Gender Equality in European Research

By

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"[I]n the absence of proactive policies, it will take decades to close the gender gap and bring about a higher degree of gender equality." —*She Figures 2012*

Earlier this month, the European Commission released its latest snapshot of the representation of women in science. The message that emerges from the oddly named report, [*She Figures 2012: Gender in Research and Innovation*](http://ec.europa.eu/research/science-society/document_library/pdf_06/she-figures-2012_en.pdf), is hardly surprising: Women are still underrepresented in science. The gap appears to be closing—slowly—but more needs to be done if it is to close completely anytime soon.

Some of the report’s main findings:

* On average, in 2009 in [the 27 E.U. countries](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Glossary:EU-27), 33% of all researchers were women. There was a very wide range, however: Women were the least well-represented in Luxembourg, Germany, and the Netherlands (21%, 25%, and 26%, respectively) and best represented in Latvia and Lithuania, which in 2009 had (and presumably still has) more female researchers than male researchers. In Bulgaria, Portugal, Romania, Estonia, Slovakia, and Poland, at least 40% of researchers were women.
* Between 2002 and 2009, the number of female researchers grew more quickly (5.1% annually) than the number of male researchers (3.3%) in the E.U.-27. "[W]omen seem to be catching up with men over time,” the report says. Yet, "it must be remembered that the growth rate for women is on a smaller base than that for men so that if it is merely sustained and not radically increased, it will still take a long time to significantly improve the gender balance in research."
* In the E.U.-27, 40% of researchers in both higher education and government were women, but only 19% of researchers in the for-profit sector were women. There are signs that the gap is closing in all three sectors. For example, in 2002, 35% of researchers in higher education were women, but by 2009 that number had risen to 40%.
* In 2010, across the E.U.-27, women earned 46% of the Ph.D. degrees across all scientific fields (which, according to the report's definitions, include not just the natural and social sciences but also the humanities). Between 2002 and 2006, the number of female Ph.D. graduates increased faster than the number of male Ph.D. graduates—but in 2006, the number of women earning those degrees stopped growing and the number of men earning degrees started to decline.
* Women accounted for 64% of all 2010 Ph.D. recipients in education, 56% in health and welfare, and 54% in the humanities. Among Ph.D. graduates, gender was approximately balanced in social sciences, business, and law (49% women), and in agricultural and veterinary sciences (52% women). But just 40% of Ph.D. graduates in the natural sciences, mathematics, and computing were women, and in engineering, just 26%.
* The report found that 44% of entry-level academic researchers were women—just below the percentage of Ph.D. graduates. For intermediate-level academic positions that number fell to 37%. Just 20% of senior professors were women. And while the representation of women in the professoriate increased at all levels between 2002 and 2010, "[t]his positive progress is nevertheless slow and should not mask the fact that, in the absence of proactive policies, it will take decades to close the gender gap and bring about a higher degree of gender equality."
* Zooming in, similar trends could be found in the natural sciences and engineering, which the report lumps together. In these fields, the representation of women was 35% at the Ph.D. level, 32% in entry-level faculty positions, 23% in intermediate-level positions, and just 11% among full professors. While the proportion of female scientists and engineers went up between 2002 and 2010, the rise was less pronounced in these fields than it was overall.
* The report's authors calculated a "glass ceiling index" (GCI) for various countries, an indicator of how hard it is for academic women to reach full-professorship. (A value of 1.0 would indicate full equality with men.) On average, throughout the E.U.-27, the GCI was 1.8 in 2010—slightly more favorable to women than in 2004, when the GCI was 1.9. Romania was the closest to gender equality with a GCI of 1.3. Cyprus had the worst GCI (3.6), followed by Lithuania and Luxembourg.
* Across the E.U.-27 in 2010, just 10% of universities had a female rector.
* In 2010, 36% of E.U. scientific and management board members were women. The data seem to show that gender-based quotas work: Sweden, Norway, and Finland, where the share of female board members was 49%, 46%, and 45%, respectively, have such policies. In contrast, in Hungary, Cyprus, Lithuania, Italy, Luxembourg, and the Czech Republic, less than 20% of board members were women.
* In most countries, men had a higher success rate than women in securing funding. The gender gap varies from 1% (Belgium and Portugal) to 11% (Austria). In Slovenia, Bulgaria, Luxembourg, Iceland, and Norway, women had higher success rates than men.

The report's authors conclude that continued and expanded measures are necessary if progress is to continue. "There is no evidence of spontaneous reduction of gender inequality over time. All these policies, and many more, are needed to ensure that constant progress is made towards gender-equality in research and scientific careers."

"Some people think that if we just wait, it will get better, and that’s one way in which the *She* figures are extremely important," says Curt Rice, vice president for research and development at the University of Tromsø in Norway, an E.U. associated country. "They show us that … if we believe it’s important to have women at the top, then we must act." Rice led an initiative at the University of Tromsø that contributed to boosting the number of women in professorship positions from 9% to 30% in a decade. (You can read our [Q&A with Rice](http://sciencecareers.sciencemag.org/career_magazine/previous_issues/articles/2012_06_22/caredit.a1200071) here.)

The 159-page report was put together by the Directorate-General for Research and Innovation of the European Commission in collaboration with the Helsinki Group on Women and Science. Since 2003, the report has been published every 3 years.

The complete [*She Figures 2012* report](http://ec.europa.eu/research/science-society/index.cfm?fuseaction=public.topic&id=1282) is available on the European Commission’s Web site.

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