U.S. Female Geoscience Degree Rates in Atmospheric Science, Geography, Geoscience and Ocean Science, 2000-2012

Recent decreases in female enrollments and awarded degrees in the geosciences have been reported. This Currents investigates female degree rates in the major fields in the earth sciences--atmospheric science, geography, geoscience/geology, and ocean science.

At the undergraduate level, females in geoscience/geology, geography and atmospheric science reached their peak rate of degrees awarded in 2004, with the highest percentage of 45% in geoscience/geology. Awarded degrees in all three fields are below 50% from 2000-2012. No data are presented in ocean sciences because most degrees in this field are awarded at the graduate level.

Well over 50% of Master’s degrees awarded in ocean science went to females in 2004 and 2008-2012, peaking at 66% in 2010. Among the other fields, females represented between 27% and 47% of the awarded Master’s degrees, well below the percentages of females in ocean sciences. In 2011, there was a downward turn in awarded Master’s degrees for all fields, except geography, but it is important to note that the geography data include physical and social geography degrees. Therefore, it is unclear if that downturn would also be seen among only the physical geography degrees.

Doctoral degrees awarded to women in atmospheric sciences increased to a peak of 38% from 2000-2007, but the percentage of atmospheric science doctoral degrees dropped in 2008 to 20% and did not return to the peak seen in 2007. Ocean science doctoral degrees also dropped in 2009 from a peak of 59% to 48% in 2012. It appears the high percentage of women receiving Master’s degrees are not continuing on to their PhD in ocean science. Geography and geoscience/geology doctoral degrees are at an upward trend, but this might change in a year or two for females receiving doctoral degrees in those fields due to the decreases at the Master’s level.

Data sources: Association of American Geographers, American Geosciences Institute, Consortium for Ocean Leadership, and Department of Education IPEDS Database

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