

# Giving women more time on math tests reduces gender gap

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Women do better in maths tests if they are not under time-pressure, new research from Bocconi University has found.

In a randomised experiment, reducing or eliminating time pressure decreased the math gender gap by up to 40%, found Vincenzo Galasso, Professor of Economics, and Paola Profeta, Professor of Public Economics, both of Bocconi.

Math tests are often used for entry into STEM fields, where women are still under-represented. Women tend to do worse than men in math tests, especially in countries with more gender stereotypes, when the tests are taken under strong competitive pressure, and when stakes are high.

Math entry tests may therefore reduce women's access to these fields. Women are more likely avoid these entry tests, and when they do take the test, their performance is typically lower. Avoidance of math-related activities, such as taking math tests, is often associated with math anxiety, which has been shown to be greater among women.

As STEM majors lead to higher wages and to provide better career prospects, the under-representation of women in STEM fields helps explain part of the gender gap in the labour market, and the scarcity of women in industries and sectors of increasing significance, such as technology.

The gender gap under time pressure is due to increased anxiety. Hence, less time pressure may increase gender equality in math subjects without compromising the quality of academic intake.

"We observed that when time to complete the test is very limited, women provide on average two fewer correct answers than men, a significant difference. Increasing the time available results in a significant improvement in female performance, with the gap decreasing by up to 40 percent," the authors point out.

The study took place in a laboratory at Bocconi University, where 776 undergraduate students participated in the experiment. It was published in The Economic Journal.

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For more information, a copy of the report, or to speak to the researcher, contact Thomas Willis at BlueSky Education on [thomas@bluesky-pr.com](mailto:thomas@bluesky-pr.com) or call +44 (0)1582 790 706.