and demographic status. GAO also reviewed relevant laws and NIH policies, programs, and initiatives, and interviewed NIH officials and stakeholders from the scientific research community.

#### What GAO Recommends

The Director of NIH should develop quantitative metrics, evaluation details, and time frames to assess NIH's efforts to diversify its scientific workforce against its diversity strategic plan goals, and take action as needed. HHS agreed with GAO's recommendation.

View GAO-18-545. For more information, contact Marcia Crosse at (202) 512-7114 or [crossem@gao.gov](mailto:crossem@gao.gov).

#### What GAO Found

The National Institutes of Health (NIH), within the Department of Health and Human Services (HHS), plays a prominent role in the nation's biomedical research. While it employs investigators in its intramural research program, over 80 percent of its budget supports its extramural program, primarily through grant funding to investigators at other research institutions. Given this, NIH has a vested interest in supporting a robust national biomedical workforce, but the agency has acknowledged that the environment is highly competitive and many investigators find that it takes years to obtain the type and amount of funding that typically spurs research independence. GAO's analysis found that extramural investigators who had received at least one large NIH research grant during fiscal years 2013 through 2017 were more likely to receive such grants in subsequent application cycles than investigators who had not yet received such grants. In response to the 21st Century Cures Act, enacted in December 2016, NIH introduced an initiative to prioritize these grants for (1) early stage investigators, who are beginning their careers and have never received a large research grant, and (2) intermediate stage investigators, who are within 10 years of receiving their first large grant as an early stage investigator. However, it is too early to assess this new initiative, which was introduced in August 2017. NIH is currently considering revising the program to include investigators whose careers are more advanced.

NIH implemented recommendations made by internal advisory bodies to support investigators from racial and ethnic groups considered by NIH to be underrepresented in biomedical research. GAO's analysis shows disparities for underrepresented racial and ethnic groups, and for female investigators, from 2013 through 2017. For example, in 2017, about 17 percent of investigators from underrepresented racial groups—African Americans, American Indians/Alaska Natives, and Native Hawaiian/Pacific Islanders combined—who applied for large grants received them. In contrast, about 24 percent of Hispanic or Latino applicants, an underrepresented ethnic group, received such grants. Asians and whites—well represented groups—were successful in receiving large grants about 24 and 27 percent of the time, respectively. Though women represent about half of all doctorates in biological science, GAO found that women investigators employed by NIH in its intramural program comprised about one-quarter of tenured investigators. NIH has taken positive steps such as establishing the position of Chief Officer of Scientific Workforce Diversity, who in turn created a strategic workforce diversity plan, which applies to both extramural and intramural investigators. The plan includes five broad goals for expanding and supporting these investigators. However, NIH has not developed quantitative metrics, evaluation details, or specific time frames by which it could measure the agency's progress against these goals.