

PRESS RELEASE

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Research: What Prevents Women from Studying STEM Subjects in Germany

- **EPoS study analyzes school grades and study choices of 573 persons**
- **Gender gap in STEM enrolments confirmed**
- **Women expect discrimination in STEM careers**

Bonn, Mannheim, 13.02.2025 – **At German universities, women are much less likely than men to enrol in STEM courses, even if their school performance in these subjects is the same. The gender gap here is 24 percentage points. This is confirmed by a recent study that also examines the causes. The result: girls only choose to study science, technology, engineering or mathematics when their personal STEM advantage over other subjects is four times greater than that of boys. Additional hurdle: Women in STEM courses expect more gender-based discrimination in the workplace than female students in other study programmes. These are findings of the discussion paper “Relative Grades and Gender Differences in STEM Enrollment” published by the EPoS Economic Research Centre at the Universities of Bonn and Mannheim.**

“For both boys and girls, above-average academic performance in STEM fields at school is important for choosing them in higher education,” says Pia Pinger from the EPoS Economic Research Centre. “Yet, despite showing equal proficiency in STEM subjects and better overall academic performance, young women need a performance indicator relative to other subjects that is four times higher than for men before considering a STEM major. This difference is surprisingly large.”

Female STEM students expect on-the-job discrimination

As a result, women in Germany are still far less likely than men to enter well-paid STEM professions. An additional hurdle when choosing a course of study has nothing to do with their performance. Female STEM students fear gender-specific discrimination later in their careers much more frequently than in other disciplines. “Structural and cultural barriers prevent many qualified women from choosing to study STEM subjects,” says Pinger. “This is worrying because there is an acute shortage of professionals in this field, even though STEM graduates are often well paid and have good career prospects.”

Despite these prospects, women are still under-represented in math-intensive subjects, according to the OECD. In Germany, only 22 percent of all STEM university graduates are women. In OECD countries as a whole, the figure amounts to 32 percent. According to the researchers, this may be due to traditional role models and an early gender-specific choice of subjects in the German school system. In contrast to Scandinavian and Eastern European countries, there is also a lack of targeted support and encouragement for girls in STEM subjects, which translates into lower enrollment rates and fewer professionals, the researchers say.

Breaking down gender barriers in STEM fields

“The barriers for women in STEM are structural and cultural and require tailor-made responses,” says Pinger. “For example, specific programmes to combat discrimination in STEM fields would be helpful. The aim should be to improve working conditions for women. In this way, the expectations of young female high school graduates could change over time, and more women could pursue STEM careers in the future.”

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The presented discussion paper is a publication without peer review of the Collaborative Research Center Transregio 224 EPoS. Access the full discussion paper here: <https://www.crctr224.de/research/discussion-papers/archive/dp633>

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Authors

Larissa Fuchs, Ph.D. candidate, Faculty of Management, Economics and Social Sciences, University of Cologne and member of EPoS Economic Research Center

Pia Pinger, Professor of Economics, University of Cologne and member of EPoS Economic Research Center

Philipp Seegers, CEO and Founder, candidate select GmbH, Research Fellow, Maastricht University

The Collaborative Research Center (CRC) Transregio 224 EPoS

Established in 2018, [the Collaborative Research Center Transregio 224 EPoS](https://www.crctr224.de), a cooperation of the universities Bonn and Mannheim, is a long-term research institution funded by the German Research Foundation (Deutsche Forschungsgemeinschaft, DFG). EPoS addresses three key societal challenges: how to promote equality of opportunity; how to regulate markets in light of the internationalization and digitalization of economic activity; and how to safeguard the stability of the financial system.

Press Contact

econNEWSnetwork

Sonja Heer

Tel. + 49 (0) 40 82244284

Sonja.Heer@econ-news.de

Contact

Prof. Pia Pinger

University of Cologne

Pia.Pinger@uni-koeln.de

CRC TR 224 Office, Marja Eisheuer

phone | +49 228 737926

email | crctr224@uni-bonn.de

www.crctr224.de