Houlton (2010) found that geoscience students followed 6 distinct pathway steps in pursuing their career in the discipline (see Geoscience Currents #45). Further investigation illuminated that students could be categorized into 3 major and 6 minor population groups, each exhibiting a unique pathway trajectory. Explicitly mapping these trajectories results in valuable insight into future recruitment and retention initiatives because it allows geoscientists to specifically target student populations who are pursuing different geoscience careers.

**Native Population:** students who decide to major in the geosciences at the time of, or prior to, college enrollment (i.e. they are native to the major).

- **True**
  - Students who decide to be geoscientists after initial childhood experiences catalyzed interests to follow a geoscience career trajectory.

- **BA**
  - Students who have childhood interests but pursue the Bachelor of Arts degree with fewer rigorous math and science courses.

- **Exploratory**
  - Students who considered other options prior to college but chose the geoscience major by college enrollment.

**Immigrant Population:** students who were studying a different major and switched into the geosciences (i.e. they immigrated into the major).

- **Committed**
  - Students who changed major and interests now lie in traditional geoscience disciplines. They are committed geoscience and are likely to pursue those careers after graduation.

- **Related-Fields**
  - Students who see the major as a good pathway to other disciplines. Geoscience would give them the skills and knowledge necessary to pursue related fields.

**Refugee Population:** students who major in the geosciences as a backup and do not intend on following a geoscience oriented career post-graduation (i.e. they seek refuge in the major as a means to an end).

- **Refugee**
  - The one refugee’s pathway in Houlton’s study was not detailed enough to determine a full trajectory. Sub-populations could not be identified from one Refugee.

This is the second of four Geoscience Currents on the topic of Geoscience Academic Provenance. AGI is hosting a GeoWebinar to discuss this set of Geoscience Currents on August 23, 2011 from 1:00-1:30 pm US EDT. Register at: www.agiweb.org/workforce/webinars.html

To read Houlton’s full study, go to: http://www.eas.purdue.edu/riiggs/Houlton_Final_Thesis.pdf

- Heather R. Houlton