

# New gender benchmarking study finds numbers of women in science and technology fields alarmingly low

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In the first study of its kind, researchers have found that numbers of women in the science, technology and innovation fields are alarmingly low in the world's leading economies, and are actually on the decline in others, including the United States. The study maps the opportunities and obstacles faced by women in science across the US, EU, Brazil, South Africa, India, Korea and Indonesia. It was conducted by experts in international gender, science and technology issues from Women in Global Science & Technology and the Organization for Women in Science for the Developing World, and funded by the Elsevier Foundation.

Despite efforts by many of these countries to give women greater access to [science and technology](#) education, research shows negative results, particularly in the areas of engineering, physics and computer science. Women remain severely under-represented in degree programs for these fields—less than 30% in most countries. In addition, the numbers of women actually working in these fields are declining across the board. Even in countries where the numbers of women studying science and technology have increased, it has not translated into more women in the workplace.

"These economies are operating under the existing paradigm that if we give girls and women greater access to education they will eventually gain parity with men in these fields," states Sophia Hoyer, the lead

researcher and founding executive director of Women in [Global Science & Technology](#). "This has dictated our approach to the problem for over a decade and we are still only seeing incremental changes. The report indicates that access to education is not a solution in and of itself. It's only one part of what should be a multi-dimensional policymaking approach. There is no simple solution."

The data show that women's parity in the science, technology and innovation fields is tied to multiple empowerment factors, with the most influential being higher economic status, larger roles in government and politics, access to economic, productive and technological resources, quality healthcare and financial resources. Findings also show that women have greater parity in countries with government policies that support health and childcare, equal pay, and gender mainstreaming. One of the main findings is that few countries collect consistent and reliable sex-disaggregated data in all of these areas, which inhibits their ability to implement effective enabling policies and programmes.

"We found that the absence of any one of these elements creates a situation of vulnerability for economies that want to be competitively positioned in the knowledge economy," Huyer says. "No one country or region is ticking off all the boxes, and some are falling dismally short. This is a tremendous waste of resources. We are wasting resources educating women without following through, and we are missing out on the enormous potential that women represent."

"This broad and ambitious assessment is a critical starting point for measuring the participation of women and girls in science, technology and innovation in emerging and developing worlds," said David Ruth, Executive Director of the Elsevier Foundation, "This study identifies key areas of national strength and weakness, and we hope it will help form the basis of evidence-based policy making and aid going forward."

Spearheaded by Women in Global Science & Technology and the Organization for [Women in Science](#) for the Developing World, the report was funded by The Elsevier Foundation, which provides grant programs targeting women scientists in the early stages of their careers. It was also supported by [futureInnovate.net](#), a non-profit that supports initiatives that strengthen [innovation](#) systems in Canada and around the world.

Provided by Elsevier

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