



Balancing Demographic, Diversity and Specialty in Faculty Recruiting: Two Decades of Experience from the Department of Geosciences at The Pennsylvania State University

Timothy J. Bralower, Shelton S. Alexander, Michael A. Arthur and Rudy L. Singerland
Department of Geosciences, The Pennsylvania State University, University Park, PA



Abstract

The Department of Geosciences at The Pennsylvania State University has 32 tenure track faculty members covering a wide range of expertise. Over the last two decades, the Department has seen turnover of more than 80% of its faculty involving transformation from rather separate programs in Geology, Geophysics and Geochemistry to a more continuous range of expertise and expansion into evolving disciplines. The Department has predominantly conducted searches directed at specific disciplines or fairly narrow ranges of specialties. Recently, however, we conducted a search aimed at a wide range of disciplines that was designed to attract a more diverse pool of applicants. Here we address various philosophical considerations of recruitment attempting to synthesize the collective wisdom of the four Department Heads who have directed this transformation.



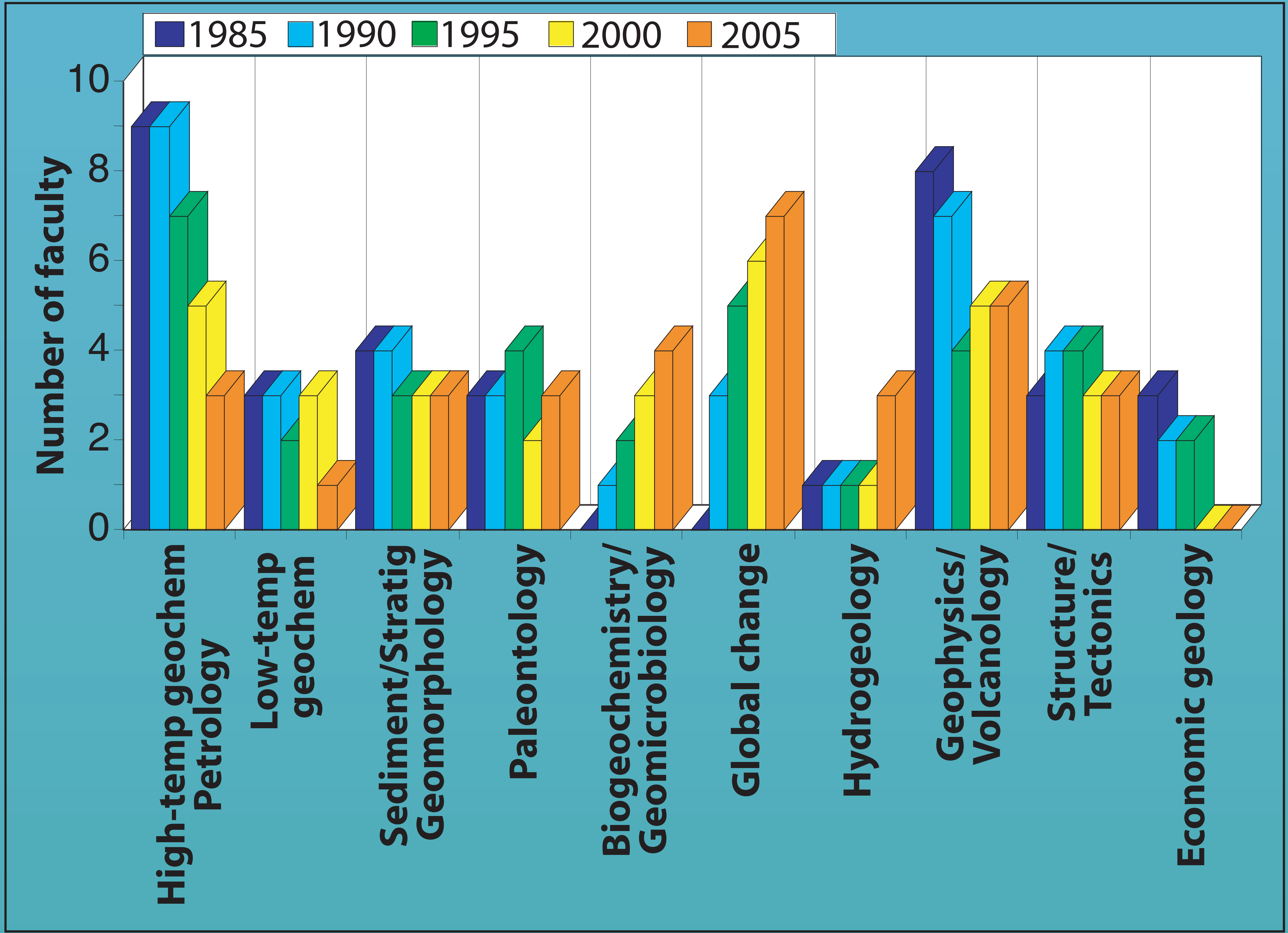
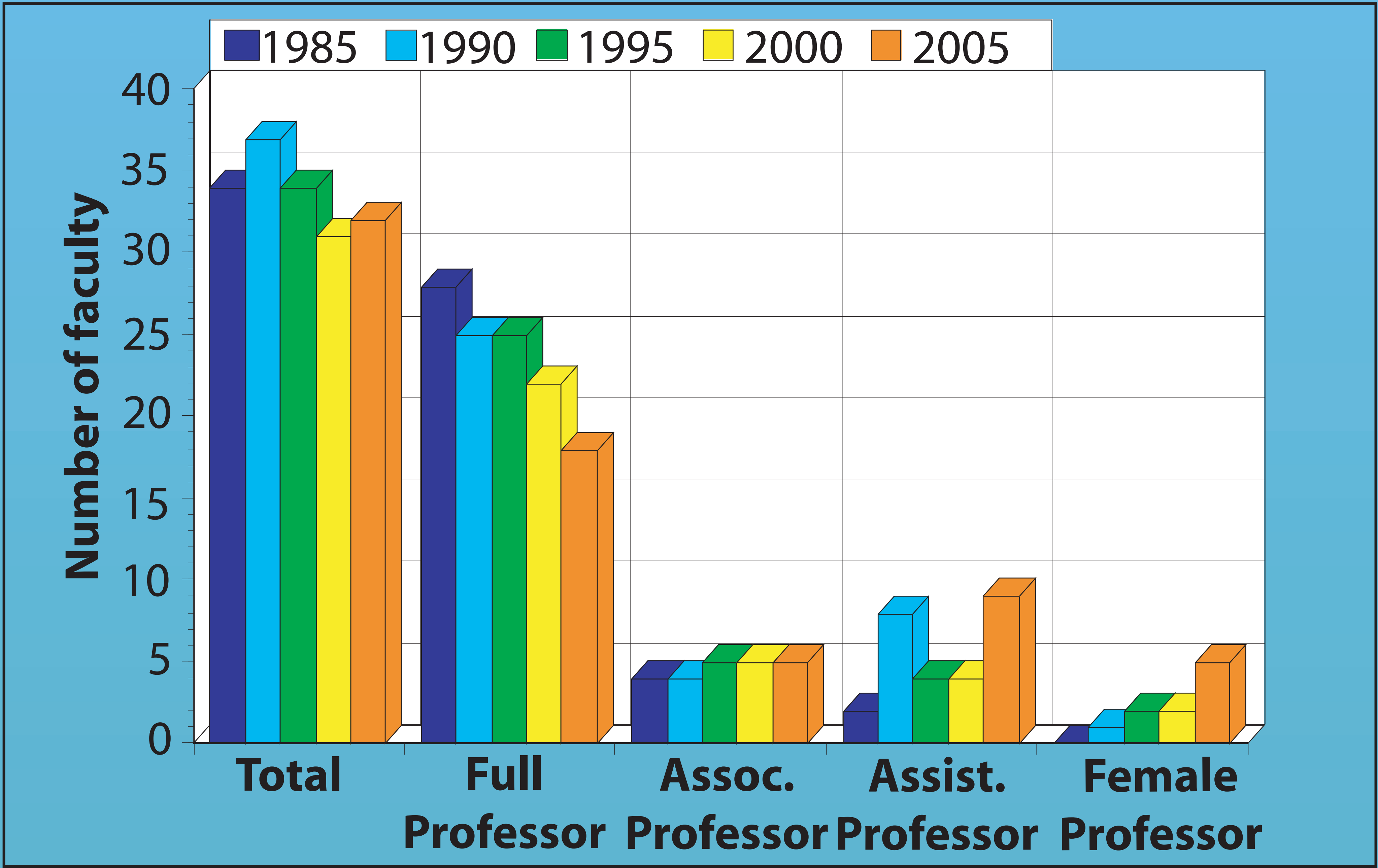
Demographic Shift

In 1985, the faculty was dominated by full professors. These demographics have changed significantly over the last 20 years as positions vacated through retirement have been filled at junior levels. The proportion of associate-level professors has increased gradually over this time span and the number of assistant-level professors has increased rapidly over the last five years. The number of female professors has also increased gradually but remains well below levels of female students in the department.



Disciplinary Shift

Over the last 20 years, the Department has seen significant changes in disciplinary foci. In 1985, high temperature geochemistry/experimental petrology and seismology/volcanology accounted for the majority of faculty, reflecting the separate graduate programs in geochemistry, geophysics and geology. The Department also had a small focus in economic geology. The merger of the graduate programs and transformation of research has involved increases in emerging fields such as biogeochemistry/geomicrobiology and global change largely at the expense of high temperature geochemistry and economic geology, while other core fields have maintained their share of faculty.



Search Strategies

The Department has largely employed three types of search to recruit new faculty. This combination of approaches has helped recruit highly-talented faculty at all different levels, including a proportionally large number of entry-level and female professors.

- 1. Junior-level searches (with the option to hire at more senior levels) aimed at a narrow range of disciplines.** These searches have led to the recruitment mostly of top-notch, mid-level faculty (associate professors with or without tenure). Junior level candidates are not generally competitive.
- 2. Junior-level searches with an interdisciplinary focus.** These searches have been jointly funded by pan-university programs in environmental sciences, life sciences and materials science. In addition to having financial advantages (the Department pays a share of the start up and salary), these hires have been instrumental in the expansion into emerging fields such as geomicrobiology.
- 3. Exclusively junior-level searches targeting a very broad range of disciplines.** These searches attract a much larger pool of applicants, including a higher proportion of competitive female candidates. The department has to be open to hiring in any of the advertised fields and the search requires very strong and objective leadership to be successful.

Curricular Shift

The significant shift in faculty discipline over the last 20 years has enabled the development of new degree programs at the undergraduate and graduate level. These include:

1. *Earth BS* (a broader, more flexible program than the traditional Geoscience BS)
2. *Geobiology BS* (a program focused on training students for environmental, microbiological, museum and even medical careers)
3. *Astrobiology minor* (a program designed to take advantage of the Department's research focus on the evolution of life)
4. *Astrobiology dual title graduate program* (a program between the Colleges of Earth and Mineral Sciences and Science designed to give a wide range of students interested in astrobiology dual degree credentials)
5. *Science, Society and the Environment of Africa minor* (a pan-University program that takes advantage of common interest in a range of issues facing Africa today)