



GOLD-EN: Building capacity for broadening participation in the Geosciences – A National Science Foundation Initiative

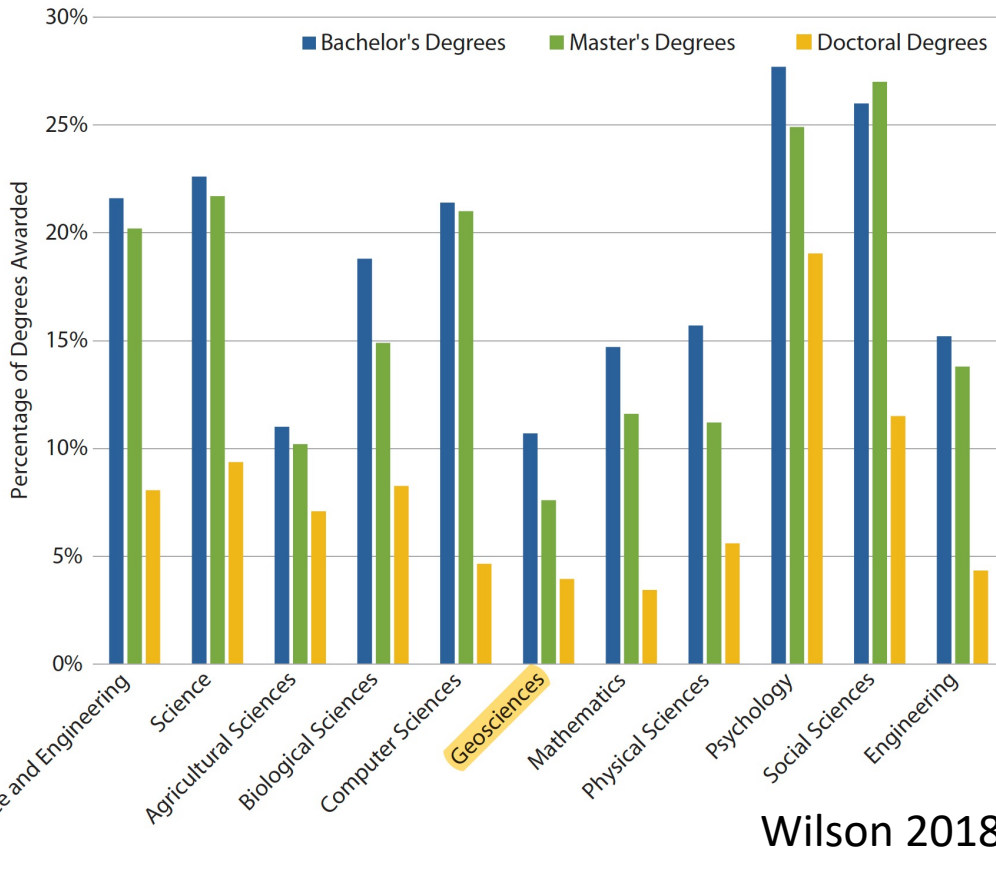
Marissa A. Vara, Brandon Jones, Aisha Morris, Amanda Adams, Dena Smith, Elizabeth Rom, Lina Patino
Directorate for Geoscience



Sciences

"Status of Geoscience Workforce" American Geosciences Institute

Figure 4.11: Percentage of Science and Engineering Degrees Awarded to Underrepresented Minorities, 2015



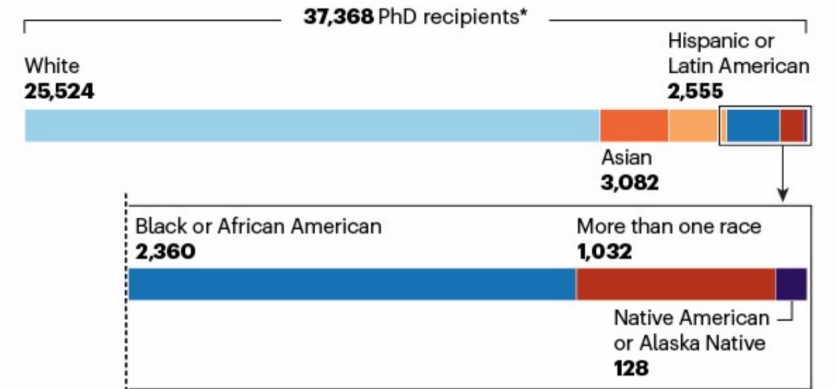
Wilson 2018

AGI Geoscience Workforce Program, Data derived from NSF's National Survey of College Graduates 2015 Public-use data files

"Diversity in science: next steps for research group leaders" | Nature

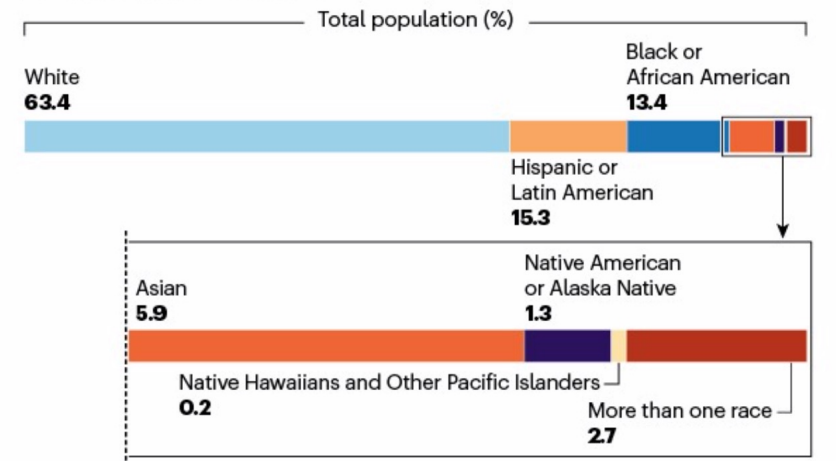
US PHD RECIPIENTS

In 2016, proportionally fewer people from minority backgrounds received a PhD doctorate compared with white people.



*Includes some respondents who did not report citizenship; does not include people listed as temporary visa holders.

MAKE-UP OF US POPULATION



Forrester, 2020

Source: Source: National Science Foundation/US Census Bureau

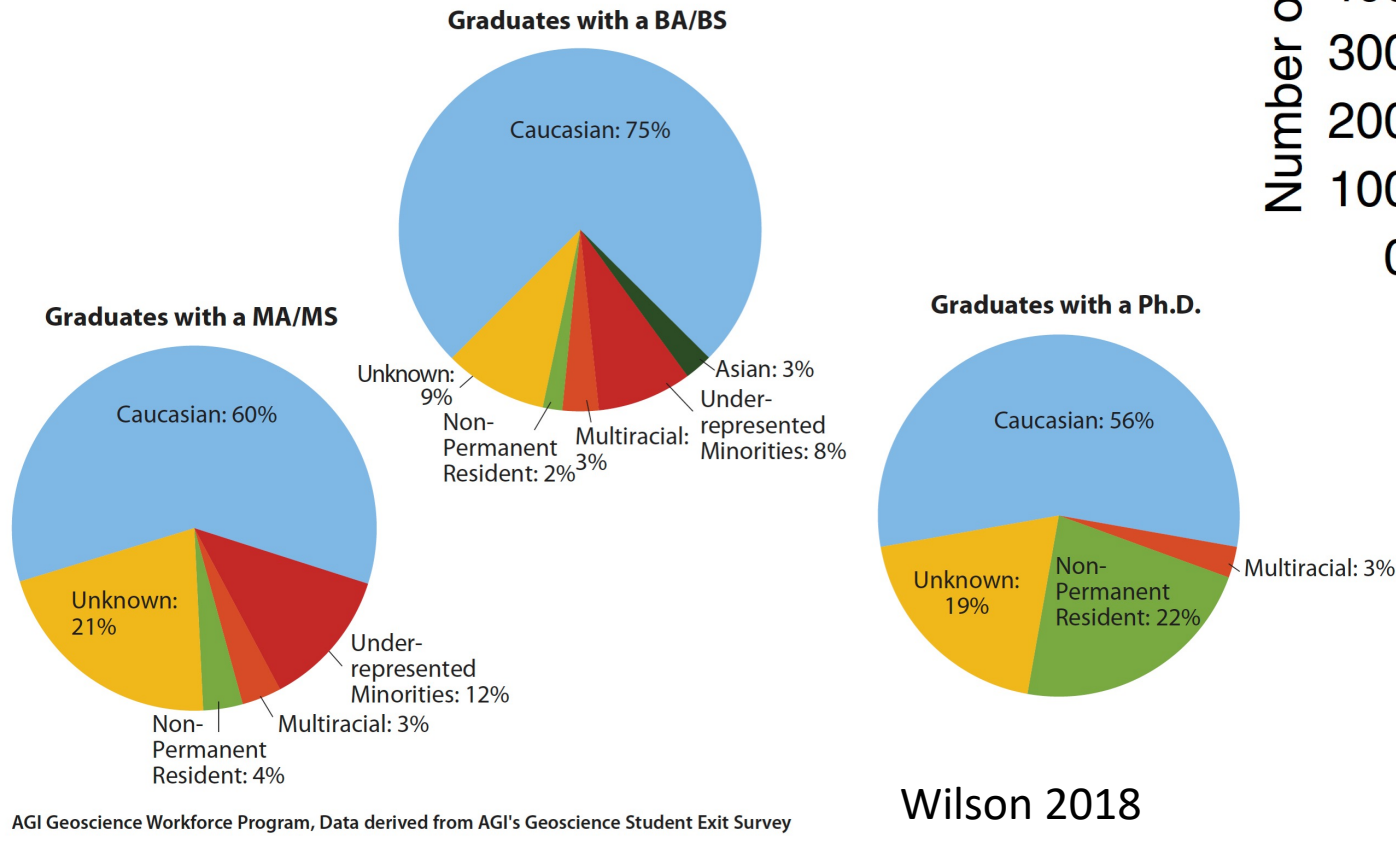




Geosciences

"Status of Geoscience Workforce"
American Geosciences Institute

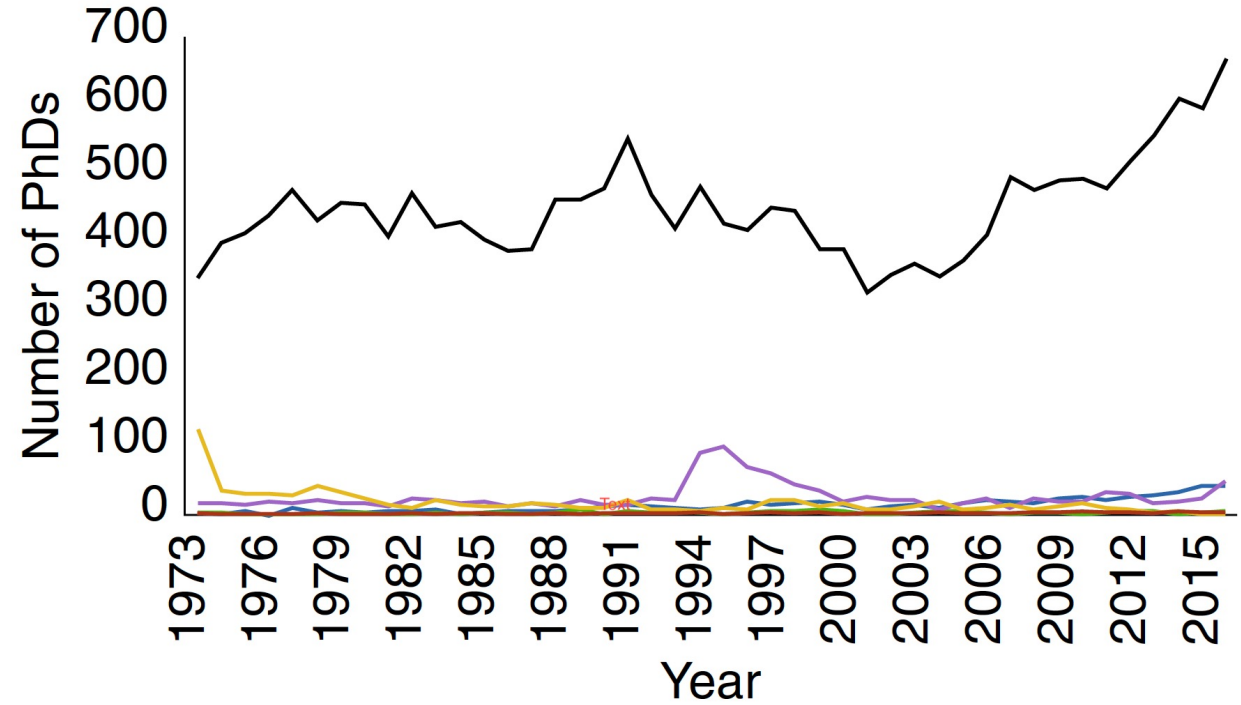
Figure 4.17: Race and Ethnicity of Geoscience Graduate Students, 2017



AGI Geoscience Workforce Program, Data derived from AGI's Geoscience Student Exit Survey

"No progress on diversity in 40 years"
Nature Geoscience

By race and ethnicity (subfields combined)



- White, non-Hispanic
- Native American, non-Hispanic
- Asian, non-Hispanic
- Black, non-Hispanic
- Hispanic or Latino
- Other or unknown

Bernard &
 Cooperdock 2018



GOLD Pilot Projects

ASPIRE

Spanning Boundaries



Hearts of GOLD

Leveraging Status



Sparks for Change

Unifying Change Agents



GeoDES

Developing Affinity



FIELD

Reducing Barriers





GOLD Products

Focusing on Leadership to Improve Diversity in the Geosciences

Mixed-reality simulations to build capacity for advocating for diversity, e the geosciences.

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Sparks for Change Institute; Boulder, Colorado, 18–20 September 2017

Sumida Farm, UH researchers collaborate on water sustainability

n, Jerlando F. L.

UH News » Research » Sumida Farm, UH researchers...

Research

Developing scientists as champions of diversity to transform the geosciences

Kathleen Quardokus Fisher, Eric Kaufman, Oriana Calagna, LaToya Myles, Carolyn Brinkworth, Denise R. Simmons & ...show all

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Full Article Figures & data References Supplemental

Abstract

To address complex geoscience questions, communities with a variety of needs are needed in local workplaces and institutions across academia and geoscience needs leaders who are champions of diversity and who act upon these attitudes to become change agents in advancing environments. We established a professional development workshop Diversity (GOLD) Institutes, to provide geoscience leaders with the tools reflective of their own ideas and to promote diversity, equity, and inclusion. Our objective was to equip senior geoscientists, who are at the core

2020). Mixed-reality simulations to build capacity for advocating for diversity, *Journal of Diversity in Higher Education*. Advance online publication.



Advancing inclusion in the geosciences: An overview of the NSF-GOLD program

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ABSTRACT

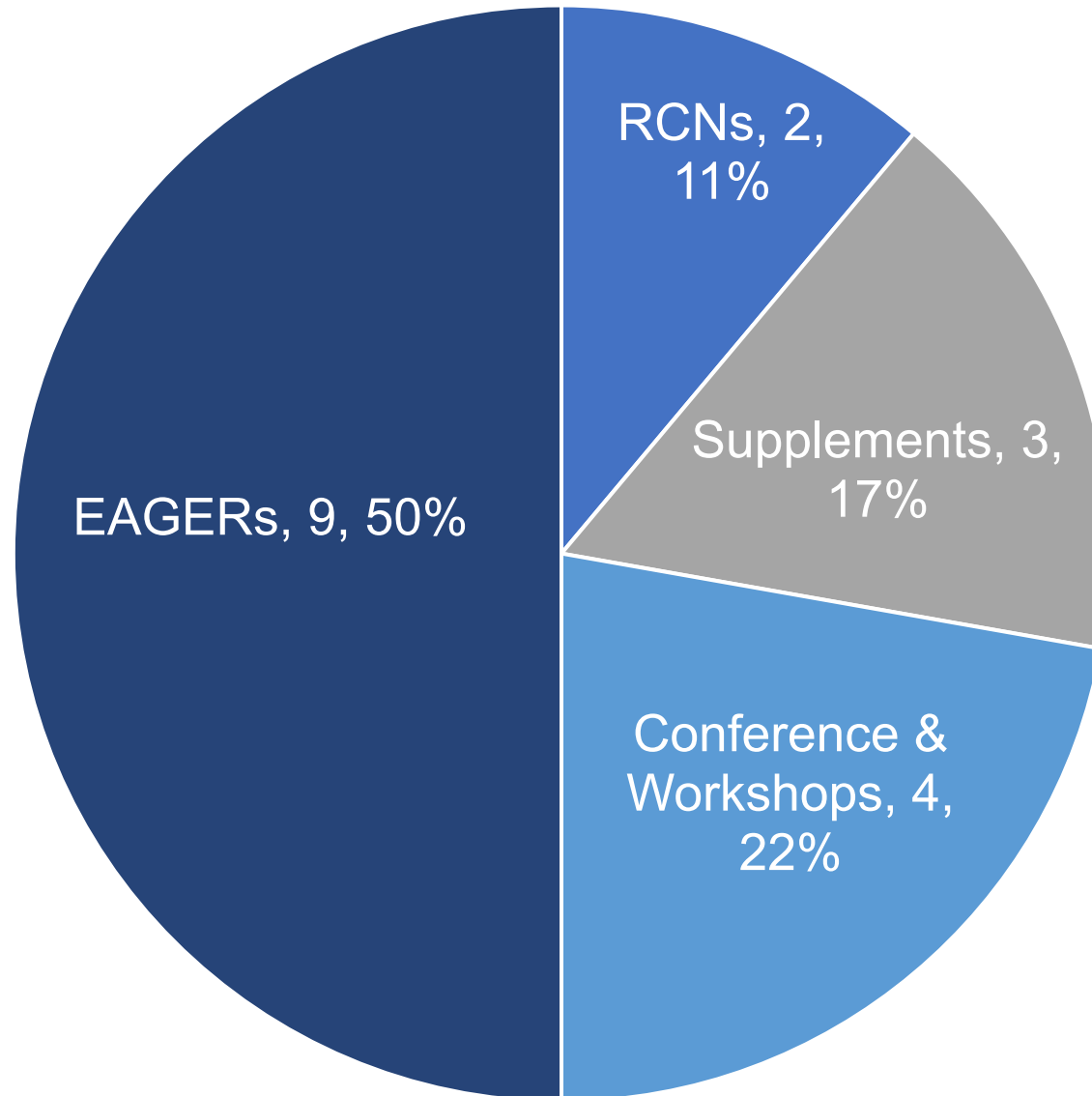
Here we report on five pilot projects working to develop effective professional development aimed at improving diversity, equity, and inclusion within the geosciences. All five projects were funded by the NSF GEO Opportunities for Leadership in Diversity (GOLD) program.

ARTICLE HISTORY

Received 31 August 2018
Revised 13 February 2019,
20 May 2019, and

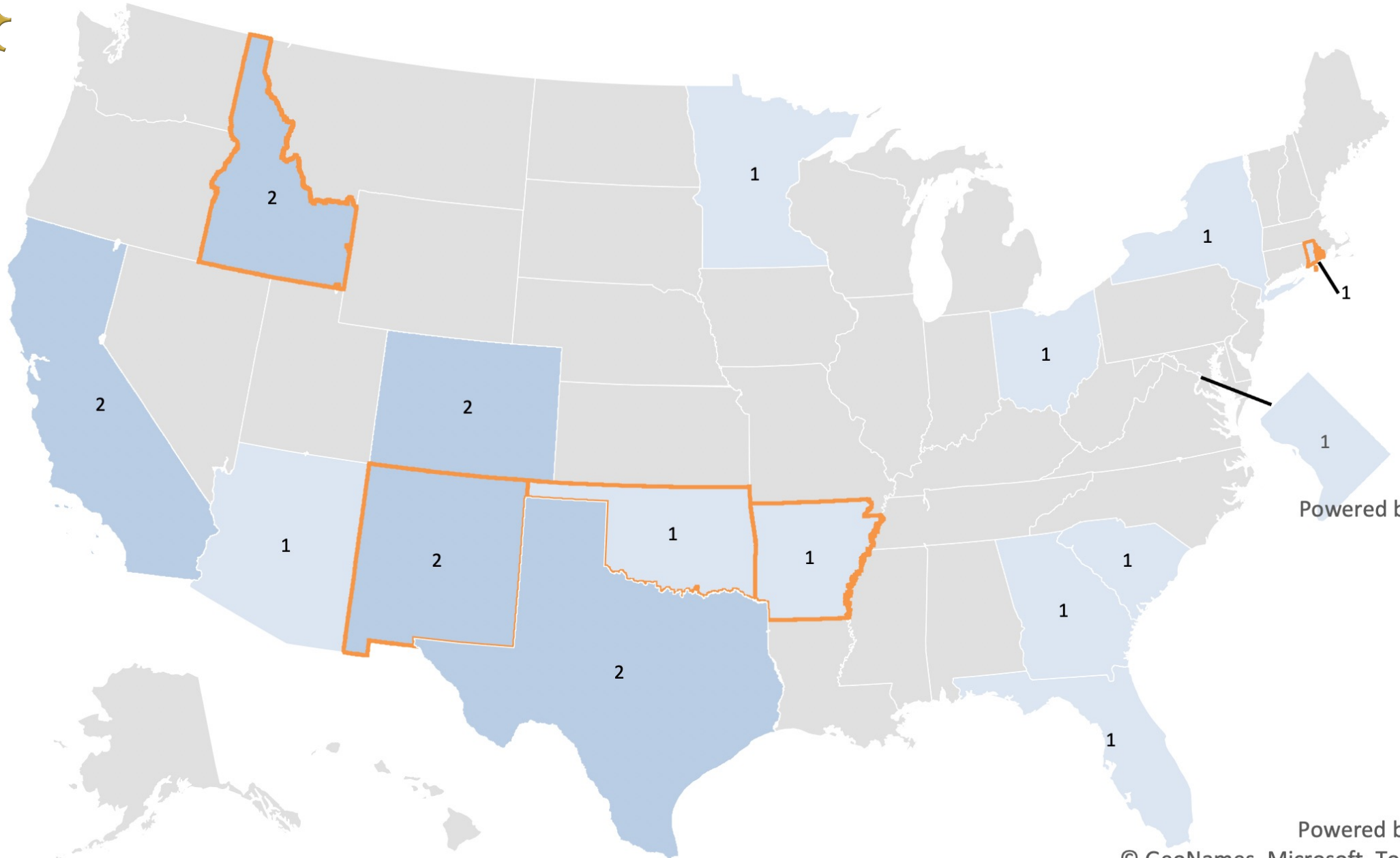


Geoscience Opportunities for Leadership in Diversity – Expanding the Network (**GOLD-EN**) Projects (18 total)





GOLD-EN Awards Distributed by State (16 total states)



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GOLD-EN Supported MSIs

HSIs



University of Houston-Downtown.



HBCUs



TCUs





GOLD-EN Supplements

ASPIRE – Supplement

- Formally expand the ideas and insights gathered in ASPIRE to the Thriving Earth Exchange, an endeavor at the American Geophysical Union (AGU) intended to connect geoscientists to communities

Sparks for Change – Supplement

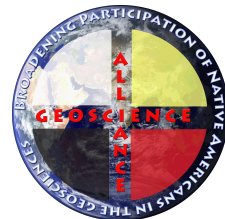
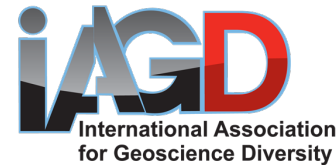
- Catalyze the efforts of the other GOLD initiatives by inviting participants from those programs to join some of the previous Sparks for Change participants in serving as Partners and Sponsors in the proposed second workshop

FIELD – Supplement

- Identify, recruit and support potential leaders, create a network of diversity champions, build a professional development platform, partner with diversity initiatives, and create collaborative projects



Geosciences Associated Societies Committed to Embracing and Normalizing Diversity Research Coordination Network (Geosciences ASCEND RCN)





Leadership Academy and Network for Diversity and Inclusion in the Geosciences-Research Coordination Network (LANDInG RCN)



Looking for new partners... it could be YOU!



GOLD-EN Conferences & Workshops

1. Florida A&M GEOSCIENCE Education: Improving Undergraduate GEOSCIENCE Teacher Preparation using the Multiplication Factor of Micro-Spiral Methodology Workshop
2. QEM Network host a virtual workshop in conjunction with the 2020 Congressional Black Caucus Foundation (CBCF), 49th Annual Legislative Conference
3. National Technical Association (NTA) 20/20 Vision: Keeping It 100! STEM Diversity Powering the Next Generation – 2020 HBCU Geosciences Workshop
4. Rising TIDES (Toward an Inclusive, Diverse, and Enriched Society) Conference Program (RTCP) in 2021





GOLD-EN EAGERS

Field	Veterans	Professional Development	Mentorship	Institutional Policy	DEI Curriculum	Race and/or Ethnicity	Disabilities	Lead Institutions
			X		X			COLUMBIA
X						X	X	Berkeley UNIVERSITY OF CALIFORNIA
			X	X				BOISE STATE UNIVERSITY
		X			X			WILLIAM & MARY
	X		X					UCLA
		X	X					Colorado State University
			X	X				The UNIVERSITY of OKLAHOMA
X						X	X	RICE
			X			X		NAVAJO TECHNICAL UNIVERSITY ESTABLISHED 1974

