

NSF Releases Report on Women, Minorities, and Persons with Disabilities in Science and Engineering

The National Science Foundation (NSF) has released a report on gender and diversity in American science and engineering programs. The report, *Women, Minorities, and Persons with Disabilities in Science and Engineering*, is published in a searchable, Web-based format and includes dozens of statistical tables documenting graduate enrollment, degree completion, and career patterns in different fields with regard to gender, race/ethnicity, disability status, and citizenship. Presentation slides are available for download in PowerPoint, graphic, and spreadsheet formats. The report's Web site also provides links to additional data sources, statistical reports, and updates as new data become available.

The report was released under the auspices of NSF's Division of Science Resource Statistics. Although geography is present in the report, many of the data tables either omit geography or report it

in aggregate with other social sciences. For example, the report does not provide data on associate, bachelor's, master's, and doctorate degrees conferred in geography, nor does it include information on the number of persons with disabilities enrolled in graduate geography programs. Yet geography is reported separately in tables describing overall graduate student enrollment, postdoctoral status, and employment in federal agencies.

The AAG is currently working to secure a commitment from the NSF to expand the number of data tables that list geography as a separate field of study when the *Women, Minorities, and Persons with Disabilities* report is updated in the coming months. In the meantime, an analysis of the report reveals that more women are pursuing graduate degrees in science and engineering (S&E), including geography (Table 1). Women constituted 41% of all S&E graduate students in 2001, up from 37% in 1994. In

geography, women accounted for 42% of graduate students in 2001, which also signals an increase over 1994 enrollments.

Ethnic minorities made slight gains in S&E graduate programs, but remained static in geography. When compared to all S&E programs, geography emerges as a relatively homogenous discipline. In 2001, the graduate student population in geography was 71% White, 3% Black, 3% Hispanic, and 2% Asian, with other racial/ethnic groups and temporary residents accounting for the difference. The proportion of geography graduate students designated as temporary residents, for which racial and ethnic data were not collected, rose from 11% in 1994 to 17% in 2001, yet foreign students were more likely to enroll in other fields, representing approximately one-in-three students in all S&E programs.

Although the *Women, Minorities, and Persons with Disabilities* report only includes

Category	1994 S&E (% total)	1994 GEOG (% total)	2001 S&E (% total)	2001 GEOG (% total)
Male	272,021 (63%)	2,904 (65%)	251,848 (59%)	2,490 (58%)
Female	159,093 (37%)	1,598 (35%)	177,644 (41%)	1,786 (42%)
White	255,633 (59%)	3,479 (77.3%)	205,757 (48%)	3,031 (71%)
Asian/Pacific Islander	26,470 (6%)	108 (2%)	27,659 (6%)	97 (2%)
Black	17,610 (4%)	124 (3%)	21,773 (5%)	114 (3%)
Hispanic	13,273 (3%)	118 (3%)	17,983 (4%)	106 (3%)
American Indian /Native Alaskan	1,382 (0.3%)	17 (0.3%)	1,687 (0.3%)	28 (0.7%)
Other race/ethnicity	14,630 (3%)	156 (4%)	21,335 (5%)	178 (4%)
U.S. Citizen or Permanent Resident	328,998 (76%)	4,002 (89%)	296,194 (69%)	3,554 (83%)
Temporary resident	102,116 (24%)	500 (11%)	133,298 (31%)	722 (17%)
Total	431,114	4,502	429,492	4,276

Source: National Science Foundation, Division of Science Resources Statistics, *Women, Minorities, and Persons with Disabilities in Science and Engineering: 2004*, NSF 04-317 (Arlington, VA, 2004, updated May 2004).

data through 2001, a briefing was recently issued to highlight the results of a 2002 survey of graduate students and postdoctorates in science and engineering (NSF 04-326). According to the 2002 estimates, graduate enrollment in science and engineering programs increased by 6% to 455,355 students. In geography, graduate enrollment increased by 3% to reach 4,432 students. More detailed data for 2002 will be available in the forthcoming report, "Graduate Students and Postdoctorates in Science and Engineering: Fall 2002," which will be available this fall at <http://www.nsf.gov/sbe/srs/gss/start.htm>.

It is important to note that federal data on graduate enrollment in geography is likely to be somewhat lower than actual numbers, given that these surveys tend to classify geography as a social science and therefore may undercount students enrolled in physical science programs. Furthermore, graduate students in geography are often enrolled in multidisciplinary programs. Indeed, a review of the 2003-2004 *AAG Guide to Geography Programs in North America* found that 30% of geography graduate programs are combined with one or more fields (e.g., geology, anthropology, environmental sciences, and so forth). According to the 2003-04 *Guide*, there are approximately 5,000 MA/MS and 1,600 Ph.D. students enrolled in graduate geography programs (precise numbers are unavailable because some departments did not provide separate data for master's and doctoral students). Nevertheless, the *Women, Minorities, and Persons with Disabilities* report reinforces the arguments previously made by geographers in this newsletter and elsewhere that much more needs to be done to recruit and retain women and minorities in geography. The complete *Women, Minorities, and Persons with Disabilities in Science and Engineering* report is available online at www.nsf.gov/sbe/srs/wmpd/start.htm. ■

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Survey by Diversity Task Force

This fall, the Diversity Task Force of the AAG will be conducting an online survey to examine the ethnic, racial, and gender diversity in the discipline of geography. Results from the survey are intended to serve as a baseline to help assess and diversify undergraduate and graduate programs at various institutions including universities, community colleges, and other educational institutions. Survey invitations are being sent to all North American geography department chairs.

The task force survey will look not only at the demographics of diversity within departments, but will also document the special activities, including recruiting and other efforts already in place to promote diversity.

Results of the survey will be available to participating departments/programs upon request after the completion of the

survey. Responses from individual departments are strictly confidential and data will only be reported in aggregate form.

The AAG Diversity Task Force members are Joe Darden, *Chair* (Michigan State University), Samuel Aryeetey-Attoh (University of Toledo), Lawrence Estaville (Texas State University-San Marcos), Vicky Lawson (University of Washington), Douglas Richardson (AAG), Todd Rogers (ESRI), Ray Sumner (Long Beach City College), Catherine Souch (Indiana University/ Purdue University-Indianapolis), and Ines Miyares (City University of New York).

Department chairs are strongly encouraged to ensure that their department responds to this survey. Please direct any questions regarding the survey to the AAG Staff Liaison of the Diversity Task Force, Patricia Solís at psolis@aag.org. ■

MyCOE Now Accepting Student Projects

My Community, Our Earth (MyCOE): Geographic Learning for Sustainable Development, is accepting student project submissions in honor of the upcoming United Nations Decade of Education for Sustainable Development (2005-2014). Youth from middle school, secondary school, or university levels are invited to work as individuals or teams to create a project that applies geographic methods to study and propose solutions for sustainable development issues in their communities.

Through a MyCOE project, students learn to apply geographic methods; map information, analyze problems, and design solutions; and can earn recognition at national and international exhibits. MyCOE provides materials and a mentoring network of 500 volunteerexperts from 63 countries to support projects.

The deadline for student project submissions is March 1, 2005. To learn more

about starting a project visit www.geography.org/sustainable/youth. Eligible submissions may win one of several prizes, including GPS hardware, GIS software, or educational experiences. Prizes will be awarded by a special committee and are subject to verification, modification, or substitution.

MyCOE is also seeking volunteer mentors to assist students with project submissions. If you are interested in learning more about being a MyCOE mentor, please visit www.geography.org/sustainable/mentors/index.cfm.

MyCOE is a partnership developed in conjunction with the 2002 World Summit for Sustainable Development in Johannesburg. MyCOE partners include the AAG (which serves as Secretariat), the National Geographic Society, ESRI, UNEP, the State Department, USAID, USDA, NOAA, IDB, ONR, and USGS. ■