NATIONAL SCIENCE FOUNDATION PROGRAMS TO BROADEN PARTICIPATION FY 2020 BUDGET REQUEST TO CONGRESS

(Dollars in Millions)

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				FY 2020 Request change over		
	FY 2018	FY 2019	FY 2020	FY 2018 Actual		
Group/Program	Actual	(TBD)	Request	Amount	Percent	
Total, NSF Broadening Participation Programs	\$1,004.08	-	\$836.17	-\$167.91	-16.7%	

NSF has taken a variety of approaches to broaden participation across its many programs. While broadening participation is included in the NSF review criteria, some program announcements and solicitations go beyond the standard criteria. They range from encouraging language to specific requirements. Investments range from capacity building, research centers, partnerships, and alliances to the use of co-funding or supplements to existing awards in the core research programs.

NSF's broadening participation portfolio can be divided into three categories: (1) Focused, (2) Emphases, and (3) Geographic Diversity. The following sections define each of these categories and provide a list of the programs and activities with their respective funding levels that comprise each.

Focused Programs

Focused Programs have broadening participation as an explicit goal of the program and are included at 100 percent of their funding.

(Dollars in Millions)

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					FY 2020 Request change over FY 2018 Actual	
	Amount of					
	Funding	FY 2018	FY 2019	FY 2020		
Group/Program	Captured	Actual	(TBD)	Request	Amount	Percent
ADVANCE	100%	\$18.00	-	\$18.00	-	-
Alliances for Graduate Education & the Professoriate (AGEP)	100%	8.00	-	7.54	-0.46	-5.8%
AGEP Graduate Research Supplements (AGEP-GRS)	100%	2.18	-	1.76	-0.42	-19.2%
Broadening Participation in Biology Fellowships	100%	3.24	-	2.50	-0.74	-22.8%
Broadening Participation in Engineering (BPE)	100%	6.56	-	6.58	0.02	0.3%
Career-Life Balance (CLB)	100%	0.40	-	0.32	-0.08	-20.7%
Centers of Research Excellence in Science & Technology (CREST)	100%	24.01	-	22.63	-1.38	-5.7%
Excellence Awards in Science & Engineering (EASE) ¹	100%	5.74	-	4.00	-1.74	-30.3%
Historically Black Colleges & Universities Undergraduate Program (HBCU-UP)	100%	34.92	-	33.00	-1.92	-5.5%
HBCU Excellence in Research (HBCU-EiR) ²	100%	20.35	-	10.00	-10.35	-50.9%
Improving Undergraduate STEM Education (IUSE):	100%	44.85	-	15.00	-29.85	-66.6%
Hispanic Serving Institutions (HSI) program ³						
Big Idea: Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science (NSF INCLUDES)	100%	17.95	-	20.00	2.05	11.4%
Louis Stokes Alliances for Minority Participation (LSAMP)	100%	46.02	-	46.00	-0.02	-0.0%
Partnerships for Research & Education in Materials (PREM)	100%	7.88	-	7.00	-0.88	-11.1%
Partnerships in Astronomy & Astrophysics Research Education (PAARE)	100%	1.11	-	-	-1.11	-100.0%
SBE Postdoctoral Research Fellowships-Broadening Participation	100%	1.47	-	1.50	0.03	1.8%
Science of Broadening Participation	100%	1.50	-	1.50	-	_
Tribal Colleges & Universities Program (TCUP)	100%	14.00	-	13.20	-0.80	-5.7%
Subtotal, Focused Programs		\$258.18	-	\$210.53	-\$47.65	-18.5%

¹ The EASE program is comprised of both Presidential Awards for Excellence in Science, Math and Engineering Mentoring (PAESMEM) and Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST).

² In FY 2017, the HBCU-EiR Program was funded at \$10.0 million within the Integrative Activities budget. These funds were carried over into FY 2018, and supported awards made in FY 2018 (\$20.35 million).

³ In FY 2017, the HSI Program was funded at \$15.0 million within the Integrative Activities budget. These funds were carried over into FY 2018, and supported awards made in FY 2018 (\$15.03 million).

Summary Tables

Emphasis Programs

Emphasis Programs have broadening participation as one of several emphases but broadening participation is not an explicit goal of the program. These programs are included at a percentage of their funding level. The percentage used equals the 3-year average percentage of the programs' award portfolio that meets one the following criteria where an award:

- Was to a Minority Serving Institution (MSI);
- Had at least 50 percent of its principal investigators from an underrepresented group; or
- Had at least 50 percent of the students or postdocs supported by the grant reporting themselves as members of an underrepresented group on project reports.

(Dollars in Millions)

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					FY 2020 Request		
	Amount of				change over		
	Funding	FY 2018	FY 2019	FY 2020	FY 2018 A	ctual	
Group/Program	Captured	Actual	(TBD)	Request	Amount	Percent	
Advancing Informal STEM Learning (AISL)	55%	\$34.17	-	\$32.42	-\$1.75	-5.1%	
Computer Science for All (CSforAll) ⁴	51%	[10.24]	-	10.24	-	-	
Disability and Rehabilitation Engineering (DARE)	66%	3.57	-	3.30	-0.27	-7.6%	
Discovery Research PreK-12 (DRK-12)	62%	54.66	-	58.62	3.95	7.2%	
Graduate Research Fellowship Program (GRFP)	64%	183.44	-	165.44	-18.00	-9.8%	
Improving Undergraduate STEM Education (IUSE)	61%	60.56	-	56.90	-3.66	-6.0%	
Innovative Technology Experiences for Students and	59%	21.16	-	17.70	-3.46	-16.4%	
Teachers (ITEST) ⁵							
International Research Experiences for Students (IRES)	51%	5.84	-	6.62	0.78	13.3%	
NSF Scholarships in STEM (S-STEM) ⁵	57%	89.14	-	51.30	-37.84	-42.5%	
Research Experiences for Undergraduates (REU) - Sites and Supplements	59%	51.71	-	45.13	-6.57	-12.7%	
Robert Noyce Teacher Scholarship Program (NOYCE)	57%	36.70	-	26.74	-9.96	-27.1%	
STEM + Computing Partnerships (STEM+C Partnerships) ⁴	53%	34.35	-	-	-34.35	-100.0%	
Subtotal, Emphasis Programs		\$575.31	-	\$474.41	-\$100.90	-17.5%	

⁴ In FY 2018, \$10.0 million in EHR funding for CSforAll was supported as a component of STEM+C and \$10.0 million in R&RA funding was provided by CISE. The total FY 2018 Actual is shown for comparison purposes only. In FY 2020, CISE continues its investment in CSforAll. Within EHR in FY 2020, funding for STEM+C moves to implement CSforAll as a freestanding program and to expand EHR's computer science education portfolio through existing programs.

⁵ ITEST and S-STEM are H1B Visa funded programs.

Geographic Diversity Programs
Geographic Diversity Programs, EPSCoR, has geographic diversity as an explicit goal of the program and is included at 100 percent of its funding.

(Dollars in Millions)

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					FY 2020 Request		
	Amount of				change over FY 2018 Actual		
	Funding	FY 2018	FY 2019	FY 2020			
Group/Program	Captured	Actual	(TBD)	Request	Amount	Percent	
EPSCoR	100%	\$170.59	-	\$151.23	-\$19.36	-11.3%	
Subtotal, Geographic Diversity Program		\$170.59	-	\$151.23	-\$19.36	-11.3%	