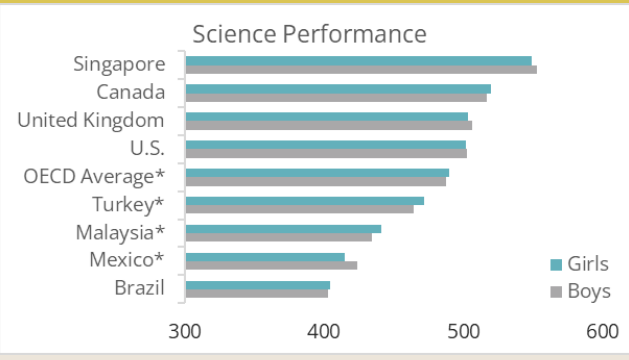
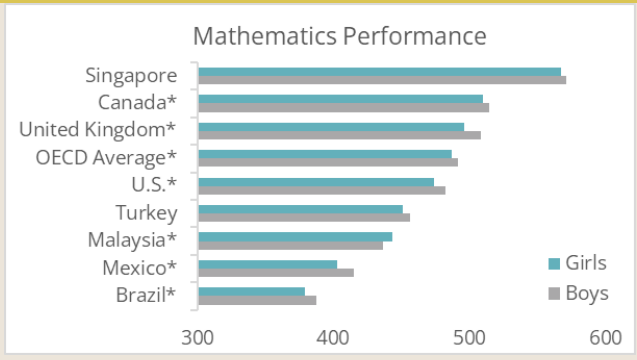




SWE RESEARCH FAST FACTS

swe.org/research

Global Math and Science Performance



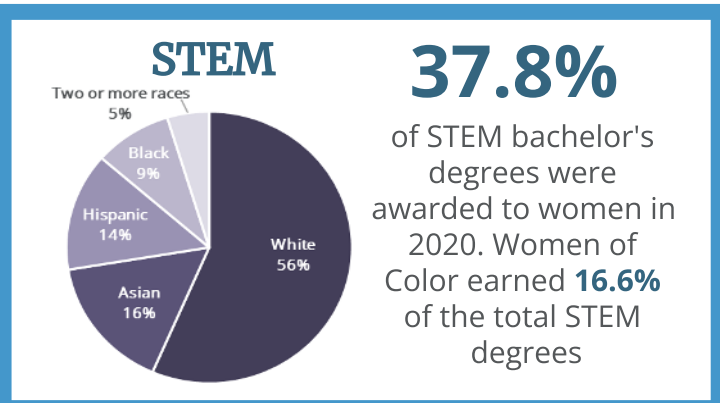
*Statistically significant difference

*Statistically significant difference

PISA measures 15-year-old students' abilities to think critically and apply knowledge. The 2018 results indicated boys outperform girls in mathematics by an average of five points. In Malaysia, the opposite occurred; girls outperformed boys by seven points. In science, girls outperformed boys by an average of two points. In Turkey and Malaysia, girls scored more than six points higher than boys.

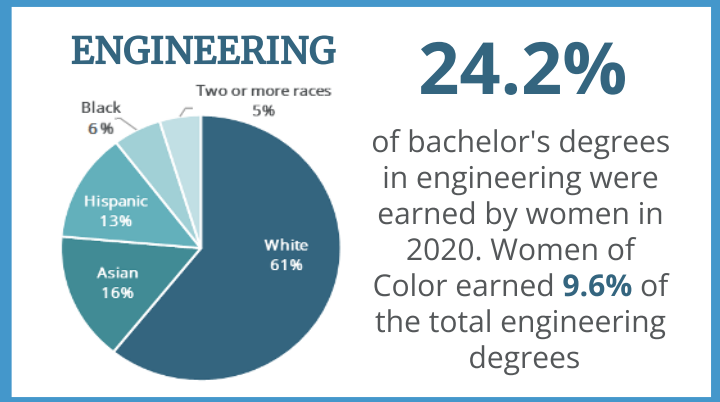


STEM and Engineering Degrees Awarded to Women



37.8%

of STEM bachelor's degrees were awarded to women in 2020. Women of Color earned **16.6%** of the total STEM degrees



24.2%

of bachelor's degrees in engineering were earned by women in 2020. Women of Color earned **9.6%** of the total engineering degrees



IN 2020 WOMEN RECEIVED:

27,700 Bachelor's
6,191 Master's
1,204 Doctoral

DEGREES IN ENGINEERING

Note: Degrees awarded in the 2019-2020 academic year





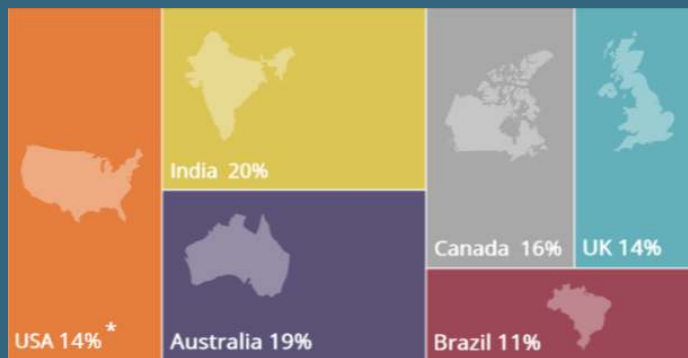
Top 10 Engineering Degrees Awarded to Women: 2020

| | | | |
|---|------------------------|----|---------------------------------------|
| 1 | Mechanical Engineering | 6 | Industrial/Manufacturing/Systems Eng. |
| 2 | Computer Science | 7 | Electrical Engineering |
| 3 | Chemical Engineering | 8 | Computer Engineering |
| 4 | Biomedical Engineering | 9 | Electrical/Computer Engineering |
| 5 | Civil Engineering | 10 | Aerospace Engineering |



Women in the Engineering Workforce

Global Gender Employment Gap



15% of the global engineering workforce was comprised of women in 2020.

Workforce Sentiment

Women who **LEAVE** engineering have lower levels of satisfaction and commitment than women who stay in the field.

Additionally, managerial support for work-family balance and professional development opportunities are essential for women who **STAY** in engineering professions.

* USA data retrieved from the U.S. Census (2021). Global data obtained from the World Economic Forum (2020).

SOURCES:

- American Society for Engineering Education. (2021). Engineering and engineering technology by the numbers 2020. <https://bit.ly/3rFwtPB>
- Fouad, N. A., Singh, R., Cappaert, K., Chang, W. H., & Wan, M. (2016). Comparison of women engineers who persist in or depart from engineering. *Journal of Vocational Behavior*, 92, 79-93. <https://doi.org/10.1016/j.jvb.2015.11.002>
- National Center for Science and Engineering Statistics. (2021). Women, minorities, and persons with disabilities in science and engineering: 2021. Alexandria, VA: National Science Foundation. <https://nces.nsf.gov/wmpd>.
- Organisation for Economic Cooperation and Development (2019). PISA 2018 results (volume I): What students know and can do. Tables II.B1.7.3 and II.B1.7.5. OECD Publishing, Paris. <https://doi.org/10.1787/5f07c754-en>
- U.S. Census Bureau. (2021) American Community Survey. Tables B24115 and B24116. <https://www.census.gov/programs-surveys/acs>
- U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS) [2020]. Tables 318.45, 322.40, 322.50, 323.50, and 324.50. Retrieved from <https://bit.ly/3UIAFRA>
- World Economic Forum (2020). Global gender gap report 2020. Figure 3. <https://bit.ly/3C59NNw>

