

(Slip Opinion)

Constitutionality of the National Science Foundation's STEM Programs

Certain race- and sex-based programs administered by the National Science Foundation violate the Constitution's equal-protection guarantee.

August 12, 2026

MEMORANDUM OPINION FOR THE GENERAL COUNSEL NATIONAL SCIENCE FOUNDATION

“Racial discrimination is invidious in all contexts.” *Students for Fair Admissions, Inc. v. President & Fellows of Harvard Coll.*, 143 S. Ct. 2141, 2166 (2023) (“*SFFA*”) (cleaned up). It “demeans the dignity and worth of a person to be judged by ancestry instead of by his or her own merit.” *Id.* at 2170 (citation omitted). And while sex, unlike race, can sometimes serve as “a legitimate, accurate proxy” for certain legislative ends, *Craig v. Boren*, 429 U.S. 190, 204 (1976), it often “provides no sensible ground for differential treatment,” *City of Cleburne v. Cleburne Living Ctr.*, 473 U.S. 432, 440 (1985).

Consistent with the Constitution's equal-protection guarantee, this Office recently reviewed federal programs that discriminate based on race and sex. We concluded that certain Department of Education programs allocating grants and preferences based on race were unconstitutional. *See Constitutionality of Race-Based Department of Education Programs*, 49 Op. O.L.C. __ (Dec. 2, 2025) (“*Race-Based Education Programs*”). And we found unconstitutional a Department of Agriculture fee waiver that conferred “special favor based on race and sex without satisfying either strict or heightened scrutiny.” *Department of Agriculture Preferences for “Socially Disadvantaged” Groups*, 50 Op. O.L.C. __, at *24 (June 22, 2026) (“*USDA Preferences*”).

The National Science Foundation (“NSF” or “Foundation”) administers several STEM education programs that allocate federal funding based on race or sex. You have asked whether nine programs violate the Constitution's equal-protection promise and whether NSF may reprogram funds from any unconstitutional programs. *See* Letter for T. Elliot Gaiser, Assistant Attorney General, Office of Legal Counsel, from Angela R. Williams, General Counsel, National Science Foundation (May 8, 2026) (“NSF

Letter”); *see also* E-mail for Josh Craddock, Deputy Assistant Attorney General, Office of Legal Counsel, from William S. Grant II, Assistant General Counsel, National Science Foundation, *Re: [EXTERNAL] RE: Inquiry from US National Science Foundation OGC* (July 10, 2026, 10:12 AM).

We conclude that three programs—the Improving Undergraduate STEM Education: Hispanic-Serving Institutions program, the Alliances for Graduate Education and the Professoriate program, and the Louis Stokes Alliances for Minority Participation program—are unconstitutional in their entirety. NSF may not reprogram the funds appropriated for these programs, but the suballocation for each is unconstitutional as applied, permitting NSF to treat the allocated amounts as residual funds within the STEM education lump-sum appropriation. The remaining six programs are either constitutional or contain severable race- or sex-based elements. NSF may continue to administer those programs provided that it does not implement or enforce the unconstitutional provisions.

We summarize our conclusions as to each program in the following table:

Constitutional	Unconstitutional but severable criteria	Unconstitutional and inseverable criteria
• Tribal Colleges and Universities Program • Graduate Research Fellowship Program • Advancing Informal STEM Learning • Robert Noyce Teacher Scholarship Program	• Advanced Technological Education • ADVANCE Program	• Improving Undergraduate STEM Education: Hispanic-Serving Institutions • Alliances for Graduate Education and the Professoriate • Louis Stokes Alliances for Minority Participation

I.

Congress established NSF in 1950 to create and administer scientific research and education programs in STEM disciplines. 42 U.S.C. § 1862(a)(1); *see also* National Science Foundation Act of 1950, Pub. L. No. 81-507, 64 Stat. 149 (“NSF Act”). Congress empowered NSF to award “scholarships and graduate fellowships for study and research in the sciences or in engineering” and to make “contracts or other arrangements (including grants, loans, and other forms of assistance) to support such scientific, engineering, and educational activities.” 42 U.S.C. § 1862(a)(2), (1). Certain statutory provisions more specifically address NSF’s STEM education programs. Several require (or potentially require) NSF to allocate funding based on race or sex.

Until recently, NSF exercised broad discretion in allocating STEM education appropriations across its programs. Congress funded STEM education activities through a lump-sum appropriation without any program-specific spending requirements. *See, e.g.*, Pub. L. No. 117-328, 136 Stat. 4459, 4550 (2022); Pub. L. No. 118-83, 138 Stat. 1524 (2024) (continuing resolution). Congress ostensibly limited that discretion in early 2026. “For the first time in recent years,” NSF Letter at 1, the annual appropriation required NSF to spend certain amounts on enumerated STEM programs—some of which include race- and sex-based criteria. *See* Science Appropriations Act, 2026, Pub. L. No. 119-74, div. A, tit. III, 140 Stat. 40, 45 (“Science Appropriations Act”). Of the nearly \$1 billion appropriated for STEM education, NSF must allocate “not less than” the following amounts, *id.*, for each program:

NATIONAL SCIENCE FOUNDATION STEM EDUCATION	
(In thousands of dollars)	
Program	Amount (\$000)
STEM Education	938,250
<i>Graduate Research Fellowship Program</i>	285,000
<i>Advanced Technological Education</i>	75,000
<i>Improving Undergraduate STEM Education [IUSE]</i>	90,000
<i>Centers for Research Excellence in Science and Technology</i>	24,000
<i>HBCU—Undergraduate Program</i>	36,500
<i>IUSE: HSI</i>	46,500

<i>Tribal Colleges and Universities Program</i>	20,000
<i>ADVANCE</i>	18,000
<i>Alliances for Graduate Education and the Pro-</i> <i>fessoriate</i>	8,000
<i>Louis Stokes Alliances for Minority Participation</i> ...	49,500
<i>Robert Noyce Teacher Scholarship Program</i>	67,000
<i>CyberCorps, Scholarships for Service</i>	60,000
<i>Advancing Informal STEM Learning [AISL]</i>	55,000

172 Cong. Rec. H266 (daily ed. Jan. 8, 2026); *see also* Pub. L. No. 119-74, § 4, 140 Stat. at 5–6.

You have asked whether NSF may administer programs containing race- or sex-based criteria. *See* NSF Letter at 3. “Given NSF’s obligation to spend its 2026 budget,” *id.* at 2, you have also asked whether the Foundation “may reprogram funds for programs which cannot be carried out consistent with” the Constitution’s equal-protection guarantee, *id.* at 1.

II.

Under “our colorblind Constitution,” *Allen v. Milligan*, 146 S. Ct. 1377, 1380 (2026) (per curiam), “[a]ny allocation of benefits and burdens based on a person’s race is anathema,” *Race-Based Education Programs* at *2. For that reason, “the Constitution almost never permits the Federal Government or a State to discriminate on the basis of race.” *Louisiana v. Callais*, 146 S. Ct. 1131, 1152 (2026). And while “real biological differences between men and women” can sometimes justify sex-based classifications, *USDA Preferences* at *8, “sex-based lines too often reflect stereotypes or overbroad generalizations about the differences between men and women,” *United States v. Skrmetti*, 145 S. Ct. 1816, 1828 (2025).

Our Office recently expounded upon the legal standards that guide our review of race- and sex-based government action. *See Race-Based Education Programs* at *2–13; *USDA Preferences* at *8–11. We therefore offer here only a brief summation of the relevant standards. We begin with (A) the contours of strict scrutiny, turn to (B) the complexities of equal-protection doctrine as applied to Indians, address (C) intermediate scrutiny for sex-based classifications, and conclude by (D) describing the severability framework.

A.

Because racial distinctions “are by their very nature odious to a free people,” *Callais*, 146 S. Ct. at 1153 (citation omitted), the strict scrutiny standard of review applies whenever the federal government adopts a racial classification, *Race-Based Education Programs* at *4; see also *Johnson v. California*, 543 U.S. 499, 505–06 (2005). That “daunting” two-step test, *SFFA*, 143 S. Ct. at 2162 (citation omitted), permits such classifications only if they “further compelling governmental interests” and are strictly necessary to achieve those interests. *Race-Based Education Programs* at *4 (citation omitted).

There are “only two compelling interests” that justify “race-based government action,” one of which is relevant here: “remediating specific, identified instances of past discrimination that violated the Constitution or a statute.” *SFFA*, 143 S. Ct. at 2162; accord *Callais*, 146 S. Ct. at 1152.¹ The government “must identify the specific instances of past discrimination that it aims to remediate” and define the injury to be remedied; it has “no compelling interest in generally remediating ‘past discrimination’” or societal disparities. *Callais*, 146 S. Ct. at 1152–53 (citation omitted). Mere “statistical disparities don’t cut it.” *Race-Based Education Programs* at *7 (cleaned up). After identifying specific episodes of discrimination, the government must also possess “‘a strong basis in evidence’ to conclude” that race-based action is “necessary” to remedy the violation. *Callais*, 146 S. Ct. at 1153 (citation omitted).

Even when a compelling interest exists, narrow tailoring imposes an “extraordinarily onerous” burden. *Id.* at 1161 (citation omitted). The government must show that racial distinctions are “necessary” to achieving its purpose. *Race-Based Education Programs* at *7 (quoting *SFFA*, 143 S. Ct. at 2162). Relevant considerations include whether the program: (1) operates flexibly rather than as “a per se unconstitutional quota”; (2) reflects genuine consideration of “workable race-neutral alternatives”; (3) has “definite duration” and “undergoes ‘periodic review’”; (4) employs “‘arbitrary or undefined’ racial categories”; and (5) “minimize[s] the burden on other racial groups.” *Id.* at *7–8 (citations

¹ The other compelling interest, irrelevant here, is “avoiding imminent and serious risks to human safety in prisons, such as a race riot.” *Callais*, 146 S. Ct. at 1152 (citation omitted).

omitted). Racial classifications used “to allocate zero-sum benefits” are subject to additional skepticism. *Id.* at *8; *see also SFFA*, 143 S. Ct. at 2168–69. In all but “the most extraordinary case,” *SFFA*, 143 S. Ct. at 2163, strict scrutiny of racial classifications is “automatically fatal,” *Race-Based Education Programs* at *47 (citation omitted).

B.

“Equal-protection questions are especially nuanced” when federal preferences involve “Indian tribes and other native peoples.” *Id.* at *8. The challenge there is distinguishing between political classifications tied to tribal sovereignty (which are subject to rational-basis review) and racial classifications tied to ethnicity (which are subject to strict scrutiny). *See id.* at *9–10 (citing *Morton v. Mancari*, 417 U.S. 535, 553–54 (1974)). Preferences tied to the “government-to-government relationship . . . between the United States and recognized Indian tribes” fall within the *Mancari* exception to strict scrutiny. *Id.* at *9. But preferences based solely on Indian ethnicity, without a meaningful connection to sovereignty, constitute racial classifications that are subject to strict scrutiny. *See id.* at *9–13.

Two factors guide that distinction. “*First*, the distinction must be drawn based on membership, citizenship, or a similar affiliation in a federally recognized political entity.” *Id.* at *10. Preferences for Alaska Natives may satisfy this requirement when tied to affiliation with “‘federally recognized Alaska Native villages’ . . . listed on the Department of the Interior registry of recognized Native entities.” *Id.* at *11 (citation omitted). By contrast, Native Hawaiian or Native Pacific Islander classifications cannot satisfy this requirement because there are “no federally recognized Native Hawaiian or Native Pacific Islander political entities with which the United States has maintained a government-to-government relationship.” *Id.*

“*Second*, we consider whether the preference involves uniquely Indian interests—such as Indian lands, treaties, and political institutions—or whether the program merely includes Indians along the way to broader purposes that overshoot Congress’[s] unique obligation toward the Indians.” *Id.* at *12 (cleaned up). Many preferences for tribal members involve an ancestry component, so the involvement of Indian ancestry does not categorically render a preference for tribal members unlawful. *See*

United States v. Antelope, 430 U.S. 641, 645 (1977). Were it otherwise, *Mancari* would be a dead letter, because “even when federal classifications turn solely on formal tribal citizenship, tribal citizenship laws typically include an ancestry component.” 1 *Cohen’s Handbook of Federal Indian Law* § 17.03[2][b][ii] (2024 ed.) (“*Cohen’s*”).

But “[a]ncestry” can also operate as an impermissible “proxy for race” in the pursuit of general policy goals. *Rice v. Cayetano*, 528 U.S. 495, 514 (2000). Identifying the “uniquely Indian interests” served by the legislation—that is, the nexus to interests such as treaty rights, “Indian land[s], tribal status, self-government[,] or culture”—helps to ensure that any “preferential treatment for Indians” remains directly and principally “linked to the distinctive status of Indian political institutions.” *Race-Based Education Programs* at *12 (citations omitted). Such identification guards against pretextual classifications based on tribal membership by confirming that a classification in substance reflects the government’s special obligations toward these quasi-sovereign entities rather than serving some other, proscribed purpose. *Cf. Haaland v. Brackeen*, 143 S. Ct. 1609, 1628 (2023) (discussing Congress’s legislative power over Indian affairs). A preference—even for tribal members—fails this factor when, for example, its primary purpose is to achieve a generalized interest in racial or ethnic diversity. *See Race-Based Education Programs* at *24. Such purposes “do not relate to distinct federal obligations to Indians.” *Id.* (cleaned up).

C.

Sex-based classifications must survive intermediate scrutiny (sometimes also called “heightened scrutiny”). *See USDA Preferences* at *8–11. To meet this standard, “the government ‘must show at least that the challenged classification serves important governmental objectives and that the discriminatory means employed are substantially related to the achievement of those objectives.’” *Id.* at *9–10 (quoting *United States v. Virginia*, 518 U.S. 515, 533 (1996)); accord *West Virginia v. B.P.J.*, 146 S. Ct. 2356, 2374 (2026).

“Under this standard, sex-based preferences in government programs will not easily satisfy equal protection’s requirements.” *USDA Preferences* at *10. “[M]ere findings of disparity” are insufficient. *Id.* (quoting *Constitutionality of Federal Government Efforts in Contracting With*

Women-Owned Businesses, 32 Op. O.L.C. 23, 25 (2008) (“*Women-Owned Businesses*”). The government must identify “genuine and non-hypothetical evidence of discrimination” within the relevant “economic sphere.” *Id.* (citation omitted). Once specific episodes of relevant discrimination are identified, three factors govern the substantial-relation analysis. *First*, the sex-based means must effectively serve the posited end. *See id.* *Second*, the program must be tailored to further that end, though not as narrowly as for strict scrutiny. *See id.*; *see also id.* at *8. *Third*, “the existence of sex-neutral alternatives” generally defeats “a sex-based distinction.” *Id.* at *10–11.

D.

Unconstitutional race- or sex-based eligibility criteria can sometimes be severed from a program’s “unobjectionable provisions.” *El Paso & N.E. Ry. Co. v. Gutierrez*, 215 U.S. 87, 96 (1909). We presume severability unless “the remaining portions of the statute either cannot function independently . . . or ‘would not function in a manner consistent’ with Congress’s intent.” *Constitutionality of the Presidential Records Act*, 50 Op. O.L.C. __, at *50 (Apr. 1, 2026) (citation omitted); *see also Race-Based Education Programs* at *14. This presumption is rebutted when severance would “confer unfettered discretion on the President without sufficient criteria to guide him,” thus rendering the remaining delegation “so broad” that “‘Congress would have been unwilling to make the delegation’ absent the severed criteria.” *Race-Based Education Programs* at *14 (quoting *Alaska Airlines, Inc. v. Brock*, 480 U.S. 678, 685 (1987)).

III.

We now apply these principles to NSF’s programs. Our analysis proceeds in four parts. First, we conclude that NSF may continue to administer the Tribal Colleges and Universities Program, which falls within the *Mancari* exception to strict scrutiny. Next, we discuss three programs that do not require NSF to consider race or sex; NSF must administer those programs in a race- and sex-neutral fashion. Third, we address two programs that contain unconstitutional-yet-severable sex-based preferences, allowing NSF to administer programs in a sex-neutral manner. Finally, we identify three programs that NSF may not administer whatsoever due to their unconstitutional, inseverable criteria.

A.

NSF provides awards to tribal colleges and universities (“TCUs”) through its Tribal Colleges and Universities Program (“TCUP”). *See* Pub. L. No. 111-358, § 525, 124 Stat. 3982, 4019 (2011) (codified as amended at 42 U.S.C. § 1862p-13). In general, a TCU is “an institution of higher education which is formally controlled, or has been formally sanctioned, or chartered, by the governing body of an Indian tribe or tribes.” 25 U.S.C. § 1801(a)(4); *see also* 42 U.S.C. § 1862p-13(a); 20 U.S.C. § 1059c(b)(3). The TCUP definition also covers Alaska Native- and Native Hawaiian-serving institutions. *See* 42 U.S.C. § 1862p-13(a); 20 U.S.C. § 1059d. An Alaska Native-serving institution must have “an enrollment of undergraduate students that is at least 20 percent Alaska Native students.” 20 U.S.C. § 1059d(b)(2)(B). And an Alaska Native is any “citizen of the United States who is a person of one-fourth degree or more Alaska Indian . . . Eskimo, or Aleut blood, or combination thereof,” or “in the absence of proof of a minimum blood quantum, any citizen of the United States who is regarded as an Alaska Native by the Native village or Native group of which he claims to be a member and whose father or mother is (or, if deceased, was) regarded as Native by any village or group.” 43 U.S.C. § 1602(b); *see also* 20 U.S.C. § 7546(1). A Native Hawaiian-serving institution must have “an enrollment of undergraduate students that is at least 10 percent Native Hawaiian students.” 20 U.S.C. § 1059d(b)(4)(B).

In 2022, Congress directed NSF to make additional computer-science awards to TCUs. *See* Pub. L. No. 117-167, § 10525(a), 136 Stat. 1366, 1625–26 (codified at 42 U.S.C. § 1862p-13(d)). These awards “bring computer science and computational thinking courses and degrees to [TCUs],” provide for the “development of instructional materials needed to integrate computer science and computational thinking into programs that are culturally relevant to students attending [TCUs],” and supply “research, development[, and] evaluation of distance education for computer science and computational thinking courses and degree programs for students attending [TCUs].” 42 U.S.C. § 1862p-13(d)(2)(A)–(C). The statute further says that it is intended “to increase the participation of Tribal populations in computer science and computational thinking education programs.” *Id.* § 1862p-13(d)(1).

You have asked about several TCUP features, including whether its cross-reference to Alaska Native- and Native Hawaiian-serving institutions is severable and whether its reference to “Tribal populations” creates a race-based eligibility restriction. *See* NSF Letter at 5. We first discuss the status of TCUs; support for those institutions satisfies equal-protection requirements. We then address Alaska Native- and Native Hawaiian-serving institutions and consider the reference to “Tribal populations” in the computer-science subsection. Each issue is amenable to a saving construction that preserves the program’s constitutionality.

1.

Federal law recognizes the importance of tribal sovereignty in education, declaring a national policy “to facilitate Indian control of Indian affairs in all matters relating to education.” 25 U.S.C. § 2011(a). TCUs developed to meet this need when “traditional colleges were . . . too geographically and culturally distant” to be accessible to many Indian students. 1 *Cohen’s* § 23.03[2][e][i]. In 1969, the Navajo Nation became the first to establish a tribally controlled college. *Id.* Other tribes followed, but their institutions “struggl[ed] to continue without stable funding.” *Id.*

Congress responded with the Tribally Controlled Community College Assistance Act of 1978, later renamed the Tribally Controlled College or University Assistance Act (“TCCUAA”). *See* Pub. L. No. 95-471, 92 Stat. 1325; Pub. L. No. 105-244, § 901(b)(1), 112 Stat. 1581, 1827 (1998). In Congress’s view, supporting tribal colleges was “part of its responsibility to provide for Indian education and to compensate for the lack of the state and local property taxes that typically support community colleges.” 1 *Cohen’s* § 23.03[2][e][i]. More broadly, TCUs were—and remain—“a means to further the broader federal and tribal goals of tribal self-determination.” *Id.* This purpose is reflected in the statutory definition of TCU, which refers to “an institution of higher education which is formally controlled, or has been formally sanctioned, or chartered, by the governing body of an Indian tribe or tribes.” 25 U.S.C. § 1801(a)(4). TCUs need not admit non-Indian students, but in practice, “they do so in large numbers.” 1 *Cohen’s* § 23.03[2][e][i]. There are currently 35 accredited TCUs in the United States. *See Tribal Colleges and Universities Directory*, Bur. of Indian Affs. (updated Aug. 19, 2025), <https://perma.cc/QK85-4AP2>.

Awards to TCUs fit within the *Mancari* exception to strict scrutiny. Such financial assistance is “linked to the quasi-sovereign, government-to-government relationship” with recognized tribes and is “rooted in the unique status of Indians as ‘a separate people’ with their own political institutions.” *Race-Based Education Programs* at *9 (quoting *Antelope*, 430 U.S. at 646). Just as state colleges and universities are often instrumentalities of sovereign states, *see, e.g., Mungai v. Univ. of Minn.*, 141 F.4th 959, 966 (8th Cir. 2025); *Maliandi v. Montclair State Univ.*, 845 F.3d 77, 86 (3d Cir. 2016), so too are TCUs generally considered arms or agencies of Indian tribes, *see, e.g., Hagen v. Sisseton-Wahpeton Cmty. Coll.*, 205 F.3d 1040, 1043 (8th Cir. 2000); *Smith v. Salish Kootenai Coll.*, 434 F.3d 1127, 1135 (9th Cir. 2006) (en banc). Tribes exercise a measure of sovereignty and self-determination through TCUs, and providing awards to such institutions furthers the federal government’s unique responsibilities toward Indians. Awards to TCUs—institutions controlled or chartered by tribes—are even more directly related to the government-to-government relationship between the federal government and tribal institutions than the Bureau of Indian Affairs hiring preferences upheld in *Mancari*. *See* 417 U.S. at 553–54.

Awards to TCUs also illustrate the work done by the “uniquely Indian interests” factor of our analysis. *See Race-Based Education Programs* at *12 (citation omitted). In general, the government cannot limit award eligibility to institutions based on their racial composition (or the racial composition of those who control the institution). *See id.* at *20; *Grutter v. Bollinger*, 539 U.S. 306, 334 (2003); *Vitolo v. Guzman*, 999 F.3d 353, 363 (6th Cir. 2021) (concluding that a “requirement that a business must be at least 51% owned by women or minorities” fails narrow tailoring). But in certain circumstances, “‘the unique legal status of Indian tribes under federal law’ permits the Federal Government to enact legislation singling out tribal Indians, legislation that might otherwise be constitutionally offensive.” *Washington v. Confederated Bands & Tribes of the Yakima Indian Nation*, 439 U.S. 463, 500–01 (1979) (citation omitted). TCUs fall within that exception due to their unique status as tribal instrumentalities, even though they may be controlled by tribes that limit membership based on ancestry. Federal support for TCUs rationally furthers tribal self-determination and directly supports tribal institutions. *See* 1 *Cohen’s* § 23.03[2][e][i].

2.

The TCUP statute also defines TCUs to include Alaska Native- and Native Hawaiian-serving institutions, cross-referencing definitions we addressed in our *Race-Based Education Programs* opinion. See 42 U.S.C. § 1862p-13(a); 20 U.S.C. § 1059d(b); NSF Letter at 5. There, we concluded that the definitions of Alaska Native- and Native Hawaiian-serving institutions were race classifications not subject to *Mancari*, because the classifications were not limited to those affiliated with federally recognized tribes or villages. See *Race-Based Education Programs* at *22–24. You have asked how that advice applies to the TCUP.

We start with “the unique circumstances of Alaska and its indigenous population.” *Yellen v. Confederated Tribes of the Chehalis Rsrv.*, 141 S. Ct. 2434, 2438 (2021). Unlike other Indians, Alaska Natives were historically organized in “small, isolated villages,” not tribes. *Confederated Tribes of the Chehalis Rsrv. v. Mnuchin*, 976 F.3d 15, 18 (D.C. Cir. 2020), *rev’d and remanded sub nom.*, *Yellen*, 141 S. Ct. 2434. After the United States purchased the Territory of Alaska in 1867, the federal government—unlike in the lower 48 states—never attempted to relocate Alaska Natives to reservations, leaving their land claims “largely unsettled” for more than a century. *Yellen*, 141 S. Ct. at 2438–39.

Congress settled those claims in 1971 when it enacted the Alaska Native Claims Settlement Act (“ANCSA”). See Pub. L. No. 92-203, 85 Stat. 688 (codified as amended at 43 U.S.C. § 1601 *et seq.*). The ANCSA extinguished Alaska Natives’ claims to land in exchange for nearly \$1 billion and 44 million acres of land. *Yellen*, 141 S. Ct. at 2439. Rather than provide this compensation directly to Alaska Native villages, the statute “adopted an experimental model initially calculated to speed assimilation of Alaska Natives into corporate America.” *Mnuchin*, 976 F.3d at 18 (citation omitted). The law directed Alaska Native villages to create state-chartered private business corporations, called Alaska Native Corporations or “ANCs.” See *Yellen*, 141 S. Ct. at 2439. ANCs would then “‘hold, invest, manage and/or distribute lands, property, funds, and other rights and assets for and on behalf’ of the village.” *Id.* (citation omitted). “Enrolled Alaska Natives then received shares in their respective ANCs.” *Id.* Today, many Alaska Native villages have obtained federal recognition and “thus maintain a government-to-government relationship with the United States, and the United States engages with

such villages as political entities.” *Race-Based Education Programs* at *11 (cleaned up).

With that background, we find that the inclusion of Alaska Native-serving institutions in the TCUP statute is capable of a constitutional interpretation. In our *Race-Based Education Programs* opinion, we addressed the Alaska Native- and Native Hawaiian-Serving Institutions (“ANNHSI”) program. That program applied to all Alaska Native-serving institutions—not only to those controlled or chartered by federally recognized Alaska Native villages. *See id.* at *22–23 (first citing 43 U.S.C. § 1602(b); and then citing 20 U.S.C. §§ 1059d(b)(1), 7546(1)). For that reason, the ANNHSI program did not meaningfully involve the government-to-government relationships that characterize federal support for TCUs, and it was designed principally to further a generalized goal of racial diversity rather than uniquely Indian interests. *See id.* at *24. Applying strict scrutiny, we thus found the ANNHSI program unconstitutional. *See id.* at *24–25.

By contrast, it is possible to read the TCUP statute here as limited only to TCUs—including those controlled by Alaska Native villages—and thereby avoid the ANNHSI program’s fatal infirmity. *See Constitutionality of Disparate-Impact Liability Under Title VII*, 50 Op. O.L.C. ___, at *14 (June 9, 2026) (“*Disparate-Impact Liability*”) (addressing constitutional avoidance); *Clark v. Martinez*, 543 U.S. 371, 380–82 (2005) (same). The statute defines a TCU as an “institution of higher education which is formally controlled, or has been formally sanctioned, or chartered, by the governing body of an Indian tribe or tribes.” 25 U.S.C. § 1801(a)(4); *see also* 42 U.S.C. § 1862p-13(a); 20 U.S.C. § 1059c(b)(3). It then includes Alaska Native-serving institutions in that definition. *See* 42 U.S.C. § 1862p-13(a); 20 U.S.C. § 1059d(b). Congress needed to reference Alaska Native-serving institutions specifically because Congress often has legislated with respect to Alaska Native political institutions distinctly from tribes in the contiguous 48 states. *See Race-Based Education Programs* at *10–11; *Yellen*, 141 S. Ct. at 2439–40. The statutory definition of TCUs would likely not have included educational institutions controlled or chartered by Alaska Native villages without explicit specification. But many Alaska Native villages have obtained federal recognition. *See Race-Based Education Programs* at *11. Given the context, it is plausible to read the definition of TCUs as limiting the definition of Alaska Native-serving institutions, such that the TCUP statute reaches

only those Alaska Native-serving institutions that are controlled or chartered by federally recognized Alaska Native villages. *See Luna Torres v. Lynch*, 578 U.S. 452, 459 (2016) (noting that statutory interpretation requires considering “the relevant words not in a vacuum, but with reference to the statutory context” (citation omitted)); *see also, e.g., Gomez v. United States*, 490 U.S. 858, 864 (1989) (adopting a saving construction based on “the context of the overall statutory scheme”).² So interpreted, the inclusion of Alaska Native-serving institutions falls within the *Mancari* exception.³

² The definition of Alaska Native-serving institutions cross-references a definition of Alaska Native that our Office previously concluded triggers strict scrutiny. *See* 20 U.S.C. § 1059d(b)(1), (b)(2)(B); *id.* § 7546(1); 43 U.S.C. § 1602(b); *Race-Based Education Programs* at *22–25. We reached that conclusion because the statute defined Alaska Native “not just by affiliation with a recognized political group—whether it be a federally recognized tribe or village—but also by blood quantum and ethnic ancestry.” *Race-Based Education Programs* at *23. Although the definition referred to Alaska Native villages as well, it did “not limit eligibility for the . . . program by affiliation with those entities.” *Id.* at *23 n.12. Bolstering our conclusion that strict scrutiny applied, the program’s “stated purposes [were] unrelated to uniquely Indian interests.” *Id.* at *23.

That advice does not dictate the outcome here. For one, the TCUP involves uniquely Indian interests, and in such cases, engaging with the institutions of federally recognized entities may shield “legislation that might otherwise be constitutionally offensive.” *Yakima Indian Nation*, 439 U.S. at 500–01. Even though the underlying definition of Alaska Native includes an element of ancestry, the program engages an arm of a federally recognized institution to facilitate Native sovereignty and self-determination. Moreover, given the broader context of the TCUP, it is possible here to narrow the definition of Alaska Native-serving institutions to those controlled or chartered by federally recognized villages. Such institutions may be made up of individuals of a certain ancestry, but the program targets only those that have achieved federal recognition, further assuring us that the *Mancari* exception applies. Finally, even though the underlying definition of Alaska Native is constitutionally problematic, the blood-quantum element would be severable. We declined to sever that element in our previous advice because of “Congress’s intent that ‘proof of a minimum blood quantum’ would be the controlling basis for preferential treatment.” *Race-Based Education Programs* at *25. Here, by contrast, that same broader context makes federal recognition—not blood quantum—the controlling basis. We would therefore find that the TCUP could continue to operate as Congress intended even without the blood-quantum component of the underlying definition of Alaska Native.

³ Our conclusion extends equally to any TCU controlled or chartered by an ANC. Although ANCs are not themselves federally recognized tribal entities, *see Yellen*, 141 S. Ct. at 2446, they were created as the statutory vehicles through which Congress allows Alaska Native villages to manage lands and assets “on behalf of a Native village,” 43

The same saving construction formally applies to the statute's inclusion of Native Hawaiian-serving institutions. At present, there are "no federally recognized Native Hawaiian or Native Pacific Islander political entities," *Race-Based Education Programs* at *11, and so there are no educational institutions controlled or chartered by federally recognized Native Hawaiian entities. In practical terms, then, the TCUP cannot presently include any Native Hawaiian-serving entities. This practical reality does not, however, undermine our saving construction on a theory of surplusage. When Congress created the TCUP, it may have intended to ensure that any political community the government might eventually recognize would have its institutions eligible to the same extent as traditional TCUs. Because Congress's authority to recognize Native Hawaiian entities has "not previously been resolved by [the] Court," "[c]ongressional action in the face of such legal uncertainty cannot reasonably be characterized as unnecessary surplusage." *Oklahoma v. Castro-Huerta*, 142 S. Ct. 2486, 2500 (2022).

3.

You have also asked about the computer-science awards to TCUs. NSF Letter at 5; *see also* 42 U.S.C. § 1862p-13(d). The program aimed "to increase the participation of *Tribal populations* in computer science and computational thinking education programs." *Id.* § 1862p-13(d)(1) (emphasis added). This reference could be viewed as "a race-based eligibility limitation" outside the *Mancari* exception. NSF Letter at 5.

The awards remain constitutionally administrable. They must still go to TCUs and must satisfy the race-neutral criteria of section 1862p-13(d)(2). As noted above, grants to TCUs generally fall within the *Mancari* exception as a form of government-to-government support. *See Yakima Indian*

U.S.C. § 1602(j), and to "perform[] functions 'that one would most naturally describe as governmental,'" *Mnuchin*, 976 F.3d at 27 (citation omitted). An ANC-controlled TCU would derive its character from the underlying sovereign-to-sovereign relationship between the federal government and Alaska Native villages that ANCs were designed to serve. Moreover, benefits flowing to such an institution would reflect the same uniquely Indian interests in self-determination and self-government that animate TCUs generally—interests that, in Alaska, must be understood through the novel organizational framework Congress established in the ANCSA.

Nation, 439 U.S. at 500–01. In context, the term “Tribal populations” should be interpreted as meaning members of federally recognized tribes or their Alaska Native equivalents. And even if that phrase suggested a race-based restriction, it would be severable, and the race-neutral criteria in section 1862p-13(d)(2) would continue to govern the program.

B.

Applying constitutional avoidance, three programs we have reviewed do not require NSF to consider race or sex in their administration. Those are (1) the Graduate Research Fellowship Program, (2) Advancing Informal STEM Learning, and (3) the Robert Noyce Teacher Scholarship Program. So construed, these programs are consistent with the Constitution’s equal-protection guarantee.

1.

The Graduate Research Fellowship Program (“GRFP”) is authorized under section 10 of the NSF Act. *See* NSF Act § 10, 64 Stat. at 152–53 (codified as amended at 42 U.S.C. § 1869). The original 1950 statute imposed two eligibility criteria, neither racial. *See id.* But in 2022, Congress directed NSF to “ensure program outreach to recruit fellowship applicants . . . from historically underrepresented populations in STEM.” Pub. L. No. 117-167, § 10313(b)(2)(C), 136 Stat. at 1524 (codified at 42 U.S.C. § 1869(c)). Because “historically underrepresented populations in STEM” might refer to “a mix of race-based and non-race-based criteria,” you have asked whether NSF may satisfy this requirement by focusing only on the latter. NSF Letter at 3 (citation omitted).

It can. The phrase “historically underrepresented populations in STEM” does not compel consideration of race. Rather, NSF can satisfy this requirement by targeting race-neutral populations historically underrepresented in STEM—such as persons with disabilities, from rural communities, or from low-income backgrounds. The statute does not require NSF to target *all* historically underrepresented populations. Congress certainly knew how to impose such a requirement, as the provision separately requires recruitment from “all regions” of the United States. *See Bittner v. United States*, 143 S. Ct. 713, 720 (2023) (discussing the *expressio unius*

canon). NSF may therefore comply with section 1869(c) without considering race.⁴

Were there lingering ambiguity, we would interpret section 1869(c) to avoid serious questions about its constitutionality. *See Disparate-Impact Liability* at *14. If section 1869(c) required NSF to target its programmatic outreach based on race, the provision would likely be unconstitutional. “Racial classifications raise special fears that they are motivated by an invidious purpose.” *Johnson*, 543 U.S. at 505. Without “searching” scrutiny “into the justifications for such race-based measures, there is simply no way of determining what classifications are in fact motivated by illegitimate notions of racial inferiority or simple racial politics.” *Id.* at 506 (cleaned up). “We therefore apply strict scrutiny to *all* racial classifications”—“even when they may be said to burden or benefit races equally.” *Id.* (quoting *Shaw v. Reno*, 509 U.S. 630, 651 (1993)); *cf.* Memorandum for Ryan Bounds, Special Assistant to the President for Domestic Policy, from Elizabeth Papez, Deputy Assistant Attorney General, Office of Legal Counsel, *Re: Preliminary Analysis of Constitutional Basis for Proposed Department of Labor Amendments to Executive Order 11246 and Associated Regulations* at 4 (rev. Nov. 25, 2008) (“Papez Memorandum”) (acknowledging that “racially targeted” outreach “may trigger strict scrutiny even if the ultimate hiring process is race neutral”).

The racially targeted outreach at issue here would flunk strict scrutiny. Congress made no findings of “specific, identified instances of past discrimination that violated the Constitution or a statute” in government outreach for graduate STEM education. *SFFA*, 143 S. Ct. at 2162. And even if there were such instances, the hallmarks of narrow tailoring are absent. Section 1869(c) is of “indefinite duration” and lacks “periodic review,” and we are aware of no “good-faith effort” to address any purported discrimination “through workable race-neutral alternatives.” *Race-Based Education Programs* at *7–8 (cleaned up). Because section 1869(c) is best read to avoid consideration of race, NSF can—and must—administer the program through race-neutral recruitment efforts.

⁴ Race must play no part in NSF’s targeting and outreach to such populations, for “[e]ven a policy that is race neutral on its face may be unconstitutional if it is adopted for a ‘racially discriminatory intent or purpose.’” *Coal. for T.J. v. Fairfax Cnty. Sch. Bd.*, 146 S. Ct. 541, 544 (2024) (Alito, J., dissenting from denial of certiorari) (quoting *Village of Arlington Heights v. Metro. Hous. Dev. Corp.*, 429 U.S. 252, 265 (1977)).

We separately conclude that the phrase “historically underrepresented populations” does not require NSF to consider sex. When Congress intends sex-specific action, it uses explicit terms like “women” or “female students.” *See, e.g.*, 42 U.S.C. § 1862i(d)(2)(D), (e)(3)(C) (“women”); *id.* § 1862s-5(d)(3)(A)–(E), (G) (“female students”). The absence of such terms here indicates a sex-neutral meaning. *See Sw. Airlines Co. v. Saxon*, 142 S. Ct. 1783, 1789 (2022) (describing the meaningful-variation canon). This interpretation is reinforced by the Advanced Technological Education statute (addressed in Part III.C), which refers to “women and other underrepresented populations in STEM fields.” 42 U.S.C. § 1862i(d)(2)(D), (e)(3)(C). True, the statute suggests that women are underrepresented in STEM. But the explicit reference to “women” confirms that sex-specific coverage requires sex-specific language. A broader interpretation allowing sex-based preferences would fail intermediate scrutiny, lacking as it does both the “exceedingly persuasive” justification required and the appropriate degree of tailoring. *USDA Preferences* at *10 (citation omitted). NSF can—and must—administer the GRFP without regard to an applicant’s race or sex under the Constitution.

2.

The Advancing Informal STEM Learning (“AISL”) program arises from the STEM Education Act of 2015. *See* Pub. L. No. 114-59, § 3, 129 Stat. 540, 540 (codified as amended at 42 U.S.C. § 1862q). It authorizes grants to support “research and development of innovative out-of-school STEM learning.” 42 U.S.C. § 1862q(a)(1). One provision for PreK–12 grantmaking aims to “broaden participation of groups historically underrepresented in STEM and rural students, in the STEM workforce.” *Id.* § 1862q(c)(2)(C). You have asked whether NSF may administer this program notwithstanding the statute’s reference to “groups historically underrepresented.” NSF Letter at 7.

It can, for reasons already discussed. *See* Part III.B.1. Grants aimed at broadening the participation of certain groups in the STEM workforce trigger intermediate scrutiny because they likely allocate benefits and burdens based on protected characteristics. *See* Papez Memorandum at 4. Even so, the phrase “historically underrepresented” is plausibly race- and sex-neutral: Many non-racial and non-sex-based groups—such as persons with disabilities or from low-income backgrounds—are historically underrepresented in STEM. And even if there were any statutory ambiguity,

the statute should be interpreted to avoid unconstitutionality. *See Disparate-Impact Liability* at *14; *Clark*, 543 U.S. at 380–82. NSF may therefore administer the AISL program in a race- and sex-neutral manner that avoids any racially or sex-based discriminatory intent or purpose.

3.

The Robert Noyce Teacher Scholarship Program (“RNTSP”) is authorized by section 10 of the National Science Foundation Authorization Act of 2002. *See* Pub. L. No. 107-368, § 10, 116 Stat. 3034, 3049–52 (codified as amended at 42 U.S.C. §§ 1862n-1, 1862n-1a). It enables grantmaking to “eligible entities to recruit and train mathematics and science teachers and to provide scholarships and stipends” to participants. 42 U.S.C. § 1862n-1(a)(1).

The program does not refer to race, with one exception involving outreach to certain educational institutions. NSF is directed by the statute to “ensure that the eligible entities . . . represent a variety of types of institutions of higher education.” *Id.* § 1862n-1(a)(5). “In support of this goal,” the Foundation has been told to “broadly disseminate information about when and how to apply for grants under this section, including by conducting outreach to . . . minority institutions.” *Id.* § 1862n-1(a)(5), (a)(5)(B). Minority institutions are those “whose enrollment of a single minority or a combination of minorities . . . exceeds 50 percent of the total enrollment.” 20 U.S.C. § 1067k(3). The term “minority” is then defined by reference to specific racial and ethnic groups. *See id.* § 1067k(2).

“To increase the diversity of participants” in the program, Congress in 2022 instructed NSF to “expand and enhance outreach” to several types of institutions, including TCUs, labor organizations, institutions that serve rural communities and veterans, and “minority-serving institutions.” 42 U.S.C. § 19011(b); *see* Pub. L. No. 117-167, § 10322(b), 136 Stat. at 1539. In NSF’s view, the provision regarding outreach to minority-serving institutions is not “a core function of the program and may be severed.” NSF Letter at 7.

Although the racially targeted “outreach” here triggers strict scrutiny, NSF may administer its outreach in constitutional fashion. Section 1862n-1(a)(5) directs NSF to “broadly disseminate information” about the RNTSP, and it expressly identifies minority institutions as

required recipients of that outreach. 42 U.S.C. § 1862n-1(a)(5). But the statute neither prohibits NSF from making the same outreach to non-minority institutions, nor sets a minimum number of minority institutions that must receive such outreach. *See id.* Section 19011 functions in like manner. Although the statute directs NSF to expand outreach to minority-serving institutions, it does not prohibit NSF from providing equal outreach to non-minority institutions; indeed, it lists several race-neutral examples. *See id.* § 19011(b)(4)–(7). Neither statute requires that NSF *prioritize* outreach to minority institutions at the expense of others. NSF can—and must—administer the statute consistent with equal protection by disseminating information equally to all institutions regardless of racial composition.⁵

C.

We next address two programs that contain unconstitutional-but-severable sex-based preferences.

1.

The Advanced Technological Education (“ATE”) program is authorized by section 3 of the Scientific and Advanced-Technology Act of 1992. *See* Pub. L. No. 102-476, § 3, 106 Stat. 2297, 2297–2300 (codified as amended at 42 U.S.C. § 1862i). It directs NSF to “award grants to junior or community colleges to develop or improve associate degree or certifi-

⁵ As a practical matter, the same result would follow if we found the reference to minority institutions unconstitutional. The primary statute defines “minority institutions” by reference to racial quotas. *See* 42 U.S.C. § 1862n-1(a)(5)(B); 20 U.S.C. § 1067k(2)–(3); *see also Race-Based Education Programs* at *35 (addressing section 1067k). Those racial quotas are unconstitutional. We are aware of no congressional findings that could establish a compelling interest sufficient to justify the use of quotas, and quotas automatically fail the narrow-tailoring prong of strict scrutiny. *See Race-Based Education Programs* at *35–36. But it is possible to sever the statute’s reference to minority institutions while leaving the rest of the outreach provision—and the broader program—intact. The outreach provision’s goal is to ensure that “a variety of types of institutions,” such as those “that serve or support veterans,” apply for grants. 42 U.S.C. § 1862n-1(a)(5), (a)(5)(C); *see also id.* § 19011. Each provision would still function in a manner likely intended by Congress even without the reference to minority institutions, and so that reference would be severable. Under either theory, NSF may conduct outreach to institutions without considering their racial composition.

cate programs in STEM fields.” 42 U.S.C. § 1862i(d)(1). And it provides that grants shall be awarded “to institutions . . . that commit to offering apprenticeships, internships, research opportunities, or applied learning experiences to enrolled students in identified STEM baccalaureate degree programs.” *Id.* § 1862i(e)(1). The program does not distinguish between institutions based on their racial composition. *See* NSF Letter at 4. But in 2018, Congress directed NSF to prioritize ATE applications that “include outreach plans and goals for recruiting and enrolling women and other underrepresented populations in STEM fields.” Pub. L. No. 115-402, § 3(2), 132 Stat. 5343, 5344–45 (codified at 42 U.S.C. § 1862i(d)(2)(D), (e)(3)(C)). NSF’s view is that these “prioritization elements are severable from the core program.” NSF Letter at 4.

For substantially the same reasons as with the GRFP (*see* Part III.B.1), the prioritization of “underrepresented populations in STEM fields” can be—and therefore must be—administered in a race-neutral manner, and so we need not consider whether that focus is severable.

But prioritizing applications with outreach goals for women stands on a different footing. Applying intermediate scrutiny, this sex-based preference falters at the first step of the analysis, lacking as it does an “exceedingly persuasive” justification. *USDA Preferences* at *10 (citation omitted). When Congress enacted the sex-based preference in 2018, it made several findings—none of which addressed discrimination against women in STEM. *See* Pub. L. No. 115-402, § 2, 132 Stat. at 5343 (codified at 42 U.S.C. § 1862i note). “Congress cannot enact such a sex-based preference without a showing of discrimination against women in government-provided . . . benefits, or at least in the industry in general.” *USDA Preferences* at *18 (cleaned up). Mere “disparity or underrepresentation” in STEM is “not sufficient.” *Id.* (quoting *Women-Owned Businesses*, 32 Op. O.L.C. at 25). Because the record is inadequate to sustain the preference, we need not address the tailoring prong. *See id.* at *10–11.

The sex-based preference is severable from both the outreach provision specifically and the ATE program more broadly. The statute identifies several categories of applications that NSF must prioritize; those containing outreach plans for recruiting women are only one such category. Severing the sex-based preference does not disable that provision—NSF retains full authority to prioritize applications with outreach plans targeting race- and sex-neutral underrepresented populations. And because the

preference is just one of several priority categories, its removal leaves the remaining categories fully intact. Moreover, the absence of legislative findings concerning women in the statute bolsters our conclusion that the prioritization provisions (and the program more generally) would continue to function in a manner intended by Congress even without the sex-based preference. The preference is therefore severable, and NSF may administer the ATE program on race- and sex-neutral terms.

2.

NSF’s ADVANCE program was authorized in 1980 to, among other purposes, “increase the participation of women in courses of study at the undergraduate, graduate, and postgraduate levels . . . in scientific and technical fields.” Pub. L. No. 96-516, § 33(1)(A), 94 Stat. 3007, 3011 (codified as amended at 42 U.S.C. § 1885a(1)(A)). To accomplish that goal, Congress authorized NSF to support twelve types of sex-based activities and programs. *See* 42 U.S.C. § 1885a. Congress found it “in the national interest to promote the full use of human resources in science and engineering and to insure the full development and use of the scientific and engineering talents and skills of men and women, equally, of all ethnic, racial, and economic backgrounds, including persons with disabilities.” *Id.* § 1885(a). In 2017, Congress made additional findings pointing to sex-based disparities in STEM and noting that “studies have shown that technology and commercialization ventures are successful when women are in top management positions.” Pub. L. No. 115-6, § 2(5), 131 Stat. 11, 11 (codified at 42 U.S.C. § 1885a note).

The twelve activities Congress authorized vary widely. Some allocate federal monies to individuals based on sex, whether directly or indirectly. For instance, Congress authorized NSF, to “establish a visiting women scientists and engineers program” and to make grants “to women scientists and engineers who . . . have received their doctorates within five years prior to the date of the award.” 42 U.S.C. § 1885a(5), (8). Other provisions do not facially provide preferences or impose burdens based on sex. Congress authorized NSF to undertake, for instance, “a comprehensive research program designed to increase public understanding of . . . the potential contribution of women in science and engineering.” *Id.* § 1885a(4). Many provisions in section 1885a are capacious and vague, and though they facially reference sex, they might not necessarily require

the allocation of preferences or burdens based on sex. *See, e.g., id.* § 1885a(2), (7).

To better inform our understanding of the statute, we have reviewed more than a decade's worth of NSF awards under the program. *See Loper Bright Enters. v. Raimondo*, 144 S. Ct. 2244, 2267 (2024) (acknowledging that “an agency’s interpretation of a statute” and past practice may be “especially informative”). In general, NSF funds three types of activities through grants to educational institutions:

1. Financial assistance for activities that give preferential treatment to women. Some awards have funded academic or mentorship programs that limit eligibility to women.⁶ Others have contemplated sex-based preferences in recruitment, retention, and promotion of female STEM faculty.⁷
2. Financial assistance for activities that do not treat the sexes differently, although the result of such activities might sometimes disproportionately benefit women. For example, the Foundation has supported institutions’ efforts to “develop bystander intervention workshops” that are aimed at “reduc[ing] incidents of sexual harassment and . . . properly handl[ing] it if it happens.”⁸ NSF has also supported efforts to eliminate “the inequitable allocation” of faculty workloads between the sexes “through the development of workload dashboards.”⁹

⁶ *See, e.g.,* U.S. Nat’l Sci. Found., Award No. 1651417, *TCS Academic Leadership Graduate Certificate Program* (Aug. 19, 2016), <https://perma.cc/24M5-J6VW> (“Academic Leadership” program limited to women); U.S. Nat’l Sci. Found., Award No. 2121654, *ADVANCE Adaptation: INSPIRED—Inclusive Practices in the Retention and Equity of Diverse Faculty* (July 1, 2021), <https://perma.cc/P8LW-RNYK> (mentorship program limited to female faculty).

⁷ *See, e.g.,* U.S. Nat’l Sci. Found., Award No. 1409171, *Oregon State Advance* (Aug. 12, 2014), <https://perma.cc/R8RA-SYD4>.

⁸ U.S. Nat’l Sci. Found., Award No. 1725879, *ADVANCE Partnership: From the Classroom to the Field: Improving the Workplace in the Geosciences* (July 21, 2017), <https://perma.cc/8P5N-WDSB>.

⁹ U.S. Nat’l Sci. Found., Award No. 2017293, *ADVANCE Adaptation: SF State TRANSFORMS – Advancing Equity in Faculty Workload and Professional Development* (Aug. 13, 2020), <https://perma.cc/NN7H-KN8J>.

3. Efforts to research the existence, causes, and effects of sex-based disparities in STEM.¹⁰

Our review also revealed a troubling number of awards with descriptions so vague that NSF could not have determined, without further information, the specific activities for which the institution sought funding. One award, for instance, supported activities to “create and institutionalize best practices and systems that support women in their path towards promotion to full professor.”¹¹ Another award supported a project “expected to result in an enhanced ‘culture of care’ by . . . making promotion and tenure and search committee enhancements” and “foster gender equity.”¹²

Although these prior awards clarify the historical scope of the ADVANCE program, they do not necessarily represent the program’s current or future form. Cautious to “avoid issuing advice on abstract questions that lack . . . concrete grounding,” we nevertheless think it appropriate to identify certain guardrails that must inform NSF’s future operation of the program. Memorandum for Attorneys of the Office, from David J. Barron, Acting Assistant Attorney General, Office of Legal Counsel, *Re: Best Practices for OLC Legal Advice and Written Opinions* at 2 (July 16, 2010).

First, NSF may not give preferences based on an award recipient’s or beneficiary’s sex, nor may NSF use federal monies to encourage such sex-based preferences. Such preferences would not survive intermediate scrutiny on the limited record before us. Although Congress pointed to sex-based disparities in STEM academia and professions, “mere disparity or underrepresentation . . . is not sufficient” without a more specific “showing of discrimination against women” in the industry. *USDA Preferences* at *18 (cleaned up). We need not decide here whether the inclu-

¹⁰ See, e.g., U.S. Nat’l Sci. Found., Award No. 1937035, *ADVANCE AU: Assessing Gender and Racial Equity Among STEM Faculty* (July 19, 2019), <https://perma.cc/D24T-B8TU>.

¹¹ U.S. Nat’l Sci. Found., Award No. 2017130, *ADVANCE Partnership: ImPACT IT: Increasing the Participation and Advancement of Women in Information Technology* (Aug. 13, 2020), <https://perma.cc/6TGX-YS5D>.

¹² U.S. Nat’l Sci. Found., Award No. 1936075, *ADVANCE Adaptation: Spartan Adaptations of Best Practices for Faculty Equity, Diversity, and Inclusion at the University of North Carolina at Greensboro (UNCG)* (July 24, 2019), <https://perma.cc/WCF5-KCK7>.

sion of additional purposes might clear the “important governmental objectives” threshold, *id.* at *9–10 (citation omitted), because Congress surmised only that “technology and commercialization ventures are successful when women are in top management positions,” 42 U.S.C. § 1885a note. That may well be true, but it does not follow that such ventures will fail without sex-based preferences. *See USDA Preferences* at *10.

For that reason, NSF may not fund projects that fall into the first category of activities for which the Foundation previously has provided financial support—namely, those that give preferential treatment to women. A proposal that entails, for example, recruiting “Faculty Advocates to assist women . . . faculty to advance to full professor” would distribute benefits based on sex.¹³ Similarly, NSF may not fund several activities listed in the ADVANCE program’s authorizing statute. The Foundation may not, for instance, “establish a visiting women scientists and engineers program,” nor may it limit grant eligibility to certain “women scientists and engineers.” 42 U.S.C. § 1885a(5), (8)(A); *see also id.* § 1885a(9)–(12). Each activity encourages preferential treatment based on sex without the requisite important governmental interest.¹⁴

Second, NSF may continue to fund projects that do not give preferential treatment to one sex, even if such projects ultimately tend to benefit women more than men. Some awards, as discussed above, have supported efforts to address the prevalence of sexual harassment in STEM academia.¹⁵ Financial assistance has also previously funded “practices and policies [designed] to mitigate . . . gendered faculty workload inequities.”¹⁶ So long as these projects do not impose differential treatment on the basis of sex, then federal financial support for such projects will not incur intermediate scrutiny.

We can also imagine ways in which certain statutory provisions might be implemented in a sex-neutral manner. Consider section 1885a(7), which authorizes NSF to “support activities of museums and science

¹³ Award No. 2121654, *supra* note 6.

¹⁴ The statute contains a severability clause, *see* 42 U.S.C. § 1885 note, so these unconstitutional provisions do not impede NSF’s ability to operate the ADVANCE program on terms consistent with this opinion.

¹⁵ *See* Award No. 1725879, *supra* note 8.

¹⁶ Award No. 2121654, *supra* note 6.

centers which demonstrate potential to interest and involve women in science and engineering.” 42 U.S.C. § 1885a(7). Many sex-neutral programs could serve this goal while appealing to male and female students alike—such as paid summer internships placing students alongside museum staff, team-based science challenges, or exhibits open to all that highlight the contributions of female scientists. But NSF could not fund activities that grant preferences to women or use sex as an eligibility criterion—such as a female-only Girls Who Code event.

Section 1885a(2) may similarly have sex-neutral applications. That provision authorizes NSF to support STEM programs “in elementary and secondary schools so as to . . . increase female student awareness of career opportunities requiring scientific and engineering skills.” *Id.* § 1885a(2). For example, NSF could fund a scientist-in-residence program that is sex-neutral and open to all students designed to highlight unexpected careers in STEM. Or it could support a career-day initiative that brings working engineers, coders, and researchers into classrooms to describe their day-to-day work and the training their jobs require. But NSF could not fund a campaign to post STEM volunteer opportunities only in the girls’ locker room.

Third, NSF may continue to support most research and information-gathering efforts, as such projects do not disparately distribute benefits or burdens on account of sex, even when they take sex into account. *See, e.g., id.* § 1885a(4), (6) (authorizing NSF to fund certain categories of research programs, as well as projects that enhance the availability of public information about women in science and engineering careers).

With that said, NSF may not fund an institution’s implementation of sex-based “strategies,” even to “evaluate their effectiveness.” U.S. Nat’l Sci. Found., Program Solicitation, NSF 14-573, *ADVANCE: Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers (ADVANCE)* at 2 (June 3, 2014), <https://perma.cc/4DHF-8M7H>. Were it otherwise, NSF would bankroll the very conduct that equal-protection doctrine forbids, all under the guise of research. When sex-discrimination is the method by which research proceeds, the information-gathering objective does not shield such discrimination from scrutiny. Put simply, intermediate scrutiny has no data-collection exception when the research requires differential treatment based on sex and lacks any basis in real biological differences.

Fourth, NSF may support activities that differentiate based on “inherent physical differences between biological men and biological women.” *B.P.J.*, 146 S. Ct. at 2371. The Supreme Court has long recognized that the government “does not trigger heightened constitutional scrutiny by regulating a medical procedure that only one sex can undergo unless the regulation is a mere pretext for invidious sex discrimination.” *Skrmetti*, 145 S. Ct. at 1833 (citing *Geduldig v. Aiello*, 417 U.S. 484 (1974)). The applicable standard turns on how the classification is drawn. A classification that facially turns on an actual physical difference—such as pregnancy, testosterone levels, or medical diagnoses—is reviewed only for rational basis. A classification drawn expressly between men and women, by contrast, usually receives intermediate scrutiny, even when it is justified by reference to real biological differences. *Compare id.* at 1828–29 (applying rational-basis review to a medical-use classification), *with B.P.J.*, 146 S. Ct. at 2374 (applying intermediate scrutiny to laws that “limit women’s and girls’ sports teams to biological females”).

NSF might lawfully support activities that draw distinctions based on inherent biological differences. Section 1885a(8)(B) authorizes the Foundation to make grants “to women scientists and engineers who . . . have received their doctorates, have had their careers interrupted, and are re-entering the work force within five years after such interruption.” 42 U.S.C. § 1885a(8)(B). NSF could limit eligibility in this program to those whose careers have been interrupted by pregnancies. “[E]ven though only biological women can become pregnant,” such eligibility criteria do not trigger intermediate scrutiny because eligibility turns on a real biological and medical difference, not on sex *qua* sex. *Skrmetti*, 145 S. Ct. at 1833.

Finally, because many of the activities contemplated by the authorizing statute do not survive intermediate scrutiny, NSF must deny an application for funding unless the application specifies the activities to be funded with sufficient particularity for the Foundation to confirm that the funds will not be used to “distribut[e] benefits and burdens between the sexes in different ways.” *Cleburne*, 473 U.S. at 441. Applications that speak at only a high level of generality, such as those that propose to “develop and implement a . . . plan to improve the climate and mitigate the barriers” for women faculty in STEM, will not do.¹⁷

¹⁷ U.S. Nat’l Sci. Found., Award No. 1945984, *Catalyst: STEM Academic Intersectional Gender Equity (SAIGE) at Rowan University* (Dec. 12, 2019), <https://perma.cc/344V-GA4J>.

All told, NSF has used the ADVANCE program to fund a variety of activities—some constitutional and others not. Because the specific details of future projects are not yet before us, our guidance here is necessarily general and proposed activities may involve legal nuances we cannot anticipate. We would be happy to answer any future questions that you may have.

D.

Three programs—the Improving Undergraduate STEM Education: Hispanic-Serving Institutions program, the Alliances for Graduate Education and the Professoriate program, and the Louis Stokes Alliances for Minority Participation program—contain unconstitutional and inseverable elements. NSF cannot administer these programs.

1.

The Improving Undergraduate STEM Education: Hispanic-Serving Institutions (“IUSE-HSI”) program is a competitive grant program open only to Hispanic-Serving Institutions (“HSIs”). *See* 42 U.S.C. § 1862o-12(a). As authorized by the America COMPETES Act in 2007, NSF awards grants to HSIs in an effort “to enhance the quality of undergraduate science, technology, engineering, and mathematics education.” Pub. L. No. 110-69, § 7033, 121 Stat. 572, 711–12 (codified as amended at 42 U.S.C. § 1862o-12). An HSI is defined as an institution of higher education whose undergraduate full-time enrollment “is at least 25 percent Hispanic students.” 20 U.S.C. § 1101a(a)(5)(B); *see also* 42 U.S.C. § 1862o-12(a). You have asked whether NSF may continue to fund this program. *See* NSF Letter at 4.

It may not. Our Office reached the same conclusion with respect to the Department of Education’s HSI programs—including its HSI STEM program. *See Race-Based Education Programs* at *17–22. Those programs relied on the very same definition of HSI at issue here. *See id.* at *17, *20. As with the Department of Education’s HSI programs, the IUSE-HSI program satisfies neither prong of strict scrutiny.

There is no compelling interest to support the program’s racial criteria. Congress made no findings at all about the program, much less findings about “specific, identified instances of past discrimination” against His-

panic students that violated the law. *SFFA*, 143 S. Ct. at 2162; *see also Race-Based Education Programs* at *19–20. The chapter in which the program is codified contains broader findings about the importance of “the Nation’s capacity to conduct high quality research and education programs.” 42 U.S.C. § 1862a(a)(3). And Congress found that “it is in the national interest to promote the full use of human resources in science and engineering and to insure the full development and use of the scientific and engineering talents and skills of men and women, equally, of all ethnic, racial, and economic backgrounds, including persons with disabilities.” *Id.* § 1885(a). But these findings—which fail to raise even a “generalized assertion of past discrimination”—do not come close to establishing a compelling interest. *Shaw v. Hunt*, 517 U.S. 899, 909 (1996); *see also Race-Based Education Programs* at *19–20.

The IUSE-HSI program fares no better on narrow tailoring, as it employs a per se impermissible racial quota. *See Grutter*, 539 U.S. at 334. Under the IUSE-HSI program, “[i]nstitutions are effectively required to maintain a minimum of 25 percent Hispanic-student enrollment as a condition of eligibility under the program.” *Race-Based Education Programs* at *20 (citing 20 U.S.C. § 1101a(a)(5)). And further underscoring the program’s lack of narrow tailoring, the statute “employ[s]—and indeed depend[s] on—the ‘arbitrary and undefined’ racial category ‘Hispanic.’” *Id.* (alteration accepted) (quoting *SFFA*, 143 S. Ct. at 2167).

These racially discriminatory elements are not severable. Race is so inextricably interwoven into the program’s design “that were we to find the [racial] criteria severable, we would have in effect created [a] program[] entirely alien to the goals Congress set out to accomplish in the text of its enactment[.]” *Id.* at *22. The IUSE-HSI program would cease to include HSIs. For similar reasons, excising the racial components of the program would deprive the Executive Branch of any meaningful criteria upon which to base program eligibility. “We see no evidence that Congress would have intended the [Foundation] to exercise such unfettered discretion to disburse funds.” *Id.* NSF must therefore cease administering the program.

Because the suballocation table incorporated by reference in the Science Appropriations Act requires NSF to fund this unconstitutional program, *see* 172 Cong. Rec. at H266, the suballocation is itself unconstitutional, as we explain in Part IV. NSF may treat the funds suballocated for

the IUSE-HSI program as if they are residual amounts within the lump-sum appropriation for STEM education.

2.

Congress codified the Alliances for Graduate Education and the Professoriate (“AGEP”) program in 2017. *See* Pub. L. No. 114-329, § 305(d), 130 Stat. 2969, 3007–08 (codified as amended at 42 U.S.C. § 1862s-5(e)). The program requires NSF grantmaking to institutions of higher education for purposes such as “professional development opportunities for faculty members from underrepresented minority groups” and “activities aimed at making undergraduate STEM students from underrepresented minority groups aware of opportunities for academic careers in STEM fields.” 42 U.S.C. § 1862s-5(e)(3)(E)–(F).

When it enacted the AGEP program, Congress found that “[w]omen represent slightly more than half the United States population, and projections indicate that 54 percent of the population will be a member of a racial or ethnic minority group by 2050.” *Id.* § 1862s-5(a)(2). Then, it noted that “[w]omen comprise only about 30 percent of STEM workers.” *Id.* § 1862s-5(a)(3). Congress further found that “Black and Hispanic faculty together hold about 6.5 percent of all tenured and tenure-track positions and 5 percent of full professor positions,” and that there was minimal representation of “American Indian or Alaska Native and Native Hawaiian or Other Pacific Islander” faculty members. *Id.* § 1862s-5(a)(6)–(7). Congress then expressed its belief that, “given the shifting demographic landscape, the United States should encourage full participation of individuals from underrepresented populations in STEM fields.” *Id.* § 1862s-5(b)(4).

You have asked about the reference to “underrepresented minority groups.” NSF Letter at 5–6. Because the “statute uses both the phrase ‘underrepresented populations’ and the phrase ‘underrepresented minority groups,’” NSF suggests that the latter phrase “refers to racial minorities as opposed to general underrepresented populations.” *Id.* (footnotes omitted). You have therefore asked whether NSF may continue to fund the AGEP program.

We agree that “underrepresented minority groups” here refers to racial minorities, in contrast to the phrase “underrepresented populations” and

its variants. The congressional findings identify two relevant populations for AGEP programs: women and racial minorities. See 42 U.S.C. § 1862s-5(a). When referring to both groups together in the “Sense of Congress” section, the statute uses the phrase “underrepresented populations.” *Id.* § 1862s-5(b)(3)–(4); see also *id.* § 1862s-5(c). The statute then addresses each group in turn. In the subsection targeting women’s participation in STEM, Congress used the phrase “female students.” *E.g., id.* § 1862s-5(d)(3)(A)–(E), (G). In the very next subsection, Congress turned to “underrepresented minority groups.” *Id.* § 1862s-5(e). It did not use the ostensibly broader phrase “underrepresented populations,” which is used elsewhere in section 1862s-5. *Id.* § 1862s-5(b)(3)–(4). Under the meaningful-variation canon, we presume that the different phrases convey different meanings. See *Saxon*, 142 S. Ct. at 1789.

“Underrepresented minority groups” thus must refer to something other than “underrepresented populations” in general or “women” alone. And because the congressional findings identify racial minorities as the only other population that Congress had in mind, the phrase is best read as referring to them. Judicial and Executive Branch precedent also consistently treat “underrepresented minority students” as a racial category. See, e.g., *Grutter*, 539 U.S. at 337–38, 341; Memorandum for Robert Raben, Assistant Attorney General, Office of Legislative Affairs, from Joseph R. Guerra, Deputy Assistant Attorney General, Office of Legal Counsel, *Re: Language for Inclusion in Letter from the Department of Health & Human Services re: HR 3250, the Health Care Fairness Act of 1999* at 1 (May 25, 2000). It would therefore be implausible to read the phrase “underrepresented minority groups” as a non-racial classification. See *Johnson v. Arteaga-Martinez*, 142 S. Ct. 1827, 1833 (2022) (“[T]he canon of constitutional avoidance is only applicable where a statute has ‘more than one plausible construction.’” (citation omitted)).

No compelling interest supports this racial classification. The congressional findings point to a “regrettable disparity” in the racial composition of tenured and tenure-track faculty, *Race-Based Education Programs* at *19, but two independent deficiencies foreclose that rationale. First, “statistical disparities don’t cut it” without a finding that they are the product of “discrimination [that] violated the Constitution or a statute.” *Id.* at *19–20 (cleaned up). There is no such finding here. Second, the record contains no “concrete reference to specific episodes of discrimina-

tion”—only a “generalized assertion of past discrimination” in STEM. *Id.* at *20 (citation omitted). Under strict scrutiny, neither suffices. We therefore need not consider whether the classification is narrowly tailored.

This racially discriminatory classification cannot be severed from the rest of the AGEP program, as Congress made clear that financial support is “designed to increase the recruitment, retention, and advancement of individuals from underrepresented minority groups in academic STEM careers.” 42 U.S.C. § 1862s-5(e)(1). The “[u]se of funds” section then lists seven activities to be supported by AGEP awards. *See id.* § 1862s-5(e)(3). All seven are directed at “underrepresented minority groups.” *Id.* Severing the racial classification would leave NSF directionless in assessing program-authorized activities. *See Race-Based Education Programs* at *14. At the very least, given the congressional findings and the express purpose of the statute, “the statute would not function in a manner consistent with the intent of Congress” without the racial criteria. *Id.* (cleaned up). NSF therefore may not continue to fund the AGEP program.

In reaching this conclusion, we have considered the argument that equal-protection doctrine is not implicated at all because it is the grant recipients, and not the government, that would distinguish between persons based on race. Put another way, the AGEP program is agnostic with respect to the racial composition of the institutional grant recipients. We are unconvinced. The AGEP program cannot circumvent the Constitution by delegating the job of discrimination to private parties. “[W]hat cannot be done directly cannot be done indirectly. The Constitution deals with substance, not shadows,’ and the prohibition against racial discrimination is ‘levelled at the thing, not the name.’” *Disparate-Impact Liability* at *9 (quoting *Cummings v. Missouri*, 71 U.S. (4 Wall.) 277, 325 (1867)). “Few principles of law are more firmly stitched into our constitutional fabric than the proposition that a government must not discriminate against a person because of his race or in any way act to compel or encourage such discrimination by others.” *Id.* (cleaned up) (quoting *Adickes v. S.H. Kress & Co.*, 398 U.S. 144, 150–52 (1970)). When racial preferences are the criterion for—or object of—federal financial assistance, the program authorizing such assistance was adopted for a “racially discriminatory intent or purpose,” and it is subject to strict scrutiny. *Arlington Heights*, 429 U.S. at 265–66; *accord USDA Preferences* at *22. Congress could

not, for instance, create a program open to all private institutions of higher education and give federal financial assistance to such institutions for the purpose of facilitating educational opportunities available only to white students. Here, Congress cannot award money to induce educational institutions into providing special opportunities for racial minorities only.

3.

In 1990, Congress created what became the Louis Stokes Alliances for Minority Participation (“LSAMP”) program. *See* Pub. L. No. 101-589, § 404, 104 Stat. 2881, 2897 (“EMSEE Act”). At the time, the authorizing statute directed NSF to make awards for institutions of higher education “to establish or maintain alliances . . . between institutions of higher education with predominately minority enrollments and institutions of higher education with high quality research programs in mathematics, science[,] or engineering.” *Id.* § 404(a), 104 Stat. at 2897.

When Congress repealed the authorizing statute, *see* Pub. L. No. 103-382, § 391(*l*), 108 Stat. 3518, 4023 (1994), NSF continued to administer the program under its general authority to support scientific and engineering research, *see* NSF Letter at 6; *see also* 42 U.S.C. §§ 1862, 1870. We have been advised that, in administering the program under its general authority, NSF understood the program as encompassing alliances with schools categorized by their racial composition. In 2011, Congress directed NSF to “continue to support” the LSAMP program “as [a] separate program[.]” Pub. L. No. 111-358, § 512, 124 Stat. at 4011 (codified at 42 U.S.C. § 1862p-4). Moreover, NSF’s most recent Notice of Funding Opportunity for this program stated its intent to “increas[e] the number of STEM baccalaureate and graduate degrees awarded to persons from LSAMP populations,” defined to mean “Blacks and African-Americans, Hispanic and Latino Americans, American Indians, Alaska Natives, Native Hawaiians, and Pacific Islanders.” U.S. Nat’l Sci. Found., *NSF 24-563: Louis Stokes Alliances for Minority Participation* (Mar. 28, 2024) (“2024 NOFO”), <https://perma.cc/6MCP-N32H>. Its purpose was also to reach “full participation of women” in STEM. *Id.*

NSF suggests, based on the program’s history, “that it may contain race-based classifications.” NSF Letter at 7. We agree. In directing NSF to continue supporting the LSAMP program, Congress ratified the race-based criteria that NSF used to award federal funding to institutions of

higher education; indeed, “courts have held that providing appropriations for an activity of the executive branch constitutes ratification by Congress of that action.” *Authority of the Department of Justice to Retain Private Legal Counsel*, 2 Op. O.L.C. 66, 68 (1978). Moreover, the 2024 NOFO limits program eligibility to LSAMP populations, defined by reference to race, and it could be understood as giving priority to schools with a certain composition of female students.

Those criteria are unconstitutional. Although the original authorizing statute contained broad findings that “women and minorities are significantly underrepresented in the fields of mathematics, science[,] and engineering,” EMSEE Act § 101(a)(4), 104 Stat. at 2883, such generalized disparities do not point to concrete episodes of discrimination that violated the Constitution or a statute, so they cannot establish a compelling (or even an important, for purposes of intermediate scrutiny) governmental interest, *see Race-Based Education Programs* at *19–20; *USDA Preferences* at *9–10. Nor do those thirty-year-old findings demonstrate a continued need for race- or sex-based criteria. *See Callais*, 146 S. Ct. at 1160; *Race-Based Education Programs* at *6–8. The use of race and sex also fail the applicable tailoring requirements. We are not aware of any consideration of race- or sex-neutral alternatives here, nor of any “periodic review” of race- or sex-based criteria. *See Race-Based Education Programs* at *7–8. Moreover, several of the racial categories referenced in the 2024 NOFO—such as “Hispanic and Latino Americans”—are “arbitrary or undefined.” *Id.* at *7 (quoting *SFFA*, 143 S. Ct. at 2167); *see* 2024 NOFO. The 2024 NOFO is similarly overbroad with respect to its preference for all “women.” *See* 2024 NOFO; *USDA Preferences* at *10.

The racial criteria are inseverable from the LSAMP program.¹⁸ From its inception, the program’s purpose has been to make awards for alliances with schools of only a certain racial composition. After Congress repealed the authorizing statute, NSF continued to administer the program in a race-based manner, and Congress subsequently ratified that decision. Severing the race-based aspects of the program—such as by incentivizing

¹⁸ To the extent that the 2024 NOFO incents the consideration of sex in awarding funding, that sex-based preference is not compelled by statute, and therefore we need not consider whether it is severable from the remainder of the program. For the reasons above, any consideration of an institution’s student composition along sex-based lines is unconstitutional.

alliances with schools of predominantly non-racial-minority enrollment—would effectively create a new program out of whole cloth. The program would no longer operate in a manner intended by Congress. Thus, NSF may no longer continue to administer the program.

IV.

Having found the IUSE-HSI, AGEP, and LSAMP programs unconstitutional in their entirety, we now consider whether NSF may reprogram funds appropriated for those programs. It may not. But the appropriation's suballocation is unconstitutional as applied to those programs. The amounts suballocated for the three offending programs may therefore be treated as residual amounts within the \$938,250,000 lump-sum appropriation to NSF for STEM education, and NSF may proceed as if no suballocation exists requiring expenditures to the three programs.

A.

We begin with the basics of federal appropriations law. Congress often funds agencies through lump-sum appropriations, which are usually appropriated in unnumbered paragraphs in appropriations acts. *See* Taylor N. Riccard & Dominick A. Fiorentino, Cong. Rsch. Serv., R47600, *Transfer and Reprogramming of Appropriations: An Overview* at 1–2 (June 20, 2023) (“CRS, *Transfer and Reprogramming*”). Each lump-sum appropriation corresponds to an “account,” which may encompass one or more programs, projects, or activities—known as “PPAs.” *Id.* at 2 (emphasis omitted).

The lump-sum structure typically gives agencies considerable discretion, because Congress rarely specifies in the appropriations act how funds must be distributed among PPAs within an account. *See id.* at 2–3; *see also* GAO, *Principles of Federal Appropriations Law* 2-30 (4th ed. 2016) (“*Federal Appropriations Law*”). Instead, that detail typically appears in accompanying nonbinding documents—such as committee reports and joint explanatory statements—that “may include tables that break down each lump-sum appropriation into smaller sub-allocations for distinct PPAs.” CRS, *Transfer and Reprogramming* at 2 & n.7. These documents “reflect long-standing relationships between agencies and the appropriations committees” and often embody a “shared understanding”

about how “funds will be sub-allocated and reallocated among . . . PPAs within an account.” *Id.* at 6. These directives “are generally not legally binding on agencies in the same way as the statutory text of appropriations acts, because committee reports do not meet the requirements of bicameralism and presentment.” *Id.* But they become binding when “incorporated by reference into the statutory text of an appropriations act.” *Id.* at 6 n.23; *see also* 2 *Federal Appropriations Law* at 6-6 (3d ed. 2015).

In most cases, agencies do not need statutory authority to reallocate funds among PPAs within a single appropriations account—a practice known as “reprogramming.” *See* 1 *Federal Appropriations Law* at 2-30 (3d ed. 2015). Instead, authority to shift funds from one PPA to another within an account “is implicit in an agency’s responsibility to manage its funds.” *Id.*; *see also* *Federal Appropriations Law* at 2-45 (4th ed. 2016) (“Congress is implicitly conferring the authority to reprogram by enacting lump-sum appropriations.” (cleaned up)). That principle reflects the fact that PPA-level suballocations are ordinarily accomplished through non-binding congressional documents and reports rather than in appropriations acts themselves. Usually, then, an agency shifting funds within an account “for purposes other than those contemplated at the time of appropriation” violates no legally binding constraint on how funds are suballocated among PPAs. 1 *Federal Appropriations Law* at 2-30 (3d ed. 2015).

By contrast, transfers—“the shifting of funds between appropriations”—require statutory authorization. *Id.* at 2-24. That rule is codified principally in 31 U.S.C. § 1532, which provides that “[a]n amount available under law may be withdrawn from one appropriation account and credited to another or to a working fund only when authorized by law.” This prohibition “applies equally to (1) transfers from one agency to another, (2) transfers from one account to another within the same agency, and (3) transfers to an interagency or intra-agency working fund.” 1 *Federal Appropriations Law* at 2-24 (3d ed. 2015) (footnotes omitted).

B.

Were this a typical appropriation, we would have little trouble concluding that NSF could freely reprogram funds within the STEM education account. Ordinarily, tables suballocating funds among distinct PPAs appear in nonbinding documents and agencies have implicit authority to reallocate funds between PPAs. After all, “[t]he prohibition against trans-

fer would not apply to ‘transfers’ of an agency’s administrative allocations within a lump-sum appropriation since the allocations are not legally binding.” *Federal Appropriations Law* at 2-39 (4th ed. 2016).

But here, the suballocation table is incorporated by reference into the appropriations act itself. The Science Appropriations Act appropriates \$938,250,000 for STEM education activities and provides that “the total amount . . . shall be for the purposes and in not less than the amount for each such purpose specified” in the cross-referenced table. Science Appropriations Act, 140 Stat. at 45. That table suballocates the appropriation among several distinct programs—though not exhaustively, as the sum of the individual suballocations is less than the \$938,250,000 lump sum. For each program the table addresses, the Science Appropriations Act requires NSF to make available at least the specified amount. Because these suballocations are legally binding, NSF may not reprogram funds appropriated for an unconstitutional program.

C.

Nevertheless, the suballocations for the IUSE-HSI, AGEP, and LSAMP programs are unconstitutional for the same reasons as the programs themselves: They would require NSF to expend federal funds on racially discriminatory programs that offend the Constitution’s equal-protection guarantee. Congress’s power of the purse is formidable, but it cannot license—much less compel—the Executive Branch to engage in unconstitutional racial discrimination. Faced with an irreconcilable conflict between the appropriations act and the Constitution, NSF’s duty is clear: It “must heed the Constitution—the supreme law of our Nation.” *Issues Raised by Foreign Relations Authorization Bill*, 14 Op. O.L.C. 37, 47 (1990); *see also Presidential Authority to Decline to Execute Unconstitutional Statutes*, 18 Op. O.L.C. 199, 200 (1994).

The practical effect of our conclusion resembles reprogramming. Because the suballocations for the IUSE-HSI, AGEP, and LSAMP programs are “repugnant to the [C]onstitution,” they are “void” and “not law.” *Marbury v. Madison*, 5 U.S. (1 Cranch) 137, 177 (1803); *see also Issues Raised by Provisions Directing Issuance of Official or Diplomatic Passports*, 16 Op. O.L.C. 18, 32 (1992). NSF may therefore treat the amounts earmarked for these programs as wholly unencumbered by the unconstitutional suballocation provisions. Stripped of their invalid line-item status,

these funds revert to residual amounts within the \$938,250,000 lump-sum appropriation for STEM education, available for lawful expenditure.

* * * * *

The IUSE-HSI, AGEP, and LSAMP programs are unconstitutional. Because the line-item suballocations for these programs are also unconstitutional, NSF may treat the amounts appropriated for the programs as residual amounts within the lump-sum appropriation for STEM education. The remaining programs either are constitutional or contain unconstitutional-but-severable components, and NSF may continue administering such programs on terms consistent with this opinion.

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