salary that was 33% higher compared to women in non-STEM fields, [41]. This skills gap has created a challenging scenario for employers, as they struggle to recruit and retain talent in a highly competitive job market. Additionally, the STEM workforce is lacking in diversity, with marginalized groups such as women and minorities disproportionately underrepresented.

The availability of female role models in STEM higher education careers is concentrated, emphasizing the importance of role models in addressing women's underrepresentation, [14]. Otherwise, it revealed differences in obtaining graduate-level employment and managerial positions when compared to their male counterparts to investigate the career paths of female STEM graduates in the UK labor market, [21]. Other than that, the study found that women in STEM have lower self-efficacy during college and discussed factors such as interest and occupational selection that influence women's decisions to pursue STEM majors, [29]. Additionally, women's retention in STEM and professional occupations compared and unfolded a trend in which women in STEM are more likely to leave the field early in their careers, underlining the need for additional research into retention factors, [31].

The rising competitiveness among STEM students has resulted from the increasing demand for STEM jobs, underscoring the significance of continuous learning and the development of new skills to remain competent in the sector. STEM students displayed greater mathematical proficiency and emphasized the relevance of participating in research activities, [42]. STEM is integrally linked to Malaysia's economic development to generate prosperity and prepare the country to become a developed country through 2020, [32]. Female community-based university STEM students have educational and career aspirations, as well as discovering interactions and experiences with, [42]. Female educators can exert a substantial impact in motivating women to seek and excel in fields where women are underrepresented, as stated in reference, [43].

Addressing the gender gap in solving equity problems among female students in STEM requires creating a supportive and inclusive environment in both the workplace and college. Improvements in the workplace and educational environment are required before women can fully engage in engineering and computing careers, [44]. Community colleges also educate the forthcoming generations of female scientists, engineers, and mathematicians, [45]. Empowering women in STEM requires collective action and cooperation among all parties, including society and community, to break down barriers and promote gender equality in education and the workforce.

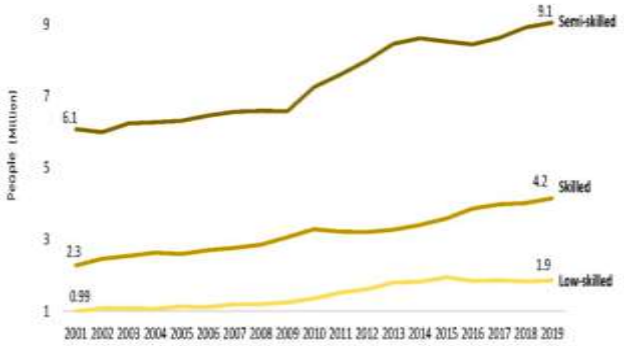

Fig. 6: Employed Individual by Skilled Occupation 2001-2019, [2.

Meeting the demand for skilled labor in STEM fields in Malaysia is crucial, and empowering more women to pursue and surpass these careers can help address the skills gap and promote economic growth and innovation. The Policy intends to appropriately strengthen women in STEM so that they can compete and are not side-lined in national growth, [32]. According to Figure 6, the majority of Malaysian jobs are semi-skilled, meaning that Malaysian industries operate at the middle to bottom of the global value chain. Malaysia's productivity suffers as a result, and the country is trapped in the middle-income trap, [12]. Establishing a STEM orientation amongst young women can help to enhance their social identity viewpoint for careers in STEM disciplines. When young women are exposed to STEM environments, they face barriers to participation and inclusion, [46].

5 Discussion

Malaysia has significant gender disparities in STEM education and jobs, emphasizing the critical need for targeted initiatives to close these gaps. This article investigates effective solutions for reducing disparities and promoting gender equality in STEM disciplines. Several issues are discussed, including the role of industry engagement, government policies, problems and opportunities, educational changes, role models, family-friendly initiatives, and changing social norms and stereotypes.

Industry engagement and collaboration: The industry's role in promoting diversity and inclusivity in STEM professions is discussed, with an

investigation into how collaboration between educational institutions and industries can open up more opportunities for women in STEM. This collaborative approach seeks to make the STEM workforce more inclusive and supportive.

Government policies and initiatives: The role of government policies, such as the Malaysia Women Policy of 2009, in encouraging women to pursue STEM careers is critical. Figure 6 depicts the effectiveness of the government's goal of creating STEM jobs and developing infrastructure, revealing the impact of policy initiatives on the ground.

Problems and opportunities: It is critical to identify the challenges that female STEM students and professionals face. The article also discusses the promising outcomes of increasing women's representation in STEM, highlighting the positive impact on overall workforce capability and future breakthroughs.

Educational reforms: Examining the need for educational reforms, particularly at the K-12 and university levels, becomes critical in encouraging more female students to pursue STEM courses. Addressing the underlying causes and instituting inclusive educational practices can pave the way for a more gender-balanced STEM landscape.

Role models and mentoring: The significance of female role models in STEM is investigated, with a focus on how they inspire and motivate young girls to pursue STEM careers. Furthermore, the discussion includes mentoring programs that involve both students and industry professionals, to determine how such initiatives can provide critical support for female STEM students, using multimethod approaches as used in previous researches in varied investigations fields, [47], [48].

Family-Friendly policies and their economic consequences: The significance of creating a family-friendly environment for working women with families is discussed, as well as an examination of how the careers of STEM-related parents influence females in STEM engagement. Examining the economic consequences of gender disparities in STEM fields, such as the skills gap and productivity issues, sheds light on the broader implications for Malaysia's position in the global value chain.

Changing social norms and stereotypes: Societal norms, gender roles, and cultural values all have a large impact on Malaysian women's decision to pursue STEM careers. The significance of breaking down gender stereotypes in mathematics and science is stressed, as well as creating an environment that encourages more women to pursue STEM degrees.

6 Conclusion

Ultimately, this research emphasizes the significance of tackling the disparity in gender representation in STEM education and employment opportunities in Malaysia. This study offers valuable insights into the barriers and possibilities of achieving gender equality in STEM fields by investigating the factors that impact female students' attitudes and involvement in STEM education. The study's findings have substantial ramifications for policymakers, educators, and other stakeholders who are invested in promoting gender equality in education and the workplace.

Policymakers may promote the development of inclusive and equitable education systems that stimulate creativity, innovation, and economic growth by tackling the cultural, social, and institutional obstacles that impede female students' involvement in STEM disciplines. Moreover, this study establishes the foundation for forthcoming research that will build upon these discoveries and explore novel avenues for enhancing gender parity in STEM education and occupations in Malaysia. Furthermore, it highlights the significance of cooperation among governmental entities, educational establishments, and industry collaborators in tackling the systemic elements that contribute to the underrepresentation of women in STEM careers.

In conclusion, this study displays the imperative of promoting gender equality in STEM disciplines, not just for the advancement of women themselves, but also for the overall betterment of the economy and society. By promoting the advancement of women in STEM fields, we can cultivate a workforce that is more diverse, inclusive, and innovative, therefore equipping it to effectively tackle the problems of the twenty-first century.

Acknowledgments:
The authors would like to acknowledge the financial support of the National Funds provided by FCT—Foundation for Science and Technology to VALORIZA—Research Center for Endogenous Resource Valorization (project UIDB/05064/2020).

References:

[1] Olmedo-Torre, N., Carrera, M. P., Lopez-Beltran, M., Gomez, M. S., & Lopez, D. (2018). Mentoring female high school students for a STEM career. *IEEE Frontier in Education Conference (FIE),* San Jose, CA,

USA, 1-5, https://doi.org/10.1109/fie.2018.8658683.

[2] UNESCO. (2020). *STEM education for girls and women: Breaking barriers and exploring gender inequality in Asia*. Asia and Pacific Regional Bureau for Education. UNESCO Bangkok, [Online]. https://unesdoc.unesco.org/ark:/48223/pf0000375106/PDF/375106eng.pdf.multi (Accessed Date: March 11, 2023).

[3] Dasgupta, N., & Stout, J. G. (2014). Girls and women in science, technology, engineering, and mathematics. *Policy Insights from the Behavioral and Brain Sciences*, *1*(1), 21-29, https://doi.org/10.1177/2372732214549471.

[4] Blackburn, H. (2017). The status of women in STEM in higher education: A review of the literature 2007--2017. *Science & Amp; Technology Libraries*, *36*(3), 235-273, https://doi.org/10.1080/0194262x.2017.1371658.

[5] Wang, M.-T., & Degol, J. L. (2016). Gender gap in science, technology, engineering, and mathematics (STEM): Current knowledge, implications for practice, policy, and future directions. *Educational Psychology Review*, *29*(1), 119-140, https://doi.org/10.1007/s10648-015-9355-x.

[6] Chavatzia, T. (2017). *Cracking the code: Girls' and women's education in science, technology, engineering and mathematics (STEM)*. Paris, France: UNESCO, [Online]. https://unesdoc.unesco.org/ark:/48223/pf0000253479 (Accessed Date: March 16, 2023).

[7] Alibhai, A., Saigar, M. M., Harding, E., & Rutland, C. S. (2018). Is your extra chromosome holding you back? an insight into female education and academic careers in STEM. In new pedagogical challenges in the 21st century. *Contributions of Research in Education,* https://doi.org/10.5772/intechopen. 71898.

[8] Banerjee, M., Schenke, K., Lam, A., & Eccles, J. S. (2018). The roles of teachers, classroom experiences, and finding balance: A qualitative perspective on the experiences and expectations of females within STEM and non-STEM careers. *International Journal of Gender, Science and Technology, 10,* 287-307.

[9] Ho, M.-T., La, V.-P., Nguyen, M.-H., Pham, T.-H., Vuong, T.-T., Vuong, H.-M., Vuong, Q.-H. (2020). An analytical view on STEM education and outcomes: Examples of the social gap and gender disparity in Vietnam. *Children and Youth Services Review*, *119*, 105650, https://doi.org/10.1016/j.childyouth.2020.105650.

[10] Bottia, M. C., Stearns, E., Mickelson, R. A., Moller, S., & Valentino, L. (2015). Growing the roots of STEM majors: Female math and science high school faculty and the participation of students in STEM. *Economics of Education Review*, *45*, 14-27, https://doi.org/10.1016/j.econedurev.2015.01.002.

[11] Barabino, G., Frize, M., Ibrahim, F., Kaldoudi, E., Lhotska, L., Marcu, L., Bezak, E. (2020). Solutions to gender balance in STEM fields through support, training, education, and mentoring: Report of the international women in medical physics and biomedical engineering task group. *Science and Engineering Ethics*, *26*(1), 275-292, https://doi.org/10.1007/s 11948-019-00097-0.

[12] Academy of Science Malaysia. (2021). *Science Outlook 2020: Unlocking the future, Academy of Sciences Malaysia*. Kuala Lumpur, Malaysia, [Online]. https://www.akademisains.gov.my/asm-publication/executive-summary-science-outlook-report-2020/ (Accessed Date: April 20, 2023).

[13] Jamil, H., Ahmad Shabudin, A. F., Raman, S. R., & Ling, O. P. (2019). Changing landscape of the Malaysian Higher Education: An overview of women's glass ceiling. In: Neubauer, D.E., Kaur, S. (eds) Gender and the changing face of higher education in Asia Pacific. *International and Development Education*. Palgrave Macmillan, Cham, https://doi.org/10.1007/978-3-030-02795-7_10.

[14] Calvo-Iglesias, E., Garcia, E. C., & Fernandez-Delgado, M. (2022). Providing female role models in STEM higher education careers, a teaching experience. *International Conference on Virtual Campus (JICV)*, Arequipa, Peru, 1-4, https://doi.org/10.1109/jicv56113.2022.9934681.

[15] Grant, M. J., & Booth, A. (2009). A typology of review: An analysis of 14 review types and associated methodologies. *Health Information & Libraries Journal, 26*: 91-108, https://doi.org/10.1111/j.1471-1842.2009. 00848.x.

[16] Budgen, D., Burn, A. J., Brereton, O. P., Kitchenham, B. A., & Pretorius, R. (2011). Empirical evidence about the uml: A systematic literature review. *Software: Practice and Experience, 41*, 363-392.

[17] Yin, R. K. (2013). Validity and generalization in future case study evaluations. *Evaluation, 19*, 321-332.

[18] Ahmed, N., Urmi, T., & Tasmin, M. (2020). Challenges and opportunities for young female learners in STEM from the perspective of Bangladesh. *IEEE International Conference on Teaching, Assessment, and Learning for Engineering (TALE)*. Takatsu, Japan, 39-46, https://doi.org/10.1109/tale48869.2020.9368378.

[19] Makarova, E., Aeschlimann, B., & Herzog, W. (2019). The gender gap in STEM fields: The impact of the gender stereotype of math and science on secondary students' career aspirations. *Front. Educ. 4*(60), 1-11, http://doi.org/10.3389/feduc.2019.00060.

[20] Zachman, K. (2018). Women in STEM: Female role model and gender-equitable teaching strategies, [Online]. http://sophia.stkate.edu/maed/272/ (Accessed Date: May 14, 2023).

[21] White, P., & Smith, E. (2021). From subject choice to career path: Female STEM graduates in the UK labor market. *Oxford Review of Education*, *48*(6), 693-709, https://doi.org/10.1080/03054985.2021.2011713.

[22] Best, K.L., Sanwald, U., Ihsen, S., & Ittel, A. (2013). Gender and STEM in Germany: Policies enhancing women's participation in academia. *International Journal of Gender, Science, and Technology, 5*, 292-304.

[23] Buschor, C., Berweger, S., Frei, A., & Kappler, C. (2013). Majoring in STEM what accounts for women's career decision making? A mixed methods study. *The Journal of Educational Research*, *107*(3), 167-176, https://doi.org/10.1080/00220671.2013.788989.

[24] González-Pérez, S., Mateos de Cabo, R., & Sáinz, M. (2020). Girls in STEM: Is it a female role model thing? *Frontiers in Psychology, 11*, 2204, https://doi.org/10.3389/fpsyg.2020.02204.

[25] Wang, J., Hong, H., Ravitz, J., & Ivory, M. (2015). Gender differences in factors influencing the pursuit of computer science and related fields. *Proceedings of the 2015 ACM Conference on Innovation and Technology in Computer Science Education*.

[26] Stoet, G., & Geary, D.C. (2018). The gender-equality paradox in science, technology, engineering, and mathematics education. *Psychological Science, 29*, 581-593.

[27] Botella, C., Rueda, S., López-Iñesta, E., & Marzal, P. (2019). Gender diversity in STEM disciplines: A multiple factor problem. *Entropy, 21* (1), 30.

[28] Bamberger, Y.M. (2014). Encouraging girls into science and technology with feminine role models: Does this work? *Journal of Science Education and Technology, 23*, 549-561.

[29] Heilbronner, N. N. (2012). The STEM pathway for women. *Gifted Child Quarterly*, *57*(1), 39-55, https://doi.org/10.1177/0016986212460085.

[30] d'Aguiar, S., & Harrison, N. (2016). Returning from earning: UK graduates returning to postgraduate study, with particular respect to STEM subjects, gender, and ethnicity. *Journal of Education and Work, 29*, 584-613.

[31] Glass, J. L., Sassler, S., Levitte, Y., & Michelmore, K. M. (2013). What's so special about STEM? A comparison of women's retention in STEM and professional occupations. *Social Forces*, *92*(2), 723-756, https://doi.org/10.1093/sf/sot092.

[32] Kho, Y. H. (2016). Attracting female engineering students: Insights from Malaysia and Kazakhstan. *2016 IEEE Global Engineering Education Conference (EDUCON)*, Abu Dhabi, United Arab Emirates, 724-728, https://doi.org/10.1109/educon.2016.7474631.

[33] Idris, R., Govindasamy, P., & Nachiappan, S., Bacotang, J. (2023). Examining Moderator Factors Influencing Students' Interest in STEM Careers: The Role of Demographic, Family and Gender. *International Journal of Academic Research in Progressive Education and Development, 12(2),* 2298-2312, http://dx.doi.org/10.6007/IJARPED/v12-i2/17609.

[34] Idris, R., & Bacotang, J. (2023). Exploring STEM education trends in Malaysia: building a talent pool for Industrial Revolution 4.0 and Society 5.0. *International Journal of Academic Research in Progressive Education and Development*, *12*(2), 381-393.

[35] Curriculum Development Division, Ministry of Education Malaysia. (2016). *Sharing Malaysian experience in participation of girls in STEM education*. Geneva, Switzerland, UNESCO International Bureau of Education (IBE), [Online]. https://unesdoc.unesco.org/

ark:/48223/pf0000244714/PDF/244714eng.pdf.multi (Last Accessed Date: June 12, 2023).

[36] Buffington, C., Cerf, B., Jones, C., & Weinberg, B. A. (2016). STEM training and early career outcomes of female and male graduate students: Evidence from metrics data linked to the 2010 census. *American Economic Review*, *106*(5), 333-338, https://doi.org/ 10.1257/aer.p20161124.

[37] Kulturel-Konak, S., D, Allegro, M. Lou, & Dickinson, S. (2011). Review of gender differences in learning styles: Suggestions for STEM education. *Contemporary Issues in Education Research (CIER)*, *4*(3), 9-18, https://doi.org/10.19030/cier.v4i3.4116.

[38] Garcia-Holgado, A., Mena, J., Garcia-Penalvo, F. J., Pascual, J., Heikkinen, M., Harmoinen, S., … Amores, L. (2020). Gender equality in STEM programs: A proposal to analyze the situation of a university about the gender gap. *IEEE Global Engineering Education Conference (EDUCON)*, Porto, Portugal, 1824-1830, https://doi.org/10.1109/educon45650.2020.9125326.

[39] Xu, Y.J. (2015). Focusing on Women in STEM: A longitudinal examination of gender-based earning gap of college graduates. *The Journal of Higher Education, 86*, 489-523.

[40] Anaya, L., Stafford, F., & Zamarro, G. (2021). Gender gaps in math performance, perceived mathematical ability and college STEM education: The role of parental occupation. *Education Economics*, *30*(2), 113-128, https://doi.org/10.1080/09645292.2021.1974344.

[41] Beede, D. N., Julian, T., Langdon, D., McKittrick, G., Khan, B., & Doms, M. (2011). Women in STEM: A gender gap to innovation. *Sexuality & Gender Studies eJournal*, 4-11, https://doi.org/10.2139/ssrn.1964782.

[42] Starobin, S. S., & Laanan, F. S. (2008). Broadening female participation in science, technology, engineering, and mathematics: Experiences at community colleges. *New Directions for Community Colleges*, *142*, 37-46, https://doi.org/10.1002/cc.323.

[43] Bettinger, E. P., & Long, B. T. (2005). Do faculty serve as role models? The impact of instructor gender on female students. *American Economic Review*, *95*(2), 152-157, https://doi.org/10.1257/000282805774670149

[44] Corbett, C., & Hill, C. (2015). *Solving the equation: The variables for women's success in engineering and computing*. American Association of University Women. 1111 Sixteenth Street NW, Washington, DC 20036.

[45] Jackson, D. L., & Laanan, F. S. (2011). The role of community colleges in educating women in science and engineering. *New Directions for Institutional Research*, *2011*(152), 39-49, https://doi.org/10.1002/ir.407.

[46] Kim, A. Y., Sinatra, G. M., & Seyranian, V. (2018). Developing a STEM identity among young women: A social identity perspective. *Review of Educational Research*, *88*(4), 589-625, https://doi.org/10.3102/003\8779957.

[47] Telo da Gama, J., Rato Nunes, J., Loures, L., Lopez Piñeiro, A., & Vivas, P. (2019). Assessing spatial and temporal variability for some edaphic characteristics of Mediterranean rainfed and irrigated soils. *Agronomy*, *9*(3), 132, https://doi.org/10.3390/agronomy9030132.

[48] Ferreira, P., Loures, L., Nunes, J., & Brito, P. (2018). Are renewable energy stocks a possibility to diversify portfolios considering an environmentally friendly approach? The view of DCCA correlation coefficient. *Physica A: Statistical Mechanics and its Applications*, *512*, 675-681, https://doi.org/10.1016/j.physa.2018.08.108.

APPENDIX

Table 1. Women/Females in STEM Fields

No	Author(s)	Title	Methods	Sample	Findings
1	[1]	Mentoring female high school students for a STEM career.	Quasi experiment	- Mentors (University students) - Mentee (Student aged between 15-16)	The main findings were that there was a lot of interest in the mentors' talks, with male students paying more attention and being more open to questions and interventions. Furthermore, despite low participation and interest in the topics discussed, there was a surprising sensitization of the female group to STEM issues.
2	[8]	The roles of teachers, classroom experiences, and finding balance: A qualitative perspective on the experiences and expectations of females within STEM and non-STEM careers.	Qualitative	N = 60	The influence of family and work/life balance on career decisions. The impact of teachers and classroom experiences on career aspirations. STEM subject interest and perceived value as a factor in career decision-making.
3	[10]	Growing the roots of STEM majors: Female math and science high school faculty and the participation of students in STEM	Quantitative	N = 21, 340 (9, 320 young men) (12, 020 young women)	The underrepresentation of women in science, technology, engineering, and mathematics (STEM) fields is problematic because of the economic and social inequities it fosters, as well as the growing global importance of STEM occupations. Although the proportion of female math and science teachers at a school does not affect male students, it has a significant impact on female students' likelihood of declaring and graduating with a STEM degree, with the effects being greatest for female students with the best math skills.
4	[14]	Providing female role models in STEM higher education careers, a teaching experience.	Quantitative	N = 205 female bachelor degree student	Emphasizes the underrepresentation of women in STEM careers and the importance of female role models in broadening participation in these fields. It also highlights initiatives aimed at empowering female students and shattering sexist stereotypes.
5	[18]	Challenges and opportunities for young female learners in STEM from the perspective of Bangladesh.	Qualitative	N = 100 female students with three teachers as a mentor	The main findings are the low percentage of female stakeholders in STEM fields in Bangladesh, the visibility of gender disparity from the beginning of the educational journey, and the specific gender disparity in the Mathematics Olympiad.
6	[19]	The gender gap in STEM fields: The impact of the gender stereotype of math and science on secondary students' career aspirations.	Cross-Sectional Study	N = 78 of Swiss secondary school student	Maths is thought to be the most masculine subject, followed by physics and chemistry. While male students rated all subjects equally strongly as masculine, maths is significantly more strongly associated with masculinity than chemistry and physics. In terms of masculinity attribution, chemistry and physics do not differ significantly.
7	[20]	Women in STEM: Female role model and gender-equitable teaching strategies.	Observational study	89 samples of young women in elective secondary (9-12 years)	Female students' attitudes towards STEM improved after they were exposed to female role models and gender-equitable teaching strategies. More female students chose advanced STEM courses this year than in the previous two years. Participants expressed increased optimism and hope for the future.
8	[21]	From subject choice to career path: Female STEM graduates in the UK labor market.	Mix-method	N = 17,000	Female STEM graduates were less likely to obtain graduate-level employment, work in HS STEM jobs, or hold managerial positions than their male counterparts. Gender differences in the relationship between the degree subject studied and occupational outcome were observed. A STEM degree

No	Author(s)	Title	Methods	Sample	Findings
					was more important for women than men in terms of gaining graduate level employment and working in an HS STEM role, but it was associated with a lower likelihood of working in a managerial or professional role.
9	[22]	Gender and STEM in Germany: Policies enhancing women's participation in academia.	Quantitative	N = 4,663	In Germany, national programs to increase women's participation in STEM fields have been established, resulting in increased participation rates but remaining low. Initiatives to attract women to STEM fields have a positive influence on female students' decisions to pursue STEM fields, but they have a low level of professional integration. Women are underrepresented in STEM fields, with the greatest drop occurring during habilitation. However, the proportion of women decreases only by six percentage points from first-year student to professor.
10	[23]	Majoring in STEM what accounts for women's career decision making? A mixed methods study	Mix-method	N = 843 female high student	The findings revealed a high level of persistence in students' intentions to pursue a career in STEM fields. In comparison to students who majored in the social sciences or humanities, STEM students demonstrated stronger mathematical skills and a preference for engaging in investigative activities. According to qualitative analysis, learning experiences, parental support, and role models influenced female students' choice of studies.
11	[24]	Is it a Female Role-Model Thing	Quantitative	304 girls from 12 years (sixth primary grade) to 16 years old (fourth secondary grade)	The main findings are that girls' expectations of success in maths, enjoyment of maths, and importance of maths, as well as their likelihood of choosing a STEM career, are significantly increased by exposure to female role models in STEM fields. The research will help the Inspiring Girls Foundation (IGF) improve the effectiveness of its role-model program right away. The study demonstrates the role-model sessions' effectiveness in reducing gender stereotypes, increasing enjoyment and importance-related values, and strengthening the direct effect of success expectations on girls' STEM choices.
12	[25]	Gender Differences in Factors Influencing Pursuit of Computer Science and Related Fields	Quantitative	N = 1,739	Encouragement and exposure are the most influential factors in young women's decisions to pursue computer science-related fields, with social encouragement being significantly stronger for women than for men. The majority of decisions about pursuing computer science-related fields are made before a young woman begins college, demonstrating the importance of pre-college experiences in influencing this decision.
13	[26]	The Gender-Equality Paradox in Science, Technology, Engineering, and Mathematics Education.	Quantitative	N = 472,242 (67 Nations)	In most countries, girls performed similarly to or better than boys in science - The educational gender equality paradox is driven by both distal and proximal social factors. Countries with lower levels of gender equality had more women among STEM graduates than countries with higher levels of gender equality.
14	[27]	Gender Diversity in STEM Disciplines: A Multiple Factor Problem.	Quantitative	N = 11,809	The program has contributed to higher female graduation rates, particularly among Bachelor students, and has increased the number of faculty women in positions of

No	Author(s)	Title	Methods	Sample	Findings
					power. On average and year after year, the ETSE-UV is higher than the Spanish reference value. The ETSE-UV has an average value of 15.12% graduated female students, which is higher than the Spanish reference values.
15	[28]	Encouraging Girls into Science and Technology with Feminine Role Model: Does This Work?	Quasi-experimental	N = 90	The program aimed to encourage girls in Israel to pursue STEM careers. The findings indicated respect for women scientists as smart and creative, but a significant negative change in perceptions of women scientists/engineers, STEM capability, and STEM career options. The paper discusses possible explanations for these findings as well as their educational implications.
16	[29]	The STEM Pathway for Women.	Quantitative	N = 360	In college, women had lower self-efficacy in STEM, and fewer women chose STEM majors. For both men and women, interest was a major factor in occupational selection. Women outnumber men in fields such as biology, while men outnumber women in fields such as engineering and physics/astronomy. A higher proportion of older women stated that they left STEM because of a lack of flexible hours and the need to attend to family responsibilities.
17	[30]	Returning from earning: UK graduates returning to postgraduate study, with particular respect to STEM subjects, gender, and ethnicity	Mix-method	N = 22,207	Graduates returning for taught postgraduate study do so primarily as a result of underemployment following graduation. STEM graduates were far less likely to pursue taught postgraduate studies.
18	[31]	What's So Special about STEM? A Comparison of Women's Retention in STEM and Professional Occupations.	Mix-method	N = 1,258	The findings show that women in STEM occupations are significantly more likely than professional women to leave their occupational field, particularly early in their careers, and that job characteristics cannot account for the disproportionate loss of STEM workers. According to the paper, future research should concentrate on the first few years of employment in STEM jobs.

Contribution of Individual Authors to the Creation of a Scientific Article (Ghostwriting Policy)

The authors equally contributed to the present research, at all stages from the formulation of the problem findings to the final findings and solution.

Sources of Funding for Research Presented in a Scientific Article or Scientific Article Itself

No funding was received for conducting this study.

Conflict of Interest

The authors have no conflict of interest to declare.