SERVING THE GEOSCIENCES WORLDWIDE

THE AMERICAN GEOLOGICAL INSTITUTE

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ED13C-0612 Building a Geoscience Culture for Student Recruitment and Retention
The Geoscience Society and Department Nexus

ABSTRACT
In many other science and engineering fields, the professional society is a key component of the student culture during their education. Students in fields such as physics, civil engineering, and mechanical engineering are usually expected to be members and active participants in their respective professional societies, which is tightly integrated with the academic programs through student chapters or activities. This phenomenon does not readily exist in the geosciences, and may be part of the reason for above average student attrition rates and subcompetitive recruitment over the entirety of careers. Part of this is a result of 45 societies, including over a dozen that actively recruit student members, but in the same vein, no single society has universal strong cultural presence across the 800 undergraduate programs in the United States. In addition, given the diversity of professional opportunities are not obvious to students because of the traditional subject top-leveling seen in the curriculum and societies. To test and address this issue, the American Geological Institute is piloting a program to build student awareness of the breadth of career opportunities in a SOCOR context while also promoting the roles of societies as a key networking and development conduit. Early responses to this test have resulted in some non-inuitive patterns and may yield insight into the world view of new and prospective majors.

CONCLUSION
Currently the geosciences face an impending shortage of talent. Retirements are bound to rise rapidly, but enrollments remain steady and the student attrition rate remains steady. One of the core dilemmas is the lack of late-30’s and early-40’s geoscientists in the workforce, a statistic reflected both in society memberships, employee age curvatures. This is the result of historically low enrollments and catastrophic attrition of geoscience students in the late 1980s and early 1990s.

Of interest in measuring the health of this ‘inter’ professional participation rates. For physics, the science most similar to the geosciences, there is approximately a 29% rate of student members continuing on immediately to professional membership in a society – a key metric of professional activity and commitment to the field. However, most geoscience societies see such continuity rates of between 4-6%, with the most effective societies only seeing translation of about 10% of their graduating student members to professional status. This trend reflects the overall vector of geoscience graduates in employment.

Yet one social factor to consider is the role of the society for students, and in the culture of the academic department. For fields that are closely aligned with engineering, where society membership is nearly a requisite for practice, we see much higher participation rates in societies, such as NSGSA.

AGI’s studies of student engagement in societies are demonstrating extremely low awareness of societies among students and a distinct intimidation at the process of joining, with rates below 10% for students accepting free society membership offers.

Yet the benefits to students in society participation are clear, and departments are recognizing that the major benefit of student society membership is improving retention, parental buy-in, and maturing of the student perspective of their future in the profession.

Future studies will examine the role of departmental culture/structure for student society participation, as well as longitudinal studies for the impact of student membership on professional trajectories.

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