Wage gap linked to high school subject choices

March 9 2016

A University of Melbourne study of high school subject choices reveals that girls are less likely to choose science, technology, engineering or mathematics (STEM) subjects than boys, despite many girls testing better in these subjects.

Women are under-represented in high-paying jobs in engineering and

information technology and this trend can be traced to the high school subjects girls choose, according to the report from the University's Melbourne Institute Gendered Selection of STEM Subjects for Matriculation.

The report authors, Prof. Moshe Justman and Dr Susan Méndez, used data provided by the Victorian Department of Education and Training to track a full year level cohort, following around 58 thousand students from year 7 in 2008 to high school graduation in 2013.

"We know that much of the wage gap is due to differences in pay between fields, so we wanted to find out the role of high school subject selection in driving career paths and therefore the wage gap," said Dr Méndez.

"We found that girls simply aren't doing the subjects required in order to launch a career in the highly paid engineering or IT industries," she said.

The report found that as soon as students are given a choice in the subjects they take, girls are generally less likely to take physics, information technology and specialist mathematics.

"We want more girls to choose to study STEM and that is why we have a world class role model in our Tech School Ambassador Marita Cheng. Marita's program Robogals has encouraged thousands of girls worldwide to engage in STEM," said Minister for Education James Merlino.

The research showed that even girls who are good at mathematics are much less likely to choose physics and information technology than equally skilled boys. Yet girls who choose these subjects actually perform better on average than boys.

"These STEM subjects require strong mathematical skills, and

unfortunately many people believe that girls do not choose these subjects because they lack the necessary mathematical skills," said Dr Méndez.

"Girls who are good at mathematics favour biology and human development, subjects that can launch a career in allied health. These professions are generally not as well paid as other STEM industries," said Dr Méndez.

"Many girls who think they are not good enough at mathematics to study in physics and information technology could succeed at these subjects and should be encouraged to try."

Provided by University of Melbourne