

Japan needs gender equality

Last month, Tokyo Medical University (TMU) announced Yukiko Hayashi as its first female president. This comes on the heels of discovering that the institution had manipulated entrance exam scores for many years to curb female enrollment. Hayashi may be an attempt by TMU to restore its reputation, but the scandal should be a wake-up call for Japanese society to ensure that men and women have equal opportunities to succeed.

TMU admitted to engaging in gender discrimination because affiliated hospitals wanted more male graduates. Apparently, the university believed that female physicians are more likely to leave the medical profession because they cannot cope with demanding hospital schedules. Whereas misconduct of this scale can make the headlines, more subtle barriers discourage women from attaining various roles in Japan. Lack of gender parity is particularly severe in the science, technology, engineering, and mathematics (STEM) and medical fields. For example, the Japanese female-to-male ratio of physicians is the lowest among member countries of the Organization for Economic Co-operation and Development (OECD), hovering around 21% compared with the OECD average of 47%.

Yet, Japan boasts one of the most sophisticated educational systems in the world. Japanese 15-year-old students are among the highest performers in mathematics and science according to the OECD's Programme for International Student Assessment (PISA). However, a gender gap is noticeable, especially among top-tier students. The latest PISA assessment in 2015 indicates that Japanese boys outperform girls in mathematics by ~15% of a standard deviation on the achievement scale. Among the top 10% of students in Japan, there is an even larger gender gap in both mathematics and science. But by international standards, Japanese girls perform at very high levels. For example, the highest-achieving girls in Japan performed significantly above the highest-achieving boys from most of the other 70 education systems assessed by PISA in both mathematics and science.

That girls' test scores at TMU were manipulated is all the more troubling because the health profession is the only STEM area in which Japanese female students express a stronger desire to work compared with their male counterparts. Japanese boys generally contemplate a wider range of STEM careers as compared with what girls consider.

PISA assessments suggest that the relative underachievement of girls in mathematics and science compared with boys may have to do with a lack of confidence of girls. When students are self-confident, they give themselves the freedom to fail and to engage in a trial-and-error process that is fundamental in acquiring knowledge in mathematics and science. Indeed, OECD surveys show that when Japanese boys and girls have similar levels of confidence in their abilities, there are no performance gaps, not even among top-performing students.

Fostering confidence in female students, trainees, and professionals would be a highly effective way to close the gender gap in Japan. Gender mainstreaming in various segments of Japanese society is crucial to address unconscious biases. A better gender balance in professional occupations, especially in STEM fields, would boost self-efficacy in female students, and TMU's decision to appoint a female president is a major step toward promoting more

female role models in medicine. Medical schools should work with hospitals to improve working conditions so that female physicians are not hampered in their careers by life events such as pregnancies and child-rearing.

Halving Japan's gender gap in the labor force by 2025 could add almost 4 percentage points to projected growth in gross domestic product over the period from 2013 to 2025. Japan clearly needs to embrace women to bolster its economy. And having more highly educated women in medical professions is particularly beneficial for a country with a rapidly aging population. Gender equality will be the key for better lives for all Japanese.

—Yumiko Murakami and Francesca Borgonovi



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