A study by the University of Southampton has found there are far fewer women studying economics than men, with women accounting for just 27 per cent of economics students, despite them making up 57 per cent of the undergraduate population in UK universities.

The findings suggest less than half as many girls (1.2 per cent) as boys (3.8 percent) apply to study economics at university, while only 10 per cent of females enrol at university with an A level in maths, compared to 19 per cent of males.

"This underrepresentation of women economics degrees could have major implications in policy making," says lead author of the study Dr Mirco Tonin. "Economists have an influential role in think tanks, ministries, central banks and international organisations, like the IMF and the World Bank."

Previous studies have shown women favour different policy decisions to men, with men more likely to see the costs associated with government interventions in the labour market, for example.

According to the researchers, the lack of women with degrees in economics could also be contributing to the gender pay gap, since economics graduates tend to receive relatively high average earnings.

Using a random sample of administrative data covering all university applications in 2008, the researchers found no discrimination against females in the university application process; once they've applied, females are as likely as males to receive an offer of a place on an economics course. There is also no gender difference in the likelihood of an applicant accepting or rejecting an offer.

Rather the data shows that girls are far less likely to apply to study economics than boys, and this could be partially due to the choices they make when choosing A levels.

"Girls are less likely to have A levels in Maths than boys, and this could represent an impediment to applying for an Economics degree," says Dr Tonin. "However, even among those who have studied Maths, females are still less likely to apply for an Economics degree than males, suggesting that differences in the choice of A level subjects cannot explain the whole gap."

Interestingly, those females who do apply to study Economics tend to have a stronger Maths background and better grades at A Level than male applicants – 46.4 per cent of females get an A grade, compared to 4.36 for males.

The study, which will be published in the CESifo Economic Studies journal, highlights other studies which suggest the gender gap in mathematics disappears in more gender equal societies.

"This suggests that cultural rather than biological factors are behind the gender gap and that a positive loop may develop, with more equality leading to better education achievement by girls, leading in turn to more equality," says co-author Professor Jackline Wahba.

"We believe that enrolment in Economics may be an important channel in this loop. If more girls become proficient in Maths, more are likely to enrol into an Economics degree and, in turn, more are likely to access positions of influence in policy making, from where they can promote a more gender equal society."

Provided by University of Southampton