

Factors Associated with NIH Support to Minority Serving Institutions

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Minority Serving Institutions (MSIs)

Each year, the NIH reports on annual performance for MSIs, including Historically Black Colleges and Universities (HBCU), Tribal Colleges and Universities (TCU), Hispanic-Serving Institutions (HSI), Asian American and Native American Pacific Islander-Serving Institutions (AANAPISI), Predominantly Black Institutions (PBI), and American Indian and Alaska Native-Serving Institutions (AIANSI).

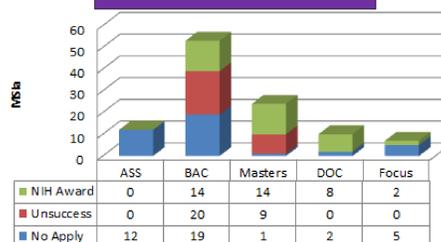
This analysis explores the factors associated with NIH support to MSIs, including NIH programmatic strategies for Research and Development and Training*, solicited versus unsolicited initiatives, and application and success rates and the Carnegie classification of Institutions of Higher Education (IHEs).

- The funding distribution data were taken from FY 2013, IC-verified, MSI reporting.
- Application and success rates were QVR reports IHE FY 2009 - FY 2013 competitive grant data (excluding ARRA grants and contracts) via, classifying MSIs by Department of Education categories.
- Types of IHE [Associates (ASS), Baccalaureate (BAC), Masters, Doctoral (DOC), or special focus (Focus)] were classified using the Carnegie Classifications Data File, from the Carnegie Foundation for the Advancement of Teaching, February 2012.

MSI Distribution within Program Strategies Compared with Application/Success Rates

Program Strategies	HBCU			AIANSI			TCU			HSI			AANAPISI			PBI			IHE		
	\$ FY13	Apply	Success	\$ FY13	Apply	Success	\$ FY13	Apply	Success	\$ FY13	Apply	Success	\$ FY13	Apply	Success	\$ FY13	Apply	Success	\$ FY13	Apply	Success
Infrastructure and Capacity	\$ 39,179,386	21.0%	17.6%	\$ 8,409,514	2.8%	18.7%	\$ -	28.6%	0%	\$ 38,795,614	8.9%	24.7%	\$ 28,289,475	5.8%	29.2%	\$ 1,204,988	16.8%	15.4%	\$ 259,953,370	2.3%	21.1%
Investigator-Initiated Research	\$ 9,149,322	46.6%	5.7%	\$ 308,690,715	71.9%	19.2%	\$ -	0%	N/A	\$ 99,877,528	78.6%	19.2%	\$ 333,665,509	73.3%	16.3%	\$ 2,917,348	52.9%	11.0%	\$ 8,746,881,460	76.1%	18.5%
Program Projects/Cooperative Agreements [®]	\$ 43,511,740	9.1%	21.1%	\$ 218,811,962	4.4%	31.8%	\$ 126,086	28.6%	50.0%	\$ 62,510,807	2.1%	21.9%	\$ 171,619,057	3.6%	33.3%	\$ 138,405	2.6%	25.0%	\$ 5,242,786,424	3.7%	32.2%
Research Career Development	\$ 575,063	2.0%	13.0%	\$ 17,912,745	4.3%	33.1%	\$ -	0%	N/A	\$ 3,768,017	0.9%	21.9%	\$ 12,983,202	2.9%	27.7%	\$ -	2.6%	0%	\$ 476,317,830	4.4%	31.6%
Education/Dissemination/Outreach	\$ 9,799,901	14.3%	15.5%	\$ 16,162,041	6.1%	25.9%	\$ 430,008	42.9%	66.7%	\$ 25,326,472	6.1%	20.3%	\$ 16,541,158	5.9%	23.1%	\$ 1,167,078	22.6%	11.4%	\$ 245,583,522	3.6%	26.0%
Fellowships	\$ 99,422	2.9%	21.5%	\$ 3,164,386	7.8%	27.3%	\$ -	0%	N/A	\$ 1,519,617	2.3%	23.6%	\$ 3,184,175	6.1%	22.1%	\$ -	1.9%	0%	\$ 113,763,023	7.2%	28.9%
Training Programs	\$ 7,182,226	4.0%	28.9%	\$ 33,741,068	2.8%	32.7%	\$ -	0%	N/A	\$ 11,534,450	1.1%	31.9%	\$ 26,241,746	2.4%	24.8%	\$ 449,922	0.6%	0%	\$ 747,509,298	2.7%	30.3%
NIH MSI Investment	\$ 109,497,060	2,245 grants	12.6%	\$ 606,892,431	9,118 grants	21.8%	\$ 556,094	7 grants	42.9%	\$ 239,332,505	8,339 grants	20.1%	\$ 592,524,322	11,432 grants	19.0%	\$ 5,877,741	155 grants	11.6%	\$ 15,832,794,927	243,073 grants	20.9%

HBCU



- HBCUs make up 0.68% of IHE, but 14.8% of IHE investment for Infrastructure and Capacity.
- HBCUs have a low distribution within the Investigator-Initiated Research strategy which can be explained by lower application rates, fewer submissions from established investigators (5.2% Type 2 R01 equivalents vs 19.5 IHEs), and lower success rates than IHEs and other MSIs (R01 Type 1- 5.5% vs 16.2% and R01 Type 2- 21.1% vs 36.0%)
- Of the 106 HBCUs, 67 applied to NIH but only 35 were funded. A higher proportion of HBCUs that applied to NIH were classified as Baccalaureate and Masters compared to other MSI categories, these type of institutions have lower success rates than Doctoral or Research Intensive Institutions.

FY 2013 MSI Funding Distribution within Program Strategies

Program Strategies	MSI \$FY13	IHE \$ FY13	MSI %IHE
Infrastructure and Capacity	\$ 100,039,959	\$ 259,953,370	38.5%
Investigator-Initiated Research	\$ 725,930,359	\$ 8,746,881,460	8.3%
Program Projects/Cooperative Agreements [®]	\$ 484,004,057	\$ 5,242,786,424	9.2%
Research Career Development	\$ 34,702,114	\$ 476,317,830	7.3%
Education/Dissemination/Outreach	\$ 60,412,385	\$ 245,583,522	24.6%
Fellowships	\$ 7,571,048	\$ 113,763,023	6.7%
Training Programs	\$ 73,650,209	\$ 747,509,298	9.9%
NIH MSI Investment	\$ 1,486,310,131	\$ 15,832,794,927	9.4%

In FY 2013, the total NIH investment for MSIs was \$1,486,310,131 which was 9.4% of NIH's IHEs investment.

- The predominant proportion of the NIH investment for IHEs was in Investigator-Initiated Research (55.2%) and Program Projects and Cooperative Agreements (33.1%). Together these account for 88.3% of the investment.
- MSIs have a larger proportion of the NIH investment than other IHEs in Infrastructure and Capacity (38.5%) and Education/Dissemination/Outreach activities (24.6%).
- MSIs have a lower proportion of the NIH investment than other IHEs in Investigator-Initiated Research (8.3%), Research Career Development (7.3%), and Fellowships (6.7%).

18 MSIs (\$66,335,867) are reported in more than one MSI category, duplicates were removed in total

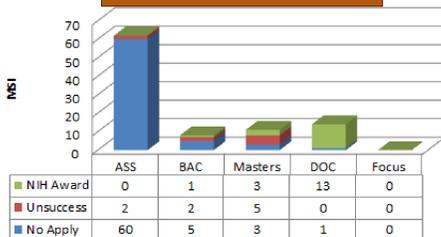
*Research & Development

- Infrastructure and Capacity** – C06, G08, G11, G12, G13, R24, S10, S21, SC1, SC2, SC3
- Investigator-Initiated Research** – R00, R01*, R03, R21, R33, R34, R35, R36, R37*, R55, R56, R90, RC1, RC2, RC3, RC4, RL1, RL2
- Program Projects and Cooperative Agreements[®]** – P01, P20, P30, P40, P41, P42, P50, P51, P60, U01, U10, U19, U24, U41, U42, U45, U54, UH2, UH3, UL1, UM1, [®](Contracts \$415,477,059 in IHE)
- Research Career Programs** – K01, K02, K05, K07, K08, K12, K22, K23, K24, K25, K99, KL2
- Education/Dissemination/Outreach** – R13, R15, R25 (LM Contracts \$12,025,878)

Training

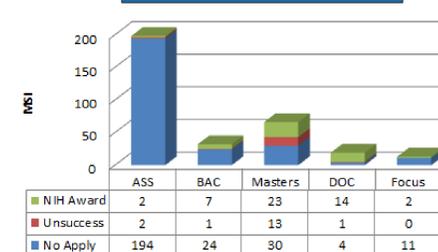
- Fellowships** – F30, F31, F32, F33
- Training Programs** – D43, DP1, DP2, DP3, DP5, T15, T32, T34, T35, T36, T37, T90, TL1

AIANSI



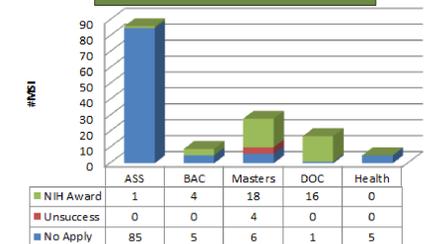
- AIANSIs make up 3.8% of IHEs, but 6.6% of the Education/Dissemination/Outreach.
- AIANSIs mirror the NIH pattern of investment for IHEs in the distribution among strategies, which can be explained by similar application rates and success rates as IHEs.
- Of the 97 AIANSIs, 26 applied to NIH and 17 were funded. Most of the AIANSIs applying and securing NIH funding are Doctoral or Masters IHEs.

HSI



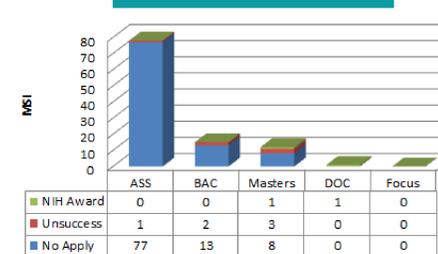
- HSI make up 1.5% of IHEs, but 13.4% of the investment in Infrastructure and Capacity and 10.3% Education/Dissemination/Outreach.
- The HSI pattern of investment for IHEs can be explained by application rates, with similar or better success rates as other IHEs.
- Of the 329 HSIs, 64 applied and 47 were funded. Most HSIs applying and securing NIH funding were Masters or Doctoral IHEs.

AANAPISI



- AANAPISIs make up 3.7% of IHEs, but 10.9% of the investment in Infrastructure and Capacity and 6.7% of the investment in Education/Dissemination/Outreach.
- AANAPISIs mirror the NIH pattern of investment, except for slightly higher application rates in Infrastructure and Capacity and Education/Dissemination/Outreach.
- Of the 146 AANAPISIs, 46 applied to NIH and 40 were funded. Most of the AANAPISIs applying and securing NIH funding are Doctoral or Masters IHEs.

PBI



- PBIs make up 0.03% of IHEs, but 0.46% of the investment in Infrastructure and Capacity and 0.48% Education/Dissemination/Outreach.
- The PBI pattern of investment for IHEs can be explained by application rates, with similar or better success rates as other IHEs.
- Of the 106 PBIs, 8 applied and 5 were funded. Only Masters or Doctoral institutions received funding.

TCU

TCUs are classified as their own category in the Carnegie Classification.

- TCUs make up 0.004% of IHEs, with funds only in Program Projects/Cooperative Agreements and Education/Dissemination/Outreach.
- TCUs had 7 grant applications from FY 2009 -2013 in three categories.
- Of the 37 TCUs, 3 applied to NIH and 2 were funded.

Conclusions

- Much of the differences in funding can be explained by higher application and success rates by Doctoral and Research Intensive Institutions compared to Associates, Baccalaureate, and Masters Institutions.
- HBCUs application rates, success rates and funding were different from other MSIs.
 - Highest proportion of Baccalaureate and Masters institutions seeking NIH funding.
 - Highest proportion submitting applications to solicited versus unsolicited FOAs(69.5% solicited compared 24.6% for IHEs).
 - Low distribution within the Investigator-Initiated Research strategy with lower application rates, fewer submissions from established investigators and lower success rates.