The Challenges of Comparing Data on Minorities in the Geosciences

Accurate data on the enrollments and completions of underrepresented minorities in geoscience degree programs can be difficult to acquire. The most commonly used source is data provided by the Department of Education through their Integrated Postsecondary Education Data System (IPEDS). The two stacked bar graphs show the percentage of undergraduate and graduate degrees awarded to underrepresented minorities in the geosciences. There appears to be a sharp decline in these percentages in 2010, followed by an even sharper increase in the percentages for 2011 and 2012.

While there is an apparent increase in the recruitment of minority students to the geosciences, this increase is actually caused by changes in the Department of Education’s definitions for the different racial groups. The changes included creating a new category for Pacific Islander/Native Hawaiian students and the introduction of multi-racial responses. However, with the new multi-racial approach, individual students can be counted within multiple categories or more specifically, select a given racial category that they may not have been previously disposed, which can inflate the percentages. In addition, the source of IPEDS data varies by institution, including from departments, colleges, and offices of institutional research, which can lead to varying definitions of the degree programs compared to how they would be defined by the individual departments or the students.

When AGI created the Geoscience Student Exit Survey, collecting accurate demographic data about graduating students was considered a necessary function for the survey. Because the students respond to this survey, it is collecting self-identifying data, unlike IPEDS. This leads to clear differences in percentages between the IPEDS data and the Exit Survey data, particularly the percentage of African American/Black geoscience graduates. With <1% of the Exit Survey respondents identifying themselves as either African American/Black, Native American/Native Alaskan, and Pacific Islander/Native Hawaiian, a category of “Other Minorities” was used to lump these three groups. Also, the Exit Survey reported a higher percentage of Hispanic geoscience graduates than IPEDS.

- Carolyn E. Wilson