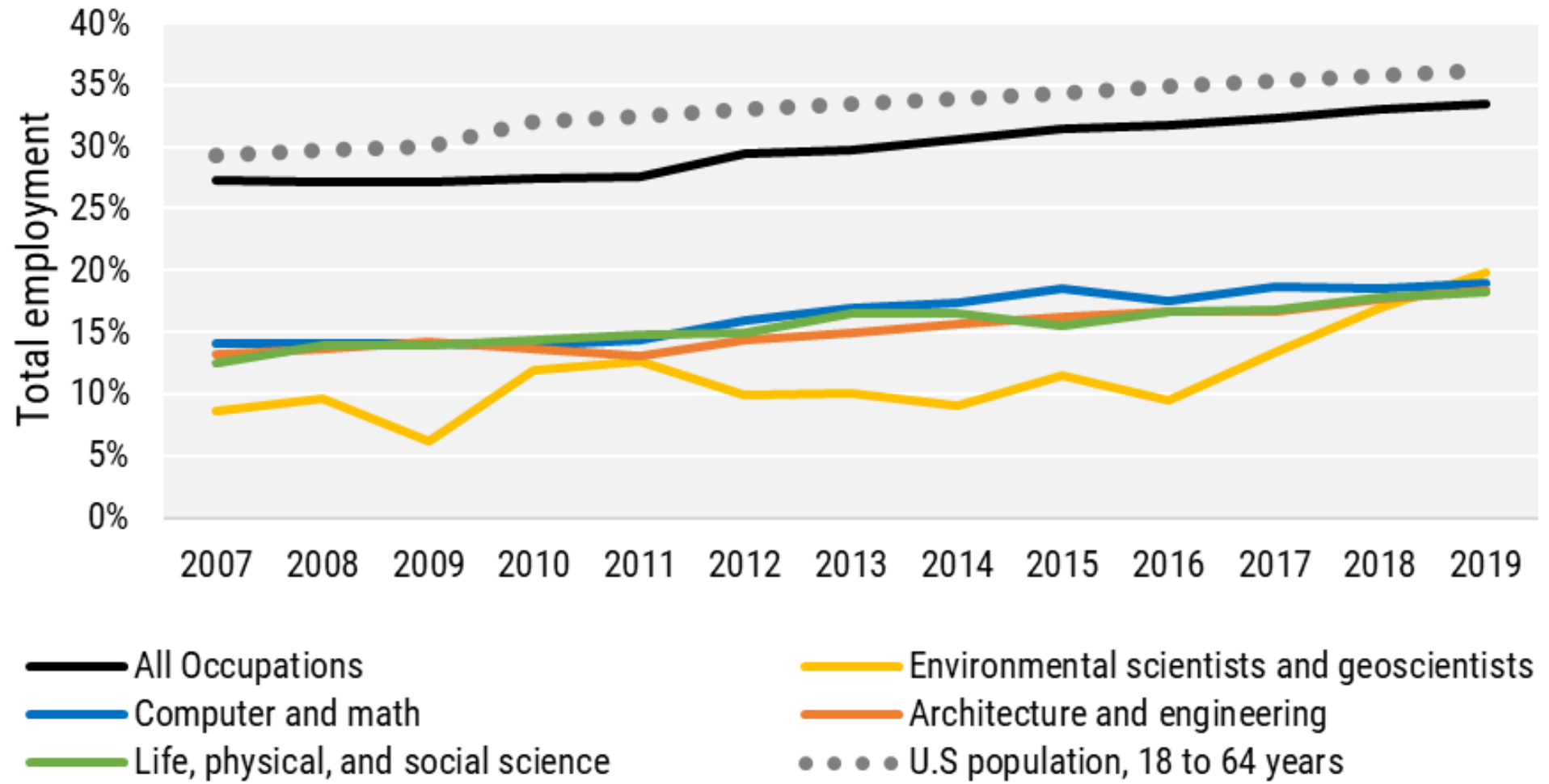


Measuring Diversity in Geoscience

Leila Gonzales and Christopher Keane
American Geosciences Institute
9 February 2021

Workforce Participation by Occupation

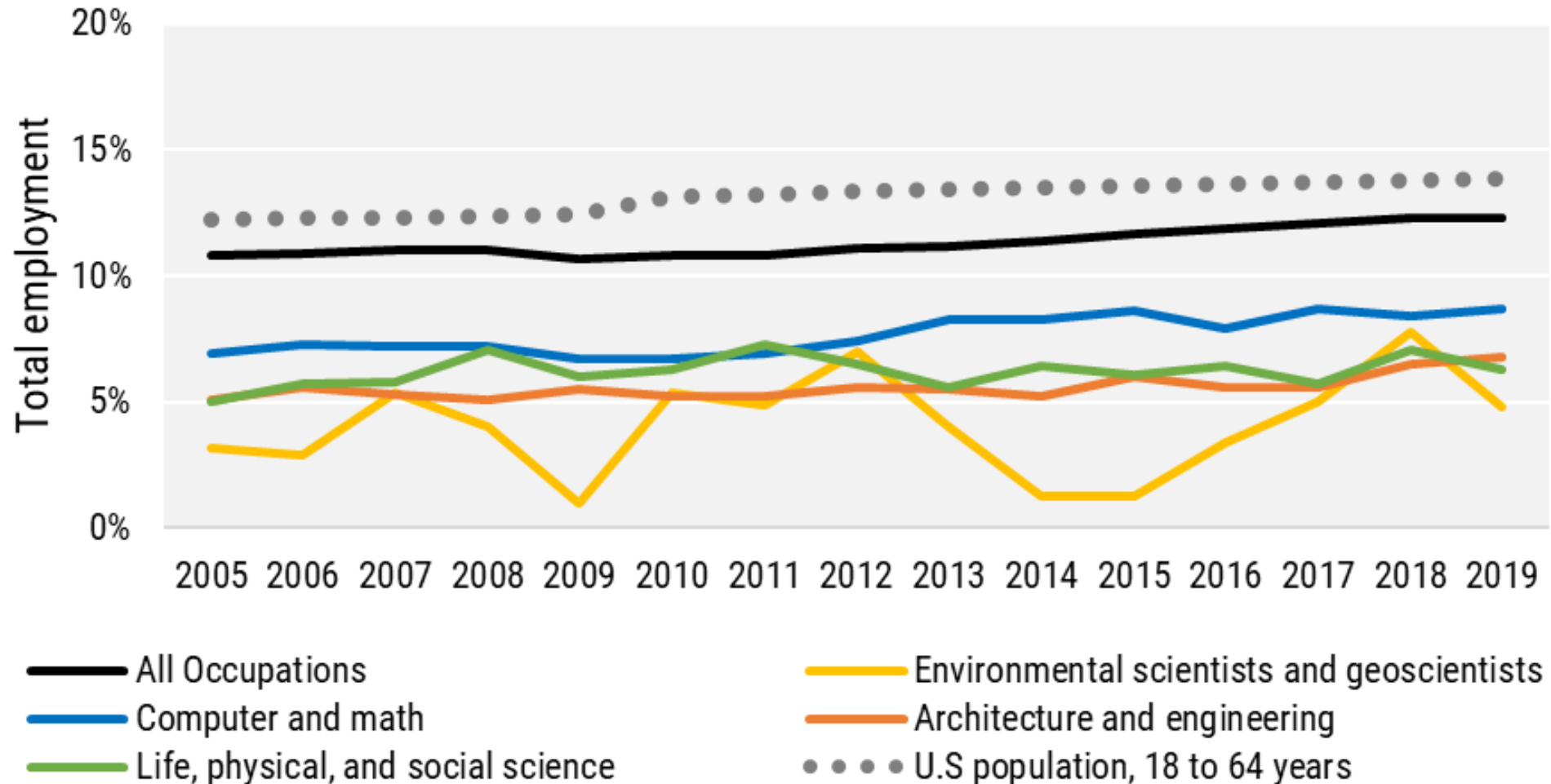
All Underrepresented Populations



Credit: AGI, data derived from the U.S. Census Bureau and U.S. Bureau of Labor Statistics

Workforce Participation by Occupation

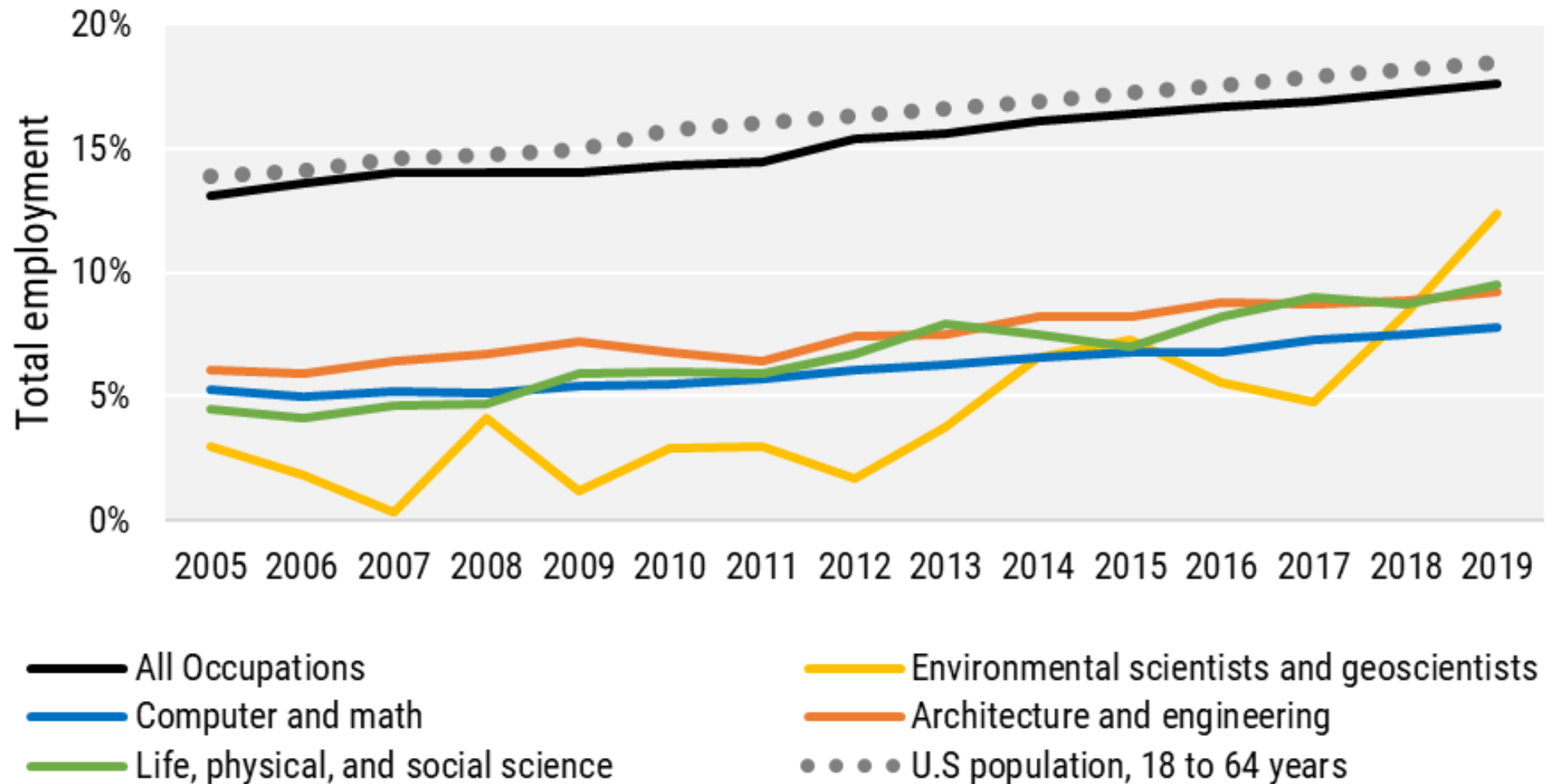
Black and African-American



Credit: AGI, data derived from the U.S. Census Bureau and U.S. Bureau of Labor Statistics

Workforce Participation by Occupation

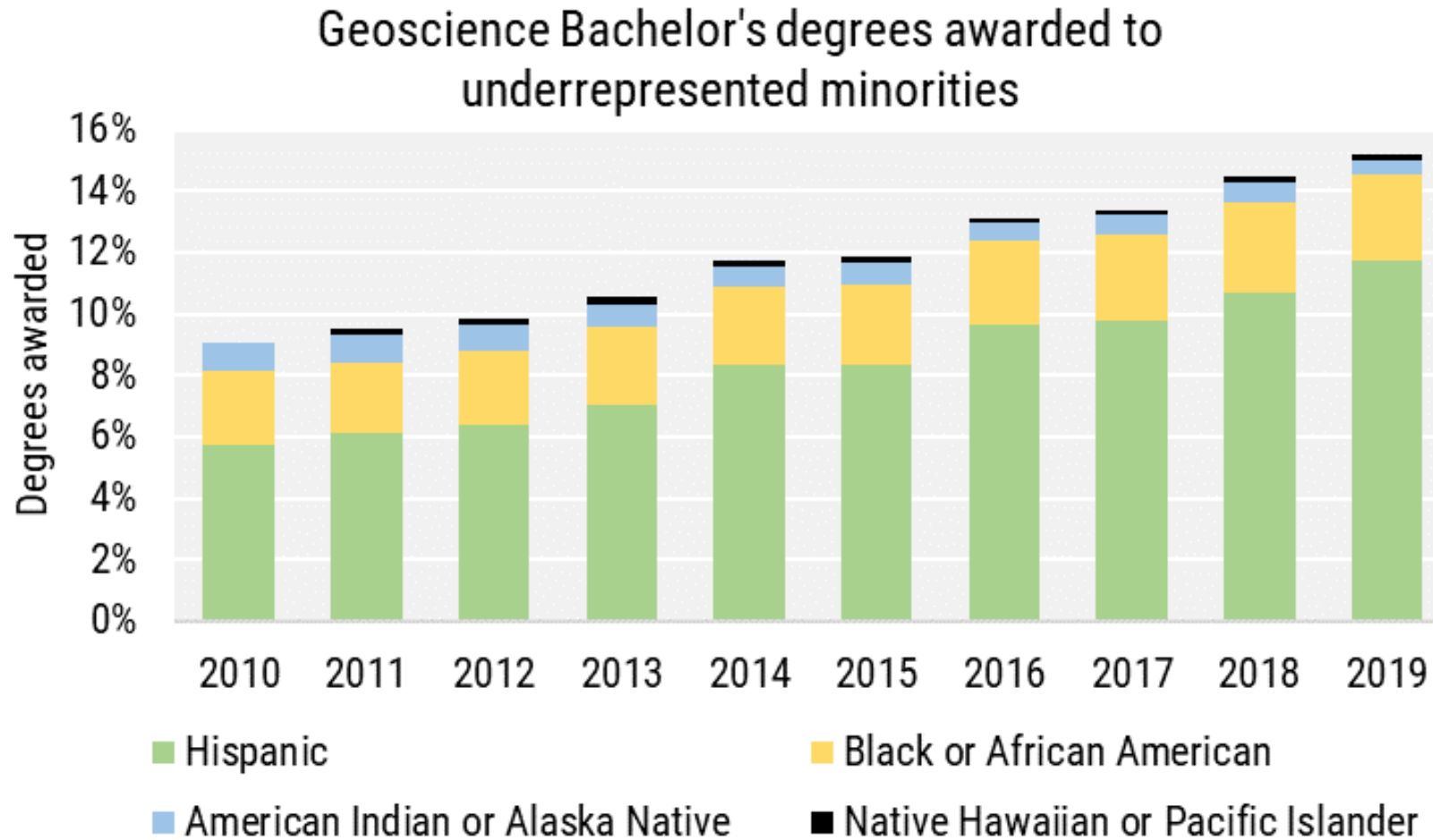
Hispanic and Latino



Credit: AGI, data derived from the U.S. Census Bureau and U.S. Bureau of Labor Statistics

US Undergraduate Geoscience Degrees

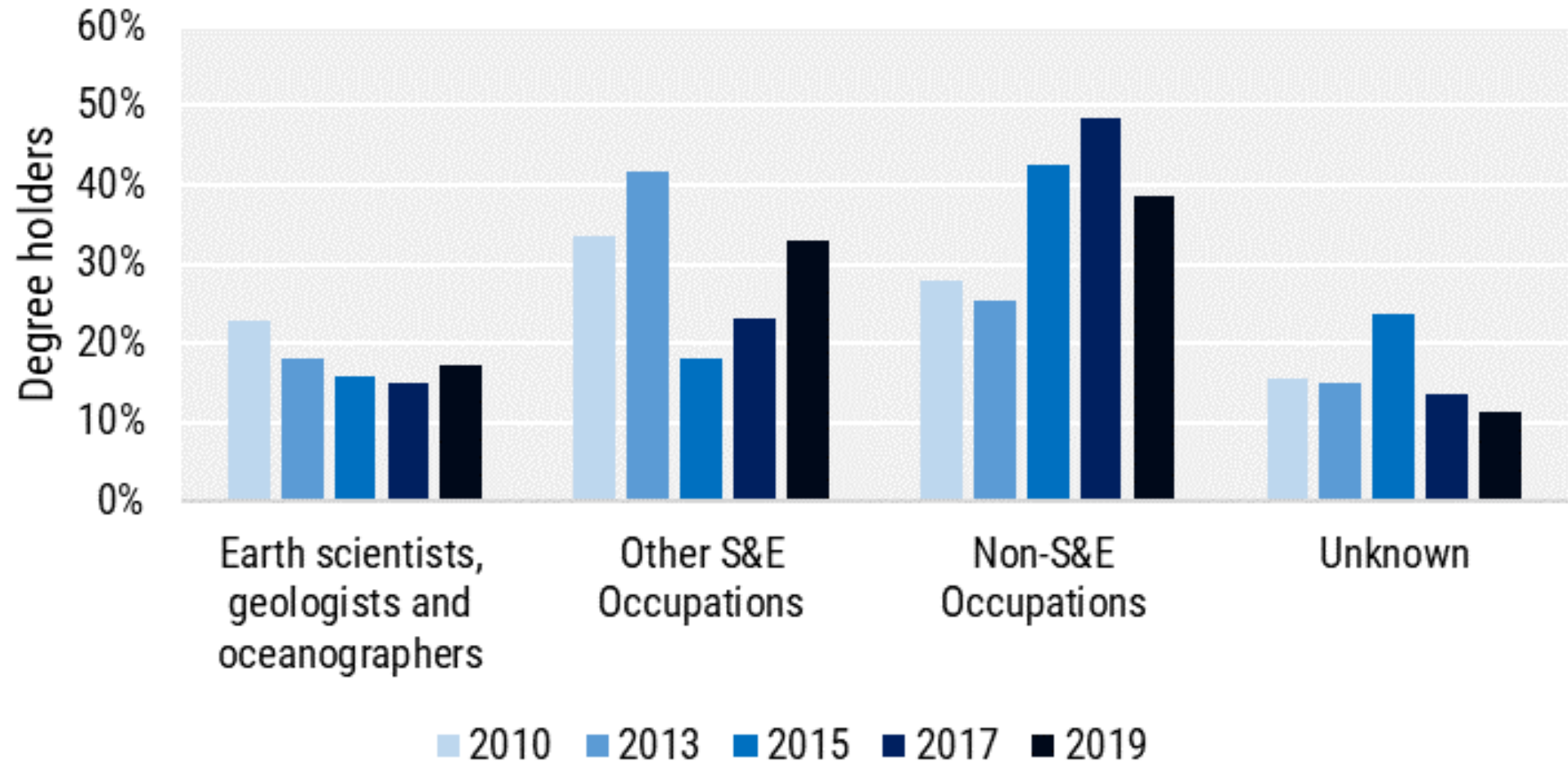
All Underrepresented Populations



Credit: AGI, data derived from IPEDS

Geoscience Degree Recipients by Occupation

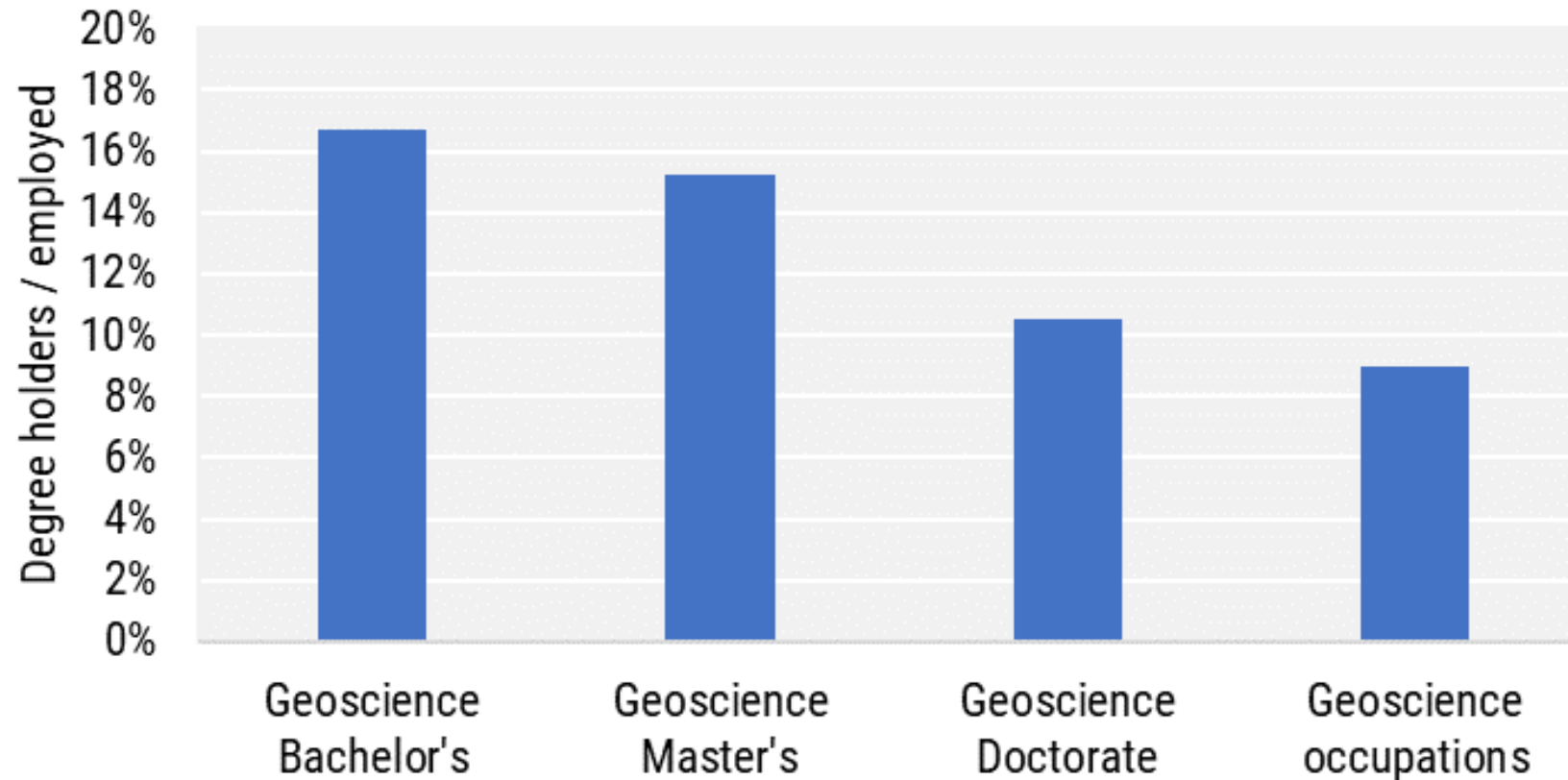
All Underrepresented Populations



Credit: AGI, data derived from the NSF National Survey of College Graduates

Physical disabilities

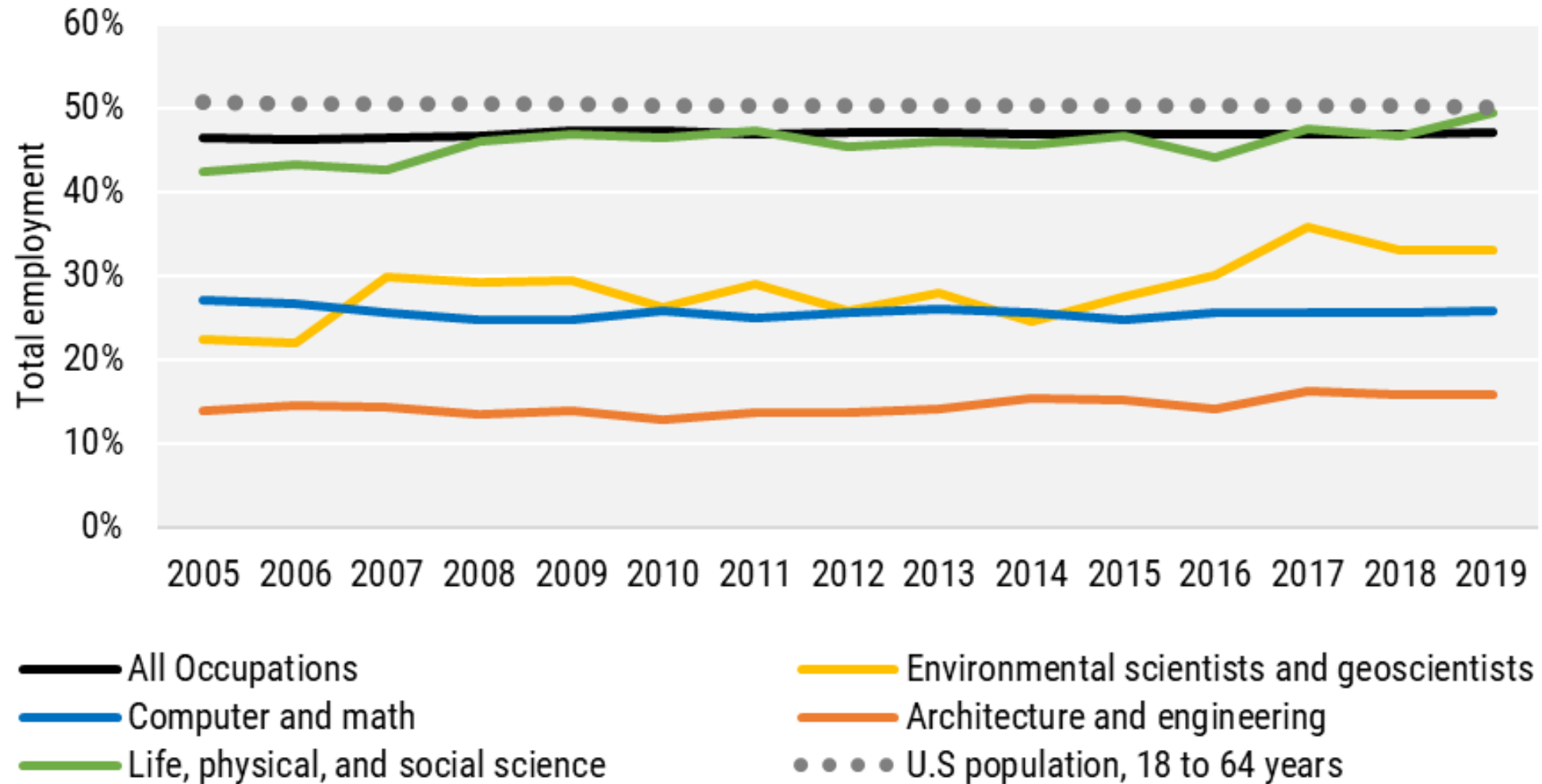
Physically disabled individuals within the geosciences:
degree holders and those in geoscience occupations, 2019



Credit: AGI, data derived from the NSF National Survey of College Graduates

Workforce Participation by Occupation

Women



Credit: AGI, data derived from the U.S. Census Bureau and U.S. Bureau of Labor Statistics

Diversity Accelerants and Impediments

- Strong growth in Hispanic engagement
 - University of Texas GeoFORCE program (~\$2MM per year investment)
 - Nearly 100% college enrollment, healthy number of geoscience majors
- Geo-driven but not yielding geoscience majors
 - Fort Valley State program
 - Good college enrollment, but many go on into engineering
- All students want to go to top programs
 - Large number of world class geo programs in Hispanic catchments
 - Very few excellent geo programs in African-American catchments

First Generation Students

The Geoscience Challenge

- Only 8% of geoscience students are first generation

What Do First Gens Do

- 24% of students are first generation
- 51% of first gen are URM vs. 30% of other students
- Only 23% of first gen have earned at least a BS after 7 years

Opportunity?

Can We Measure Our Goals?

- Diversity metrics in the US are problematic
 - Convolution of race and ethnicity
 - Only affirmative **IF** one is a minority
 - Are we using this as a socio-economic proxy or something else?
- Doubtful the US can move to affirmative identity (UK & Ireland)
- Are our goals actually measurable?
- Can we create an accurate & precise evaluative metric on progress in diversity?
- Inclusivity is much broader – it extends well beyond just race, ethnicity, gender identity, and disability. Economic, geographic, temporal challenges too.