Geophysics Requires Geophysicists: Strategies for Supporting Students' Awareness of and Preparation for the Geoworkforce

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Bachelor-level geoscientists make up the majority of the geoscience workforce, and job opportunities for bachelor-level geoscientists are expected to grow by up to 10% over the next decade. Jobs for geoscientists span a wide range of industry sectors (e.g., government, private corporations, resource industries) and occupations (e.g., geophysicist, hydrologist, geologist, geo-engineer, environmental scientist). But do students know about these opportunities? What skills and abilities do students need to be successful in the geoworkforce and are students building these skills in geoscience programs? What strategies can we use to support students' awareness of and preparation for the geoworkforce?

A model of student experiences in undergraduate geoscience programs based on surveys of faculty teaching practices and example undergraduate curricula suggests that, at the national level, geoscience programs are helping their students develop many desired workforce skills. These results, and a recent analysis of skills in geoscience job advertisements, provide valuable information that can be used by instructors and undergraduate programs to reflect on, and adjust, their practices to better help students develop critical workforce skills.

In addition to reflecting on the alignment between curricula and desired workforce skills, geoscience programs should be making that alignment visible to students and supporting students' awareness of geoscience careers. There are many ways to do this including use of geoscience career awareness modules such as the SAGE Unearth Your Future online course, incorporating career-focused assignments into existing courses, offering dedicated career planning courses, and connecting with local networks of professional geoscientists. Ultimately we want students to make informed decisions when navigating their degree programs and seeking experiences to prepare them for geoscience careers that best match their interests, values, and abilities, leading to a successful and sustained geoworkforce.