Recruitment Strategies for Geoscience Majors: Conceptual Framework and Practical Suggestions

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ABSTRACT

One characteristics of strong geoscience departments is that they recruit and retain quality students. In a survey of over 900 geoscience departments in the US and Canada several years ago nearly 90% of respondents indicated that recruiting and retaining students was important. Recruitment is a critical component to any plan to increase student diversity. It is not enough to simply respond to residents at a department’s website to see if they are planning to major or not. This goal is best achieved through an internal and external assessment plan that is carefully adapted to individual departmental needs. It is not enough to create a website or alumni network that is not designed to meet the needs and diversity of students currently entering the major.

I. Why Focus on Recruitment?

It’s very important to identify the reasons it’s important in your department to increase enrollment.

Reasons may include:

I. Because we all know it’s important:

A survey of over 900 US and Canadian geoscience departments with a nearly 45% response rate, 40% (2011) departments indicated that undergraduate recruitment was important. (Eyes. Trans. Am. Geoph. Union. 2011).

II. Because there will be a need for geoscientists in the future:

- Assuming an optimistic 3% increase in graduate students entering the petroleum industry and a conservative of 2% growth in annual demand for geoscientists after 2011, by 2030 the unmet demand for geoscientists in the petroleum industry will be ~80,000.
- Geoscience is excellent preparation for many careers, in geoscience and beyond (law, medicine, etc.)

III. Because institutional administration demands enrollment growth, or there is the threat of departmental closure, or ...

IV. They include an assessment plan to measure the success of recruitment efforts. It takes effort and resources, often human capital, to attract students. In a survey to over 900 geoscience departments in the US and Canada several years ago nearly 90% of respondents indicated that recruiting and retaining students was important. It is not enough to simply respond to residents at a department’s website to see if they are planning to major or not. This goal is best achieved through an internal and external assessment plan that is carefully adapted to individual departmental needs. It is not enough to create a website or alumni network that is not designed to meet the needs and diversity of students currently entering the major.

II. Recruitment takes effort, that is wasted if enrollments go up, I was successful.” Correlation does not equal causality! It is not enough to answer, “If enrollments go up, I was successful.” Correlation does not equal causality!

Why assessment matters:

I. Recruitment efforts, that is wasted if enrollments would have gone up anyway.

AGI data indicate that enrollments went up 8% nationally due to increased interest in energy and environmental issues.

III. They involve more than one to two people... it’s the department’s responsibility, not a few individuals.

IV. They include an assessment plan to measure the success of recruitment efforts.

A. Assessing Recruitment Efforts

It is not enough to answer, “If enrollments go up, I was successful.” Correlation does not equal causality!

Survey Students (immediately upon entering major, when graduating, in Intro classes to gauge interest; ask students who leave the major to explain why)

Survey Alumni

Employers

III. Developing an Action Plan

There are several common attributes of successful recruitment action plans:

I. They begin with departmental consensus about the goals of recruitment (increase diversity, serve societal needs, get off administration’s radar, etc.)

II. They typically involve multiple strategies (internal to the department, external, etc.)

III. They involve more than one or two people... it’s the department’s responsibility, not a few individuals

IV. They include an assessment plan to measure success and maximize return on effort

V. They are flexible, and respond to data and changing situations/environments

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Strategies That Reach Beyond the Department or Institution

Raise Community Awareness

Service learning experiences
Write press releases about research, field trips, etc.
Student research colloquium
Recruit the parents (have geoscience salary information, hiring trends on hands)
Recruit "Refugees" from Other Sciences
Distribute math, chemistry, physics problems with geoscience content
Work with colleagues in biology, chemistry
Partner with K-12 Schools & 2-Year Colleges
Offer college credit for approved HS geoscience classes
Make your “geoscience career opportunities” presentation
Look Beyond Career Geoscientists
Geoscience is excellent preparation for many careers, in geoscience and beyond (law, medicine, etc.)
Develop interdisciplinary minors or related programs

Strategies Local to the Department or Institution

Use Your Introductory Classes
Presentation on geoscience careers
just before registration
Keep track of your alumni, and incorporate their careers in this presentation
Spice up the course name
Offer topical courses
Use your best faculty
TeachIntro courses every term
Address socially relevant issues
Engage students in doing science
Reach Students Early
Be an advisor for incoming students
Reserve seats in intro courses
Offer a 1-year seminar course
Field trip/course for incoming or 1st & 2nd-year students
Early research opportunities, in classes & beyond
Advertise your programs!
Advertise Career Opportunities
Presentations in Intro classes
Alumni network
Guest speakers
Develop a Sense of Community
Organize departmental events
Set aside space for students
Get your majors involved:
use student TAs/tutors/preceptors
Website design and content updates
Blogs about field trips
Facebook pages
Go Beyond the Classroom
Authentic research
Internships
Field experiences
Service learning

Assessing Recruitment Efforts

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Why assessment matters:

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Strategies:

I. Survey Students (immediately upon entering major, when graduating, in Intro classes to gauge interest; ask students who leave the major to explain why)

II. Survey Alumni

III. Employers

http://serc.carleton.edu/departments/recruiting/index.html

Acknowledgements

The information in this poster builds upon: 1) a 2007 pre-GSA workshop on recruiting and retaining students that attracted over 30 participants from over 20 different institutions, from liberal arts colleges to state universities to research intensive universities. 2) a 2008 AGU Heads & Chairs meeting. And 3) a 2009 workshop on strengthening your geoscience program.

Additional resources are available at:

http://serc.carleton.edu/departments/recruiting/index.html

Eos, Transactions, American Geophysical Union, 89