

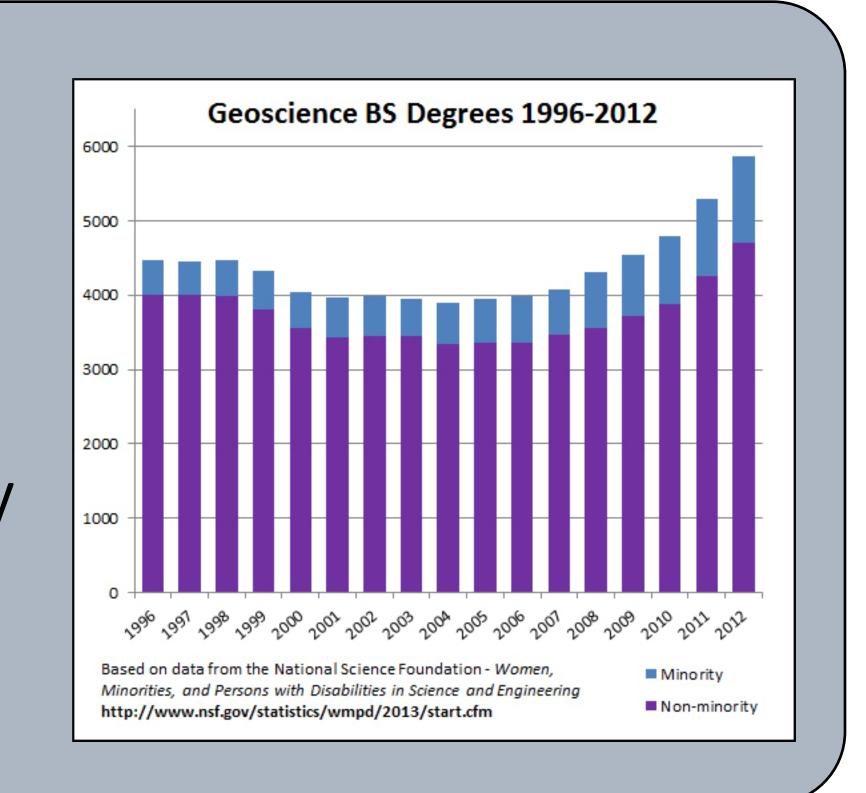


Understanding the Prevalence of Geo-Like Degree Programs at Minority Serving Institutions

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Over the decade 2002-12, the percentage of minority students graduating with geoscience degrees has increased dramatically. For example, in 2012, of the nearly 6,000 geoscience BS degrees awarded, almost 20% went to minority students and this was up from just over 13% in 2002. But minorities make up nearly a third of the US population, so we still have work to do.

Minority Serving Institutions (MSIs) play an important role in increasing the diversity of geoscience graduates where there are appropriate degree programs or pathways to programs. To better understand opportunities at these institutions, the InTeGrate project collected information on degree programs at MSIs.



Finding 1: Of the 496 officially recognized Minority Serving Institutions in the summer of 2013, 148 (30%) offered degrees that included elements of Geoscience.

Earth and Atmospheric Science

Earth Systems Science and Environmental Engineering

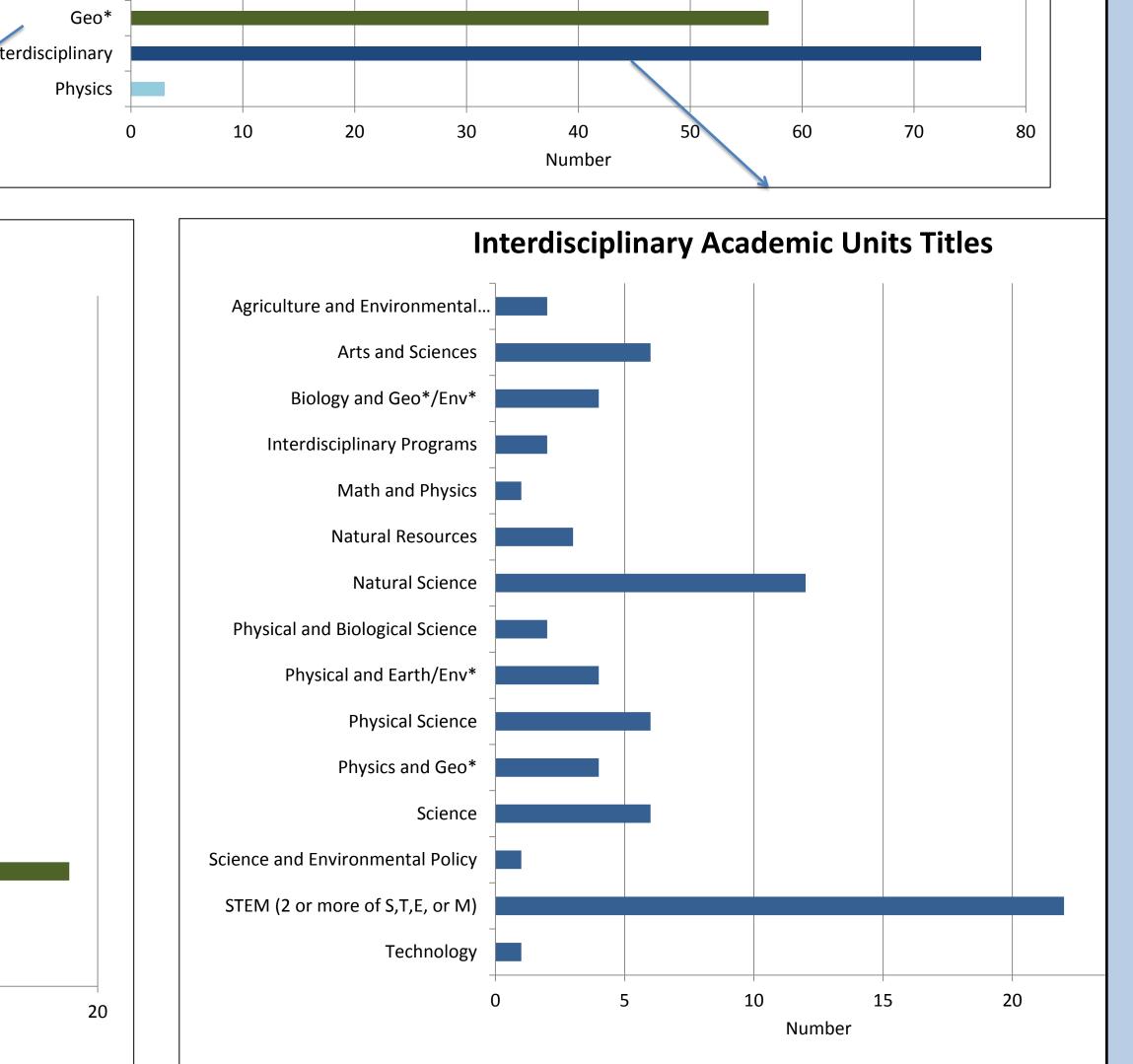
Earth, Environmental, and Geospatial Science

Earth, Space, and Aviation Science

Oil and Gas Technology

Earth, Space, and Environmental Science

Geo* Academic Units



Academic Units Offering Degrees that Include Elements of

Geoscience

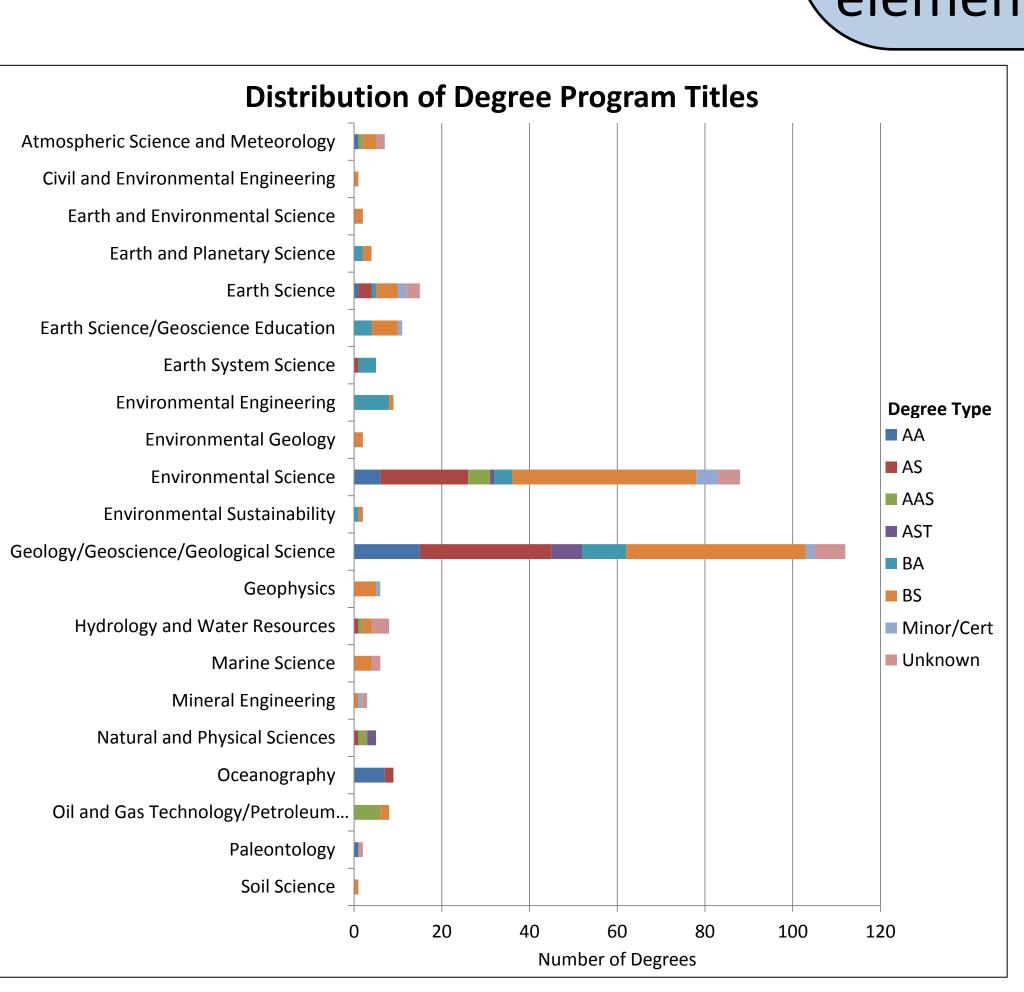
A summer 2013 survey of websites for Historically Black Colleges and Universities (HBCUs), Hispanic Serving Institutions (HSIs) and Tribal Colleges confirmed that, while stand-alone Geology, Geoscience, or Environmental Science departments are present, there are a larger number of degree programs that include elements of geoscience or related disciplines offered in interdisciplinary departments or cognate science departments.

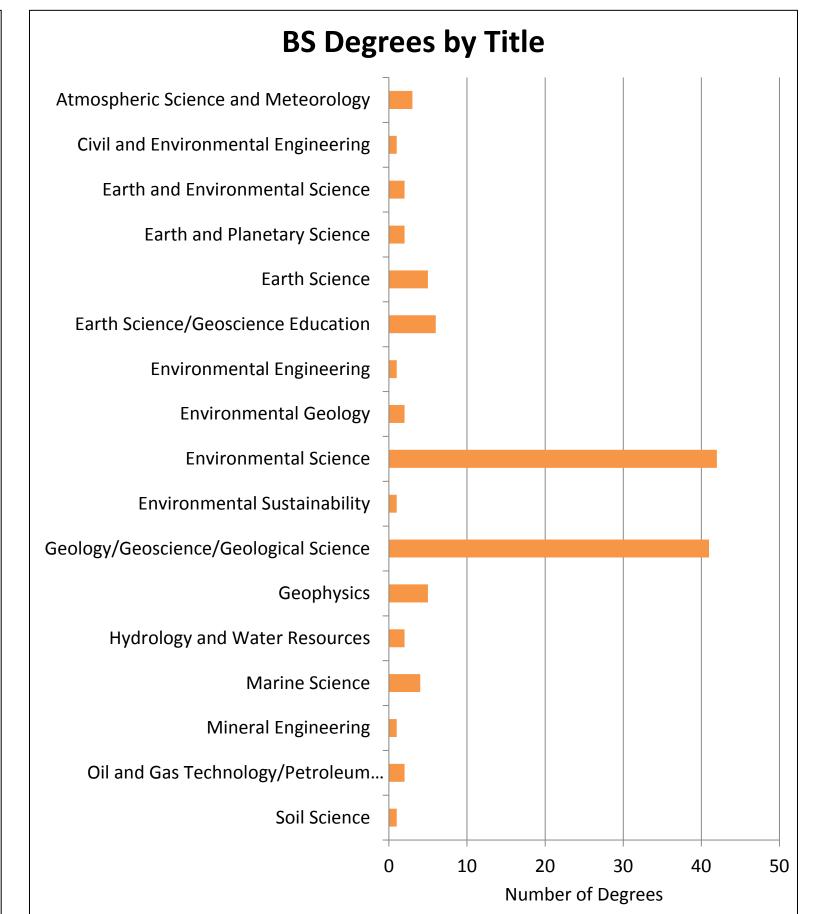
Finding 2: There are more "geo-like" degree programs at MSIs than we expected there would be.

Finding 3: The name of the academic unit is not a good proxy for the presence of a degree program with elements of geoscience.

NOTE: Geo* and Env* is a shorthand way of talking about Academic Units whose names are more traditionally associated with degrees which include significant amounts of geoscience content.

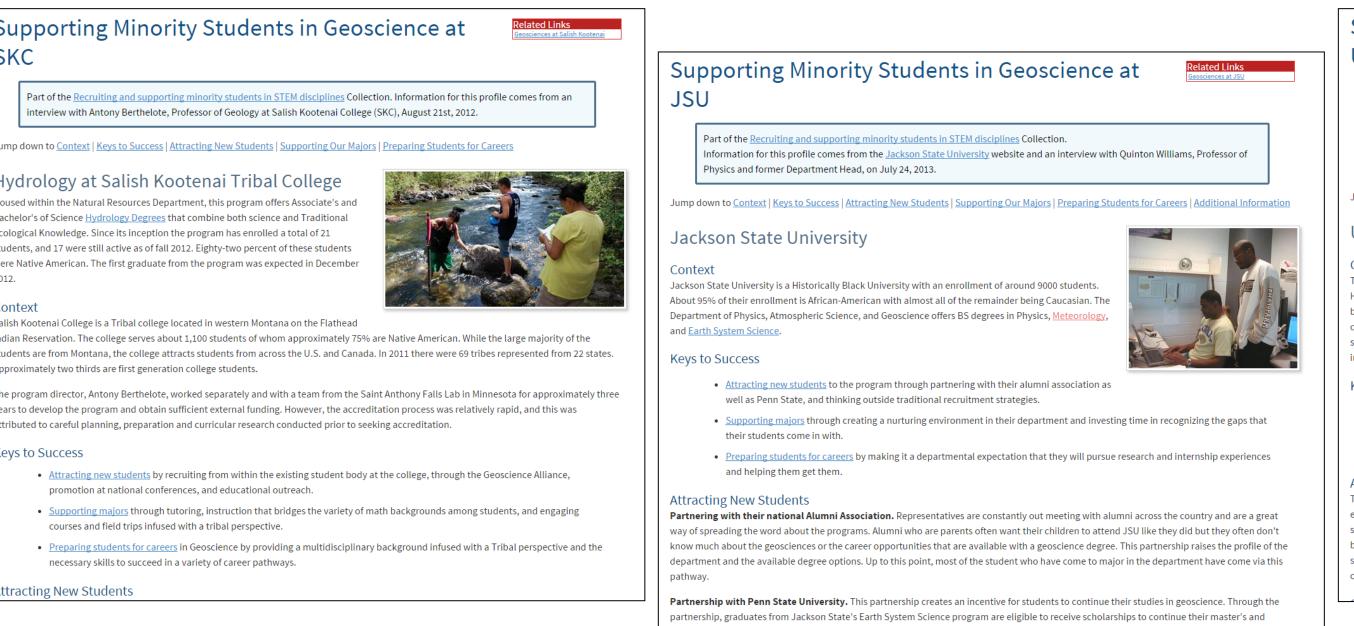
Finding 4: Approximately one-third of HSIs and Tribal Colleges and one-fifth of HBCUs offer at least one degree that includes elements of geoscience. The most common degree programs were Geology and Environmental Science, but 21 other types of programs were also categorized.





Program Profiles

To better understand the nature of these programs, InTeGrate conducted interviews with schools in each group, focusing on their strategies for attracting, supporting, and preparing minority students for careers in the geosciences. These interviews were used to create profiles of the institutions for the InTeGrate website. In addition, participants at a 2014 InTeGrate workshop also completed program profiles for their institutions. The final collection encompasses 16 profiles from MSIs and 17 from schools that are not MSIs.



Supporting Minority Students in Geoscience at UNM

Part of the Supporting Minority Students in the Geosciences Collection.

Information for this profile comes from the University of New Mexico Earth and Planetary Sciences website and an interview with Gary Wessmann on December 9th, 2013. You can get additional information about the Earth and Planetary Sciences Department on the UNM website.

Jump down to Context | Keys to Success | Attracting New Students | Supporting Our Majors | Preparing Students for Careers

University of New Mexico

Context

The University of New Mexico is a Hispanic Serving Institution with 38% of it's 29,000 student body being Hispanic. It also serves relatively large population of Native American students (5.5% of the student body) and a high percentage of first generation and 2-year college transfer students. One factor that contributes to the high percentage of minority students is that the state of New Mexico provides scholarships for students to attend college through revenue from lottery ticket sales. This helps to increase the diversity of students attending the school which benefits over 5,000 students per year across the state.

Keys to Success

• Attracting New Students
• Preparing students to the program through recruitment from introductory courses
• Supporting majors through a variety of campus-wide programs that support underrepresented STEM students
• Preparing students for careers by ensuring students are prepared for graduate school

Attracting New Students

The department recruits students into its majors by enticing students from the 100-level courses to continuing to take more geology and environmental science courses. Environmental Science 101 has been the fastest growing course on campus for the past several years. Every semester the course reaches about 5% of the student body foround 1,500 students). Recruiting from this large pool has proven to be successful in building a large group of majors in the department. Facutly identify and meet with students individually

Preliminary analysis of the profiles yields a number of common themes as well as differences in how MSIs and non-MSIs attract, support, and prepare minority students.

Attracting Minority Students:

- Both kinds of institutions do **Outreach to High School** teachers and students but MSI report doing so at almost twice the rate.
- MSIs report a larger emphasis on **Career Options** available in the geosciences than non-MSIs.
- Both types of institution use Introductory Courses to attract new majors.

Supporting Majors:

- Funding and Academic Support are reported more often by MSIs but are strong for both categories.
- Sense of community and Mentoring and Advising are reported more often by non-MSIs but are strong for both categories.

Preparing Students for Careers/Higher Degrees:

Research Opportunities are use by both kinds of institution, but MSIs report more extensive use than non-MSIs. In addition:

- MSIs report an emphasis on Internships and Real-world Experiences, and Courses Teaching Specific Skills.
- Non-MSIs report an emphasis on Networking and Recruitment Events, and Comprehensive Curricula.



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http://serc.carleton.edu/integrate/programs/diversity/

