

DIVERSITY AND INCLUSION IN GEOSCIENCE. D. D. Patel¹, S. M. Patel¹, P.M. Solanki¹, H. V. Majethiya¹.
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Introduction: In work groups, diversity improves problem solving, stimulates creativity, and raises the level of critical analysis [1]. A multiplicity of perspectives can spark creativity and innovation, and help organizations spot and seize new opportunities.

In a research environment, enhanced creativity should therefore produce better science [2]. Yet recent research on diversity indicates that a general underrepresentation of minorities in science and engineering becomes even more pronounced in the geosciences. The findings show also that despite efforts to attract more minorities into the geosciences, their representation has improved only incrementally for more than a decade [3]. Both, women and people of color are underrepresented throughout academic faculty positions in the geosciences, which covers earth, atmospheric, ocean, and planetary sciences.

With respect to gender, an increasing number of Ph.D. graduates in the geosciences are women [4]. In Ocean and Earth Sciences, women have earned more Ph.Ds. each year than men since ~2007 and ~2014, respectively, determined from the Survey of Earned Doctorates reported by NSF [4]. However, advances in diversity at the student level often don't translate to advances at the faculty level as mentioned above.

Despite a growing consensus that the lack of diversity in science presents an inequity requiring action, decades of research, policies, and projects have shown that diversifying science is not as simple as encouraging women and minorities to earn university degrees in science, technology, engineering, and mathematics (STEM) fields. In the geosciences, for example, although there are significant numbers of women earning geoscience degrees in the US [5] these numbers are not translating into equivalent female representation in academic faculty [6] or professional activities such as journal refereeing [7].

Hence, to promote diversity and inclusion we need to ensure that the geoscience workforce remains strong, promising new geoscientists must be recruited and retained from all racial and ethnic groups and both genders. To succeed in this effort, geoscientists will have to work as a team to increase the visibility of geoscientists and their work. A nurturing mentorship environment that pervades the entire institution. Competitive research programmes with clear links to federal government and private-sector job prospects. Participation in academic and scientific instruction by caring role models with similar backgrounds to the pupils. Extending

networking possibilities to combat marginalization and alienation at professional gatherings, in organizations, and throughout the scientific community. Links to feeder programs at colleges with strong undergraduate academic programs, as well as research internships, extended faculty partnerships, workshops, reciprocal faculty visits, and seminars. Whenever possible, the linkages are enhanced by faculty and student exchanges. [8] It is also important to employ minorities in high-visibility positions, such as presidents, vice presidents, executive directors, program managers, program directors, and lead scientists on large- budget science projects, where they will serve as role models.

While it's crucial to nurture the next generation, there are already large numbers of women and people of color working in this field without the deserved recognition. They have the potential to be key players in paving the way for future generations, so it's crucial to shine a light on them.

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