United States Government Accountability Office

Report to Congressional Committees

September 2025

FEDERAL RESEARCH

Agency Funding and Outreach to Historically Black, Tribal, and Minority-Serving Colleges and Universities

GAO-25-107576

GAO Highlights

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GAO-25-107576 September 2025

A report to congressional committees.

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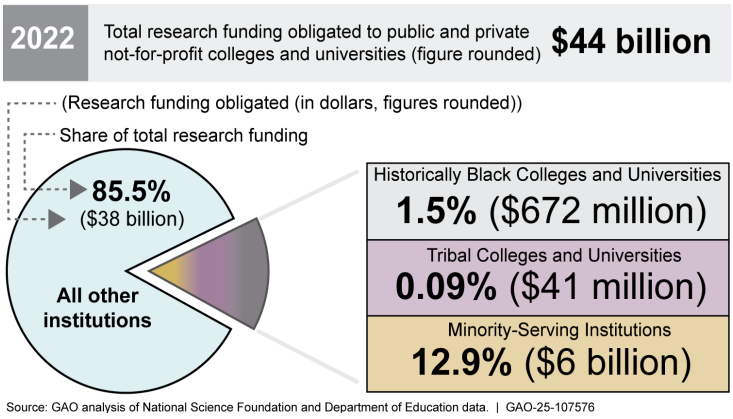
What GAO Found

To support U.S. innovation, the federal government has invested in research and development (R&D) at colleges and universities, including Historically Black Colleges and Universities (HBCU), Tribal Colleges and Universities (TCU), and Minority-Serving Institutions (MSI). As overall federal research funding to colleges and universities increased from fiscal year 2018 through 2022, the amount HBCUs, TCUs, and MSIs received also increased.

Federal Research Funding Provided to Colleges and Universities, by HBCU, TCU, or MSI Status, Fiscal Year 2022



Source: GAO analysis of National Science Foundation and Department of Education data. | GAO-25-107576

Twelve of the 14 federal research agencies GAO surveyed collectively offered at least 75 competitive research funding programs and initiatives targeted to HBCUs, TCUs, or MSIs, or to partnerships with those institutions during fiscal years 2022 through 2024. Two agencies did not offer any such programs. These 75 programs and initiatives included research as well as research capacity-building activities. According to agency officials, as of May 15, 2025, awards under about half of the programs and initiatives were ongoing, changes in administration and agency priorities led to the termination of some awards under at least 10 of the programs and initiatives, and awards under some other programs and initiatives were paused for review.

Five agencies that GAO selected—the Department of Transportation, the National Aeronautics and Space Administration, the National Institute of Food and Agriculture, the National Institutes of Health, and the National Science Foundation—conducted outreach to increase HBCU, TCU, and MSI participation in federally funded research. Representatives from four of the six colleges and universities that GAO spoke to said site visits from agency officials helped connect them to research funding. As of May 15, 2025, officials from four of five selected agencies said they paused some outreach.

The five agencies tracked a variety of information aimed at assessing the effectiveness of their outreach efforts. For three agencies, that information was not tied to fully identified performance goals. According to agency officials, the strategic plans containing the goals and performance measures related to HBCU, TCU, and MSI outreach were either being revised or were no longer in effect as of May 15, 2025.

Why GAO Did This Study

HBCUs, TCUs, and MSIs are part of the federal R&D ecosystem, but these institutions have long faced barriers to securing federal research funding.

The Research and Development, Competition, and Innovation Act (2022) includes a provision for GAO to examine federal efforts to increase research capacity and competitiveness at HBCUs, TCUs, and MSIs. This report examines (1) HBCU, TCU, and MSI participation in federally funded research during fiscal years 2018–2022; (2) competitive federal research funding programs and initiatives that were targeted to HBCUs, TCUs, or MSIs or to partnerships with those institutions in fiscal years 2022–2024; (3) outreach selected federal research agencies conducted to increase the participation of HBCUs, TCUs, and MSIs in federally funded research and selected institutions' views on the outreach; and (4) the extent to which selected federal research agencies assessed the effectiveness of their outreach to HBCUs, TCUs, and MSIs.

Using the most recent comprehensive data available at the time of our analysis to identify trends, GAO analyzed federal research funding to higher education institutions. GAO also surveyed and reviewed data from 14 federal research agencies on competitive research funding programs and initiatives targeted to HBCUs, TCUs, and MSIs. Additionally, GAO interviewed officials from five selected federal research agencies on their outreach to HBCUs, TCUs, and MSIs, including how they assess effectiveness of the outreach. GAO also interviewed representatives from six HBCUs, TCUs, and MSIs—selected to represent a variety of institution types and research areas—about their views on agency outreach and conducted two site visits to an HBCU and a TCU.

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Abbreviations

AANAPISI	Asian American and Native American Pacific Islander-Serving Institution
ANNH	Alaska Native and Native Hawaiian-Serving Institution
DEI	diversity, equity, and inclusion
DHS	Department of Homeland Security
DOD	Department of Defense
DOE	Department of Energy
DOJ	Department of Justice
DOT	Department of Transportation
EPA	Environmental Protection Agency
HBCU	Historically Black Colleges and Universities
HHS	Department of Health and Human Services
HSI	Hispanic-Serving Institution
MSI	Minority-Serving Institution
NASA	National Aeronautics and Space Administration
NASNTI	Native American-Serving Nontribal Institution
NIFA	National Institute of Food and Agriculture
NIH	National Institutes of Health
NMSU	New Mexico State University
NSF	National Science Foundation
OSTP	Office of Science and Technology Policy
PBI	Predominantly Black Institution
PEI	Path to Excellence and Innovation
R&D	research and development
STEM	science, technology, engineering, and mathematics
TCRGP	Tribal Colleges Research Grants Program
TCU	Tribal Colleges and Universities
TCUP	Tribal Colleges and Universities Program
USDA	U.S. Department of Agriculture

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September 29, 2025

Congressional Committees

Supporting scientific and economic leadership in research requires the participation of talented individuals nationwide. Historically Black Colleges and Universities (HBCU), Tribal Colleges and Universities (TCU), and Minority-Serving Institutions (MSI) can serve as valuable resources for domestic science, technology, engineering, and math (STEM) talent.[1] The National Academies has stated that the U.S. would miss a vital opportunity to address talent shortfalls in critical fields such as semiconductor manufacturing and artificial intelligence if the nation did not engage the "missing millions" of students from underrepresented groups and under-resourced communities.[2]

Many HBCUs, TCUs, and MSIs already make important contributions to federally funded research and development (R&D) in areas, including STEM, that are critical to agencies' missions. For example, Morgan State University has supported the Department of Defense (DOD) in advanced electro-photonics research at a center that is first of its kind at an HBCU, and the University of Alaska Fairbanks, an MSI, has supported the National Science Foundation (NSF) in Arctic research because of the institution's proximity to the region. Similarly, Navajo Technical University, a TCU, has supported NSF in advanced manufacturing research through training students to use cutting-edge technologies.

[1]National Academies of Sciences, Engineering, and Medicine, *Minority Serving Institutions: America's Underutilized Resource for Strengthening the STEM Workforce* (Washington, D.C., The National Academies Press, 2019).

[2]National Academies of Sciences, Engineering, and Medicine, *International Talent Programs in the Changing Global Environment* (Washington, D.C., The National Academies Press, 2024).

However, HBCUs, TCUs, and MSIs have long faced barriers to securing federal funding for research and development, according to reports from the Office of Science and Technology Policy (OSTP).[3]

The Research and Development, Competition, and Innovation Act (part of what is commonly referred to as the CHIPS and Science Act) includes a provision for us to examine federal research agency efforts to increase research participation and competitiveness of HBCUs, TCUs, and MSIs.[4] This report examines the following:

1. HBCU, TCU, and MSI participation in federally funded research during fiscal years 2018 through 2022
2. Competitive funding programs and initiatives carried out by federal research agencies that were targeted to HBCUs, TCUs, or MSIs or to partnerships with those institutions in fiscal years 2022 through 2024
3. Outreach and other activities selected federal research agencies conducted to increase the participation and competitiveness of HBCUs, TCUs, and MSIs in federal research funding programs and initiatives and selected institutions' views on the outreach
4. The extent to which selected federal research agencies assessed the effectiveness of their outreach and other activities to HBCUs, TCUs, and MSIs

For the first objective, we analyzed NSF data on science and engineering funding support to colleges and universities from fiscal year 2018 through 2022, which represents the most complete data available at the time we began our review. This analysis focused on seven types of higher education institutions generally characterized by their educational mission or MSI designation based, in part, on their undergraduate enrollment.[5]

[3]The White House, Office of Science and Technology Policy, National Science and Technology Council, *Federal Strategic Plan for Advancing STEM Education and Cultivating STEM Talent* (Washington, D.C.: Nov., 2024); The White House, Office of Science and Technology Policy, National Science and Technology Council, *Advancing Research Capacity at High Research Activity Historically Black Colleges and Universities* (Washington, D.C.: May, 2024).

[4]Pub. L. No. 117-167, div. B, tit. V, subt. C, § 10521, 136 Stat. 1366, 1619-20 (2022).

[5]Section 10526 of the Research and Development, Competition, and Innovation Act includes definitions for each of the seven types of institutions using definitions from the Higher Education Act of 1965, as amended. Pub. L. No. 117-167, div. B, tit. V, subt. C, § 10526, 136 Stat. 1366, 1627 (2022).

For the second objective, we surveyed and reviewed documentation from the 14 federal research agencies with extramural research expenditures greater than $100 million in fiscal year 2022 dollars.[6] The 14 federal research agencies are the Departments of Agriculture (USDA), Commerce, Defense, Education, Energy (DOE), Health and Human Services (HHS), Homeland Security (DHS), the Interior, Justice (DOJ), and Transportation (DOT), as well as the Environmental Protection Agency (EPA), the National Aeronautics and Space Administration (NASA), NSF, and the U.S. Agency for International Development.

For the third and fourth objectives, we selected five federal research agencies—USDA, HHS, DOT, NASA, and NSF—to interview about their outreach and other activities, including how they assess the effectiveness of outreach and other activities to HBCUs, TCUs, and MSIs. For USDA and HHS we focused on individual components within those agencies– the National Institute of Food and Agriculture (NIFA) and the National Institutes of Health (NIH) respectively. We selected these agencies and components as a non-generalizable sample based on factors such as the type and amount of research funding and outreach that the agencies provided to HBCUs, TCUs, and MSIs. We also interviewed a non-generalizable sample of six colleges and universities that are HBCUs, TCUs, and MSIs about their experience with agency outreach, including site visits to one HBCU and one TCU. We selected the six institutions to represent a range of institution types, research funding received, and geographic regions.

For the fourth objective, we compared selected agencies' efforts to assess their outreach and other activities to HBCUs, TCUs, and MSIs to key practices for evidence-based policymaking.[7] For more information on our scope and methodology, see appendix I.

We conducted this performance audit from May 2024 to September 2025 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that

[6]The Research and Development, Competition, and Innovation Act defines federal research agencies as "any Federal agency with an annual extramural research expenditure of over $100,000,000 in fiscal year 2022 constant dollars." Pub. L. No. 117-167, div. B, § 10002,136 Stat. 1366, 1406 (2022).

[7]GAO, *Evidence-Based Policymaking: Practices to Help Manage and Assess the Results of Federal Efforts,* GAO-23-105460 (Washington, D.C.: July 12, 2023).

the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

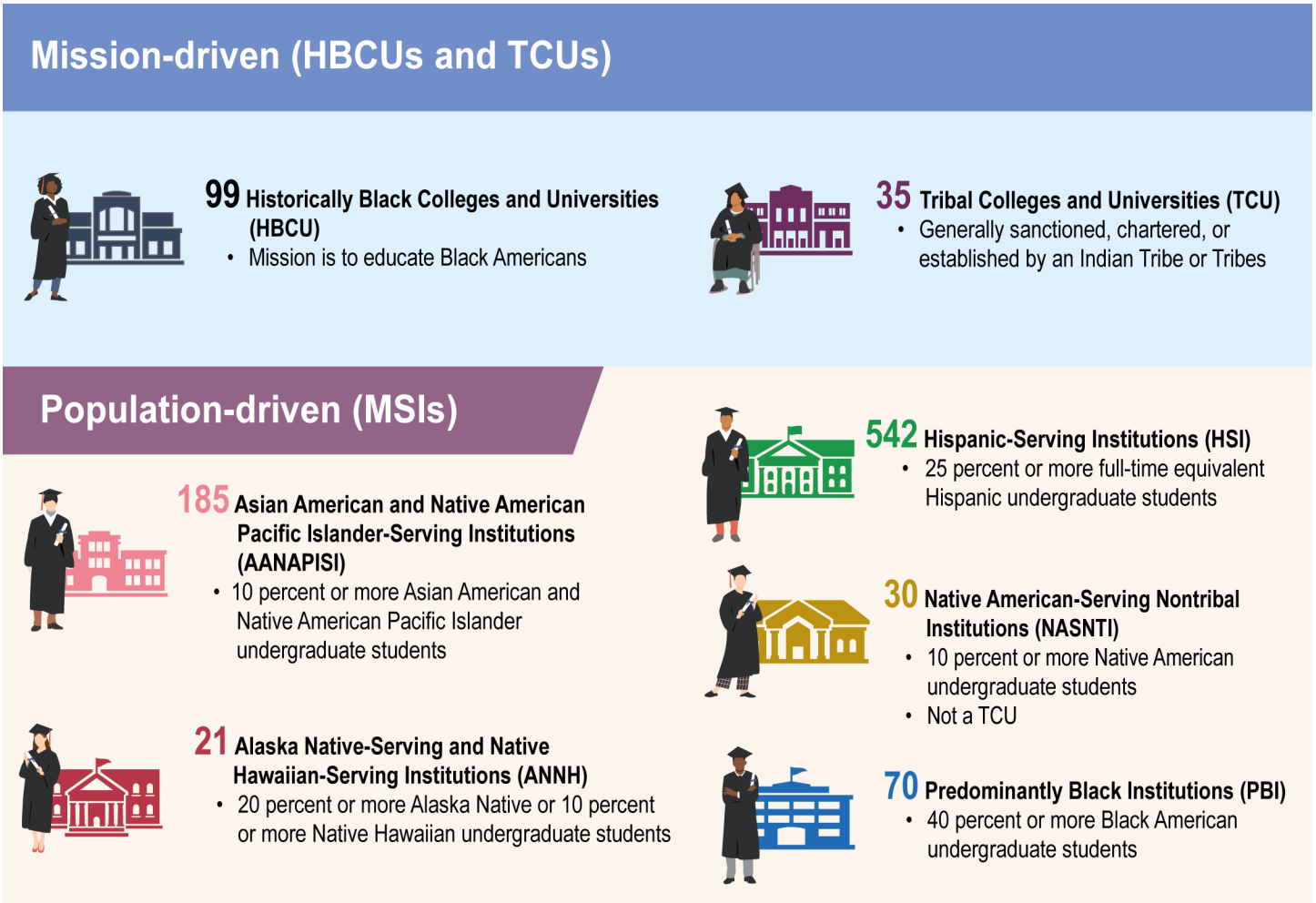
Background

Overview of HBCUs, TCUs, and MSIs

Two of the seven types of higher education institutions in our review are generally characterized by their educational mission. The remaining five types are enrollment-based MSIs, or institutions that receive their MSI designation in part based on the population of their student body.[8] Additionally, institutions can have multiple MSI designations if they meet the requirements for more than one type of MSI (see fig. 1).

[8]The Department of Education releases an eligibility matrix each year that lists the institutions of higher education that meet the definition for each MSI category for certain programs offered under the Higher Education Act of 1965, as amended, or hold a current grant under one of these programs. The lists change from year to year as institutions' demographics change. The 2025 eligibility matrix is available on the Department of Education's website, see https://www.ed.gov/grants-and-programs/grants-higher-education/eligibility-designations-higher-education-programs. For purposes of this report, "MSIs" refers only to the population-driven designations. We do not include HBCUs and TCUs in our definition of MSIs.

Figure 1: Selected Characteristics of Mission- and Population-Driven Colleges and Universities as of Fiscal Year 2022



Source: GAO analysis of Department of Education data; Stafeeva/adobestock.com (people); Vikivector/adobestock.com (buildings). | GAO-25-107576

HBCUs, TCUs, and MSIs are public and private institutions and vary in mission, degrees offered, student population, geographic distribution, and other characteristics. The following describes HBCUs, TCUs, and the five MSI groups:

- **HBCUs.** HBCUs are colleges and universities established before 1964 whose mission is the education of Black Americans.[9] Some HBCUs are private colleges and universities, and some are public, land-grant HBCUs established under the Morrill Act of 1862 and the Second Morrill Act of 1890. They are primarily located in the southeastern U.S.
- **TCUs.** Generally established by individual Tribal Nations starting as early as 1968, 35 TCUs operate approximately 90 campuses in 15 states, which support learning environments for American Indian culture, languages, and traditions, among other things.[10] TCUs are in some of the U.S.'s most rural areas and serve as community resources.
- **Asian American and Native American Pacific Islander-Serving Institutions (AANAPISI).** The College Cost Reduction and Access Act of 2007 established the AANAPISI designation.[11] AANAPISIs are the second largest MSI group by number of institutions. To be considered an AANAPISI, an institution must have an undergraduate population of at least 10 percent Asian American and Native American Pacific Islander students, among other criteria. They are primarily located in the western U.S.
- **Alaska Native and Native Hawaiian-Serving Institutions (ANNH).** The Higher Education Amendments of 1998 established the ANNH

[9]An HBCU is any historically black college or university that was established prior to 1964, whose principal mission was, and is, the education of Black Americans, and that is accredited by a nationally recognized accrediting agency or association determined by the Secretary of Education to be a reliable authority as to the quality of training offered or is, according to such an agency or association, making reasonable progress toward accreditation. In addition, any branch campus of a southern institution of higher education that prior to September 30, 1986, received a specified grant as an institution with special needs and was formally recognized by the National Center for Education Statistics as a Historically Black College or University is also considered to be an HBCU. Pub. L. No. 117-167, div. B, tit. V, subt. C, § 10526(2), 136 Stat. 1366, 1627 (2022) defining an HBCU using the definition of a part B institution at 20 U.S.C. § 1061.

[10]A TCU is an institution that qualifies for funding under the Tribally Controlled Colleges and University Assistance Act of 1978 or the Navajo Community College Act, or is listed in section 532 of the Equity in Educational Land-Grant Status Act of 1994. Pub. L. No. 117-167, div. B, tit. V, subt. C, § 10526(4), 136 Stat. 1366, 1627 (2022) citing the definition at 20 U.S.C. §1059c.

[11]Pub. L. No. 110-84, § 802, 121 Stat. 784, 817-822, amending the Higher Education Act of 1965. An AANAPISI is an institution of higher education with an enrollment of undergraduate students that is at least 10 percent Asian American and Native American Pacific Islander and meets other eligibility criteria, such as having a certain enrollment of needy students. Pub. L. No. 117-167, div. B, tit. V, subt. C, § 10526(3), 136 Stat. 1366, 1627 (2022) citing the definition at 20 U.S.C. §1067q(c)(2).

designation.[12] To be considered an ANNH, an institution must have an undergraduate population of at least 20 percent Alaskan Native or at least 10 percent Native Hawaiian students, among other criteria. ANNHs are located in Alaska and Hawaii.

- **Hispanic-Serving Institutions (HSI).** The Higher Education Amendments of 1992 initially established the HSI designation.[13] HSIs are the largest MSI group by number of institutions. To be considered an HSI, an institution must have an undergraduate population with at least 25 percent full-time equivalent Hispanic students, among other criteria. HSIs are primarily located in the west and southwest.
- **Native American-Serving Nontribal Institutions (NASNTI).** The Higher Education Opportunity Act established the NASNTI designation.[14] A NASNTI is an institution of higher education that has an enrollment of undergraduate students that is at least 10 percent Native American students and is not a TCU. NASNTIs are primarily located in the southwest.

[12]Pub. L. No. 105-244, tit. III, pt. E, 112 Stat. 1581, 1641, amending the Higher Education Act of 1965. An Alaskan Native-Serving institution is an institution of higher education with an enrollment of undergraduate students that is at least 20 percent Alaskan native students and that also meets other eligibility criteria, such as having a certain enrollment of needy students. A Native Hawaiian-Serving Institution is an institution of higher education that has an enrollment of undergraduate students that is at least 10 percent native Hawaiian students and that also meets other eligibility criteria, such as having a certain enrollment of needy students. Pub. L. No. 117-167, div. B, tit. V, subt. C, § 10526(3), 136 Stat. 1366, 1627 (2022) citing the definition at 20 U.S.C. § 1059d.

[13]Pub. L. No. 102-325, tit. III, § 302, 106 Stat. 448, 473-74, amending the Higher Education Act of 1965. An HSI is an institution of higher education with an enrollment of undergraduate full-time equivalents that is at least 25 percent Hispanic and that also meets other eligibility criteria, such as having a certain enrollment of needy students. Pub. L. No. 117-167, div. B, tit. V, subt. C, § 10526(3), 136 Stat. 1366, 1627 (2022) citing the definition at 20 U.S.C. § 1101a(a)(5).

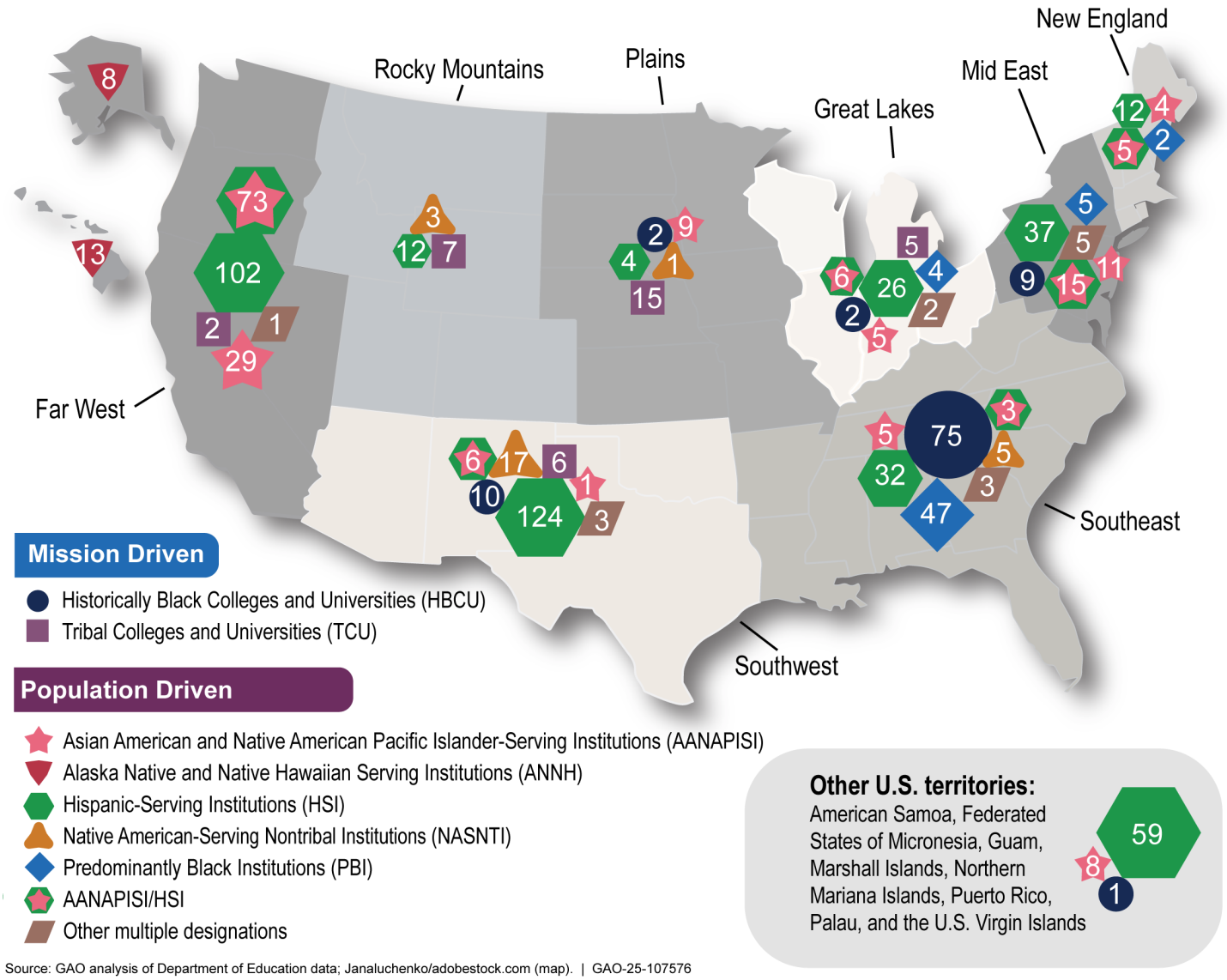
[14]Pub. L. No. 110-315, tit. III, § 306, 122 Stat. 3078, 3173-75 (2008), amending the Higher Education Act of 1965. A NASNTI is an institution of higher education that has an enrollment of undergraduate students that is not less than 10 percent Native American students and is not a TCU. Pub. L. No. 117-167, div. B, tit. V, subt. C, § 10526(3), 136 Stat. 1366, 1627 (2022) citing the definition at 20 U.S.C. § 1067q(c)(8).

- **Predominantly Black Institutions (PBI).** The Higher Education Opportunity Act initially established the PBI designation.[15] PBIs must have an undergraduate population that is at least 40 percent Black American students, among other criteria. PBIs are primarily located in the southeast.

Figure 2 shows the distribution of the mission-driven HBCUs and TCUs and population-driven MSIs, as of fiscal year 2022.

[15]Pub. L. No. 110-315, tit. III, § 305, 122 Stat. 3078, 3169-73 (2008), amending the Higher Education Act of 1965. A PBI is an institution of higher education with an enrollment of undergraduate students of at least 1,000 students that is at least 40 percent Black American students and that also meets other eligibility requirements, including having certain enrollments of low-income or first-generation college students, and needy students. Pub. L. No. 117-167, div. B, tit. V, subt. C, § 10526(3), 136 Stat. 1366, 1627 (2022) citing the definition at 20 U.S.C. § 1067q(c).

Figure 2: Distribution of Mission- and Population-Driven Colleges and Universities in Fiscal Year 2022



Source: GAO analysis of Department of Education data; Janaluchenko/adobestock.com (map). | GAO-25-107576

Note: This map shows how HBCUs, TCUs, and Minority-Serving Institutions (MSI) were distributed among the Bureau of Economic Analysis regions in fiscal year 2022.

Federal Role in Funding Research at HBCUs, TCUs, and MSIs

The federal government has invested in R&D to support the nation's innovation and economic growth and has funded the majority of colleges and universities' R&D spending. In fiscal year 2022, there were 3,962 public and private not-for-profit colleges and universities in the U.S., of which 858 held an HBCU, TCU, or MSI designation.[16] Over 1,000 colleges and universities received federal research funding, including over 300 HBCUs, TCUs, and MSIs, in fiscal year 2022.[17]

Prior reports have highlighted the challenges that HBCUs, TCUs, and MSIs face obtaining federal research funding.[18] According to a November 2024 OSTP report, historical and ongoing discrimination and implicit biases, such as those related to geography, socioeconomic status, and race, can limit STEM funding opportunities for underserved institutions.[19] Additionally, some institutions face a lack of or deferred improvements to infrastructure that can limit their competitiveness for federal research funding because their facilities and equipment are outdated.[20] Some HBCUs, TCUs, and MSIs also focus primarily on undergraduate

[16]We used data from the Department of Education's Integrated Postsecondary Education Data System for academic years 2018 through 2022 to identify how many institutions of higher education were public and private not-for-profit colleges and universities. We matched it to Education's HBCU, TCU, and MSI eligibility matrices for fiscal years 2018 – 2022 to determine how many of these were HBCUs, TCUs, and MSIs. The eligibility matrices include lists of institutions that met the criteria for each MSI category for certain programs offered under the Higher Education Act of 1965, as amended, or held a current grant under one of these programs during a given fiscal year. The eligibility matrices also include statutory lists of HBCUs and TCUs. In this report, when we refer to HBCUs, TCUs, or institutions that held one or more of the MSI designations, we are referring to inclusion in the eligibility matrices. During the most recent year of our analysis, fiscal year 2022, the eligibility matrix identified 100 institutions as HBCUs or Historically Black Graduate Institutions (HBGI). We included two of the three HBGIs (Meharry Medical College and the Morehouse School of Medicine) in our analysis of HBCUs and excluded one, Charles R. Drew University of Medicine and Science. See appendix I for more details.

[17]Throughout this report, when we refer to federal research funding to institutions of higher education, we refer to funds obligated, according to NSF data. We analyzed data collected under NSF's *Survey of Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions* for the five most recent years for which data were available at the time of our analysis, fiscal years 2018 through 2022. These data describe funds federal agencies obligated to colleges and universities for science and engineering R&D or the construction or maintenance of R&D facilities, by fiscal year.

[18]National Academies of Sciences, Engineering, and Medicine*, A Plan to Promote Defense Research at Minority-Serving Institutions* (Washington, D.C.: 2024).

[19]OSTP*, Federal Strategic Plan for Advancing STEM Education and Cultivating STEM Talent.*

[20]OSTP*, Advancing Research Capacity at High Research Activity Historically Black Colleges and Universities.*

education, which can mean a smaller specialized talent pool to conduct research. According to the November 2024 OSTP report, funding challenges faced by underserved institutions mean that high-quality STEM opportunities are not available to all Americans.[21] For example, barriers to obtaining research funding for underserved students could mean that those students are also underrepresented and underpaid in the STEM workforce.

Additionally, providing federal research funding to HBCUs, TCUs, and MSIs provides benefits for the entire nation, according to prior reports. For example, according to the November 2024 OSTP report, research conducted by HBCUs, TCUs, and MSIs leads to the inclusion of more diverse perspectives, which can yield more effective research solutions; a larger prepared workforce in areas that have a high need for talent, such as STEM; and public trust in science.[22] According to the Congressional Research Service, research conducted at land-grant universities, which include some HBCUs, TCUs, and MSIs, have led to advancements in areas such as fish and plant breeding, agricultural supply chains and productivity, and water quality that have improved crop production, human health, and the environment.[23]

From 2018 through 2024, at least one law and several executive orders directed federal agencies to provide support for HBCUs, TCUs, and certain MSIs, including strengthening their research capacity. In early 2025, multiple executive orders were revoked and a new executive order regarding support for HBCUs was issued. For example:

- **The HBCU PARTNERS Act.** Enacted in 2020, this Act seeks to "strengthen the capacity and competitiveness of HBCUs through robust public-sector, private-sector, and community partnerships and engagement."[24] It requires some federal agencies, including all 14 in our review, to annually submit plans to the President's Board of Advisors on HBCUs and Congress that describe their efforts to

[21]OSTP, *Federal Strategic Plan for Advancing STEM Education and Cultivating STEM Talent.*

[22]OSTP, *Federal Strategic Plan for Advancing STEM Education and Cultivating STEM Talent.*

[23]Congressional Research Service, *The U.S. Land-Grant University System: Overview and Role in Agricultural Research,* August 9, 2022.

[24]Pub. L. No. 116-270, 134 Stat. 3325 (2020).

strengthen HBCUs' capacity to participate in the agency's programs and initiatives.

- **Executive Order 14041.** Signed in 2021, this executive order established the White House Initiative on Historically Black Colleges and Universities and the President's Board of Advisors on HBCUs in the Department of Education to facilitate the implementation of the HBCU PARTNERS Act and conduct other activities in support of HBCUs.[25] In April 2025, this executive order was revoked by Executive Order 14283.[26] Executive Order 14283 facilitates the implementation of the HBCU PARTNERS Act and re-establishes a White House Initiative on Historically Black Colleges and Universities—moving it to the Executive Office of the President—and the President's Board of Advisors on HBCUs, among other things.
- **Executive Order 14049.** Signed in 2021, this executive order sought, among other things, to "[break] down barriers that impede the access of higher education institutions that serve Native American students, such as TCUs, to federal funding, and [strengthen] the capacity of those institutions to participate in federal programs and partnerships."[27] In January 2025, this executive order was revoked by Executive Order 14148.[28]
- **Executive Order 14124.** Signed in 2024, this executive order sought, among other things, to promote the availability of federal programs and resources to enhance HSIs' educational capacity, including research and infrastructure development, while also expanding pathways for HSIs to access such programs and resources.[29] In January 2025, this executive order was revoked by Executive Order 14148.

[25]Exec. Order 14041, White House Initiative on Advancing Educational Equity, Excellence, and Economic Opportunity through Historically Black Colleges and Universities (Sep. 3, 2021).

[26]Exec. Order 14283, White House Initiative to Promote Excellence and Innovation at Historically Black Colleges and Universities (Apr. 23, 2025).

[27]Exec. Order 14049, White House Initiative on Advancing Educational Equity, Excellence, and Economic Opportunity for Native Americans and Strengthening Tribal Colleges and Universities (Oct. 11, 2021).

[28]Exec. Order 14148, Initial Rescissions of Harmful Executive Orders and Actions (Jan. 20, 2025).

[29]Exec. Order 14124, White House Initiative on Advancing Educational Equity, Excellence, and Economic Opportunity Through Hispanic-Serving Institutions (July 17, 2024).

According to some federal research agencies, changing administration priorities have led some agencies to pause or terminate some competitive federal research funding programs and initiatives and outreach activities. As examples of changing administration priorities, agency officials pointed to (1) Executive Order 14151, which includes direction to agencies to terminate, to the maximum extent allowed by law, all equity action plans, equity actions, initiatives, or programs, and equity-related grants or contracts; and (2) Executive Order 14222, which includes requirements aimed at reducing government spending and increasing government efficiency in multiple areas.[30] Where available, we provide updates on agency programs and outreach activities as of May 15, 2025.[31]

Federal Research Funding to HBCUs, TCUs, and MSIs Grew Overall and Varied by Group in Fiscal Years 2018 Through 2022

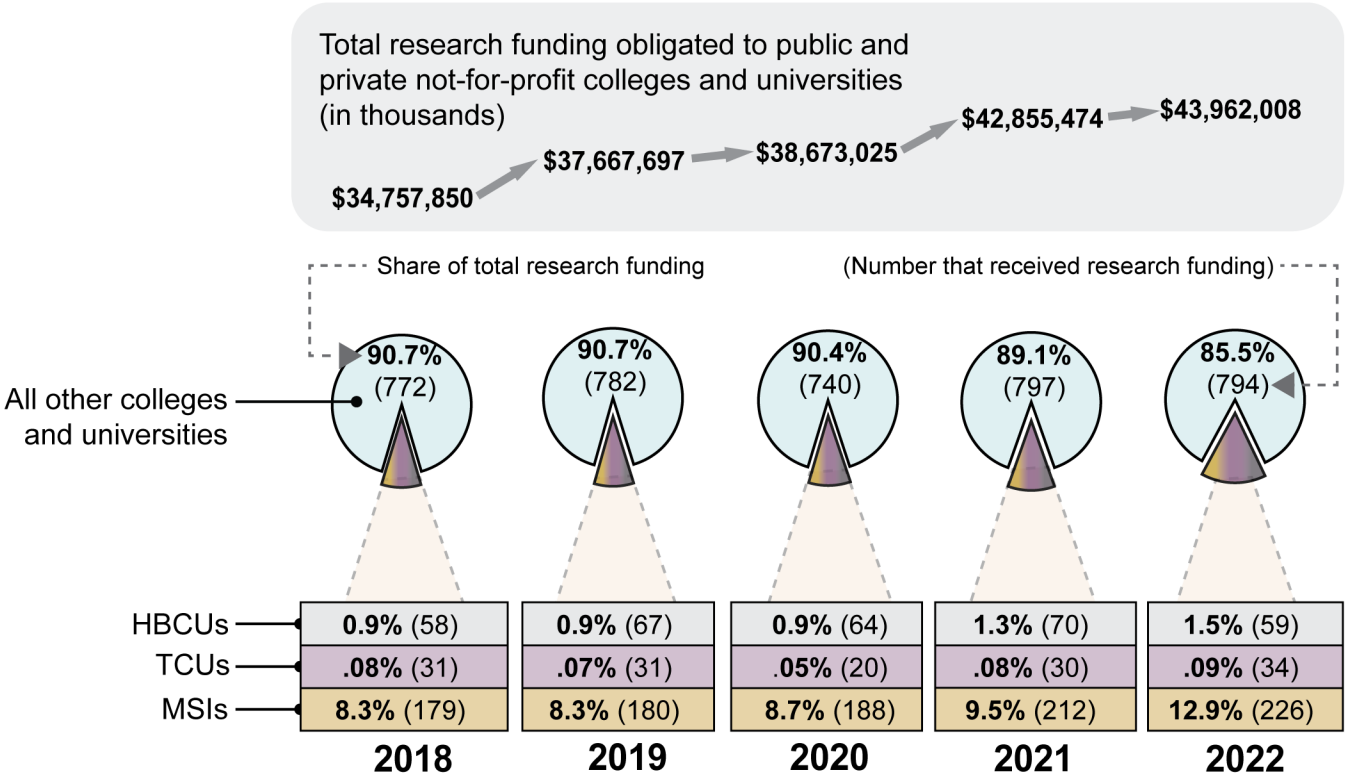
As Agencies Provided More Research Funding to Colleges and Universities, Funding to HBCUs, TCUs, and MSIs Increased from Fiscal Year 2018 Through 2022

Total federal funding for R&D provided to all public and private not-for-profit colleges and universities, including HBCUs, TCUs, and MSIs, increased from nearly $35 billion in fiscal year 2018 to nearly $44 billion in 2022. The share of this funding provided to HBCUs, TCUs, and MSIs grew from over 9 percent to close to 15 percent over this period (see fig. 3).

[30]Exec. Order 14151, Ending Radical and Wasteful Government DEI Programs and Preferencing (Jan. 20, 2025) (DEI stands for diversity, equity, and inclusion.); Exec. Order 14222, Implementing the President's "Department of Government Efficiency" Cost Efficiency Initiative (Feb. 26, 2025).

[31]We collected updated information from agencies on program status and outreach activities as of May 15, 2025, because we administered our survey and conducted the majority of our interviews prior to the administrative changes that occurred in January 2025. Full details of our information collection can be found in appendix I.

Figure 3: Federal Research Funding Obligated to Colleges and Universities, by HBCU, TCU, or MSI Status, Fiscal Years 2018 Through 2022



HBCU - Historically Black Colleges and Universities
TCU - Tribal Colleges and Universities
MSI - Minority-Serving Institutions

Source: GAO analysis of National Science Foundation and Department of Education data. | GAO-25-107576

Note: MSIs' share of federal research funding increased as the overall number of MSIs increased, fiscal years 2018 through 2022. The group of institutions with one or more MSI designations changes from year to year as institutional enrollments change.

The trends in federal research funding from fiscal years 2018 through 2022 varied by group. HBCUs' and TCUs' shares of federal research funding increased, even as these populations were stable over the time period. Our regression analysis suggested that HBCUs and TCUs were likely to receive more federal research funding compared to other institutions when controlling for region, size, highest degree offered, and status as public or private (see app. II for more details on our regression

analyses).[32] In contrast, the increase in MSIs' share of federal research funding was associated with growth in the number of institutions that qualified as one or more types of MSI. We estimated that the increase in federal research funding MSIs received was not statistically different than the increase for other colleges and universities from fiscal years 2018 through 2022.[33] Rather, as the MSI population grew over time, the number of MSIs that received federal research funding also increased, as did their share of federal research funding.

We discuss HBCU, TCU, and MSI federal research funding trends further in the following sections. Appendix III includes additional details and figures to illustrate key trends.

[32]Our analysis also suggested that colleges and universities that were public, had a large undergraduate population, or offered their highest degree at the graduate level were likely to receive more federal research funding, and those that were private, had a small or medium undergraduate population, or offered an associate's as their highest degree were likely to receive less federal research funding. The differences we identified between groups are statistically significant. However, they do not establish a causal relationship, for example, between HBCU or TCU status and federal research funding level.

[33]We tested statistical significance at the 95 percent confidence level and found no significant differences between the change in federal research funding for MSIs and other institutions.

HBCUs' Share of Federal Research Funding Increased in Fiscal Years 2021 and 2022

In fiscal years 2018 through 2020, HBCUs received less than 1 percent of the total federal research funding provided to colleges and universities. However, in 2021, HBCUs received 1.3 percent, and in 2022, they received 1.5 percent. Between 58 and 71 percent of HBCUs received federal research funding each year from 2018 through 2022.

Research funding from USDA and HHS to HBCUs increased the most, compared to other agencies, from fiscal years 2018 through 2022. USDA funds research capacity grants to the 1890 institutions, or land-grant HBCUs.[34] In addition, USDA offered competitive research funding programs targeted specifically to the 1890 institutions, including in fiscal years 2018 through 2022.

HHS's HBCU plan for 2024, submitted to Congress pursuant to the HBCU PARTNERS Act, stated that the NIH supported HBCUs' research and capacity-building through programs such as the *Research Centers in Minority Institutions* and *John Lewis Research Endowment* programs. These programs were targeted to resource-limited institutions including HBCUs. NSF, which provided the most research funding to HBCUs after USDA and HHS, offered two competitive research funding programs specifically targeted to HBCUs. Appendix IV provides a full inventory of competitive research funding programs targeted to HBCUs, TCUs, or MSIs that were active in fiscal years 2022 through 2024.

Both the median and maximum levels of federal research funding to HBCUs were higher in fiscal year 2022, compared to the previous four fiscal years (see fig. 4). Some highly funded HBCUs saw large increases to their federal research funding over time. More specifically, in fiscal year 2022, 15 of the 20 HBCUs that received the most federal research funding that year received more than double the amount they received in 2018.

Examples of NSF- and USDA-Funded Research and Capacity-Building at HBCUs

NSF and USDA funded both research and capacity-building activities at HBCUs, such as training and facility development.

Morgan State University received NSF funding to support scholarships and research experiences for undergraduate and graduate students pursuing cybersecurity degrees.

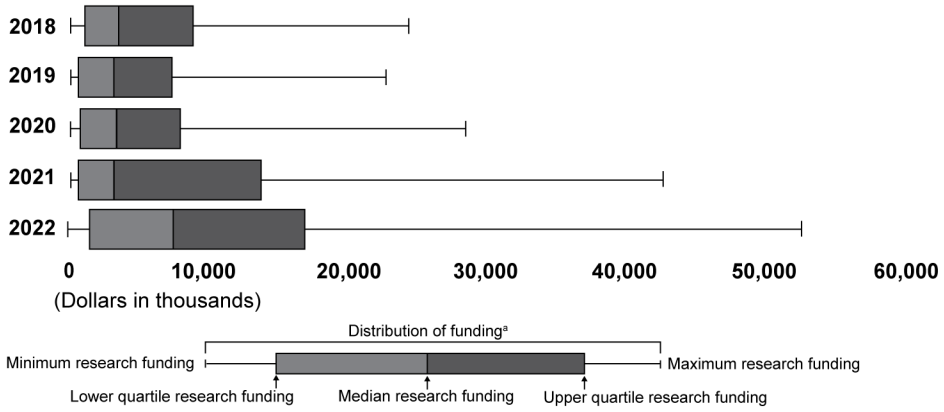
Internet of Things testbed located in Morgan State University's Cybersecurity Assurance and Policy Center lab.

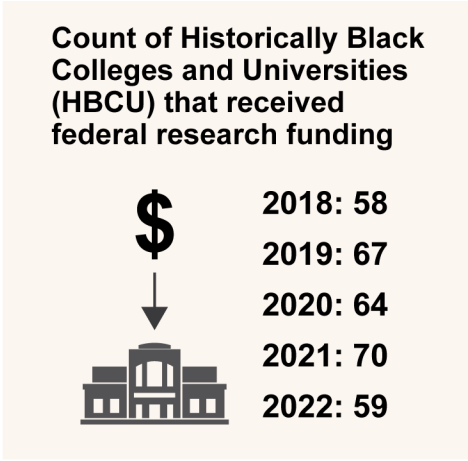
The University of Maryland Eastern Shore used USDA funding to open a research and teaching farm to focus on topics including food safety, nutrient management, and pest management.

Source: GAO review of agency and institution information; GAO (photo). | GAO-25-107576

[34]Research capacity grants to the 1890 institutions are funded pursuant to the Evans-Allen Act of 1977. 1890 institutions are historically black land-grant universities established under the Second Morrill Act of 1890 (Act of August 30, 1890, 26 Stat. 417 (codified at 7 U.S.C. § 321 et seq.).) Known as the Evans-Allen Act, section 1445 of the National Agricultural Research, Education, and Teaching Policy Act of 1977, as amended, authorizes funding for agricultural research at 1890 institutions. 7 U.S.C. § 3222.

Figure 4: Range of HBCU Federal Research Funding, Fiscal Years 2018 Through 2022





Source: GAO analysis of National Science Foundation and Department of Education data; Vikivector/adobestock.com (building). | GAO-25-107576

[a]Funding levels (minimum, lower quartile, etc.) are funds obligated to an HBCU in a given fiscal year.

Most TCUs Received Research Funding, Primarily from NSF or USDA, Fiscal Years 2018 Through 2022

For most of the years we reviewed, more than 85 percent of TCUs received federal research funding, primarily from NSF or USDA, which offered targeted programs to fund STEM research and education. In fiscal year 2022, 34 of 35 TCUs received federal research funding.

Overall, federal research funding to TCUs increased by over $14 million from fiscal year 2018 through fiscal year 2022, as funding from NSF, USDA, and other agencies increased. This change represents an increase from 0.08 to 0.09 percent of the total federal research funding provided to colleges and universities.

NSF and USDA, the agencies that provided the most research funding to TCUs from fiscal year 2018 through 2022, each offered one competitive research funding program targeted to these colleges:

- **NSF's Tribal Colleges and Universities Program (TCUP).** Under TCUP, TCUs and ANNHs could apply for funds to support research and education related to any NSF-funded topic. Previous TCUP awardees have investigated the health of local ecosystems. TCUs also received awards to help them develop STEM degree programs and purchase biology and chemistry lab equipment to enable future research.

Water Research at Tribal Colleges and Universities

TCUs' research may be closely tied to Tribes' geographies and cultures and may focus on helping students develop job skills while conducting research that benefits their communities.

DOE, NSF, and USDA have all funded TCUs to research water ecology and quality in their local communities, including testing for contaminants that threaten human, plant, and animal health. Faculty and students collaborate to address key issues that affect Tribal communities in these projects. For example, Navajo Technical University is training students to test for water contaminants and maintain filtration systems that will be used throughout Navajo Nation to expand communities' access to clean water.

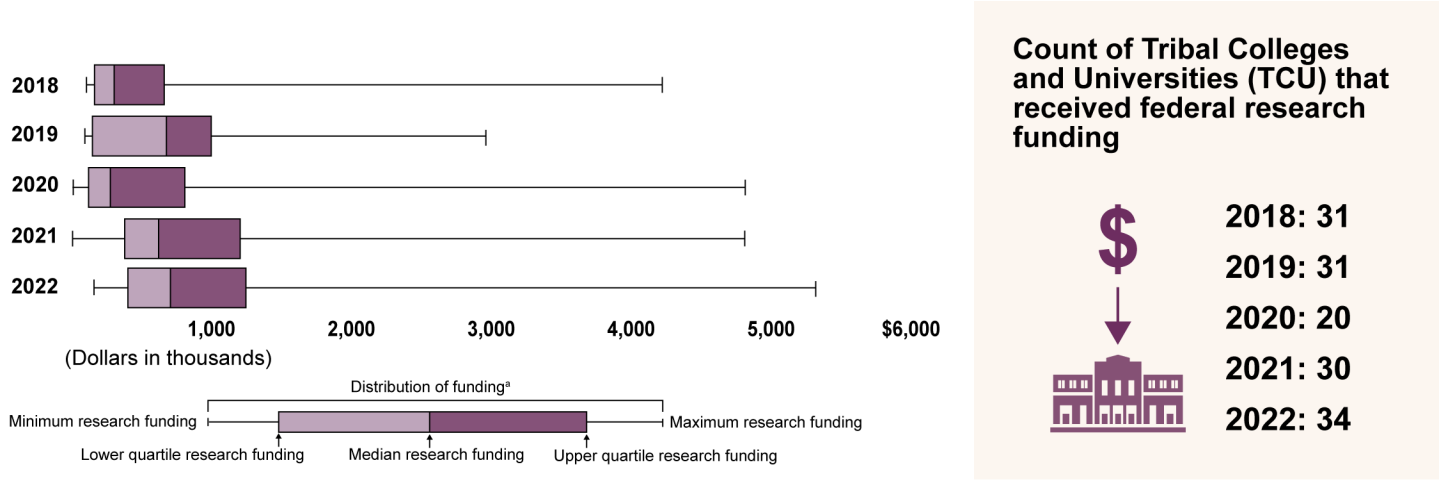
Navajo Technical University water filtration system.

Source: GAO review of agency information and interviews with TCU representatives; Navajo Technical University (photo). | GAO-25-107576

- **USDA's Tribal Colleges Research Grants Program (TCRGP).** TCRGP awards supported research projects at TCUs related to USDA's science and research priorities, such as natural resource management and food security. Projects may also incorporate traditional ecological knowledge. Previous TCRGP awardees have investigated regenerative agriculture and organic pest control.

Both the median and maximum levels of federal research funding to TCUs were higher in fiscal year 2022, compared to previous years (see fig. 5). Some TCUs saw large increases in federal research funding in fiscal year 2022, compared to 2018. Twelve TCUs received $1 million or more in federal research funding in fiscal year 2022. For six of these 12, their federal research funding in fiscal year 2022 was triple or more what they received in fiscal year 2018.

Figure 5: Range of TCU Federal Research Funding, Fiscal Years 2018 Through 2022



Source: GAO analysis of National Science Foundation and Department of Education data; Vikivector/adobestock.com (building). | GAO-25-107576

[a]Funding levels (minimum, lower quartile, etc.) are funds obligated to a TCU in a given fiscal year.

AANAPISIs' and HSIs' Shares of Federal Research Funding Increased from Fiscal Years 2018 Through 2022 as More Schools Gained These Designations

AANAPISIs' and HSIs' shares of the federal research funding provided to colleges and universities grew overall as the number of schools designated as AANAPISI, HSI, or both grew from fiscal year 2018 through 2022.[35] Over this period, an increasing number of colleges and universities that were highly engaged in research (commonly known as R1 and R2 institutions) were AANAPISIs, HSIs, or both.[36] These universities tended to receive millions of research dollars from multiple agencies each year. The following provides detail on these two categories of institution.

AANAPISIs. As the number of AANAPISIs increased, their share of the total federal research funding provided to colleges and universities grew from 6 to 9 percent overall from fiscal year 2018 through 2022. Most of this funding was provided by HHS, NSF, and DOD. Between 40 and 51

[35]See appendix III, tables 12 – 16.

[36]To determine which colleges and universities are highly engaged in research, we used the American Council on Education's 2025 Research Activity Designations (also referred to as the "Carnegie Classifications"). The designations include "Research 1: Very High Spending and Doctorate Production" (R1), defined as at least $50 million in total research spending and 70 research doctorates awarded annually, and "Research 2: High Spending and Doctorate Production" (R2), defined as at least $5 million in research spending and 20 research doctorates awarded annually, based on fiscal year (research spending) and academic year (research doctorates awarded) 2021 – 2023 data.

percent of AANAPISIs received federal research funding each year. AANAPISIs' share of total federal research funding was increasingly concentrated among colleges and universities that were highly engaged in research as more of those schools gained the AANAPISI designation annually. Most AANAPISIs that were highly engaged in research were large public universities. For example, the University of Minnesota, University of California, Davis, and University of California, San Diego were among the highest funded AANAPISIs from fiscal year 2018 through 2022.

HSIs. As the number of HSIs increased, their share of the total federal research funding provided to colleges and universities grew from 4 to 7 percent from fiscal year 2018 through 2022. Most of this funding was provided by HHS, NSF, and DOD. Close to 30 percent of HSIs received federal research funding each year. Their share of total federal research funding was increasingly concentrated among colleges and universities that were highly engaged in research as more of those schools gained the HSI designation annually. Many large, public universities in California, Texas, Florida, Arizona, and New Mexico were HSIs in fiscal year 2022, such as the University of California, Irvine, the University of Arizona, and New Mexico State University.

At least one competitive research funding program was targeted to HSIs. NSF's *Hispanic-Serving Institutions: Enriching Learning, Programs, and Student Experiences* program aimed to improve experiences and outcomes for HSI students pursuing STEM degrees. For example, one HSI received an award to help them integrate research experiences into classroom curricula and evaluate the effect on student outcomes.

Federally Funded Research at New Mexico State University

New Mexico State University (NMSU) received close to $230 million from 10 federal agencies to support its diverse research portfolio in fiscal years 2018 through 2022. NMSU faculty told us that federal funding has supported their research on topics including nuclear waste treatment, additive manufacturing, and water conservation and management. Faculty also said this funding has been key to involving students in research and helping them advance their scientific careers.

Source: GAO analysis of research funding data and interviews with NMSU representatives; Kadmy/Adobestock.com (photo). | GAO-25-107576

Federal Research Funding to ANNHs, NASNTIs, and PBIs was Concentrated Among a Few Colleges and Universities, Fiscal Years 2018 Through 2022

Among ANNHs, NASNTIs, and PBIs, a few universities received most of the federal research funding provided to each group.

ANNHs. Together, the University of Hawaii at Manoa and the University of Alaska Fairbanks received 95 percent or more of the federal research funding provided to ANNHs during fiscal years 2018 through 2022. While these two universities are large (Manoa) and mid-sized (Fairbanks) four-year institutions, of the 21 institutions that were ANNHs in fiscal year 2022, close to half were small and a third were two-year colleges.

Biomedical Research at the University of Hawaii at Manoa

The University of Hawaii at Manoa has led an NIH-funded collaboration with other Hawaiian institutions to provide biomedical research opportunities for faculty and students since 2001. This effort has contributed to hundreds of journal publications on topics including cancer, rare diseases, and COVID-19, according to NIH's awards tracking system.

Source: GAO review of NIH information; Cavan/Adobestock.com (photo). | GAO-25-107576

ANNHs received most of their federal research funding from HHS and NSF. In particular, the University of Hawaii at Manoa received 47 percent of its federal research funding from HHS and 41 percent from NSF, fiscal years 2018 through 2022. Its research portfolio includes astronomy, oceanography, and health. The University of Alaska Fairbanks received close to half of its federal research funding from NSF, in addition to funding from other agencies, including NASA, HHS, DOD, and USDA during this time period. University representatives said their research portfolio focuses on the Arctic and Alaska and includes geophysics, marine science, oceanography, engineering, and agriculture.

Other ANNHs received smaller amounts of federal research funding. For example, the University of Alaska Southeast received funding from the Department of Commerce. The University of Alaska Southeast partnered with Commerce's National Oceanic and Atmospheric Administration, the state of Alaska, and the University of Alaska Fairbanks to research changes among Alaskan fish populations and inform the state's fisheries' harvest management.

At least two competitive research funding programs were specifically targeted to ANNHs. One of them was NSF's TCUP program (see above), the other was USDA's *ANNH Education Competitive Grants Program*, under which ANNHs could apply for awards to fund education and applied research on a range of agricultural topics.

NASNTIs. Most of the growth in federal research funding to NASNTIs from fiscal year 2018 through 2022 resulted from increased research funding to the University of North Carolina at Pembroke and Fort Lewis College in Colorado. While each of these are medium-sized four-year institutions, in fiscal year 2022, most of the 30 NASNTIs were small, and close to half were two-year colleges.

Shockwave Exposure Research at the University of North Carolina at Pembroke

Researchers at the University of North Carolina at Pembroke, in collaboration with Army and NIH researchers, studied the effects of shockwave exposure on the brain. This research, funded by the Army, found a link between shockwave exposure and the risk of developing Alzheimer's disease, even when the exposure did not lead to a traumatic brain injury.

Source: GAO review of DOD information. | GAO-25-107576

Funding to the top two NASNTI recipients of federal research funding came from various agencies. First, the University of North Carolina at Pembroke's funding more than tripled by fiscal year 2022, compared to 2018. Second, Fort Lewis College was not a NASNTI in fiscal year 2018 but held the designation from fiscal year 2019 through 2022. Federal research funding to Fort Lewis College was mostly provided by NSF. For example, NSF funded a partnership between Fort Lewis College and an HBCU to study nanomaterials in 2018, and the agency chose to renew the project in 2024.

Smaller NASNTIs, including community colleges, also received research funding. For example, Central Wyoming College, a community college, received an NSF award to train students in computer science skills.

PBIs. Most of the federal research funding provided to PBIs went to Georgia State University, a large, public university that is highly engaged in research. The number of PBIs decreased over time: there were 101 in fiscal year 2018, but 70 in fiscal year 2022. Most were two-year colleges. Between nine and 12 received federal research funding each year of our review.

Most of Georgia State University's federal research funding from fiscal year 2018 through 2022 came from HHS. This funding supported research on a range of topics, including infectious disease, cancer, and aging.

Most of the other PBIs that received federal research funding during the five-year period we reviewed were funded by NSF. For example, NSF funded projects at Chicago State University, a small public PBI, on particle physics, which resulted in several journal publications according to NSF data.

Twelve Agencies Reported 75 Competitive Research Funding Programs and Initiatives Targeted to HBCUs, TCUs, or MSIs in Fiscal Years 2022 Through 2024

HBCU, TCU, and MSI Research Funding Programs and Initiatives, Fiscal Years 2022 Through 2024

From fiscal year 2022 through 2024, 12 of the 14 federal research agencies in our review offered at least 75 competitive research funding programs and initiatives targeted to HBCUs, TCUs, or MSIs, or to partnerships with those institutions, according to information shared by agencies that we reviewed (see table 1). Two agencies—EPA and Interior—did not offer any such programs or initiatives during fiscal years 2022 through 2024, according to agency officials.

Table 1: Number of Federal Competitive Research Funding Programs and Initiatives Targeted to HBCUs, TCUs, or MSIs or to Partnerships with Them (Fiscal Years 2022–2024)

Agency	Targeted programs and initiatives
Department of Agriculture	9
Department of Commerce	1
Department of Defense	19
Department of Education	4
Department of Energy	10
Department of Health and Human Services	10
Department of Homeland Security	3
Department of the Interior	0
Department of Justice	1
Department of Transportation	3
Environmental Protection Agency	0
National Aeronautics and Space Administration	1
National Science Foundation	13
United States Agency for International Development	1
Total	**75**

Source: GAO analysis of agency-reported information on programs and initiatives targeted to Historically Black Colleges and Universities (HBCU), Tribal Colleges and Universities (TCU), and Minority-Serving Institutions (MSI) or to partnerships with those institutions. | GAO-25-107576

Note: We collected information on competitive research funding programs and initiatives targeted to HBCUs, TCUs, or MSIs, or to partnerships with those institutions from the 14 agencies that had extramural research expenditures of $100 million or more in fiscal year 2022.

Most of these programs and initiatives funded basic or applied research in STEM areas relevant to the agencies' missions. Additionally, over half of the 75 programs and initiatives also supported STEM workforce development through research training activities (e.g., fellowships or training for faculty or students). Some also funded the construction or maintenance of research facilities or the purchase of research equipment or materials. Awards made under these programs and initiatives ranged from tens of thousands of dollars over 2 or fewer years, to tens of millions of dollars over 5 or more years. In appendix IV, we provide one-page overviews of five examples of these programs and an inventory of all 75 programs and initiatives.

Status of HBCU, TCU, and MSI Research Funding Programs and Initiatives as of May 15, 2025

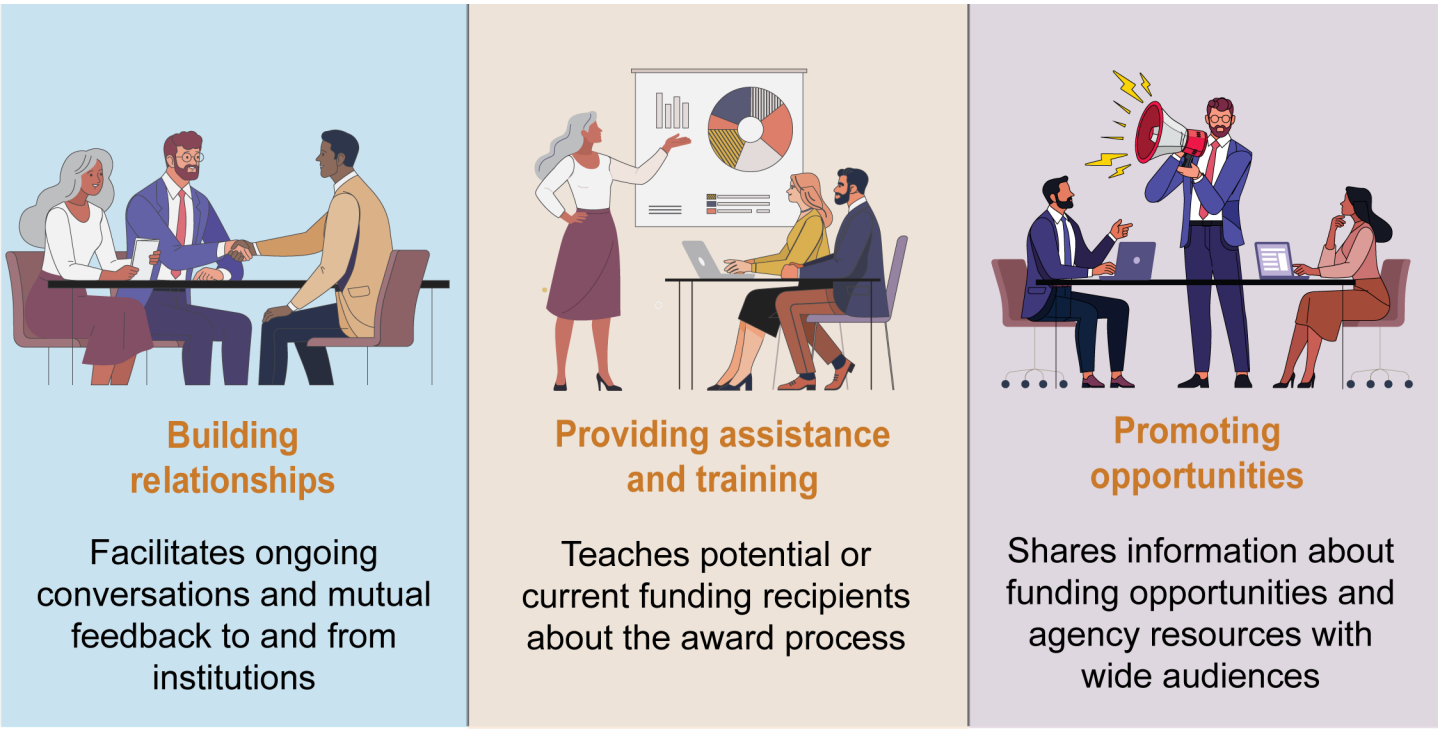
According to agency officials, some research funding activities targeted to HBCUs, TCUs, or MSIs were ongoing and would continue as planned. However, in other cases, plans to continue these activities had changed or had been paused for review. For example, DOD officials shared that the awards made under the Air Force Research Laboratory's *Basic Research National Science Portal Initiative* were ongoing, and they planned to make at least one new award in 2025. In contrast, according to DOE officials, the *Funding for Accelerated, Inclusive Research* program, which previously funded research partnerships between HBCUs, TCUs, and MSIs, and other research organizations, would not continue because it is not aligned with the current priorities of the administration.

Overall, for about half (37 of the 75) of the competitive research funding programs and initiatives targeted to HBCUs, TCUs, or MSIs, or to partnerships with those institutions, agency officials said awards were ongoing as of May 15, 2025. For 10 of the 75, they said at least one award made under the program or initiative had been terminated due to executive orders issued in 2025 or changes to agency priorities. In other cases, agency officials said that one or more awards were paused for review. For example, USDA officials said that some grants under the *Agriculture and Food Research Initiative: Foundational and Applied Science* program were paused for review related to compliance with current executive orders. Appendix IV includes more information on the statuses of programs and initiatives as of May 15, 2025, as reported by agency officials.

Selected Agencies Conducted Outreach Aimed at Helping HBCUs, TCUs, and MSIs Participate in Federal Research

The five selected federal research agencies—DOT, HHS, NASA, NSF, and USDA—all conducted outreach to HBCUs, TCUs, and MSIs that aimed to increase the institutions' participation and competitiveness in federally funded research. More specifically, agencies (1) built relationships, (2) provided assistance and training, and (3) promoted funding opportunities, all to increase HBCUs, TCUs, and MSIs' participation and competitiveness in competitive federally funded research (see fig. 6). Representatives from selected institutions said the outreach was beneficial for them, and that activities that built relationships between agencies and institutions were particularly helpful in supporting institutions' research efforts. As of May 15, 2025, officials from four of the five selected agencies said they had paused some outreach due to changes in administration or agency priorities.

Figure 6: Types of Federal Research Agency Outreach to HBCUs, TCUs, and MSIs to Increase Research Participation



Source: GAO analysis of agency interviews and documentation; nadzeya26/adobestock.com (illustration). | GAO-25-107576

Selected Agencies Built Relationships with HBCUs, TCUs, and MSIs to Help Connect Them to Research Funding

All five selected agencies conducted outreach activities to build long-term relationships with HBCUs, TCUs, and MSIs to facilitate communication about research opportunities. Agency officials built relationships with institutions in several ways. Five of the six institutions we selected for interviews said outreach that promoted strong agency-institution relationships was key to supporting selected institutions' research efforts.

Agency officials from all five selected agencies met with institution leaders or researchers to discuss or offer feedback about research opportunities. For example, USDA NIFA officials held monthly meetings with representatives from TCUs in which they discussed funding opportunities. NIFA officials said the meetings allowed TCU representatives to ask questions and discuss application challenges directly with program officials, while program officials were able to provide TCUs with support for applying. Additionally, NIH, part of HHS, coordinated a virtual meeting with tribal leaders to discuss community needs related to a program targeted to tribal entities including TCUs. In response to feedback from

tribal leaders that barriers to application were too high for first-time applicants, NIH introduced a planning grant to help potential applicants prepare for a full application.

Four of the five selected agencies used site visits to invite institution faculty or leadership in person to apply for funding. For example, NSF officials traveled to TCUs to invite them to participate in a TCU-specific research funding program. Representatives from four selected institutions highlighted site visits as an effective way for agencies to build relationships with them and connect to research funding. Representatives from one selected institution said site visits allow them to share their institution's research strengths with agencies, which can help alleviate the challenge of identifying relevant research opportunities to apply to. Specifically, these representatives said that when NSF officials visited, the officials learned that the institution is a leader in high-tech areas, including cloud computing and artificial intelligence, and then shared relevant research opportunities.

Officials at three agencies said their outreach included activities such as visiting or contacting institutions that either had not applied for funding before or had not successfully won many awards to help them compete for funding. Agency officials said they have improved their processes because of conversations with institutions that have not received funding before, because these conversations helped the officials understand why the institution has not applied for an award. For example, NIFA officials learned that the application time frame of certain grants did not align with some institutions' academic schedules, which made it difficult for those institutions to apply. As a result, NIFA officials moved the application time frame into the academic year so institutions could more easily apply.

As of May 15, 2025, four of the five selected agencies reported that some of their relationship-building outreach to HBCUs, TCUs, or MSIs was paused for multiple reasons. More specifically, NASA officials said they suspended the agency's tour to visit HBCUs and MSIs to share about funding opportunities. DOT and USDA officials said they paused agency site visits to HBCUs, TCUs, and MSIs. NSF officials said the agency reduced its non-local travel and site visits to all institutions, including HBCUs, TCUs, and MSIs, in part due to Executive Order 14222.[37]

Challenges to Participating in Federally Funded Research

Selected HBCUs, TCUs, and MSIs and their representatives said they face challenges applying for and receiving federal research funding, including:

- limited time or resources such as the lack of a grant writer to assist with the work of preparing applications and managing awards,
- high volume of agency emails, which makes it difficult for researchers to identify relevant opportunities to apply for,
- geographically remote campuses, which limit opportunities to interact in person with agency officials, and
- limited physical infrastructure, such as a lack of buildings or water lines, that may be required for research activities.

Source: GAO analysis of institution interviews. | GAO-25-107576

[37]Exec. Order 14222, Implementing the President's "Department of Government Efficiency" Cost Efficiency Initiative (Feb. 26, 2025).

Selected Agencies Provided Assistance and Training to Support HBCUs, TCUs, and MSIs

All five selected agencies conducted assistance and training activities for HBCUs, TCUs, and MSIs to support these institutions' research efforts and increase their success in receiving federal research funding. Agency officials said training activities resulted in more competitive applications.

All five selected agencies said they offered virtual training through webinars, online videos, or video calls. For example, NASA officials said they post YouTube videos to help researchers apply to and manage NASA grants. Representatives from two institutions we spoke with said the assistance and training they get through webinars or virtual workshops was helpful, with one institution representative noting that the question-and-answer sessions were particularly useful. For more individualized assistance, NSF offered virtual office hours, in which NSF program officials met with potential applicants to discuss funding solicitations and the application process. Representatives from one institution said they used NSF's virtual office hours to solicit feedback about an application that had been denied and found the feedback helpful for their next application.

Agencies also provided in-person training, sometimes focused on a specific type of award or institution. For example, an NIH team traveled to HBCUs and offered in-person training on how to apply for research contracts with NIH and the federal government more broadly. NIH officials said this event was intended to help institutions with less experience in applying for federal awards to successfully submit applications.

NIFA also offered experiential learning opportunities such as inviting faculty from HBCUs, TCUs, and MSIs to serve as peer reviewers of NIFA grants. These faculty would then review grant applications and meet with other subject matter experts to recommend which applications to fund. NIFA officials said participating in the peer review process helped faculty understand what successful grant applications look like and enhanced their application success rate. Selected institution representatives also noted the usefulness of the activity, stating that participating in the peer review process helped researchers prepare competitive grant applications in the future.

Officials from NIH, NSF, and NASA said that as of May 15, 2025, they planned to continue the assistance and training activities they previously reported. Agency officials from USDA and DOT told us that they were not offering virtual training through webinars, online videos, or video calls specifically for HBCUs, TCUs, and MSIs. USDA officials said they paused technical assistance webinars while their funding opportunities were

under review, and DOT officials said they did not have plans to offer trainings on one of their targeted programs as there is no anticipated award to be made until the program is reauthorized.

Selected Agencies Promoted Funding Opportunities to Large Audiences

All five selected agencies promoted research funding opportunities, which consisted of sharing information with large audiences of HBCUs, TCUs, or MSIs, at national conferences and through email announcements, for example. Agency officials said they held promotional activities to help spread information to institutions that their agencies had not contacted previously and help audiences learn about their agency's mission and research funding opportunities.

All five selected agencies attended or organized conferences to share information about research funding with HBCUs, TCUs, or MSIs. For example, DOT organized an HBCU summit for all seven HBCUs located in South Carolina, in which officials met with HBCU presidents and administrators to discuss grant programs. A DOT official said the event improved the agency's ability to connect institutions with agency opportunities. Also, to enhance NASA's presence at national conferences and events that engage HBCUs, TCUs, and MSIs, NASA officials partnered with STEM professional organizations to provide workshops, information sessions, and career fairs. According to NASA officials, this outreach provided opportunities for students and faculty to gain insights into the agency's work and network with NASA scientists and engineers. A representative from one selected institution said interactions with a program manager at an agency-sponsored conference helped the institution participate in research funding opportunities.

All five selected agencies sent newsletters or other email announcements about funding opportunities to audiences that could include HBCUs, TCUs, or MSIs. Representatives from two institutions that we spoke with said promotional agency emails and newsletters were a good source of information about research funding opportunities, but the emails could be overwhelming in number.

As of May 15, 2025, three out of the five agencies stated they were no longer conducting some of these outreach activities to promote funding opportunities to HBCUs, TCUs, and MSIs. Specifically, NASA officials said they were no longer conducting outreach at certain conferences as such activities conflicted with executive orders issued in 2025. DOT officials said the agency was no longer organizing HBCU-specific conferences due to the termination of related grants. USDA officials said the agency was not organizing or attending HBCU, TCU, or MSI

conferences as sponsorships and agreements were under review for alignment with executive orders issued in 2025. DOT also stopped issuing its HBCU-specific newsletter as related grants were under administrative review, according to agency officials.

Selected Agencies' Efforts to Track Outreach Activities

Selected agencies tracked a variety of information aimed at assessing the effectiveness of their outreach efforts, but in some cases that information was not fully tied to strategic and performance goals. We have previously reported that federal agencies should:

1. identify goals that cover the desired long-term outcomes (strategic goals),
2. identify the near-term results (performance goals) that they seek to achieve, and
3. collect specific pieces of information that track whether the performance goal is achieved (performance measures).[38]

Strategic goals are an outgrowth of the mission and explain what results are expected from the program's major functions. An example of a strategic goal that indicates a desired outcome for an outreach program would be increasing the participation of HBCUs, TCUs, and MSIs in competitive funding programs. Performance goals describe a target level of performance expressed as a tangible, measurable objective against which actual achievement is to be compared. An example of a performance goal would be aiming for five HBCUs, TCUs, or MSIs to submit first-time applications for competitive funding programs in the next fiscal year. Finally, performance measures are the specific pieces of information that track whether the performance goal is achieved. An example of a performance measure would be the number of first-time applicants for competitive funding programs.

Of the five selected agencies we included in this review, two agencies—NASA and NSF—collected and reviewed information on performance measures related to their outreach efforts that was linked to fully identified strategic and performance goals. The other three selected agencies at least partially identified strategic goals related to outreach or other activities to increase the participation of HBCUs, TCUs, and MSIs in federal research funding programs and initiatives, but those strategic goals were not aligned with objective, measurable, and quantifiable performance goals. DOT and NIFA (part of USDA) did not identify any

[38]GAO-23-105460.

performance goals, while NIH (part of HHS) defined performance goals related to HBCUs, but not for actions related to TCUs or MSIs. See table 2 below.

Table 2: Assessment of Strategic Goals, Performance Goals, and Performance Measures for Selected Federal Research Agencies

Information represents agencies' strategic plans as of December 2024.

Key practice	National Aeronautics and Space Administration	National Science Foundation	Department of Transportation	National Institutes of Health, Department of Health and Human Services	National Institute of Food and Agriculture, Department of Agriculture
Has results oriented strategic goals?	Yes	Yes	Yes	Partial	Yes
Has objective, measurable, and quantifiable performance goals?	Yes	Yes	No	Partial	No
Has performance measures linked to the performance goals?	Yes	Yes	No	Partial	No

Legend:
Yes = Fully met key practice
No = Did not fully meet key practice
Partial = Met some aspects of key practice
Source: GAO analysis of agency information. | GAO-25-107576

Officials at the five selected agencies told us that, as of May 15, 2025, the strategic plans containing the goals and performance measures described above were either being revised or were no longer in effect. The officials were unable to say whether some of the outreach efforts that agencies previously conducted would continue in the future.

The following provides details on strategic goals, performance goals, and performance measures related to outreach to HBCUs, TCUs, and MSIs at the five agencies.

NASA. NASA's 2023 equity action plan identified a strategic goal to advance opportunities and representation for underserved communities—including HBCUs, TCUs, and MSIs—in grants and cooperative agreements. Additionally, as part of a White House initiative, NASA submitted plans in fiscal year 2024 that included another strategic goal of

increasing the capacity of HBCUs to compete for and receive NASA funding and other financial resources. NASA identified multiple performance goals aligned with those strategic goals, such as targeting a 2 percent increase in the number of selected proposals submitted by institutions from underserved communities. Agency officials told us they collected and reviewed information such as the number of applications received and awards made to track their outreach progress to HBCUs, TCUs, and MSIs. This would allow NASA to assess program performance and progress toward its performance goals. However, NASA officials stated that as of May 15, 2025, the equity action plan was no longer in effect.

NSF. NSF's 2022–2026 strategic plan included a strategic goal focused in part on enhancing the capacity of underserved institutions—which include HBCUs, TCUs, and MSIs—to conduct research. The 2022–2026 strategic plan also included a measurable performance goal that is aligned with its strategic objective to increase the involvement of communities underrepresented in STEM and contained quantitative targets against which progress could be measured. NSF officials said they tracked information such as the number of applications received from HBCUs, TCUs, and MSIs, including from first time applicants. Reviewing these performance measures can help NSF assess progress toward its performance goal. According to NSF officials, NSF completed reporting on the 2022–2026 strategic plan with its fiscal year 2024 annual performance report, published January 10, 2025. Officials stated that as of May 15, 2025, NSF was working to develop its fiscal year 2026–2030 strategic plan.

DOT. DOT's 2024–2026 HBCU and MSI Engagement and Capacity Building Strategic Plan included a strategic goal to strengthen the coordination of HBCU, TCU, and MSI outreach through focused messaging and departmental events. However, DOT has not identified a related performance goal. DOT officials told us that they track HBCU, TCU, and MSI participation and competitiveness in research funding programs through metrics such as the number of applications received and awards made. However, officials said that they did not have specific performance goals expressed as measurable targets.

One DOT official said that they do not have performance goals that are tied to a specific performance level because the goal is to increase from baseline measurements. They believe that any improvement in performance metrics will show whether their efforts to increase engagement with HBCUs, TCUs, and MSIs are working. However,

without measurable targets that are linked to its strategic goal, DOT cannot be assured that any improvements seen in the performance metrics are at a pace and scope to achieve the strategic goals within the planned time frame. According to DOT officials, as of May 15, 2025, the 2024–2026 HBCU and MSI Engagement Capacity Building Strategic Plan that called for strengthening coordination with HBCUs, TCUs, and MSIs was no longer in effect.

NIH. NIH's Path to Excellence and Innovation (PEI) for Historically Black Colleges and Universities strategic plan identified a goal to increase HBCUs' research capacity and empower them to secure NIH contracts. NIH identified a related performance goal for awarding contracts to HBCUs, but the performance goal did not include activities related to TCUs and MSIs.

NIH officials told us that they track the number of contracts awarded to HBCUs and MSIs; however, they did not establish a quantifiable performance goal for TCUs and MSIs against which NIH can assess its progress for those universities. Including a performance goal for TCUs and MSIs would help NIH measure its outreach progress toward these universities. Agency officials told us that NIH previously had plans to expand the work done under the PEI strategic plan to TCUs and MSIs. NIH officials said as of May 15, 2025, the 2021 PEI strategic plan, including its strategic and performance goals, was being revised based on Executive Order 14283 and funding projections in fiscal year 2025.[39]

NIFA. USDA's National Institute of Food and Agriculture (NIFA) 2022–2026 strategic plan included a goal to enhance research and investment in communities to advance opportunities for underserved communities. This goal aligns with USDA's commitment to enhancing the competitiveness and participation of HBCUs, TCUs, and MSIs to obtain competitive federal research funding. However, NIFA has not identified a related performance goal. NIFA officials said they measure progress related to their strategic goals by tracking the number of applications received, the number and monetary amount of awards made, the number of institutions that were first-time applicants and awardees, the number of outreach events held, and the number of participants in technical assistance.

[39]Exec. Order 14283, White House Initiative to Promote Excellence and Innovation at Historically Black Colleges and Universities (Apr. 23, 2025).

NIFA officials told us that it may be difficult to establish quantitative performance metrics to assess the effectiveness of outreach efforts because there are multiple factors that can impact the number of grant proposals received and grants awarded. Officials said that for some of their programs, such as those for TCUs, the very small size of the applicant pools for those programs makes setting quantitative targets challenging. In those cases, the officials believe that qualitative measures, such as the quality or depth of an application, are a better way to determine whether outreach was effective at helping an institution understand the program or initiative's requirements. We acknowledge the usefulness of qualitative measures; however, having measurable performance targets could help NIFA assess whether its efforts are helping it make progress toward its strategic goal of advancing opportunities for underserved communities. USDA officials told us that as of May 15, 2025, NIFA's 2022–2026 strategic plan was no longer in effect, and officials said they had not received guidance on an updated strategic plan.

Agency Comments

We provided a draft of this report to Commerce, DHS, DOD, DOE, DOJ, DOT, Education, EPA, HHS, Interior, NASA, NSF, USDA, and USAID. Five agencies (DHS, HHS, NASA, NSF, and USDA) provided technical comments, which we incorporated as appropriate. Nine agencies (Commerce, DOD, DOE, DOJ, DOT, Education, EPA, Interior, and USAID) did not have comments on the report.

We are sending copies of this report to the appropriate congressional committees and other interested parties. In addition, the report is available at no charge on the GAO website at https://www.gao.gov.

If you or your staff have any questions about this report, please contact me at WrightC@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix V.

//SIGNED//

Candice N. Wright
Director, Science, Technology Assessment, and Analytics

List of Committees

The Honorable John Boozman
Chairman
The Honorable Amy Klobuchar
Ranking Member
Committee on Agriculture, Nutrition, and Forestry
United States Senate

The Honorable Ted Cruz
Chairman
The Honorable Maria Cantwell
Ranking Member
Committee on Commerce, Science, and Transportation
United States Senate

The Honorable Bill Cassidy, M.D.
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The Honorable Bernard Sanders
Ranking Member
Committee on Health, Education, Labor, and Pensions
United States Senate

The Honorable Glenn “GT” Thompson
Chairman
The Honorable Angie Craig
Ranking Member
Committee on Agriculture
House of Representatives

The Honorable Tim Walberg
Chairman
The Honorable Robert C. “Bobby” Scott
Ranking Member
Committee on Education and Workforce
House of Representatives

The Honorable Brian Babin
Chairman
The Honorable Zoe Lofgren
Ranking Member
Committee on Science, Space, and Technology
House of Representatives

Appendix I: Objectives, Scope, and Methodology

This report examines (1) the participation of Historically Black Colleges and Universities (HBCU), Tribal Colleges and Universities (TCU), and Minority-Serving Institutions (MSI) in federally funded research in fiscal years 2018 through 2022; (2) competitive federal research funding programs and initiatives that were targeted to HBCUs, TCUs, or MSIs or to partnerships with those institutions in fiscal years 2022 through 2024; (3) outreach and other activities selected federal research agencies conducted to increase the participation and competitiveness of HBCUs, TCUs, and MSIs in federal research funding programs and initiatives and selected institutions' views on the outreach; and (4) the extent to which selected federal research agencies assessed the effectiveness of their outreach and other activities to HBCUs, TCUs, and MSIs.

To address these objectives, we used a variety of methods that we describe in more detail below:

- conducted descriptive and regression analyses of Department of Education and National Science Foundation (NSF) data;
- administered a survey to 14 federal research agencies;
- interviewed a non-generalizable sample of five federal research agencies;
- interviewed a non-generalizable sample of six institutions that included HBCUs, TCUs, and MSIs;
- conducted site visits to one HBCU and one TCU;
- reviewed agency documentation, such as strategic plans or equity action plans from the selected federal agencies; and
- compared selected federal agencies' strategic planning efforts to key practices we previously identified.

Descriptive and Regression Analyses of Federal Research Funding to Institutions of Higher Education

For objective 1, we created a database containing publicly available data on federal research funding to institutions of higher education, including selected characteristics of those institutions. We then conducted a series of descriptive and regression analyses using the database.

Database Development

We used four sources of data to create our database.

- **Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions.** To identify federal research funding to institutions of higher education, we used data reported by federal agencies through NSF's National Center for Science and Engineering Statistics (NCSES) Annual Survey of Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions (FSS). We reviewed data for fiscal years 2018 through 2022, the most recent 5 years for which data were available during our evidence collection and analysis. The survey collects annual data from agencies, except for the Central Intelligence Agency, on the funds they obligated to higher education institutions, nonprofit institutions, or consortia for science and engineering research and development (R&D) or the construction or maintenance of R&D facilities.

  We downloaded the FSS data using NCSES's Table Builder for the Survey of Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions.[1] We downloaded one table for each year, fiscal years 2018 through 2022. The downloaded tables identified federal obligations to spend funds on R&D by federal agencies to the receiving institutions. The institutions were identified by name and by a unique identification number assigned to colleges and universities that participate in Education's Integrated Postsecondary Education Data System (IPEDS) surveys.
- **Eligibility Designations for Higher Education Programs.** To identify which of the colleges and universities that received federal R&D obligations were eligible HBCUs, TCUs, or MSIs in fiscal years 2018 through 2022, we used Education's Eligibility Designations for Higher Education Programs.[2] Each fiscal year, from 2018 through 2022, Education's Office of Postsecondary Education (OPE) published an eligibility matrix that identified the colleges and universities that met the eligibility criteria for one or more MSI categories for certain programs authorized by the Higher Education Act of 1965, as amended, or held a grant under one of these

[1]National Science Foundation, "Table Builder for the Survey of Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions," accessed June 14, June 17, and July 9, 2024, https://ncsesdata.nsf.gov/builder/fss.

[2]Department of Education, "Eligibility Designations for Higher Education Programs," accessed June 14, 2024, https://www.ed.gov/grants-and-programs/grants-higher-education/eligibility-designations-higher-education-programs.

programs.[3] The eligibility matrices also identified the colleges and universities that met statutory HBCU and TCU definitions and were eligible to apply for grants designated for HBCU or TCU programs.

The eligibility matrices for fiscal years 2018, 2019, 2020, and 2021 assigned a numerical value to indicate each institution's eligibility to apply for HBCU, TCU, or MSI programs. For the purposes of our analysis, if a college or university had a value of "5" (indicating that an institution was eligible for a given program type) or "6" (indicating that an institution was a grantee for a given program type) for HBCU, TCU, or MSI programs in a given fiscal year, we considered it to be an HBCU, TCU, or MSI for that fiscal year. The fiscal year 2022 matrix provided lists of the colleges and universities that either met the eligibility criteria for one or more type of MSI, were current grantees of the MSI programs, or met the statutory definition for HBCU or TCU. We considered an institution to be an HBCU, TCU, or MSI in fiscal year 2022 if it appeared on the fiscal year 2022 lists.

In some cases, colleges and universities had multiple HBCU, TCU, or MSI designations. To reduce overlap between groups in our analyses, we applied the following two categorization rules for colleges and universities that had multiple designations:

- We prioritized belonging to a mission-based group (HBCUs and TCUs), as membership in these groups is stable over time. HBCUs and TCUs were only counted as HBCUs and TCUs, even if they had an MSI designation. For example, if a college was both an HBCU and an HSI, we considered it to be an HBCU only.
- We categorized some colleges and universities according to geography. To reduce overlap between the Alaska Native and Native Hawaiian-Serving Institution (ANNH), Native American-Serving Nontribal Institution (NASNTI), and Asian American and Native American Pacific Islander Serving-Institution (AANAPISI) groups, we counted ANNHs that had another MSI designation as ANNHs only, if located in Alaska or Hawaii. For example, AANAPISI/ANNHs located in Hawaii were only counted as ANNHs. ANNH/NASNTIs located outside of Alaska were only counted as NASNTIs.

- **Integrated Postsecondary Education Data.** To identify characteristics like region, student population, and degrees offered for

[3]Statutory definitions providing the criteria used for each category of MSI in the eligibility matrices are the same statutory definitions found in Section 10526 of the Research and Development, Competition, and Innovation Act.

colleges and universities that received R&D obligations for our analyses, we downloaded Education's IPEDS data for academic years 2018 through 2022. IPEDS, managed by Education's National Center for Education Statistics, collects, maintains, and publishes data that describe colleges and universities each year. It includes 12 interrelated annual surveys that gather data from colleges and universities. We downloaded the institutional characteristics and 12-month enrollment IPEDS data to describe the traits of HBCUs, TCUs, MSIs, and other colleges and universities, using the IPEDS "Custom Data Files" option.[4]

- **Research Activity Designations.** To analyze HBCUs, TCUs, and MSIs by their 2025 Research Activity Designations, we downloaded the Research Activity Designations from the American Council on Education's website.[5] The Research Activity Designations (also referred to as the "Carnegie Classifications") are an approach to categorizing colleges and universities based on their research spending and number of doctorates produced.[6] They were developed by the Carnegie Foundation and the American Council on Education. The Research Activity Designations were updated in 2025 to reflect fiscal year 2021 through 2023 R&D spending, as reported by NCSES and academic year 2021 through 2023 doctorate production, as reported by IPEDS.

We linked variables from these sources that described the same colleges and universities using the unique identification number assigned to institutions that participate in the IPEDS surveys. All four data sources included this identification number. We included public and private-not-for-profit colleges and universities in our dataset and excluded for-profit colleges and universities (identified using the IPEDS "institutional category" variable). In some cases, the IPEDS unique identification number was missing from the FSS data for institutions within university systems. If the other institutions in the university system were HBCUs, TCUs, or MSIs, we counted the institution for which the IPEDS

[4]Department of Education, "IPEDS Custom Data Files," accessed August 19, 2024, https://nces.ed.gov/ipeds/datacenter/InstitutionByName.aspx?goToReportId=5&sid=64e3b0b8-61ec-48a7-aa22-33a2b22c8079&rtid=5.

[5]American Council on Education, "Institution Search," accessed February 13, 2025, https://carnegieclassifications.acenet.edu/institutions/.

[6]American Council on Education, "Carnegie Classifications Release 2025 Research Activity Designations, Debut Updated Methodology," https://carnegieclassifications.acenet.edu/news/carnegie-classifications-release-2025-research-activity-designations-debut-updated-methodology/.

identification number was missing as an HBCU, TCU, or MSI. However, the IPEDS identification number was missing for four institutions within university systems that included schools both with HBCU, TCU, or MSI designations, and schools without those designations. We accounted for funds obligated to these colleges and universities as funds obligated to institutions that were not HBCUs, TCUs, or MSIs, to avoid over-estimating total federal research funding obligated to HBCUs, TCUs, or MSIs.

Analysis

We analyzed our database to identify and describe the amount of federal research funding obligated to HBCUs, TCUs, MSIs, and other colleges and universities over time, during fiscal years 2018 through 2022.[7] We also described the characteristics of HBCUs, TCUs, and MSIs, including their size, location, and types of degrees offered. These descriptive analyses are included in the first objective of the report, with additional tables and figures provided in appendixes II and III.

Additionally, we used the database to conduct regression analyses to estimate the extent to which HBCUs, TCUs, and MSIs that received federal research funding received a higher or lower level of funding, compared to colleges and universities that received federal research funding but did not have an HBCU, TCU, or MSI designation. The regression models controlled for the following characteristics that may affect research funding: geographic region, undergraduate population, whether public or private, and highest degree offered. Appendix II describes our regression analyses and results in further detail.

Data Reliability

To assess the reliability of the FSS data, we reviewed publicly available information on the survey's methodology, the survey used by NSF, and a previous GAO report that described how NCSES ensures its data meet

[7]Funding for research and development provided to colleges and universities is the "Federal Obligations to Spend Funds on Research and Development" variable, provided by NSF, which is defined as "actual obligations made by the federal agency to academic and nonprofit institutions and consortia during the designated fiscal year for science and engineering R&D or for the construction or maintenance of R&D facilities, regardless of when funds were authorized for, received by, or spent by a recipient. Excluded are loans, agency support of federal employee training and development, and indirect support of funds allocated to state agencies even though such funds are destined for use by an academic institution." See https://ncsesdata.nsf.gov/explorer/variables?survey=FSS&page=1.

quality standards.[8] We also conducted reliability checks on the downloaded data, such as testing for missing data and looking for duplicate records. We found the data to be sufficiently reliable for the purposes of describing trends in federal research funding obligated to colleges and universities and for testing for the effects of colleges' and universities' traits on the levels of research funding they received.

To assess the reliability of data from Education's eligibility matrices, we reviewed publicly available information on how OPE determines eligibility designations.[9] We also conducted reliability checks similar to those described above for the FSS data. We reviewed the fiscal year 2018 through 2022 lists of HBCUs and TCUs for unexpected changes over time (because HBCU and TCU designations are historic and are not expected to change over time, whereas MSI designations may change from year to year as demographics change).

We found that one HBCU (Howard University) was not designated as an eligible HBCU prior to fiscal year 2022. An OPE official said Howard University is an HBCU, but since it receives a specific allocation from Congress, it was not designated as eligible for general HBCU programs. However, in fiscal year 2022, OPE simplified the eligibility matrix, which resulted in Howard's inclusion. In our data analysis, we assigned Howard University HBCU status for all 5 years examined. In addition, the HBCU list for 2022 included some institutions that are Historically Black Graduate Institutions (HBGI). To determine whether HBGIs should be counted as HBCUs in our analysis, we reviewed the IPEDS lists of HBCUs. The IPEDS lists of HBCUs for the first and last years of our analysis—2018 and 2022—both include two of the three HBGIs (Meharry Medical College and Morehouse School of Medicine). They do not include the third HBGI, Charles R. Drew University of Medicine and Science. For this reason, we only identified Meharry Medical College and Morehouse School of Medicine as HBCUs for all 5 fiscal years we examined. With these corrections, we found the data sufficiently reliable for the purpose of

[8]National Science Foundation, "Survey of Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions," accessed Nov. 13, 2024. See https://ncses.nsf.gov/surveys/federal-support-survey/2022#methodology; National Science Foundation, "NSF Survey of Federal Funds for Research and Development," downloaded from https://ncses.nsf.gov/surveys/federal-support-survey/2022#questionnaires on Sept. 16, 2024; GAO, *Science and Engineering Statistics: Improved Communication Needed with Stakeholders on Data Needs*, GAO-23-106361 (Washington, D.C.: Sept. 27, 2013).

[9]Eligibility Designations and Applications for Waiving Eligibility Requirements; Programs Under Parts A and F of Title II and Programs Under Title V of the Higher Education Act of 1965, as Amended (HEA), 89 Fed. Reg. 3916 (Jan. 22, 2024).

identifying the institutions that were eligible HBCUs, TCUs, or MSIs, fiscal years 2018 through 2022.

To assess the reliability of IPEDS data, we reviewed publicly available information on the IPEDS survey methodology and the definitions of the variables we used in our analyses. We also conducted reliability checks similar to those described above for the FSS data. We determined that the IPEDS data were sufficiently reliable for the purpose of categorizing institutions by characteristics such as student population and highest degree offered.

To assess the reliability of the Research Activity Designations, we reviewed publicly available information on the American Council on Education's methodology for assigning the designations. We found the designations to be sufficiently reliable for describing institutions' level of research engagement.

Survey of Federal Research Agencies

For objectives 2 and 3, we administered a survey to the 14 federal research agencies, as described in statute.[10] These agencies were:

1. Department of Agriculture (USDA)
2. Department of Commerce
3. Department of Defense (DOD)
4. Department of Education
5. Department of Energy (DOE)
6. Environmental Protection Agency
7. Department of Health and Human Services
8. Department of Homeland Security
9. Department of the Interior
10. U.S. Agency for International Development
11. Department of Justice (DOJ)

[10]Section 10002 of the Research and Development, Competition, and Innovation Act defines "federal research agency" as "any Federal agency with an annual extramural research expenditure of over $100,000,000 in fiscal year 2022 constant dollars." Pub. L. No. 117-167, div. B, §10002,136 Stat. 1366,1406 §10002 (2022). We used data collected under NSF's NCSES Survey of Federal Funds for Research and Development for fiscal year 2022 to identify the federal agencies that met this criterion.

12. National Aeronautics and Space Administration (NASA)
13. National Science Foundation (NSF)
14. Department of Transportation (DOT)

The survey asked all 14 agencies to provide information on the competitive research funding programs and initiatives targeted to HBCUs, TCUs, or MSIs, or to partnerships with those institutions, under which they obligated funds to at least one awardee in fiscal year 2022, 2023, or 2024. The survey also asked five selected agencies (NSF, NASA, USDA, HHS, and DOT) to provide additional information about outreach and other activities they conducted to increase the extent to which HBCUs, TCUs, or MSIs participated in and competed for awards under these programs and initiatives.

We developed a definition of "competitive research funding programs and initiatives targeted to HBCUs, TCUs, or MSIs or to partnerships with those institutions" based on interviews with federal research agency officials on how they define such activities, as well as NSF definitions of research and development. We revised the definition according to feedback from NSF officials. Our survey used the following definitions and instructions:

- Competitive research funding programs and initiatives: Research funding opportunities to which Institutions of Higher Education (IHEs) or their faculty, students, or other research staff are eligible to apply and be selected through a competitive merit-based review or evaluation process. Funding may be awarded through grants, contracts, cooperative agreements, or fellowships.
    - We define "research funding opportunities" broadly to include funding opportunities that support the performance of research and funding opportunities that support the capacity of IHEs or their faculty, students, or other research staff to perform research.
    - When answering this survey, please include research funding opportunities that support one or more of the following:
        - The performance of research and development, including basic research, applied research, and experimental development.
        - The construction and maintenance of facilities that are used or will be used for research and development, or the purchase of research equipment or materials.

    - Research fellowships, traineeships, internships, and other training grants for students, faculty, or other research staff to perform research or participate in research training. This includes scholarships that are dependent on the recipient student participating in research or research training.
    - Any other activities that enhance the capacity of IHEs or their faculty, students, or other research staff to participate in research or compete for research funding.
  - Do not include funding opportunities that support only the following activities and do not support any of the activities listed above:
    - Funding for K-12 education.
    - STEM scholarships that are not tied to the recipient's participation in research or research-related activities.
    - Fellowships, traineeships, internships, or other training opportunities that do not involve research.
- Competitive research funding programs and initiatives targeted to HBCUs, TCUs, or MSIs or to partnerships with those institutions: Competitive research funding programs and initiatives, defined as above, for which one or more of the following applies:
  - Only HBCUs, TCUs, or MSIs or their faculty, students, or other research staff are eligible to be selected for an award;
  - Applications or proposals are only considered if they indicate that if selected, the primary awardee will partner with one or more HBCUs, TCUs, or MSIs or faculty, students, or other research staff affiliated with those institutions. A primary awardee is considered to partner with an HBCU, TCU, or MSI if faculty, students, or other research staff affiliated with the HBCU, TCU or MSI will participate in research or research capacity building activities carried out under the award; or
  - The program or initiative otherwise specifically aims to include HBCUs, TCUs, or MSIs or their faculty, students, or other research staff. For example, applications or proposals from HBCUs, TCUs, or MSIs may be given additional consideration because the selection of these institutions would help meet program goals related to expanding research to underserved populations.

To identify the agency offices and officials that would need to respond to the survey, we provided the definitions listed above, along with the

definitions of HBCUs, TCUs, and MSIs, to each federal research agency audit liaison. We asked the agency audit liaisons to (1) distribute the definitions to all agency components that fund extramural research and ask them to respond whether they operated any programs or initiatives that aligned with those definitions from fiscal year 2022 through 2024 and (2) share with GAO the list of offices and officials that affirmed they operated one or more programs or initiatives that met the definitions. Using this method, we developed survey distribution lists for most agencies. For some agencies, GAO distributed the survey directly to offices and officials, for others, the agency liaison distributed the survey and collected responses for transmittal to GAO.

We designed the survey to collect information including the names of targeted programs and initiatives, the types of activities they funded, awards made, and, for selected agencies, information on the outreach and other activities conducted related to those programs and initiatives. Additionally, we pretested the survey with federal research agency officials from two agencies, who represented three programs and initiatives, to standardize survey language and reduce variability in responses. The agencies we pretested with represented different levels of involvement with research (one agency with a large extramural research budget, and one with a smaller extramural research budget) and various ways agency programs and initiatives targeted HBCUs, TCUs, or MSIs. We made changes as appropriate to the survey using feedback prior to implementation.

We launched the survey to the 14 federal research agencies on January 6, 2025 by email to the identified respondents directly or to the agency liaison. Agency officials received the survey instrument (an Excel workbook), and supplementary information (PDF documents describing the scope of the survey and instructions for completing and submitting the survey). We asked respondents to submit (1) a completed copy of the survey instrument for each competitive research funding program or initiative targeted to HBCUs, TCUs, or MSIs, or to partnerships with those institutions, under which their office obligated funds to at least one awardee, fiscal year 2022 through 2024, and (2) a copy of the most recent solicitation, notice of funding opportunity (NOFO), request for applications, or equivalent document for each program or initiative.

We obtained responses from 13 of the 14 federal research agencies. Of these, 11 made at least one award under a competitive research funding program targeted to HBCUs, TCUs, or MSIs, or to partnerships with those institutions, fiscal years 2022 through 2024, and two did not. One agency,

DOJ, did not respond to the survey but shared information during an interview on a competitive research funding program targeted to HBCUs, TCUs, or MSIs. We collected survey responses through April 21, 2025 and followed-up with agencies in May 2025 to collect information on program and initiatives' statuses as of May 15, 2025. The programs and initiatives described in appendix IV include all the programs and initiatives for which we received information, and determined that it met the team's definition of a "competitive research funding program or initiative targeted to HBCUs, TCUs, or MSIs, or to partnerships with those institutions."

We developed one-pagers that provide extended information on one program each for the five agencies that provided the most federal research funding to HBCUs, TCUs, and MSIs in fiscal year 2022 (see app. IV). These agencies are DOD, DOE, HHS, NSF, and USDA. We chose these programs and initiatives because they illustrated different strategies for targeting HBCUs, TCUs, and MSIs and building their research capacities. For the programs and initiatives for which we provided extended information, including awards data, we reviewed agencies' responses to survey questions on how they assess the reliability of awards data. We determined that agency procedures to maintain and assess the reliability of these data were sufficient. In one case, we followed-up with the agency to obtain additional information on data reliability. In reporting awards data, we summed funding across awards and subawards, by HBCU, TCU, or MSI group. The funding totals we report are not exact because they were rounded to the nearest thousand dollars and may be overestimated due to subawards–funding awarded and subsequently sub-awarded within the same HBCU, TCU, or MSI group may be accounted for twice. However, the potential effect of this overestimation on the totals we report is expected to be low.

Interviews with Selected Federal Research Agencies

For objectives 3 and 4, we interviewed a non-generalizable sample of five federal research agencies. The agencies were DOT, HHS, NASA, NSF, and USDA. For HHS and USDA we focused on individual components within those agencies–the National Institutes of Health (NIH) and the National Institute of Food and Agriculture (NIFA) respectively. Agencies, and individual components within those agencies, were selected based on a variety of factors including total amount of research funding awarded to HBCUs, TCUs, and MSIs, research focus, known outreach efforts to different institution types, and variety of funding mechanisms (e.g., contracts and grants). Officials from the agencies included program managers, department leadership, and equal opportunity employment specialists, among others, who were knowledgeable about agencies' outreach strategies and any agency-wide strategic and performance

goals related to HBCUs, TCUs, and MSIs. All five selected agencies received a standardized set of questions about outreach and other activities for their research funding opportunities targeted to HBCUs, TCUs, or MSIs or to partnerships with those institutions. We also collected information from selected agencies about how they assess the effectiveness of their outreach and other activities to HBCUs, TCUs, and MSIs. We followed-up with the selected agencies in May 2025 to collect information on the statuses of their outreach efforts and related strategies and goals as of May 15, 2025. The information collected from the five selected agencies is not generalizable to all agencies that obligate research funding to HBCUs, TCUs, and MSIs.

Interviews and Site Visits with Selected Institutions of Higher Education

For objective 3 we also interviewed a non-generalizable sample of institutions that included HBCUs, TCUs, and MSIs. Institutions were selected based on a number of factors including variety in federal research funding received in fiscal year 2022 (the most recent year for which data were available), student population size, geographic region, degree granting status (e.g., two- and four-year degrees), institution type, and top funding agency. Our selected institutions are Georgia State University, Little Priest Tribal College, Morgan State University, Navajo Technical University, New Mexico State University, and the University of Alaska Fairbanks. We conducted site visits to Morgan State University and Navajo Technical University to collect information from them. We selected Morgan State University and Navajo Technical University for site visits based on geographic location and the variety of agencies that awarded them funding. The information collected from the six selected institutions is not generalizable to all HBCUs, TCUs, and MSIs.

Review of Agency Documentation and Comparison with Key Practices

For objective 4 we also:

- Reviewed agency documentation, such as strategic plans or equity action plans, to identify strategic and performance goals related to outreach and other activities to increase the participation and competitiveness of HBCUs, TCUs, and MSIs in selected agencies' research funding.
- Selected key practices in evidence-based policymaking to compare them against agency efforts to assess the effectiveness of their outreach and other activities to HBCUs, TCUs, and MSIs. We identified key practices from our analysis of the GAO report *Evidence-based Policymaking: Practices to Help Manage and Assess the*

Results of Federal Efforts (GAO-23-105460).[11] We selected key practices based on the relevance of those practices to the strategic and performance goals we identified from agency documents.

- Compared selected agencies' strategic and performance goals to key practices identified in our prior report.

We conducted this performance audit from May 2024 to September 2025 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

[11]GAO, *Evidence-Based Policymaking: Practices to Help Manage and Assess the Results of Federal Efforts,* GAO-23-105460 (Washington, D.C.: July 12, 2023).

Appendix II: Regression Analyses of Federal Research Funding to Colleges and Universities

We used regression analyses to estimate the association between colleges and universities' designation as Historically Black Colleges and Universities (HBCU), Tribal Colleges and Universities (TCU), or Minority-Serving Institutions (MSI) and federal research funding. The results from these analyses do not establish a causal relationship between federal research funding level and HBCU, TCU, or MSI designation, but they provide insight into potential differences by group. Our analyses were limited to colleges and universities that received at least some federal research funding in fiscal years 2018 through 2022. The main dependent variable in our regression analyses was federal research and development (R&D) obligations to institutions of higher education.[1] The main independent variable was HBCU, TCU, or MSI designation, or no designation, as specified by the Department of Education's eligibility matrices.[2] We also accounted for other traits of colleges and universities using data from the Department of Education's Integrated Postsecondary

[1]National Science Foundation, "Table Builder for the Survey of Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions," accessed June 14, June 17, and July 9, 2024, https://ncsesdata.nsf.gov/builder/fss. The "Federal Obligations to Spend Funds on Research and Development" variable is defined as "actual obligations made by the federal agency to academic and nonprofit institutions and consortia during the designated fiscal year for science and engineering R&D or for the construction or maintenance of R&D facilities, regardless of when funds were authorized for, received by, or spent by a recipient. Excluded are loans, agency support of federal employee training and development, and indirect support of funds allocated to state agencies even though such funds are destined for use by an academic institution."

[2]Department of Education, "Eligibility Designations for Higher Education Programs," accessed June 14, 2024, https://www.ed.gov/grants-and-programs/grants-higher-education/eligibility-designations-higher-education-programs. We used data from the Department of Education's Integrated Postsecondary Education Data System for academic years 2018 through 2022 to identify how many institutions of higher education were public and private not-for-profit colleges and universities. We matched it to Education's HBCU, TCU, and MSI eligibility matrices for fiscal years 2018 – 2022 to determine how many of these were HBCUs, TCUs, and MSIs. The eligibility matrices include lists of institutions that met the criteria for each MSI category for certain programs offered under the Higher Education Act of 1965, as amended, or held a current grant under one of these programs during a given fiscal year. The eligibility matrices also include statutory lists of HBCUs and TCUs. In this report, when we refer to HBCUs, TCUs, or institutions that held one or more of the MSI designations, we are referring to inclusion in the eligibility matrices. During the most recent year of our analysis, fiscal year 2022, the eligibility matrix identified 100 institutions as HBCUs or Historically Black Graduate Institutions (HBGI). We included two of the three HBGIs (Meharry Medical College and the Morehouse School of Medicine) in our analysis of HBCUs and excluded one, Charles R. Drew University of Medicine and Science. See appendix I for more details.

Education Data System (IPEDS).[3] Our results suggest some of these traits are associated with either increased or decreased federal research funding (see table 3). By controlling for these variables, we were able to assess whether HBCU, TCU, or MSI status had a statistical association with level of federal research funding.

Table 3: College and University Traits Associated with Federal Research Funding (Fiscal Years 2018 Through 2022)

Association with federal research funding	College and university traits
Increased	• Large undergraduate population • Public • Highest degree offered is at the graduate level
Decreased	• Small or medium undergraduate population • Private • Highest degree offered is below the bachelor's level (i.e., a two-year degree)

Source: GAO analysis of National Science Foundation and Department of Education data. | GAO-25-107576

We performed two sets of regression analyses:

- **Global model.** We estimated the association between federal research funding obligated to colleges and universities and HBCU, TCU, or MSI designation, accounting for other traits (e.g., undergraduate population, highest degree offered, bureau of economic analysis region), including fiscal years 2018 through 2022 data. This model provided evidence to help assess the extent to which HBCUs, TCUs, and MSIs received more or less federal research funding compared to other colleges and universities, after controlling for other traits associated with federal research funding level.
- **Over-time model.** We estimated the association between federal research funding obligated to colleges and universities and MSI designation over time, accounting for other traits, including fiscal years 2018 through 2022 data. This model enabled us to assess whether the change in the level of federal research funding MSIs received was similar or different to the change for other institutions. It provided evidence to suggest that the increase in funding to MSIs as a group was driven by the growth in the MSI population, and not by a significantly different increase in the amount of federal research funding these institutions received.

[3]Department of Education, "IPEDS Custom Data Files," accessed August 19, 2024, https://nces.ed.gov/ipeds/datacenter/InstitutionByName.aspx?goToReportId=5&sid=64e3b0b8-61ec-48a7-aa22-33a2b22c8079&rtid=5.

Tables 4 and 5 describe the dependent and independent variables in our regression analyses.

Table 4: Variables Included in Our Global Regression Model

Dependent variable (or outcome)	Source	Independent variables	Source
Federal obligations to spend funds on R&D	NSF NCSES	Fiscal year funds were obligated: 2018, 2019, 2020, 2021, or 2022	NSF NCSES
		HBCU, TCU, or MSI designation: HBCU, TCU, AANAPISI, ANNH, HSI, AANAPISI/HSI, NASNTI, PBI, other multiple designations, or no HBCU, TCU, or MSI status	Department of Education Eligibility Designations
		Bureau of economic analysis region: Far West (AK, CA, HI, NV, OR, WA), Great Lakes (IL, IN, MI, OH, WI), Mid East (DE, DC, MD, NJ, NY, PA), New England (CT, ME, MA, NH, RI, VT), Plains (IA, KS, MN, MO, NE, ND, SD), Rocky Mountains (CO, ID, MT, UT, WY), Southeast (AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, VA, WV), Southwest (AZ, NM, OK, TX), or other U.S. territories (AS, FM, GU, MH, MP, PR, PW, VI)	Department of Education IPEDS
		Undergraduate population: Under 3,000; 3,000-9,999; 10,000 or more	
		Sector: Public or private not-for-profit	
		Highest degree offered: pre-college (i.e., associate's), college (i.e., bachelor's), master's, or doctoral	

Legend:
AANAPISI = Asian American and Native American Pacific Islander-Serving Institution
ANNH = Alaska Native and Native Hawaiian-Serving Institution
HBCU = Historically Black College or University
HSI = Hispanic-Serving Institution
IPEDS = Integrated Postsecondary Education Data System
MSI = Minority-Serving Institution
NASNTI = Native American-Serving Nontribal Institution
NCSES = National Center for Science and Engineering Statistics
NSF = National Science Foundation
PBI = Predominantly Black Institution
R&D = Research and development
TCU = Tribal College or University

Source: National Science Foundation and Department of Education data. | GAO-25-107576

Table 5: Variables Included in Our Over-Time Regression Model

Dependent variable (or outcome)	Source	Independent variables	Source
Change in Federal Obligations to Spend Funds on R&D over Fiscal Years 2018 – 2022	NSF NCSES	MSI designation (AANAPISI, ANNH, HSI, NASNTI, or PBI), or no HBCU, TCU, or MSI status	Department of Education Eligibility Designations
		Bureau of economic analysis region: Far West (AK, CA, HI, NV, OR, WA), Great Lakes (IL, IN, MI, OH, WI), Mid East (DE, DC, MD, NJ, NY, PA), New England (CT, ME, MA, NH, RI, VT), Plains (IA, KS, MN, MO, NE, ND, SD), Rocky Mountains (CO, ID, MT, UT, WY), Southeast (AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, VA, WV), Southwest (AZ, NM, OK, TX), or other U.S. territories (AS, FM, GU, MH, MP, PR, PW, VI)	Department of Education IPEDS
		Undergraduate population: Under 3,000, 3,000-9,999, 10,000 or more	
		Sector: Public or private not-for-profit	
		Highest degree offered: pre-college (i.e., associate's), college (i.e., bachelor's), master's or doctoral	

Source: National Science Foundation and Department of Education data. | GAO-25-107576

Tables 6 and 7 describe the results of our regression analyses. The effect is the ratio of federal obligations for R&D colleges and universities in the HBCU, TCU, or MSI groups received, compared to institutions with no such designation, accounting for the effects of the other independent variables. An effect of greater than one indicates an association between colleges and universities with that designation and more funding, compared to colleges and universities that were not HBCUs, TCUs or MSIs, while an effect of less than one indicates an association with less funding. For example, table 6, which shows the global regression analysis results, shows an association between HBCUs and an estimated 2.857 times more funding, compared to colleges and universities that had no HBCU, TCU, or MSI status, after controlling for the other independent variables.

Table 6: Association of HBCU, TCU, or MSI Designation with Federal Research Funding, Fiscal Years 2018 Through 2022

HBCU, TCU, or MSI designation	Effect of HBCU, TCU, or MSI designation on federal research funding level	Lower bound of 95% confidence interval	Upper bound of 95% confidence interval
AANAPISI	1.039	0.886	1.219
AANAPISI/HSI	0.838	0.708	0.992
ANNH	1.104	0.707	1.726
HBCU	2.857***	2.283	3.577
HSI	0.833	0.738	0.940
Other multiple designations	1.461	0.927	2.303
NASNTI	0.437	0.269	0.712
PBI	1.801	1.300	2.494
TCU	2.147*	1.566	2.944

Source: GAO analysis of National Science Foundation and Department of Education data. | GAO-25-107576

Note: Asterisks are included to indicate the p-value (significance) of the estimated effect. *** p<0.01, ** p<0.05, * p<0.1.

Table 7: Association of MSI Designation with Change in Federal Research Funding Level Over Time, Fiscal Years 2018 Through 2022

HBCU, TCU, or MSI designation	Effect of MSI designation on change in federal research funding level	Lower bound of 95% confidence interval	Upper bound of 95% confidence interval
MSI (AANAPISI, ANNH, HSI, NASNTI, or PBI)	1.121	1.027	1.224

Source: GAO analysis of National Science Foundation and Department of Education data. | GAO-25-107576

Note: Asterisks are included to indicate the p-value (significance) of the estimated effect. *** p<0.01, ** p<0.05, * p<0.1.

Tables 8–11 show selected characteristics of HBCUs, TCUs, and MSIs that received federal obligations for R&D in fiscal year 2022, the most recent year we analyzed. The characteristics shown are the control variables for our regression analyses: bureau of economic analysis region, undergraduate population, status as public or private not-for-profit, and highest degree offered.

Table 8: HBCUs, TCUs, MSIs, and All Other Colleges and Universities that Received Federal Research Funding by Bureau of Economic Analysis Region, Fiscal Year 2022

HBCU, TCU, or MSI designation	Plains (IA, KS, MN, MO, NE, ND, SD)	Rocky Mountains (CO, ID, MT, UT, WY)	Southwest (AZ, NM, OK, TX)	Mid East (DE, DC, MD, NJ, NY, PA)	Great Lakes (IL, IN, MI, OH, WI)	Southeast (AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, VA, WV)	Other U.S. territories (AS, FM, GU, MH, MP, PR, PW, VI)	Far West (AK, CA, HI, NV, OR, WA)	New England (CT, ME, MA, NH, RI, VT)	Total
AANAPISI	4	0	1	6	3	3	4	6	2	**29**
AANAPISI/HSI	0	0	4	13	3	1	0	26	0	**47**
ANNH	0	0	0	0	0	0	0	8	0	**8**
HBCU	2	0	4	6	1	45	1	0	0	**59**
HSI	0	3	48	14	6	12	14	28	4	**129**
NASNTI	0	2	0	0	0	1	0	0	0	**3**
PBI	0	0	0	1	1	4	0	0	0	**6**
TCU	14	7	6	0	5	0	0	2	0	**34**
Other multiple designations	0	0	0	3	0	1	0	0	0	**4**
Non-HBCU, TCU, or MSI	81	35	35	147	125	152	62	73	84	**794**
All colleges and universities	101	47	98	190	144	219	81	143	90	**1,113**

Source: GAO analysis of National Science Foundation and Department of Education data. | GAO-25-107576

Table 9: HBCUs, TCUs, MSIs, and All Other Colleges and Universities that Received Federal Research Funding by Undergraduate Population, Fiscal Year 2022

HBCU, TCU, or MSI designation	Small (fewer than 3,000 students)	Medium (between 3,000 and 9,999 students)	Large (more than 10,000 students)	Undergraduate student population data not available	Total
AANAPISI	7	7	14	1	**29**
AANAPISI/HSI	5	5	36	1	**47**
ANNH	2	5	1	0	**8**
HBCU	32	24	1	2	**59**
HSI	25	45	56	3	**129**
NASNTI	1	2	0	0	**3**
PBI	1	5	0	0	**6**
TCU	34	0	0	0	**34**
Other multiple designations	1	1	2	0	**4**
Non-HBCU, TCU, or MSI	204	232	207	151	**794**
All colleges and universities	312	326	317	158	**1,113**

Source: GAO analysis of National Science Foundation and Department of Education data. | GAO-25-107576

Table 10: HBCUs, TCUs, MSIs, and All Other Colleges and Universities that Received Federal Research Funding by Sector, Fiscal Year 2022

HBCU, TCU, or MSI designation	Private not-for-profit	Public	Other	Total
AANAPISI	10	19	0	**29**
AANAPISI/HSI	7	40	0	**47**
ANNH	3	5	0	**8**
HBCU	26	33	0	**59**
HSI	34	95	0	**129**
NASNTI	0	3	0	**3**
PBI	0	6	0	**6**
TCU	5	29	0	**34**
Other multiple designations	1	3	0	**4**
Non-HBCU, TCU, or MSI	341	363	90	**794**
All colleges and universities	427	596	90	**1,113**

Source: GAO analysis of National Science Foundation and Department of Education data. | GAO-25-107576

Table 11: HBCUs, TCUs, MSIs, and All Other Colleges and Universities that Received Federal Research Funding by Highest Degree Offered, Fiscal Year 2022

HBCU, TCU, or MSI designation	Doctoral	Master's	College (i.e., bachelor's)	Pre-college (i.e., associate's)	Highest degree offered data not available	Total
AANAPISI	20	4	3	2	0	**29**
AANAPISI/HSI	31	4	1	11	0	**47**
ANNH	6	1	1	0	0	**8**
HBCU	33	18	8	0	0	**59**
HSI	67	22	23	17	0	**129**
NASNTI	0	2	1	0	0	**3**
PBI	3	0	1	2	0	**6**
TCU	0	8	12	14	0	**34**
Other multiple designations	1	2	0	1	0	**4**
Non-HBCU, TCU, or MSI	483	124	72	60	55	**794**
All colleges and universities	644	185	122	107	55	**1,113**

Source: GAO analysis of National Science Foundation and Department of Education data. | GAO-25-107576

Appendix III: Descriptive Analyses of Federal Research Funding to Colleges and Universities, Fiscal Years 2018 Through 2022

In the following pages, we provide tables and figures to illustrate the findings of our analyses of trends in federal research funding obligated to colleges and universities, including HBCUs, TCUs, and MSIs, for fiscal years 2018 through 2022.[1]

Tables 12–16 summarize our dataset. They list the number of HBCUs, TCUs, MSIs, and other public and private not-for-profit colleges and universities, the number of these that received federal research funding, the amount of federal research funding each group received, and the percent of federal research funding to each group that came from one of the top six research funding agencies or another agency for fiscal years 2018 through 2022.[2]

[1]We used data from the Department of Education's Integrated Postsecondary Education Data System for academic years 2018 through 2022 to identify how many institutions of higher education were public and private not-for-profit colleges and universities. We matched it to Education's HBCU, TCU, and MSI eligibility matrices for fiscal years 2018 – 2022 to determine how many of these were HBCUs, TCUs, and MSIs. The eligibility matrices include lists of institutions that met the criteria for each MSI category for certain programs offered under the Higher Education Act of 1965, as amended, or held a current grant under one of these programs during a given fiscal year. The eligibility matrices also include statutory lists of HBCUs and TCUs. In this report, when we refer to HBCUs, TCUs, or institutions that held one or more of the MSI designations, we are referring to inclusion in the eligibility matrices. During the most recent year of our analysis, fiscal year 2022, the eligibility matrix identified 100 institutions as HBCUs or Historically Black Graduate Institutions (HBGI). We included two of the three HBGIs (Meharry Medical College and the Morehouse School of Medicine) in our analysis of HBCUs and excluded one, Charles R. Drew University of Medicine and Science. See appendix I for more details.

[2]In some cases, colleges and universities had multiple HBCU, TCU, or MSI designations. As described in appendix I, we applied two categorization rules to reduce the overlap between groups: (1) HBCUs and TCUs were only counted as HBCUs and TCUs, even if they had an MSI designation, and (2) we counted Alaska Native and Native Hawaiian-Serving Institutions (ANNH) that had another MSI designation as ANNHs only, if located in Alaska or Hawaii. The Asian American and Native American Pacific Islander-Serving/Hispanic-Serving Institutions (AANAPISI/HSI) group accounts for colleges and universities with both AANAPISI and HSI designations, and the other multiple designations group accounts for colleges and universities with multiple designations aside from AANAPISI/HSI, that were not sorted according to the two rules above.

Table 12: Federal Research Funding to HBCUs, TCUs, MSIs, and All Other Colleges and Universities, Fiscal Year 2018

	Number of institutions and amount of federal research funding provided			Percent of research funding to group provided by agency						
HBCU, TCU, or MSI designation(s)	Number of colleges and universities	Number of research funding recipients	Total federal research funding obligated to group (in thousands)	Health and Human Services	National Science Foundation	Department of Defense	National Aeronautics and Space Administration	Department of Agriculture	Department of Energy	All other agencies
AANAPISI	66	28	$1,204,602	60%	17%	6%	5%	6%	2%	4%
AANAPISI/ HSI	52	24	$676,394	58%	26%	6%	3%	1%	5%	1%
ANNH	15	6	$171,755	36%	40%	3%	8%	7%	0%	4%
HBCU	100	58	$319,933	30%	32%	7%	1%	25%	4%	2%
HSI	361	105	$786,571	45%	29%	16%	2%	2%	3%	4%
NASNTI	21	4	$953	48%	33%	8%	0%	11%	0%	0%
PBI	93	10	$9,559	27%	66%	0%	0%	2%	0%	5%
TCU	34	31	$26,805	7%	68%	0%	2%	24%	0%	0%
Other multiple designations	12	2	$45,685	78%	10%	8%	0%	0%	2%	2%
Non-HBCU, TCU, or MSI	3,431	772	$31,515,593	60%	15%	14%	2%	2%	4%	2%
All colleges and universities	4,185	1,040	$34,757,850	60%	16%	13%	3%	3%	4%	2%

Legend:
AANAPISI = Asian American and Native American Pacific Islander-Serving Institution
ANNH = Alaska Native and Native Hawaiian-Serving Institution
HBCU = Historically Black Colleges and Universities
HSI = Hispanic-Serving Institution
NASNTI = Native American-Serving Nontribal Institution
PBI = Predominantly Black Institution
TCU = Tribal Colleges and Universities

Source: GAO analysis of National Science Foundation and Department of Education data. | GAO-25-107576

Table 13: Federal Research Funding to HBCUs, TCUs, MSIs, and All Other Colleges and Universities, Fiscal Year 2019

	Number of institutions and amount of federal research funding provided			Percent of research funding to group provided by agency						
HBCU, TCU, or MSI designation(s)	Number of colleges and universities	Number of research funding recipients	Total federal research funding obligated to group (in thousands)	Health and Human Services	National Science Foundation	Department of Defense	National Aeronautics and Space Administration	Department of Agriculture	Department of Energy	All other agencies
AANAPISI	71	28	$856,912	66%	19%	3%	2%	5%	2%	3%
AANAPISI/HSI	55	22	$750,460	59%	24%	6%	2%	3%	3%	3%
ANNH	18	8	$210,121	30%	46%	9%	7%	2%	1%	4%
HBCU	100	67	$341,619	28%	29%	6%	1%	31%	1%	4%
HSI	381	108	$1,233,683	46%	29%	10%	6%	3%	3%	3%
NASNTI	24	2	$2,016	12%	81%	4%	0%	3%	0%	0%
PBI	89	9	$6,712	12%	52%	7%	0%	0%	0%	28%
TCU	34	31	$26,125	6%	53%	0%	1%	40%	0%	0%
Other multiple designations	14	3	$64,933	73%	20%	0%	0%	2%	3%	3%
Non-HBCU, TCU, or MSI	3,338	782	$34,175,116	61%	15%	13%	2%	3%	4%	3%
All colleges and universities	4,124	1,060	$37,667,697	60%	16%	12%	2%	3%	4%	3%

Source: GAO analysis of National Science Foundation and Department of Education data. | GAO-25-107576

Table 14: Federal Research Funding to HBCUs, TCUs, MSIs, and All Other Colleges and Universities, Fiscal Year 2020

	Number of institutions and amount of federal research funding provided			Percent of research funding to group provided by agency						
HBCU, TCU, or MSI designation(s)	Number of colleges and universities	Number of research funding recipients	Total federal research funding obligated to group (in thousands)	Health and Human Services	National Science Foundation	Department of Defense	National Aeronautics and Space Administration	Department of Agriculture	Department of Energy	All other agencies
AANAPISI	67	25	$1,040,026	63%	20%	1%	2%	6%	2%	5%
AANAPISI/HSI	81	40	$960,607	56%	26%	1%	3%	1%	8%	5%
ANNH	17	6	$227,737	26%	42%	17%	7%	1%	1%	7%
HBCU	99	64	$355,688	32%	32%	0%	1%	22%	3%	9%
HSI	372	104	$1,057,161	48%	28%	4%	6%	2%	8%	5%
NASNTI	25	4	$1,957	27%	59%	0%	0%	5%	0%	9%
PBI	88	7	$10,000	29%	21%	0%	0%	1%	0%	50%
TCU	35	20	$18,524	6%	93%	0%	0%	1%	0%	0%
Other multiple designations	13	2	$60,110	73%	24%	0%	0%	0%	2%	1%
Non-HBCU, TCU, or MSI	3,252	740	$34,941,215	66%	14%	8%	3%	2%	4%	3%
All colleges and universities	4,049	1,012	$38,673,025	64%	16%	7%	3%	3%	4%	3%

Source: GAO analysis of National Science Foundation and Department of Education data. | GAO-25-107576

Table 15: Federal Research Funding to HBCUs, TCUs, MSIs, and All Other Colleges and Universities, Fiscal Year 2021

	Number of institutions and amount of federal research funding provided			Percent of research funding to group provided by agency						
HBCU, TCU, or MSI designation(s)	Number of colleges and universities	Number of research funding recipients	Total federal research funding obligated to group (in thousands)	Health and Human Services	National Science Foundation	Department of Defense	National Aeronautics and Space Administration	Department of Agriculture	Department of Energy	All other agencies
AANAPISI	64	29	$1,291,052	55%	20%	11%	2%	5%	4%	2%
AANAPISI/HSI	89	41	$1,264,968	46%	24%	13%	7%	2%	5%	3%
ANNH	19	6	$230,613	27%	43%	5%	17%	3%	0%	4%
HBCU	99	70	$561,381	23%	25%	7%	1%	40%	2%	2%
HSI	400	119	$1,194,501	47%	29%	12%	2%	3%	4%	3%
NASNTI	26	7	$3,839	47%	36%	15%	0%	1%	0%	2%
PBI	57	7	$12,640	3%	87%	0%	2%	6%	0%	2%
TCU	35	30	$34,607	5%	51%	2%	0%	43%	0%	0%
Other multiple designations	12	3	$72,127	71%	19%	4%	0%	2%	0%	4%
Non-HBCU, TCU, or MSI	3,210	797	$38,189,746	61%	13%	13%	3%	4%	4%	2%
All colleges and universities	4,011	1,109	$42,855,474	60%	15%	12%	3%	4%	4%	2%

Source: GAO analysis of National Science Foundation and Department of Education data. | GAO-25-107576

Table 16: Federal Research Funding to HBCUs, TCUs, MSIs, and All Other Colleges and Universities, Fiscal Year 2022

	Number of institutions and amount of federal research funding provided			Percent of research funding to group provided by agency						
HBCU, TCU, or MSI designation(s)	Number of colleges and universities	Number of research funding recipients	Total federal research funding obligated to group (in thousands)	Health and Human Services	National Science Foundation	Department of Defense	National Aeronautics and Space Administration	Department of Agriculture	Department of Energy	All other agencies
AANAPISI	72	29	$2,386,975	64%	18%	7%	2%	4%	2%	2%
AANAPISI/HSI	109	47	$1,537,896	45%	28%	15%	2%	1%	6%	3%
ANNH	21	8	$193,342	31%	45%	5%	11%	4%	0%	3%
HBCU	99	59	$672,463	29%	19%	8%	1%	39%	3%	1%
HSI	422	129	$1,462,940	45%	28%	11%	5%	5%	3%	2%
NASNTI	27	3	$3,504	46%	35%	19%	0%	0%	0%	0%
PBI	59	6	$8,278	5%	85%	0%	0%	0%	10%	0%
TCU	35	34	$40,882	5%	54%	4%	0%	36%	0%	1%
Other multiple designations	14	4	$70,381	67%	26%	3%	1%	0%	3%	0%
Non-HBCU, TCU, or MSI	3,104	794	$37,585,347	62%	14%	10%	4%	4%	3%	2%
All colleges and universities	3,962	1,113	$43,962,008	61%	15%	10%	4%	4%	3%	2%

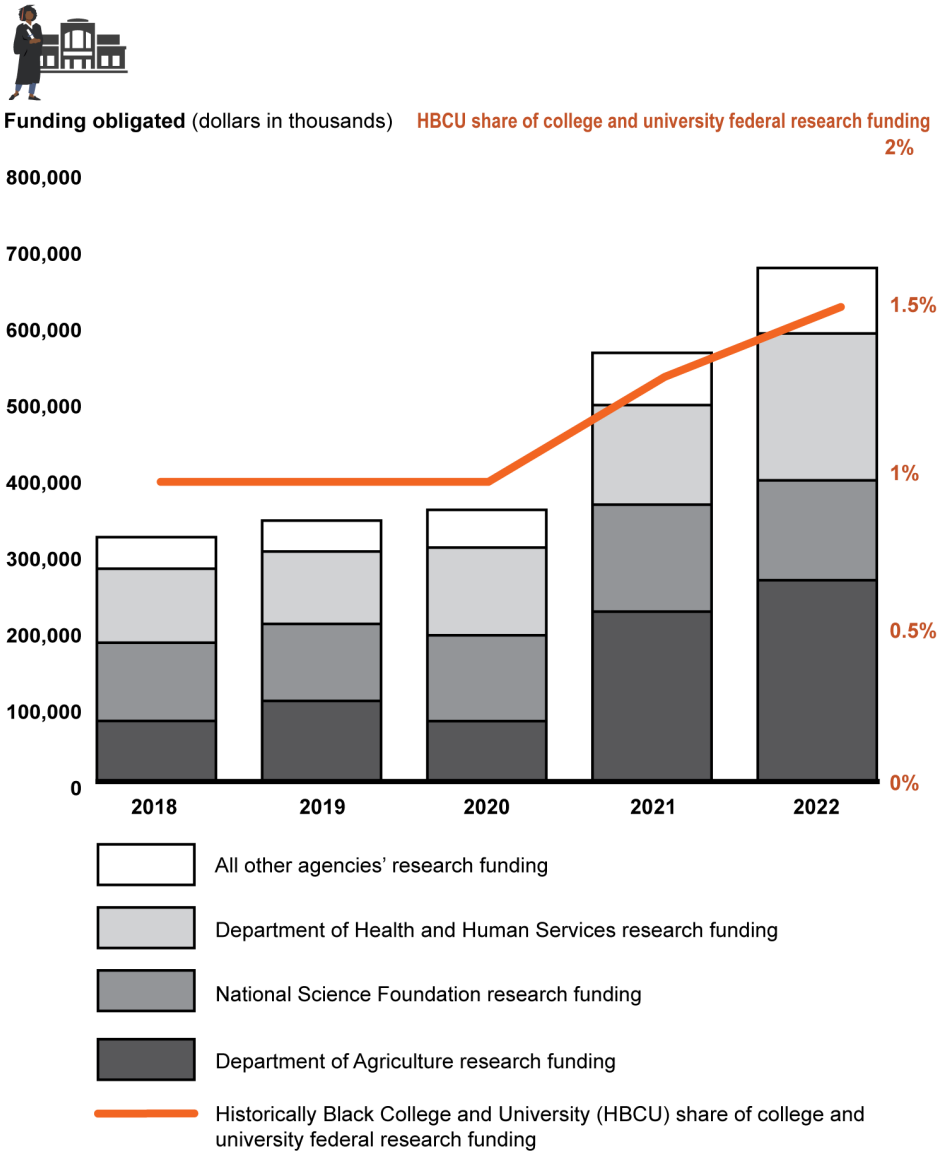
Source: GAO analysis of National Science Foundation and Department of Education data. | GAO-25-107576

Figures 7–15 illustrate selected findings of our analyses of trends in federal research funding to HBCUs, TCUs, and MSIs. We selected different data points for each group to show how various research funding recipients (colleges and universities) and sources (agencies) drove trends in the federal research funding provided to HBCUs, TCUs, and MSIs.

Historically Black Colleges and Universities (HBCU)

Most of the federal research funding HBCUs received came from the Department of Agriculture (USDA), the National Science Foundation (NSF), and the Department of Health and Human Services (HHS). HBCUs received a larger percent of the total federal research funding obligated to colleges and universities in fiscal years 2021 and 2022, compared to previous fiscal years (see fig. 7).

Figure 7: Federal Research Funding Provided to HBCUs by Source, Fiscal Years 2018 Through 2022

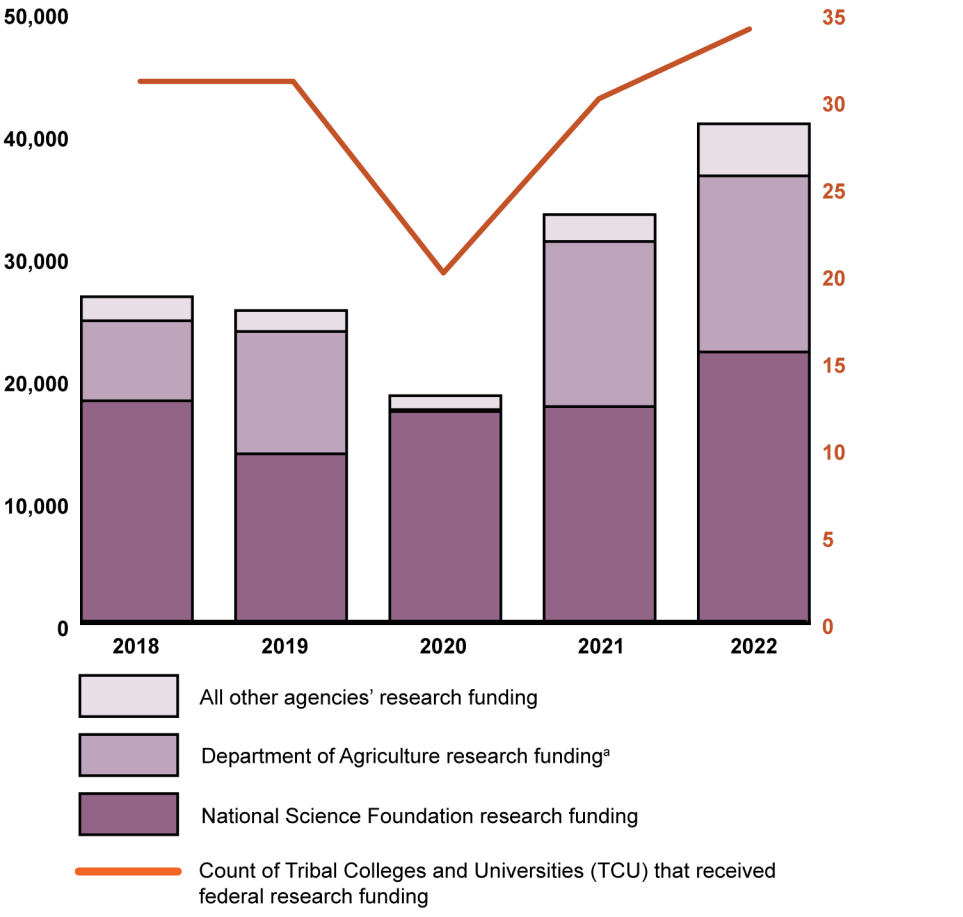


Source: GAO analysis of National Science Foundation and Department of Education data; Stafeeva/adobestock.com (person); Vikivector/adobestock.com (building). | GAO-25-107576

Tribal Colleges and Universities (TCU)

TCUs received most of their federal research funding from USDA and NSF (see fig. 8).

Figure 8: Federal Research Funding Provided to TCUs by Source, Fiscal Years 2018 Through 2022



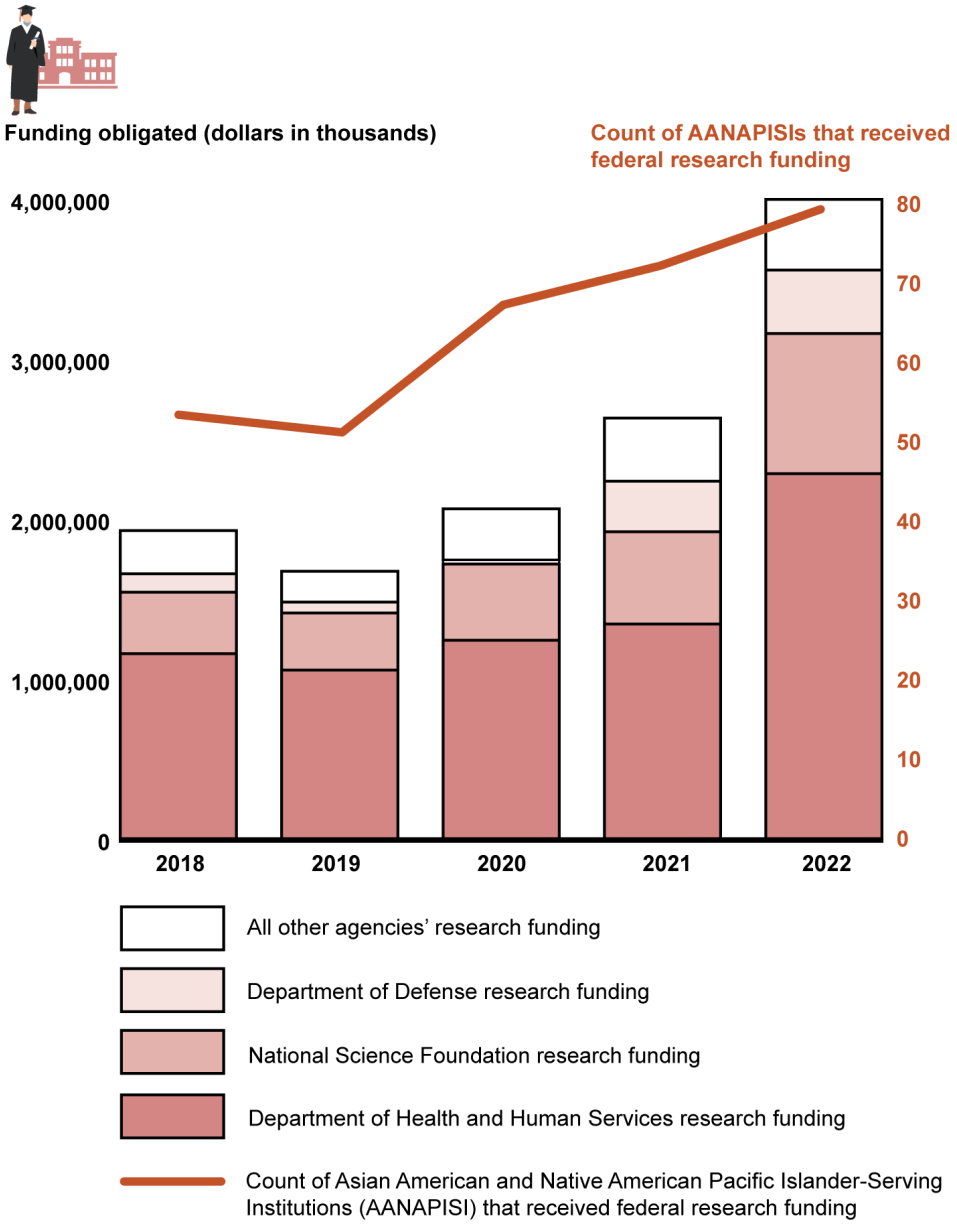
Source: GAO analysis of National Science Foundation and Department of Education data; Stafeeva/adobestock.com (person); Vikivector/adobestock.com (building). | GAO-25-107576

[a]USDA officials said that the fiscal year 2020 NSF data understate USDA research funds obligated to TCUs because USDA's internal data processing lagged behind the deadline to report to NSF. USDA officials estimate research funds obligated to TCUs were close to $9 million that year.

Asian American and Native American Pacific Islander-Serving Institutions (AANAPISI)

Most of the federal research funding AANAPISIs received was provided by HHS, NSF, and the Department of Defense (DOD). Including AANAPISIs with another MSI designation, the number that received federal research funding increased from 53 in fiscal year 2018 to 79 in 2022, as the overall number of AANAPISIs increased (see fig. 9).

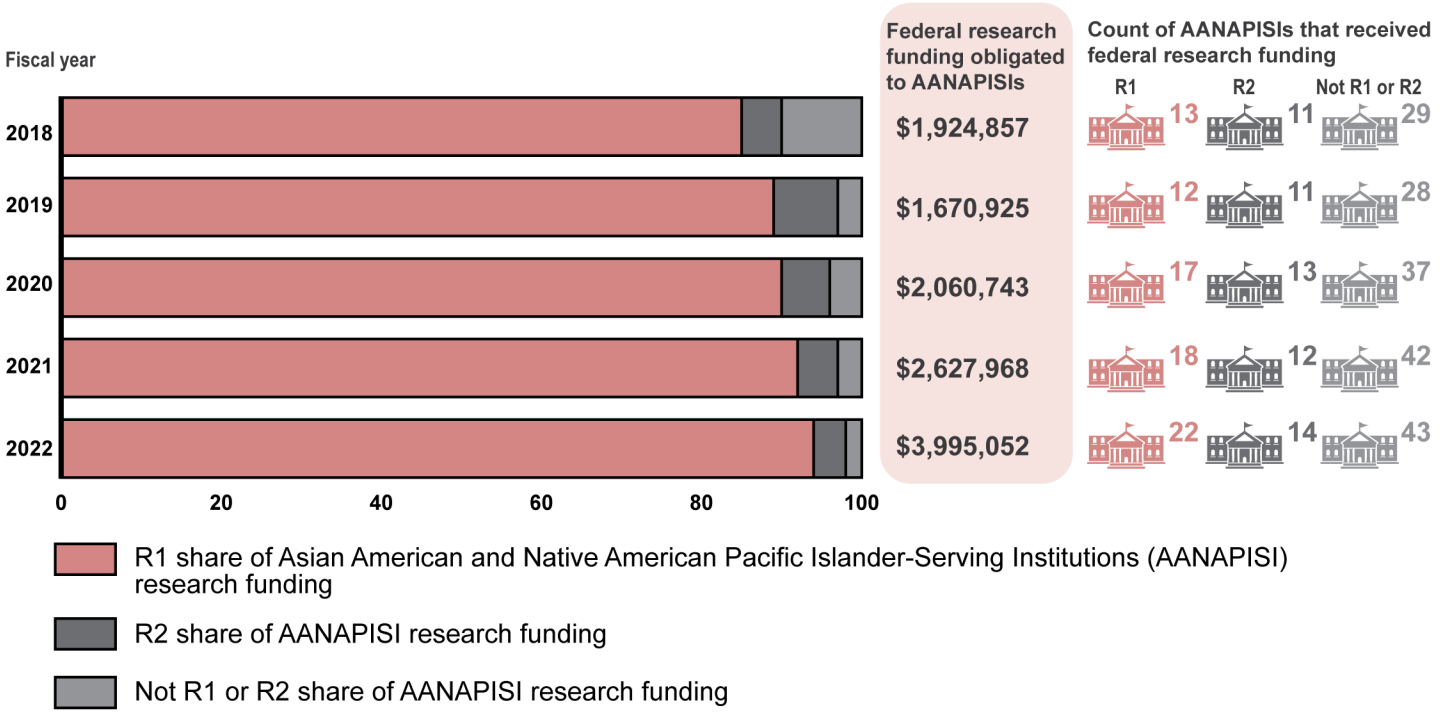
Figure 9: Federal Research Funding Provided to AANAPISIs by Source, Fiscal Years 2018 Through 2022



Source: GAO analysis of National Science Foundation and Department of Education data; Stafeeva/adobestock.com (person); Vikivector/adobestock.com (building). | GAO-25-107576

The federal research funding AANAPISIs received was increasingly concentrated among institutions that conduct very high research activity (known as R1 institutions) as more gained the AANAPISI designation from fiscal year 2018 through 2022 (see fig. 10).[3]

Figure 10: Federal Research Funding Provided to AANAPISIs by Research Activity Designations, Fiscal Years 2018 Through 2022



Source: GAO analysis of National Science Foundation, Department of Education, and American Council on Education data; Vikivector/adobestock.com (building). | GAO-25-107576

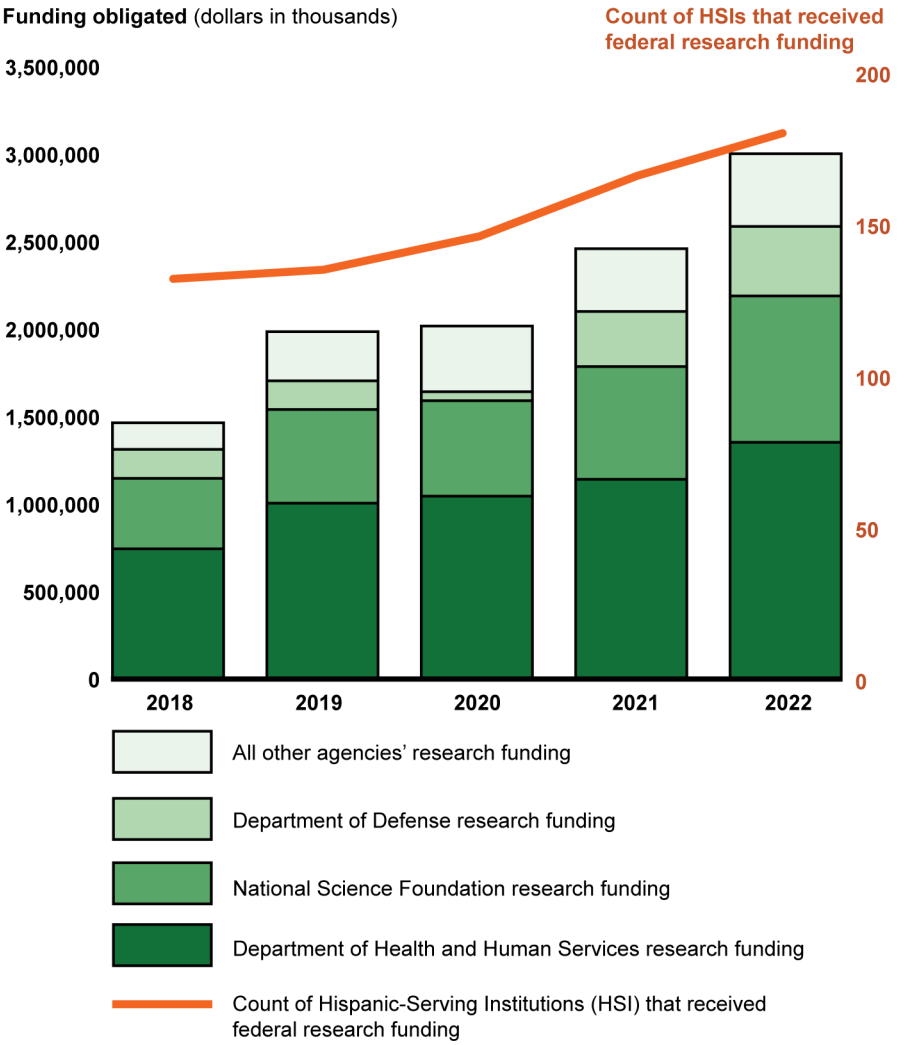
Hispanic-Serving Institutions (HSI)

Most of the federal research funding HSIs received was provided by HHS, NSF, and DOD. Including HSIs with another MSI designation, the number that received federal research funding increased from 130 in fiscal year

[3]To determine which colleges and universities are highly engaged in research, we used the American Council on Education's 2025 Research Activity Designations (also referred to as the "Carnegie Classifications"). The designations include "Research 1: Very High Spending and Doctorate Production" (R1), defined as at least $50 million in total research spending and 70 research doctorates awarded annually, and "Research 2: High Spending and Doctorate Production" (R2), defined as at least $5 million in research spending and 20 research doctorates awarded annually, based on fiscal year (research spending) and academic year (research doctorates awarded) 2021 – 2023 data.

2018 to 178 in 2022, as the overall number of HSIs increased (see fig. 11).

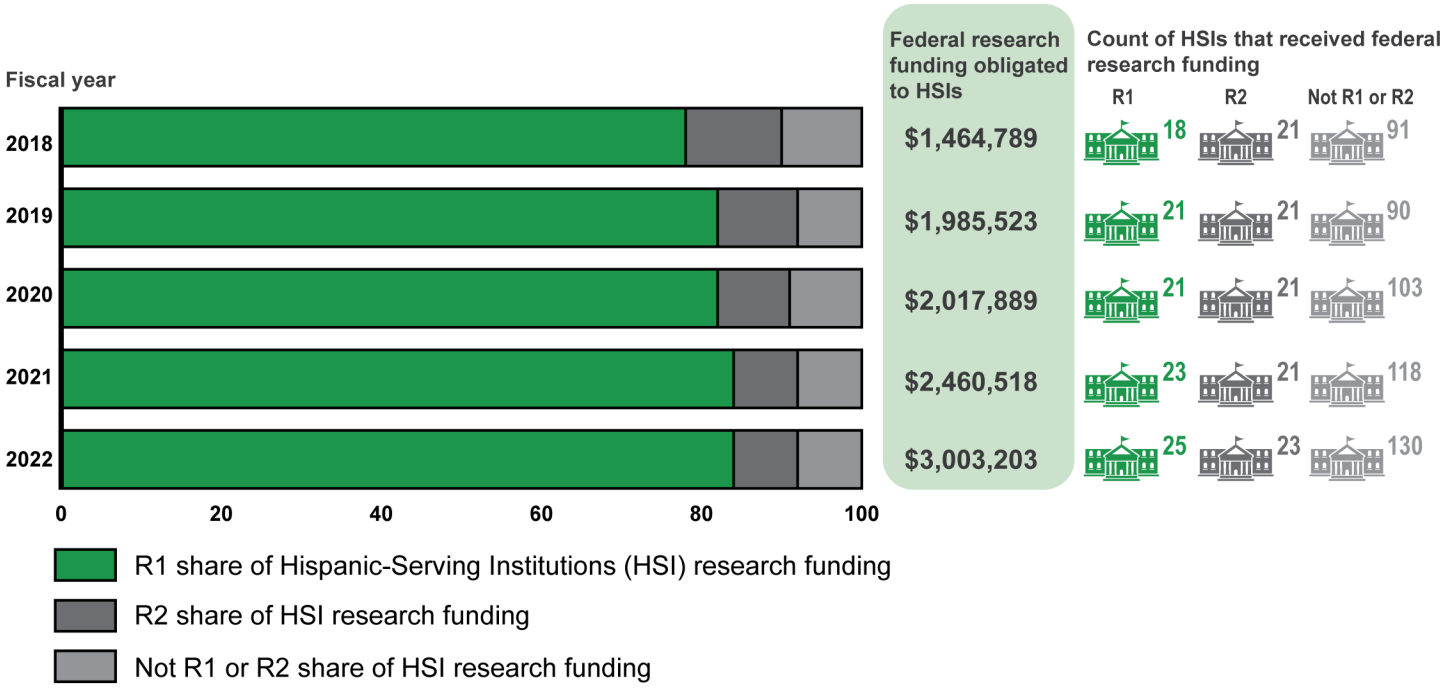
Figure 11: Federal Research Funding Provided to HSIs by Source, Fiscal Years 2018 Through 2022



Source: GAO analysis of National Science Foundation and Department of Education data; Stafeeva/adobestock.com (person); Vikivector/adobestock.com (building). | GAO-25-107576

The federal research funding HSIs received was increasingly concentrated among R1 institutions as more gained the HSI designation from fiscal year 2018 through 2022 (see fig. 12).

Figure 12: Federal Research Funding Provided to HSIs by Research Activity Designations, Fiscal Years 2018 Through 2022

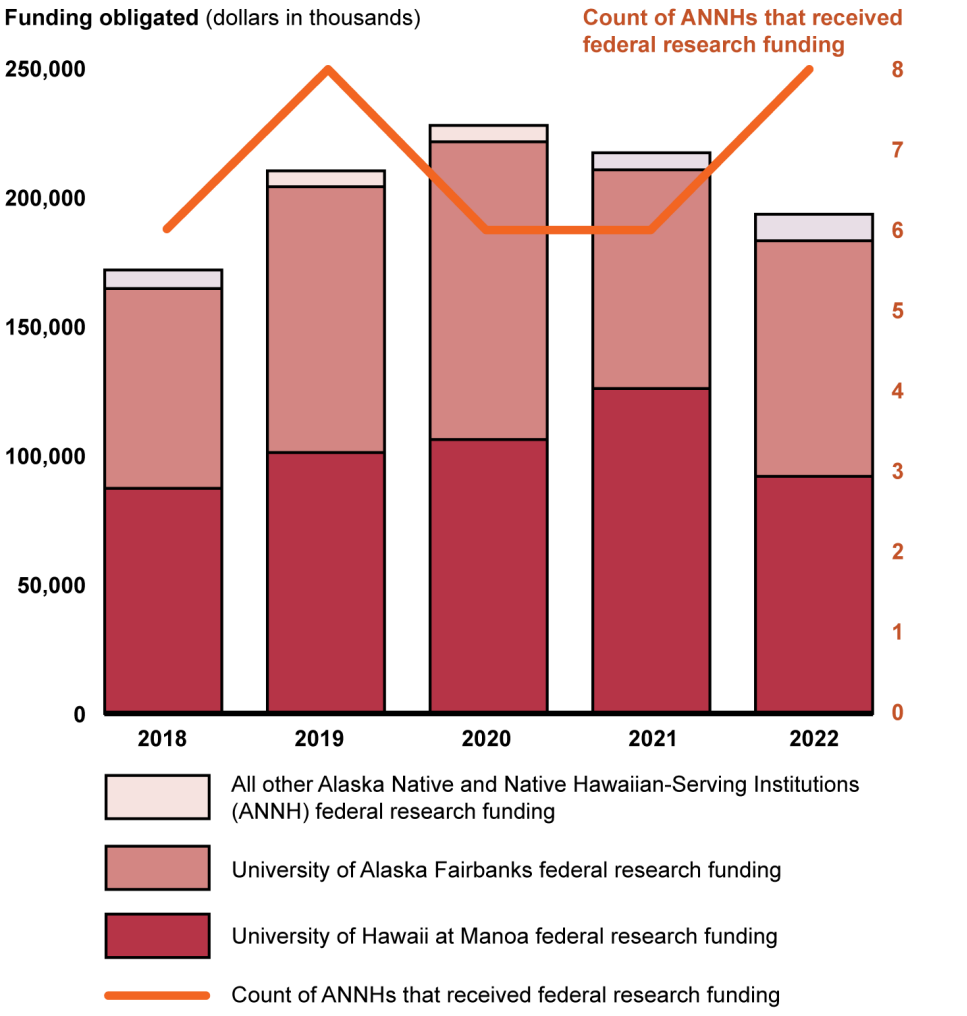


Source: GAO analysis of National Science Foundation, Department of Education, and American Council on Education data; Vikivector/adobestock.com (building). | GAO-25-107576

Alaska Native and Native Hawaiian-Serving Institutions (ANNH)

Two institutions, the University of Hawaii at Manoa and the University of Alaska Fairbanks, received most of the federal research funding provided to ANNHs during fiscal years 2018 through 2022 (see fig. 13).

Figure 13: Federal Research Funding Provided to ANNHs by Recipient, Fiscal Years 2018 Through 2022



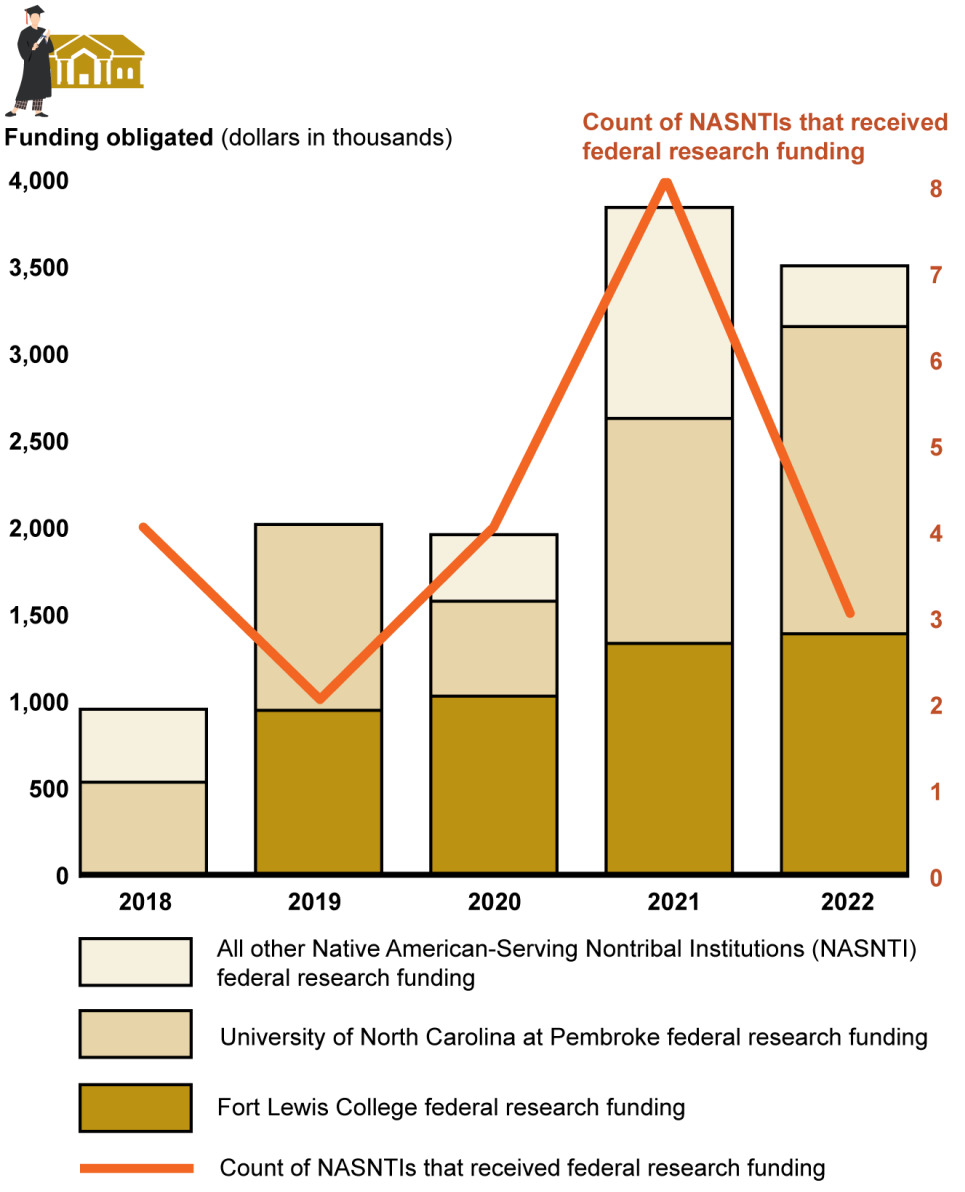
Source: GAO analysis of National Science Foundation and Department of Education data; Stafeeva/adobestock.com (person); Vikivector/adobestock.com (building). | GAO-25-107576

Native American-Serving Nontribal Institutions (NASNTI)

Two institutions–the University of North Carolina at Pembroke and Fort Lewis College–received most of the federal research funding provided to NASNTIs. Fort Lewis College was a NASNTI beginning in fiscal year

2019, while the University of North Carolina at Pembroke held the designation during all five of the fiscal years we reviewed (see fig. 14).

Figure 14: Federal Research Funding Provided to NASNTIs by Recipient, Fiscal Years 2018 Through 2022

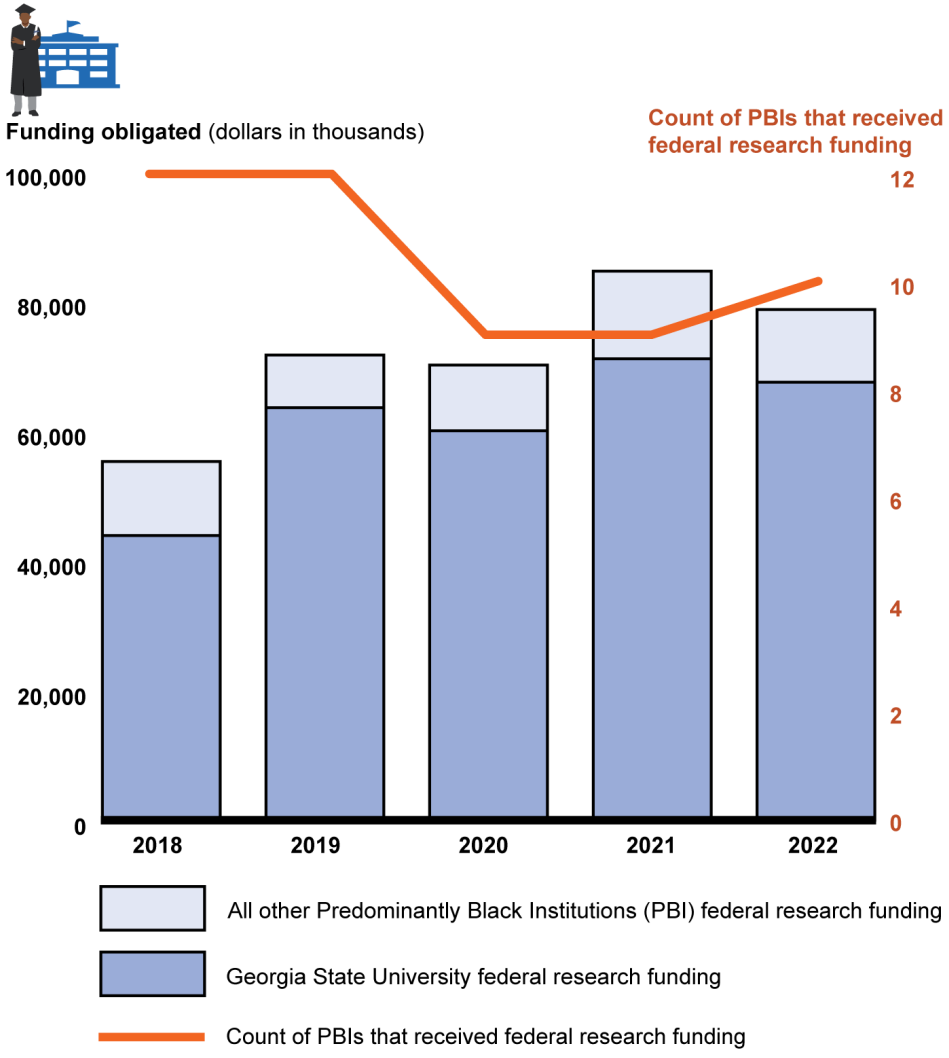


Source: GAO analysis of National Science Foundation and Department of Education data; Stafeeva/adobestock.com (person); Vikivector/adobestock.com (building). | GAO-25-107576

Predominantly Black Institutions (PBI)

Most of the federal research funding provided to PBIs was provided to Georgia State University (see fig. 15).

Figure 15: Federal Research Funding Provided to PBIs by Recipient, Fiscal Years 2018 Through 2022



Source: GAO analysis of National Science Foundation and Department of Education data; Stafeeva/adobestock.com (person); Vikivector/adobestock.com (building). | GAO-25-107576

Appendix IV: Inventory of Programs and Initiatives Targeted to HBCUs, TCUs, or MSIs or to Partnerships with Those Institutions, Fiscal Years 2022 Through 2024, Reported by Agencies

The following pages provide one-page overviews for five examples of competitive research funding programs and initiatives that were targeted to Historically Black Colleges and Universities (HBCU), Tribal Colleges and Universities (TCU), or Minority-Serving Institutions (MSI), or to partnerships with those institutions, in fiscal years 2022 through 2024. According to agency officials, they planned to continue only some of the programs for which we provide an overview:

- **Department of Agriculture (USDA), *Agriculture and Food Research Initiative: Foundational and Applied Science*.** USDA released the fiscal year 2026 request for applications (RFA) for this program in August 2025.
- **Department of Defense (DOD), Air Force Research Laboratory, *Basic Research National Science Portal Initiative*.** DOD officials shared that as of May 15, 2025, they planned to make at least one new award under this program in 2025.
- **Department of Energy (DOE), *Funding for Accelerated, Inclusive Research*.** Officials said that the program would not continue because it is not aligned with the current priorities of the administration.
- **National Institutes of Health (NIH), *Research Centers in Minority Institutions*.** Officials shared that as of May 15, 2025, they planned to continue the program, but future funding opportunities may target less research-intensive institutions generally, rather than only colleges and universities that serve underrepresented students.
- **National Science Foundation (NSF), *Centers of Research Excellence in Science and Technology*.** The President's fiscal year 2026 discretionary budget request to Congress for NSF did not include funding for this program.[1] In addition, officials said the NSF division that oversaw the program, the Division of Equity for Excellence in STEM, had been disbanded.

Tables listing all 75 of the competitive research funding programs and initiatives that were targeted to HBCUs, TCUs, or MSIs, or to partnerships with those institutions during fiscal years 2022 through 2024, according to

[1]National Science Foundation. *National Science Foundation FY 26 Budget Request to Congress* (May 30, 2025), https://www.nsf.gov/about/budget/fy2026.

information shared by agencies that we reviewed, follow the one-page overviews.

USDA Department of Agriculture (USDA)

Agriculture and Food Research Initiative: Foundational and Applied Science

Source: Tonefotografia/adobestock.com. | GAO-25-107576

Purpose

Invest in agricultural research, education, and extension projects for more sustainable, productive, and economically viable plant and animal production systems.

Eligible Research Areas

Plant health and production; animal reproduction; food safety, nutrition, and health; bioenergy and natural resources; agriculture systems and technology; and agriculture economics and rural communities.

Targeting Strategy

- Some projects that partnered with institutions that have previously received limited federal funds, including some Historically Black Colleges and Universities (HBCU), Tribal Colleges and Universities (TCU), and Minority-Serving Institutions (MSI), were eligible for an additional $150,000 to support research conducted at the partner institution.
- Some grants were only available to institutions that have previously received limited federal funds, including some HBCUs, TCUs, and MSIs.

Highlight

The Agriculture and Food Research Initiative is USDA's flagship competitive research program that provides funding for fundamental and applied research, education, and extension projects in the food and agricultural sciences.

Awards and Subawards Made to HBCUs and MSIs, as Reported by USDA, Fiscal Years 2022–2024

19	32	2	36	41	1
totaling	totaling	totaling	totaling	totaling	totaling
$6,675,000	$10,475,000	$525,000	$18,293,000	$18,265,000	$153,000
to	to	to	to	to	to a
HBCUs	AANAPISIs	ANNHs	HSIs	AANAPISI/ HSIs[a]	NASNTI

HBCU - Historically Black Colleges and Universities
AANAPISI - Asian American and Native American Pacific Islander-Serving Institutions
ANNH - Alaska Native and Native Hawaiian-Serving Institutions
HSI - Hispanic-Serving Institutions
AANAPISI/HSI - Asian American and Native American Pacific Islander-Serving/Hispanic-Serving Institutions
NASNTI - Native American-Serving Nontribal Institution

Source: GAO analysis of Department of Agriculture data: Stafeeva/adobestock.com (people); Vikivector/adobestock.com (buildings). | GAO-25-107576

Note: Funding amounts are rounded and are not exact. Award periods ranged from under a year to 5 years.

[a]Institutions can have multiple MSI designations. AANAPISI/HSIs refers to institutions that were both Asian American and Native American Pacific Islander-Serving and Hispanic-Serving.

Source: GAO analysis of Department of Agriculture data and documentation; USDA (agency icon). | GAO-25-107576

Department of Defense (DOD)

Air Force Research Laboratory Basic Research National Science Portal Initiative

Source: Seventyfour/adobestock.com. | GAO-25-107576

Purpose

Fund basic research on critical STEM topics, build defense research capacity at Historically Black Colleges and Universities (HBCU), Tribal Colleges and Universities (TCU), and Minority-Serving Institutions (MSI), and train new STEM talent.

Eligible Research Areas

Directed energy, materials science, machine learning, quantum computing, and biologically based materials for space.

Targeting Strategy

Only HBCU, TCU, or MSI faculty or students were eligible to apply.

Highlight

The Air Force sought to use this initiative to accelerate research and development in multidisciplinary areas that do not fall completely within one research program. For example, research on biologically based materials for space combines biology and engineering.

Awards and Subawards Made to HBCUs and MSIs, as Reported by DOD, Fiscal Years 2022–2024

7 totaling **$6,425,000** to **HBCUs**

1 totaling **$409,000** to an **AANAPISI**

6 totaling **$11,169,000** to **HSIs**

HBCU - Historically Black Colleges and Universities
AANAPISI - Asian American and Native American Pacific Islander-Serving Institution
HSI - Hispanic-Serving Institutions

Source: GAO analysis of Department of Defense data; Stafeeva/adobestock.com (people); Vikivector/adobestock.com (buildings). | GAO-25-107576

Note: Funding amounts are rounded and are not exact. Award periods were 3 years.

Source: GAO analysis of Department of Defense data and documentation; DOD (agency icon). | GAO-25-107576

Department of Energy (DOE)

Funding for Accelerated, Inclusive Research (FAIR)

Source: Anatoliycherkas/adobestock.com. | GAO-25-107576

Purpose

Build research capacity at colleges and universities that were underrepresented in the Department of Energy Office of Science research portfolio.

Eligible Research Areas

Applied mathematics, computer science, chemistry, materials science, physics, and biology.

Targeting Strategy

Only faculty at Historically Black Colleges and Universities (HBCU), Tribal Colleges and Universities (TCU), Minority-Serving Institutions (MSI), and colleges and universities that had less than $50 million in annual federal research expenditures (Emerging Research Institutions, or ERI) were eligible to apply. Institutions designated as R1, based on their very high research activity, were not eligible to apply.[1]

Highlight

Awardees partnered with a DOE National Laboratory, Office of Science Scientific User Facility, or "very high research activity" (R1) MSI or ERI, to accomplish research goals.

Awards Made to HBCUs, TCUs, and MSIs, as Reported by DOE, Fiscal Year 2023

8	1	2	8	12
totaling	totaling	totaling	totaling	totaling
$5,297,000	$553,000	$1,130,000	$4,331,000	$6,951,000
to	to a	to	to	to
HBCUs	TCU	AANAPISIs	HSIs	AANAPISI/HSIs[a]

HBCU - Historically Black Colleges and Universities
TCU - Tribal College or University
AANAPISI - Asian American and Native American Pacific Islander-Serving Institutions
HSI - Hispanic-Serving Institutions
AANAPISI/HSI - Asian American and Native American Pacific Islander-Serving/Hispanic-Serving Institutions

Source: GAO analysis of Department of Energy data; Stafeeva/adobestock.com (people); Vikivector/adobestock.com (buildings). | GAO-25-107576

Note: Funding amounts are rounded and are not exact. Award periods were 3 years.

[a]Institutions can have multiple MSI designations. For example, AANAPISI/HSIs refers to institutions that were both Asian American and Native American Pacific Islander-Serving and Hispanic-Serving.

[1]The FAIR program used the Research Activity Designations, published by the American Council on Education, to identify whether colleges and universities had the R1 designation.

Source: GAO analysis of Department of Energy data and documentation; DOE (agency icon). | GAO-25-107576

Department of

Health and Human Services (HHS)

National Institutes of Health (NIH) Research Centers in Minority Institutions (RCMI)

Source: Gorodenkoff/adobestock.com. | GAO-25-107576

Purpose

Enhance the capacities of eligible colleges and universities to conduct biomedical, behavioral, population, or clinical services research and enable investigators at these institutions to become more competitive for future research funding.

Eligible Research Areas

Biomedical research, and behavioral, population science, or clinical services research with a focus on minority health and healthcare disparities.

Targeting Strategy

Faculty and other research staff were eligible to apply if their college or university 1) received less than $50 million per year from NIH, 2) awards health sciences doctoral degrees, and 3) has a mission to educate students that have been under-represented in biomedical research. Some RCMIs were at Historically Black Colleges and Universities (HBCU) and Minority-Serving Institutions (MSI).

Highlight

RCMIs undertake a variety of activities including research, research capacity building, and community engagement. The program also funded a Coordinating Center to help RCMIs network with each other and build research partnerships.

Funds Awarded to and Number of RCMIs at HBCUs and MSIs, as Reported by NIH, Fiscal Years 2022–2024

$248,716,000 awarded to 13 HBCUs	$83,179,000 awarded to 5 HSIs	$61,004,000 awarded to 4 AANAPISI/HSIs[a]	$23,407,000 awarded to 1 AANAPISI/ANNH[a]
			

HBCU - Historically Black Colleges and Universities
HSI - Hispanic-Serving Institutions
AANAPISI/HSI - Asian American and Native American Pacific Islander-Serving/Hispanic-Serving Institutions
AANAPISI/ANNH - Asian American and Native American Pacific Islander-Serving/Alaska Native and Native Hawaiian-Serving Institution

Source: GAO analysis of Department of Health and Human Services data: Stafeeva/adobestock.com (people); Vikivector/adobestock.com (buildings). | GAO-25-107576

Note: Funding amounts are rounded and are not exact. Award periods across which RCMIs would receive these funds ranged from 2 to 7 years.

[a]Institutions can have multiple MSI designations. For example, AANAPISI/HSIs refers to institutions that were both Asian American and Native American Pacific Islander-Serving and Hispanic-Serving.

Source: GAO analysis of Department of Health and Human Services data and documentation; HHS (agency icon). | GAO-25-107576

National Science Foundation (NSF)

Centers of Research Excellence in Science and Technology (CREST Centers)

Source: D Lahoud/peopleimages.com/adobestock.com. | GAO-25-107576

Purpose

Develop awardees' research capacity and competitiveness for awards in a STEM field and support research experiences and training for faculty, postdoctoral researchers, and students in that field.

Eligible Research Areas

STEM areas of high national priority, including data science and analytics, advanced materials, manufacturing, robotics, cybersecurity, semiconductors, clean energy, agriculture technology, and nanotechnology.

Targeting Strategy

Faculty were eligible to apply if their college or university had enrollment of 50 percent or more students who are underrepresented among advanced degree candidates in science and engineering fields. Some CREST awards were made to Historically Black Colleges and Universities (HBCU) and Minority-Serving Institutions (MSI).

Highlight

The CREST Centers program included three initiatives to fund research, postdoctoral fellowships, and development opportunities for doctoral students and junior faculty.

Awards and Subawards Made to HBCUs and MSIs, as Reported by NSF, Fiscal Years 2022–2024

11	2	11	2	1
totaling	totaling	totaling	totaling	totaling
$14,169,000	$460,000	$7,836,000	$545,000	$342,000
to	to	to	to	to an
HBCUs	AANAPISIs	HSIs	AANAPISI/HSIs[a]	AANAPISI/PBI[a]

HBCU - Historically Black Colleges and Universities
AANAPISI - Asian American and Native American Pacific Islander-Serving Institutions
HSI - Hispanic-Serving Institutions
AANAPISI/HSI - Asian American and Native American Pacific Islander-Serving/Hispanic-Serving Institutions
AANAPISI/PBI - Asian American and Native American Pacific Islander-Serving/Predominantly Black Institution

Source: GAO analysis of National Science Foundation data; Stafeeva/adobestock.com (people); Vikivector/adobestock.com (buildings). | GAO-25-107576

Note: Funding amounts are rounded and are not exact. Award periods ranged from 1 to 5 years.

[a]Institutions can have multiple MSI designations. For example, AANAPISI/HSIs refers to institutions that were both Asian American and Native American Pacific Islander-Serving and Hispanic-Serving.

Source: GAO analysis of National Science Foundation data and documentation; NSF (agency icon). | GAO-25-107576

Programs and initiatives that were targeted to HBCUs, TCUs, or MSIs targeted these institutions by restricting eligibility, unless otherwise noted. Programs and initiatives that were targeted to partnerships with HBCUs, TCUs, or MSIs were broader research programs under which primary awardees were required to or received a benefit (such as additional consideration in the selection process) from partnering with those institutions on research and related activities. The tables include information on the agency components that operated the programs and initiatives[2] and examples of focus areas under which colleges and universities were eligible to apply for funding to conduct research or carry out capacity building activities such as training.[3]

Table 17: Department of Agriculture (USDA) Competitive Research Funding Programs and Initiatives Targeted to HBCUs, TCUs, or MSIs (Fiscal Years 2022–2024)

Agency and office	Program name	Example eligible focus area(s)
Agricultural Research Service, Office of Civil Rights	1890 Faculty Research Sabbatical Program	Agriculture
National Institute of Food and Agriculture, Institute of Food Production and Sustainability	Agricultural and Food Research Initiative: Foundational and Applied Science Program, Food and Agricultural Science Enhancement Grants	Plant health and production; animal reproduction; and food safety, nutrition, and health
National Institute of Food and Agriculture, Institute of Youth, Family, and Community, Division of Community and Education	1890 Institution Teaching, Research, and Extension Capacity Building Grants Program	Nutrition security, bioenergy, food safety, and water quality
	Agriculture and Food Science Facilities and Equipment Program for Insular Areas	Nutrition security, resilient ecosystems, and innovative technologies
	Alaska Native-Serving and Native Hawaiian-Serving Education Competitive Grants Program	Nutrition security, resilient ecosystems, and innovative technologies
	Resident Instruction Grants for Institutions of Higher Education in Insular Areas	Nutrition security, resilient ecosystems, and innovative technologies
	Tribal Colleges Research Grants Program	Nutrition security, resilient ecosystems, and innovative technologies

[2]Agencies were asked to report which office, component, bureau, other organization, or group thereof within their agency operated each program or initiative.

[3]The example eligible focus areas for each program or initiative are topics under which applicants could have applied to carry out research or related activities, as described under fiscal year 2022, 2023, or 2024 solicitations, notices of funding opportunity, requests for applications, or equivalent documents.

National Institute of Food and Agriculture	Centers of Excellence at 1890 Institutions	Food security, natural resources, and emerging technologies

Source: GAO analysis of USDA documents and survey responses. | GAO-25-107576

Table 18: Department of Agriculture Competitive Research Funding Initiative Targeted to Partnerships with HBCUs, TCUs, or MSIs (Fiscal Years 2022–2024)

Agency and office	Program name	Example eligible focus area(s)
National Institute of Food and Agriculture, Institute of Food Production and Sustainability	Agricultural and Food Research Initiative: Foundational and Applied Science Program, Supplemental Funding for Partnerships with Eligible Institutions	Plant health and production; animal reproduction; and food safety, nutrition, and health

Source: GAO analysis of USDA documents and survey responses. | GAO-25-107576

USDA officials reported that, as of May 15, 2025, for most of the programs listed, some awards made under the program were paused for review related to compliance with executive orders issued in 2025. They also said four awards made under the *1890 Institution Teaching, Research, and Extension Capacity Building Grants Program* had been terminated due to non-compliance with executive orders. However, they reported no pauses or terminations for awards made under the *Alaska Native-Serving and Native Hawaiian-Serving Education Competitive Grants* and *Tribal Colleges Research Grants* programs. They were unable to identify if any of the supplemental funds for partnerships with HBCUs, TCUs, or MSIs had been paused or terminated (see table 18).

According to an update from USDA officials in June 2025, 2025 requests for applications (RFA) for all programs, including the programs listed in tables 17 and 18, were paused for review for compliance with executive orders issued in 2025. In August 2025, USDA released the fiscal year 2026 RFA for the *Agricultural and Food Research Initiative: Foundational and Applied Science* program, which includes the *Food and Agricultural Science Enhancement Grants* and *Supplemental Funding for Partnerships with Eligible Institutions* initiatives listed in tables 17 and 18.

Table 19: Department of Commerce Competitive Research Funding Program Targeted to HBCUs, TCUs, or MSIs (Fiscal Years 2022–2024)

Agency and office	Program name	Example eligible focus area(s)
National Oceanic and Atmospheric Administration, Office of Education	José E. Serrano Educational Partnership Program with Minority-Serving Institutions	Atmospheric sciences and meteorology, Earth system sciences, and remote sensing technologies

Source: GAO analysis of Commerce documents and survey responses. | GAO-25-107576

As of May 15, 2025, officials from the National Oceanic and Atmospheric Administration reported that the awards made under this program were ongoing and had not been paused or terminated. According to agency officials, continuation of the program after fiscal year 2025 will depend on future fiscal year budgets.

Table 20: Department of Defense (DOD) Competitive Research Funding Programs and Initiatives Targeted to HBCUs, TCUs, or MSIs (Fiscal Years 2022–2024)

Department and office or component	Program name	Example eligible focus area(s)
Department of the Army, U.S. Army Combat Capabilities Development Command, Army Research Laboratory	HBCU/Minority-Serving Institutions Research Partnerships	Synthetic biology, radiofrequency electronics, and artificial intelligence
	HBCU/Minority-Serving Institutions Early Career Program	Biotechnology, energy, and computing
	HBCU/Minority-Serving Institutions Centers of Excellence	Digital forensics, chemistry under extreme conditions, environmental modeling
	Core Single Investigator Matching	Biotechnology, energy, and computing
	Army-HBCU/Minority-Serving Institutions Faculty Immersion Program	Synthetic biology and autonomy
	HBCU/Minority-Institution Student Partnership for Applied Research and Knowledge	Science, technology, engineering, and mathematics (STEM)
Department of the Navy, Office of Naval Research	HBCU/Minority-Serving Institutions Program	Sensors, machine learning, hypersonics, and autonomy
	HBCU/Minority-Institution Summer Intern Program	STEM
Department of the Air Force, Air Force Research Laboratory, Air Force Office of Scientific Research	HBCU/Minority-Institutions Program	Engineering and complex systems, physical sciences, and chemistry
	Basic Research National Science Portal Initiative	Directed energy, machine learning, and biologically based materials for space
	Tactical Autonomy University Affiliated Research Center	Tactical autonomy
	Minority Leaders – Research Collaboration Program[a]	Computational methods for analyzing aerodynamics, structural dynamics, and heat transfer
Department of Defense, The Office of the Under Secretary of Defense for Research and Engineering, Historically Black Colleges and Universities and Minority-Serving Institutions Program Office	Research and Education Program for HBCU/Minority-Serving Institutions	Advanced materials, information science, and biophysics
	Research and Education Program for HBCU/Minority-Serving Institutions: Equipment/Instrumentation	Advanced materials, information science, and biophysics
	HBCU/Minority-Serving Institutions Elevation	Autonomy, directed energy, and quantum science
	Renewable Energy Generation and Storage Center of Excellence	Advanced batteries, smart grids, and superconducting science and technology

	Integrated Sensing and Cyber Center of Excellence	Sensors (including radio frequency, acoustic, seismic, magnetic, electro-optical and infrared sensors)
	Advanced Computing and Software Center of Excellence	High performance computing, large-scale networks, data storage, and neural networks
	Future Generation Wireless Technology Center of Excellence	Intelligent network management, network resiliency, antenna design, and optical wireless technology

Source: GAO analysis of DOD documents and survey responses. | GAO-25-107576

[a]The program focused on providing opportunities for students from underrepresented groups, including from HBCUs, TCUs, and MSIs.

As of May 15, 2025, DOD officials reported that the Army, Navy, and Air Force programs listed in table 20 would continue, with one exception. They said that the Air Force's *Minority Leaders – Research Collaboration Program* would not solicit for or make new awards due to a lack of funding. They also reported that other than one award which was terminated for reasons related to performance, awards made under Army, Navy, and Air Force programs targeted to HBCUs, TCUs, or MSIs were ongoing and had not been paused or terminated.

DOD officials reported that as of May 15, 2025, the Office of the Under Secretary of Defense for Research and Engineering planned to continue the *Research and Education* and *Equipment/Instrumentation* programs. However, they said Congress did not appropriate funds to continue the *Elevation* program. The four *Centers of Excellence* were ongoing. They also said that one *Research and Education* and two *Elevation* awards had been terminated. Of these three awards, they said two were terminated because they did not align with Executive Order 14151, Ending Radical and Wasteful Government DEI Programs and Preferencing.[4]

[4]Exec. Order 14151, Ending Radical and Wasteful Government DEI Programs and Preferencing (Jan. 20, 2025). DEI stands for diversity, equity, and inclusion.

Table 21: Department of Education Competitive Research Funding Programs and Initiatives Targeted to HBCUs, TCUs, or MSIs (Fiscal Years 2022–2024)

Office	Program name	Example eligible focus area(s)
Institute for Education Sciences, National Center for Education Research	Early Career Development and Mentoring Program for Faculty at Minority-Serving Institutions	Education
Office of Elementary and Secondary Education	Education Innovation and Research Program (EIR)[a]	Strategies to improve student achievement and address challenges in education
Office of Postsecondary Education, Higher Education Programs, Institutional Service	Research and Development Infrastructure Grant Program	Science, technology, engineering, the arts, and law
Office of Postsecondary Education, International and Foreign Language Education	International Research and Studies Program (IRS)[b]	Foreign language education

Source: GAO analysis of Department of Education documents and survey responses. | GAO-25-107576

[a]The EIR program accepted applications from all institutions of higher education, and for the fiscal year 2024 competition, it gave a competitive preference to projects that would be implemented by or in partnership with community colleges, HBCUs, TCUs, or MSIs.

[b]The IRS program accepted applications from all institutions of higher education, and for the fiscal year 2023 competition, it gave a competitive preference to projects that would be implemented by or in partnership with community colleges, HBCUs, TCUs, or MSIs.

As of May 15, 2025, Education officials reported the department had not released future plans for these programs. They also said that for three of these programs, no awards had been paused or terminated. Two awards made under the *Education Innovation and Research Program* had been terminated, but neither were awards made to HBCUs, TCUs, or MSIs, according to officials.

Table 22: Department of Energy (DOE) Competitive Research Funding Programs and Initiatives Targeted to HBCUs, TCUs, or MSIs (Fiscal Years 2022–2024)

Office	Program name	Example eligible focus area(s)
National Nuclear Security Administration	National Nuclear Security Administration Minority-Serving Institution Partnership Program/Tribal Education Partnership Program	Advanced manufacturing, cybersecurity, and nuclear security
Office of Energy Efficiency and Renewable Energy	Historically Black Colleges and Universities Clean Energy Education Prize	Renewable energy, sustainable transportation, and energy efficiency
Office of Environmental Management	Environmental Management–Minority-Serving Institutions Partnership Program, Competitive Research Award Program	Soil and groundwater remediation, cybersecurity, robotics, and computer science
Office of Fossil Energy and Carbon Management	University Training and Research for Fossil Energy and Carbon Management, Historically Black Colleges and Universities and Other Minority-Serving Institutions Program	Carbon management and critical mineral production
Office of Nuclear Energy, Office of External Innovation	Consolidated Innovative Nuclear Research, Grand Challenge Research and Development at Minority-Serving Institutions	Nuclear engineering
Office of Science, Biological and Environmental Research	Climate Resilience Centers	Local environmental and energy challenges
Office of Science	Funding for Accelerated, Inclusive Research	Applied mathematics, materials science, physics, biology
	Reaching a New Energy Sciences Workforce	Applied mathematics, materials science, physics, biology

Source: GAO analysis of DOE documents and survey responses. | GAO-25-107576

Table 23: Department of Energy Competitive Research Funding Programs and Initiatives Targeted to Partnerships with HBCUs, TCUs, or MSIs (Fiscal Years 2022–2024)

Agency and office	Program name	Example eligible focus area(s)
Office of Fossil Energy and Carbon Management	University Training and Research for Fossil Energy and Carbon Management, University Carbon Research Program: Visiting Scholars Program to Benefit Students from Minority-Serving Institutions	Carbon management and critical mineral production
Office of Manufacturing and Energy Supply Chains and Office of State and Community Energy Programs	Building Training and Assessment Centers Program	Energy efficiency and environmental performance of buildings

Source: GAO analysis of DOE documents and survey responses. | GAO-25-107576

As of May 15, 2025, DOE officials said that they would not issue any further solicitations under the *Climate Resilience Centers; Funding for Accelerated, Inclusive Research; Reaching a New Energy Sciences Workforce;* or *Building Training and Assessment Centers* programs. They also said that they would not accept new applications under the National

Nuclear Security Administration's *Minority-Serving Institution Partnership Program/Tribal Education Partnership Program*. Additionally, DOE officials were unable to provide an update on the status of the *Historically Black Colleges and Universities Clean Energy Education Prize*. Otherwise, officials said the programs listed in tables 22 and 23 would continue as planned. They also reported that awards made under all the programs listed in tables 22 and 23 were ongoing and that no awards had been paused or terminated.

Table 24: Department of Health and Human Services (HHS) Competitive Research Funding Programs and Initiatives Targeted to HBCUs, TCUs, or MSIs (Fiscal Years 2022–2024)

Agency and office	Program name	Example eligible focus area(s)
Center for Medicare and Medicaid Services, Office of Minority Health	Minority Research Grant Program	Health services
Health Resources and Services Administration, Maternal and Child Health Bureau	Maternal Health Research Collaborative for Minority-Serving Institutions[a]	Maternal health
National Institutes of Health, National Institute of General Medical Sciences, Division of Biophysics, Biomedical Technology, and Computational Biosciences	Instrumentation Grant Program for Resource-Limited Institutions	Cell and organ systems, genomics, and neuroscience
National Institutes of Health, National Institute of General Medical Sciences, Division of Research Capacity Building	Native American Research Centers for Health	Mechanisms that underlie disease and the effectiveness of interventions
	Support for Research Excellence Award	Genomics, aging, infectious disease, and bioengineering
National Institutes of Health, National Institute of General Medical Sciences, Division of Training and Workforce Development	Leading Equity and Diversity in the Medical Scientist Training Program	Biomedical
National Institutes of Health, National Institute on Minority Health and Health Disparities	John Lewis National Institute on Minority Health and Health Disparities Research Endowment Program	Minority health and health disparities
	Research Centers in Minority Institutions	Minority health and health disparities; behavioral, population, and clinical services research
	Strengthening Research Opportunities for NIH Grants	Biomedical, including basic, behavioral, and clinical research
National Institutes of Health, Office of Acquisitions	HBCU Indefinite Delivery/Indefinite Quantity Contract	Biomedical and public health

Source: GAO analysis of HHS documents and survey responses. | GAO-25-107576

[a]While all institutions of higher education were eligible to apply, the program focused on MSIs, and non-MSI applicants were expected to partner with an MSI.

HHS officials reported that as of May 15, 2025, the programs listed in table 24 would continue, with two exceptions: the *Minority Research Grant Program* was not awarding funds and *Leading Equity and Diversity in the Medical Scientist Training Program* had been terminated. Some awards made under the *John Lewis National Institute on Minority Health and Health Disparities Research Endowment* and *Research Centers in Minority Institutions* (RCMI) programs were terminated due to misalignment with agency priorities, according to officials. Officials provided an update that the terminated RCMI awards were reinstated as of August 2025.

Table 25: Department of Homeland Security (DHS) Competitive Research Funding Programs and Initiatives Targeted to HBCUs, TCUs, or MSIs (Fiscal Years 2022–2024)

Office	Program name	Example eligible focus area(s)
Science and Technology Directorate, Office of University Programs	Minority-Serving Institutions Program	Border security, infrastructure resilience, and artificial intelligence
Countering Weapons of Mass Destruction, Research and Development Division, National Nuclear Forensics Expertise Development Program	Nuclear Forensics Research Award, Notice of Funding Opportunity for Minority-Serving Institutions	Nuclear forensics

Source: GAO analysis of DHS documents and survey responses. | GAO-25-107576

Table 26: Department of Homeland Security Competitive Research Funding Program Targeted to Partnerships with HBCUs, TCUs, or MSIs (Fiscal Years 2022–2024)

Office	Program name	Example eligible focus area(s)
Science and Technology Directorate, Office of University Programs	DHS Centers of Excellence	Hazard modeling, cybersecurity, and supply chain security

Source: GAO analysis of DHS documents and survey responses. | GAO-25-107576

As of May 15, 2025, Department of Homeland Security officials reported that the initiatives under the *Minority-Serving Institutions Program* had been canceled and initiatives under the *DHS Centers of Excellence* program had been terminated or were under review to ensure alignment with policy, including Executive Order 14173, Ending Illegal Discrimination and Restoring Merit-Based Opportunity.[5] The *Nuclear Forensics Research Award* program was ongoing but according to officials, the department did not have any plans to target future notices of

[5]Exec. Order 14173, Ending Illegal Discrimination and Restoring Merit-Based Opportunity (Jan. 21, 2025).

funding opportunity to HBCUs, TCUs, or MSIs, and the program accepted applications from all institutions of higher education.

Table 27: Department of Justice Competitive Research Funding Program Targeted to HBCUs, TCUs, or MSIs (Fiscal Years 2022–2024)

Office	Program name	Example eligible focus area(s)
Office of Justice Programs, National Institute of Justice	National Institute of Justice Center to Enhance Research Capacity at Minority-Serving Institutions[a]	Criminal justice

Source: GAO analysis of Interviews with Department of Justice officials and publicly available agency information. | GAO-25-107576

[a]While applications for this program were not limited to HBCUs, TCUs, and MSIs, the purpose of the Center was to work with MSIs to build and enhance their research capacities.

No update on the status of the *Center to Enhance Research Capacity at Minority-Serving Institutions* was available as of May 15, 2025.

Table 28: Department of Transportation (DOT) Competitive Research Funding Programs and Initiatives Targeted to HBCUs, TCUs, or MSIs (Fiscal Years 2022–2024)

Agency and office	Program name	Example eligible focus area(s)
Federal Highway Administration, Office of Administration, Office of Human Resources, Talent Development Division	Dwight David Eisenhower Transportation Fellowship Local Competition Program	Transportation
Federal Aviation Administration (FAA), Office of NextGen	Aviation Research Grants Program[a]	Air traffic control technology, aircraft safety technology, and operations research

Source: GAO analysis of DOT documents and survey responses. | GAO-25-107576

[a]The notice of funding opportunity for the program noted that FAA would seek to ensure an equitable geographic distribution of grant funds and the inclusion of HBCUs, TCUs, or MSIs.

Table 29: Department of Transportation Competitive Research Funding Program Targeted to Partnerships with HBCUs, TCUs, or MSIs (Fiscal Years 2022–2024)

Agency and office	Program name	Example eligible focus area(s)
Office of the Secretary of Transportation, Office of Research, Development, and Technology	University Transportation Centers Program	Surface transportation, including safety, infrastructure, cybersecurity, and autonomous vehicles

Source: GAO analysis of DOT documents and survey response. | GAO-25-107576

As of May 15, 2025, DOT officials reported that the *Dwight David Eisenhower Transportation Fellowship Local Competition Program* was on hold as they awaited further guidance as to whether the program

would continue. They said the *Aviation Research Grants Program* was ongoing, with no awards paused or terminated. They also reported that some *University Transportation Center* awards made to MSIs had been terminated because they no longer carried out program goals or agency priorities.

Table 30: National Aeronautics and Space Administration (NASA) Competitive Research Funding Program Targeted to HBCUs, TCUs, or MSIs (Fiscal Years 2022–2024)

Office	Program name	Example eligible focus area(s)
Office of STEM Engagement	Minority University Research and Education Project (MUREP)	Hardware for space exploration, human health and safety in space, and Earth systems

Source: GAO analysis of NASA document and survey response. | GAO-25-107576

As of May 15, 2025, NASA officials reported that while the *Minority University Research and Education Project* would continue as authorized by statute, some awards under this program had been flagged for modification (such as a reduced award amount or shorter period of performance) because they conflicted with Executive Orders 14151 and 14168.[6]

Table 31: National Science Foundation (NSF) Competitive Research Funding Programs and Initiatives Targeted to HBCUs, TCUs, or MSIs (Fiscal Years 2022–2024)

Directorate and division or office	Program name	Example eligible focus area(s)
Directorate for Computer and Information Science and Engineering	Computer and Information Science and Engineering Research Expansion Program	Networking technology and systems, human-centered computing, and cyber-physical systems
Directorate for Computer and Information Science and Engineering and Directorate for STEM Education	Expanding AI Innovation through Capacity Building and Partnerships	Artificial intelligence
Directorate for Mathematical and Physical Sciences, Division of Astronomical Sciences	Partnerships in Astronomy and Astrophysics Research and Education[a]	Astronomy and astrophysics
Directorate for Mathematical and Physical Sciences, Division of Chemistry	Partnerships for Research and Education in Chemistry	Chemistry, including polymers, nanotechnology, and electrochemistry

[6]Exec. Order 14151, Ending Radical and Wasteful Government DEI Programs and Preferencing (Jan. 20, 2025) (DEI stands for diversity, equity, and inclusion); Exec. Order 14168, Defending Women from Gender Ideology Extremism and Restoring Biological Truth to the Federal Government (Jan. 20, 2025).

Directorate for Mathematical and Physical Sciences, Division of Materials Research	Partnerships for Research and Education in Materials	Biomaterials, ceramics, and electronic and photonic materials
Directorate for Mathematical and Physical Sciences, Division of Mathematical Sciences	Partnerships for Research Innovation in the Mathematical Sciences	Computational and experimental research, statistics, and applied math
Directorate for Mathematical and Physical Sciences, Division of Physics	Partnerships for Research and Education in Physics	Gravitational physics, nuclear physics, physics of living systems, and quantum information science
Directorate for Social, Behavioral, and Economic Sciences (SBE), SBE Office of Multidisciplinary Activities	Build and Broaden: Enhancing Social, Behavioral, and Economic Science Research and Capacity Building	Social, behavioral, and economic sciences
Directorate for STEM Education, Division of Equity for Excellence in STEM	Centers of Research Excellence in Science and Technology	Data science and analytics, advanced materials, agriculture technology, and nanotechnology
	Hispanic-Serving Institutions: Enriching Learning, Programs, and Student Experiences	STEM education, astronomy, biology, computing, and mathematics
	Historically Black Colleges and Universities–Undergraduate Program	STEM education, astronomy, biology, computing, and mathematics
	Tribal Colleges and Universities Program	STEM education, natural sciences, and computer science
Office of the Director, Office of Integrative Activities	Historically Black Colleges and Universities–Excellence in Research	STEM education, astronomy, biology, computing, and mathematics

Source: GAO analysis of NSF documents and survey responses. | GAO-25-107576

[a]While applications for this program were not limited to HBCUs, TCUs, and MSIs, the purpose of the program was to build research and education relationships between MSIs and other research institutions.

NSF officials said that activities under all of its programs were under review and would be determined by future fiscal year appropriations. In addition, NSF shared on its website a list of more than 1,600 awards that had been terminated because they were not aligned with agency priorities as of June 5, 2025. These terminations were made across NSF directorates and offices, and included awards made under at least three of the programs listed in table 31.

Table 32: U.S. Agency for International Development (USAID), Competitive Research Funding Initiative Targeted to HBCUs, TCUs, or MSIs (Fiscal Years 2022–2024)

Office	Program name	Example eligible focus area(s)
Inclusive Growth, Partnerships, and Innovation, Innovation, Technology, and Research Hub, Research Division	Long-Term Assistance and Services for Research, MSI Research for Development Award Round	Agriculture and food security, economic growth and trade, water and sanitation, and education

Source: GAO analysis of USAID document and survey response. | GAO-25-107576

As of May 15, 2025, USAID officials said this program had been terminated.

Appendix V: GAO Contact and Staff Acknowledgments

GAO contact

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Staff Acknowledgments

In addition to the contact named above, Darnita Akers (Assistant Director), Britney Tsao (Analyst-in-Charge), Victoria Aysola, Steven Flint, Joseph Frankl, Gina Hoover, Won (Danny) Lee, Angela Marler, Curtis Martin, Moon Parks, Amy Pereira, Megan Sussman, and Rachel Wexler made key contributions to this report.

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