



Photo by Kearney

From classroom to career: closing the gender gap in STEM



Confederation of Indian Industry

KEARNEY

Copyright © 2024 Kearney and Confederation of Indian Industry (CII). All rights reserved.

Without limiting the rights under the copyright reserved, this publication or any part of it may not be translated, reproduced, stored, transmitted in any form (electronic, mechanical, photocopying, audio recording or otherwise) or circulated in any binding or cover other than the cover in which it is currently published, without the prior written permission of CII and Kearney. All information, ideas, views, opinions, estimates, advice, suggestions, recommendations (hereinafter 'content') in this publication should not be understood as professional advice in any manner or interpreted as policies, objectives, opinions or suggestions of CII and Kearney. Readers are advised to use their discretion and seek professional advice before taking any action or decision, based on the contents of this publication. The content in this publication has been obtained or derived from sources believed by CII and Kearney to be reliable but CII and Kearney do not represent this information to be accurate or complete. CII and Kearney do not assume any responsibility and disclaim any liability for any loss, damages, caused due to any reason whatsoever, toward any person (natural or legal) who uses this publication. This publication cannot be sold for consideration, within or outside India, without express written permission of CII and Kearney. Violation of this condition of sale will lead to criminal and civil prosecution.

Developed by A.T. Kearney Consulting (India) Private Limited

19th Floor, Tower C, Building 10, Cyber City,
Gurugram 122 002, India
+91 124 409 0700 (office)
+91 124 406 9725 (fax)
Email: nilanjana.rajkhowa@kearney.com
Web: www.kearney.com

Published by Confederation of Indian Industry (CII)

The Mantosh Sondhi Centre; 23, Institutional Area, Lodi Road,
New Delhi 110003, India,
T: 91 11 45771000 / 24629994-7
Email: info@cii.in; Web: www.cii.in



KEARNEY



KEARNEY

Forewords

The representation of women in STEM (science, technology, engineering, and mathematics) fields is a crucial indicator of our society's progress toward true equality and innovation. India has made significant strides in encouraging women to pursue careers in STEM, yet challenges remain that must be addressed to fully harness their potential. This white paper presents a critical analysis of the current state of women in STEM in India, celebrating our successes while confronting the barriers that still exist. By highlighting key insights and proposing practicable recommendations, this document aims to foster a more inclusive and supportive environment for women in these transformative fields. As we work toward bridging the gender gap in STEM, it is imperative that we empower and invest in our female talent to drive sustainable growth and innovation. I am hopeful that this white paper will serve as a valuable tool for policymakers, educators, and industry leaders committed to advancing gender equality and harnessing the full potential of women in STEM.

Swati Salgaocar

Chairperson, CII Western Region
President, V. M. Salgaocar and Brother Pvt Ltd

The advancement of women in STEM (science, technology, engineering, and mathematics) is not just a matter of equity but also a critical factor for national and global progress. India's potential to lead in these fields is significantly amplified when women are given equal opportunities to excel and contribute. This white paper provides a comprehensive overview of the landscape for women in STEM in India, examining both the strides we have made and the challenges that persist. By offering a thorough analysis and practical recommendations, this document aims to support ongoing efforts to create a more inclusive and dynamic STEM environment. It is essential that we continue to address the systemic barriers and cultural biases that hinder women's participation and advancement in these vital sectors. I trust that this white paper will inspire and inform strategic actions that will enable us to build a future where women's contributions to STEM are fully recognized and celebrated.

Anjali Pandey

Chairperson, CII WR Indian Women Network



In a field where innovation is paramount, diversity in STEM (science, technology, engineering, and mathematics) remains crucial. Women, comprising half the global population, bring unique perspectives vital for addressing complex challenges. Achieving gender parity in STEM is not merely about equity, but also vital for sustainable development, economic growth, and the equitable distribution of scientific benefits.

Despite significant progress, women's representation in STEM continues to remain low, with the gender gap widening as they progress from STEM education to careers and senior roles. This persistent gap, particularly pronounced in India, underscores the need to keep this topic in focus and scale up efforts to drive women participation in STEM across the lifecycle.

Against this backdrop, this whitepaper has three objectives: analyze the current landscape of women participation in STEM comprehensively, uncover systematic barriers hindering women's progress in STEM from education to workforce, and offer actionable solutions to bridge these gaps. We conducted extensive research, engaging over 120 individuals—students, professionals, educators,

parents, and industry leaders—through interviews and surveys, while leveraging published secondary research from institutions like the World Bank, UNESCO, WEF, and government departments, to develop a holistic perspective across these three areas.

Given the interconnected challenges across social norms and biases, policies and systems, and support structures, that create a vicious cycle of women's under-representation in STEM, the whitepaper uses robust frameworks to identify gaps and develop solutions throughout the life journey of a woman. This structured approach enables us to recognize that policies to support women can only be successful when there is a mindset shift complemented by a significant improvement in the support infrastructure to provide a conducive environment for a woman's growth.

India stands at a pivotal moment, poised to lead in promoting gender diversity in STEM. A deeper public-private effort can generate long-sustained impact. The strategies outlined here are a call to action for academia, industry, policymakers, and society. As we navigate the complexities of the 21st century, a concentrated effort from all entities is critical to close the gender gap in STEM, and move toward realizing a more innovative, equitable, and prosperous future.

Nidhi Tiwari

Partner, Kearney

Barathi Srinivasan

Partner, Kearney





KEARNEY

Despite the focus on educating more women in science, technology, engineering, and mathematics, India has yet to create a more balanced workforce, especially in leadership positions. It's time for academia, industry, and policymakers to help bridge the gap.

Executive summary	1
<hr/>	
1. The importance of women's participation in STEM	2
<hr/>	
2. The leaky pipeline: global and Indian scenarios	4
2.1 The global phenomenon	4
2.2 Spotlight on India	5
2.3 Government and private-sector interventions playing catch-up	12
<hr/>	
3. Unpacking the challenges behind the gender gap in STEM	18
3.1 Gaps in the educational system	19
3.2 Societal and cultural barriers	21
3.3 Gaps in policies and system	22
3.4 Gaps in the workplace environment	24
<hr/>	
4. Bridging the divide: solutions for closing the gender gap	26
4.1 Communication and awareness	26
4.2 Policy implementation	26
4.3 Support infrastructure	28
<hr/>	
Notes	31

Executive summary

STEM is a well-known acronym for science, technology, engineering, and mathematics. However, beyond the acronym, STEM is a comprehensive approach to problem-solving and understanding the world around us. STEM education fosters critical thinking, creativity, and innovation—skills that are essential to drive technological advancement, address global challenges, and shape the future.

In recent years, the relevance of STEM has been rising steadily. Trends such as generative AI, the growing need for connectivity and the focus on automation, the Internet of Things, and data-driven decision-making are expected to fuel growth with 80 percent¹ of jobs in the coming decade requiring some form of STEM skills. In parallel, there is a global focus on gender equality, as laid out in the UN's Sustainable Development Goal 5². Beyond the pursuit of meeting developmental goals, women participation in STEM is crucial to growth in society, industry, and the economy.

The World Economic Forum's Global Gender Gap Report³, which tracks gender parity in economic participation, political empowerment, health, and education, estimates that it will take 16 years to close the gap in education and 169 years to close it in economic participation at a global level. This widening gender gap from education to the workforce is also visible within STEM fields with 35 percent women representation in tertiary STEM education and 29 percent in the STEM workforce.

Efforts by India's government and the private sector have focused on boosting women's participation in STEM, as evident in India's 42.5 percent⁴ female enrollment in STEM fields in tertiary education compared with 35 percent for the United States⁵ and 33 percent for the European Union⁶. However, this education advantage has yet to translate into the job market⁷, with only 27 percent women representation in India's STEM workforce. And the funnel narrows down to ~12 percent at C-suite level, a phenomenon popularly termed the "drop to the top." The ramifications of neglecting this pathway are considerable: it can perpetuate gender gaps and reinforce gender stereotypes in research and design.

At this juncture, it is vital for academia, industry, and policymakers to understand the as-is scenario of women participation in STEM, along with the associated geographic and socioeconomic nuances. This will help uncover the challenges that cause the gender gap in STEM education and the workforce and guide thinking on potential solutions to plug the gap.

The low participation of women in STEM in India can be traced to a vicious cycle of gender bias and structural issues. Stereotypes and societal expectations discourage girls from pursuing STEM subjects in education. Once in the workforce, a lack of inclusive policies, mentorship, and flexible work options can further marginalize women, pushing them out of STEM careers. The eventual underrepresentation of women at leadership creates a scarcity of female role models, perpetuating the cycle and discouraging future generations of women from pursuing STEM.

A joint public and private effort is required for a sustained period to bridge these gaps meaningfully. Firstly, challenging societal biases through government-led campaigns and showcasing female role models can shift cultural perceptions and encourage more women to pursue STEM careers. Secondly, comprehensive policy reforms are crucial to overhaul STEM education and workplaces. Lastly, creating a supportive infrastructure using mentorship and financial aid programs, networking opportunities and safe environments is vital. It is only through simultaneous efforts on all three fronts—policy making, driving mindset change, and infrastructure development—that this leaky pipeline can be plugged.

In this paper, we share a comprehensive viewpoint of the current landscape of women in STEM careers in India and shed light on the challenges and potential solutions.

1. The importance of women's participation in STEM

Women's representation is crucial for fueling growth across three pillars:

Economy. There is a growing demand for skilled workers in STEM; the National Science Foundation has predicted that 80 percent of jobs in the coming decade will require some form of STEM skills. Research also shows that science education in high school leads to 22⁸ to 28 percent⁹ higher earnings than studying non-technical subjects. Women's participation is therefore essential to meet the demand in STEM jobs and bridge the gender gap. With ~80 percent of women's jobs at risk due to automation and AI¹⁰, STEM skills will be critical for enabling women's workforce participation, which will contribute to overall economic growth.

Society. Having more women participate in STEM can lead to balanced decision-making processes within families, which in turn can influence health and educational priorities¹¹ and parenting approaches. Furthermore, women with a STEM inclination can promote a culture of curiosity and learning within their families and advance societal progress toward greater inclusivity and equality. Microsoft studies¹² show that girls who have a STEM role model are more likely to pursue careers in these fields. Hence, increasing the visibility of women can inspire younger generations to pursue STEM careers and dismantle gender stereotypes.

Industry. Multiple studies, including as reported by Forbes¹³ and Harvard Business Review¹⁴, have shown that diverse teams tend to generate more innovative solutions and achieve better financial performance. In a survey of Indian corporations by NTT Data and NLB Services, 58 percent¹⁵ of employers acknowledged this diversity premium and agreed that gender diversity can boost revenue. Even though the significance of women as consumers and spenders is undeniable, there is a stark gap in female-centric innovations and gender-responsive solutions across various domains.

Women representation in STEM across the spheres of research, entrepreneurship, policy, and more is crucial to integrate such considerations into research agendas, funding priorities, and innovations (see figure 1 on page 3).

Figure 1

There is a stark gap in gender-responsive solutions across domains, which women-led companies have helped bridge

Select examples showing lack of gender responsive solutions across domains



Healthcare

- Health conditions that exclusively or predominantly affect women are far less funded than those affecting men.
- Women are significantly underrepresented in clinical trials.



Product design

- Personal protective equipment and safety gear are often designed for male body types, resulting in ill-fitting and less effective equipment for women.
- Early voice recognition systems had difficulty understanding women because the systems were trained primarily on male voices.



Urban planning

- Infrastructure development is often not inclusive and fails to consider women’s safety and accessibility needs.
- Women say they feel unsafe using public transportation because of factors such as poor lighting, lack of security personnel, and isolated stations

Select examples of female-centric innovations by women-led organizations

Healthcare

Several start-ups, including Niramai, Saathi, Maven Clinic, and Elvie, work on women-focused healthcare concerns through solutions such as novel breast cancer screening, affordable menstrual products, virtual clinics for expecting women, and innovative breast pumps.

Product design

Several start-ups, including SeeHerWork and Xena Workwear, design women-friendly PPE and safety shoes. AI Now Institute and EqualAI are both dedicated to reducing gender bias in AI systems through knowledge and resource dissemination.

Urban planning

SheCab’s women-driven cabs; Safetipin’s personal safety app, which uses crowdsourced data to provide the safety score of an area; and innov8’s gender-neutral coworking spaces ensure a safe and accessible environment for women.

Sources: “Women’s health: end the disparity in funding,” *Nature*, 3 May 2023; Kearney analysis

Women’s representation in STEM is crucial for fueling growth in the economy, society, and industry.

2. The leaky pipeline: global and Indian scenarios

2.1 The global phenomenon

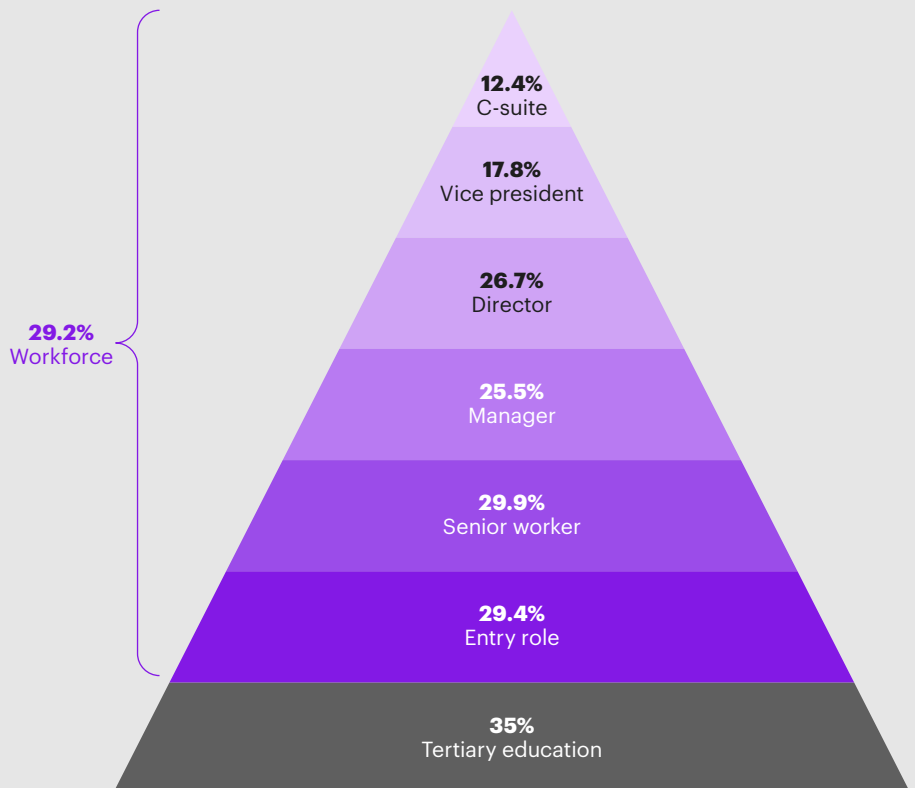
Globally, the gender gap widens from STEM education to leadership roles in the workforce. This “leaky pipeline” phenomenon describes how capable, qualified women often do not pursue or gradually exit STEM careers (see figure 2).

In pursuit of the UN’s Sustainable Development Goal 4¹⁶, gender parity was achieved in primary and lower secondary education enrollment in 2009 and in upper secondary education in 2013.¹ In fact, on average, girls tend to perform as well—if not better—than boys. However, there is a STEM gender gap in tertiary education.

¹ Apart from sub-Saharan Africa and select other pockets in poor countries

Figure 2
There are few women at the top of the global STEM workforce

Global gender gap in STEM
% women participation across different stages in STEM



Sources: World Economic Forum Global Gender Gap Report, UNESCO; Kearney analysis

A 2020 World Bank report revealed that although graduation rates are higher among women compared with men, women are less likely to undertake studies in STEM fields. According to UNESCO's Global Education Monitoring report *Technology on Her Terms*¹⁷, only 35 percent of the world's STEM graduates are women. Also concerning is the fact that this metric has not significantly changed over the past decade, and contrary to expectations, this gap widens as country income rises¹⁸. A World Bank report indicates that women in low-income countries are 7 percentage points less likely than men to enroll in STEM-related tertiary programs, whereas this gap is larger in upper-middle-income (15 percentage points) and high-income countries (17 percentage points).

Even within STEM fields, women's participation is skewed toward natural sciences and health sciences, where they make up a majority of the enrollment. In contrast, their representation in engineering and information technology is much lower, at around 27 percent.¹⁹

Women who study STEM fields are less likely to enter STEM careers, and they tend to exit these careers earlier than their male peers. Globally³, 29.2 percent of the STEM workforce was women compared with 49.3 percent of the non-STEM workforce. Women's participation in STEM careers dwindles from entry-level to leadership roles.

Women are also underrepresented in cutting-edge fields such as AI and research. Although the overall AI workforce increased by six times between 2016 and 2022, females as a percentage of that workforce grew by only 4 percent²⁰—from 26 percent in 2016 to 30 percent in 2022. As AI gains momentum, expanding women representation in the field will be crucial so that women are equipped with important skills for the future and to ensure that gender-specific nuances are incorporated into emerging solutions so they are not biased toward men. Similarly, only a third of the world's researchers are women as indicated by UNESCO data.²¹

2.2 Spotlight on India

In this section, we explore the representation of women in India's STEM journey—from education to careers such as entrepreneurship and research. Although the inclination toward STEM education is lower for female students than it is for males across levels, India fares better than the world average in terms of female STEM graduates. However, the representation of women actually working in STEM careers is behind the global average (see figure 3 on page 6).

2.2.a Geographical variations in education

In India, there are disparities in the uptake of science disciplines²² among girls: most arts graduates are girls, but when it comes to science and commerce, girls are a minority (see figure 4 on page 6). Interestingly, girls have consistently demonstrated better learning outcomes than boys in both secondary and higher secondary examinations, with a 2 to 5 percent higher pass rate in secondary examinations and a 6 to 10 percent higher pass rate in higher secondary examinations. These outcomes highlight the potential for success among girl students and underscore the importance of fostering a schooling environment that supports their academic ambitions, especially in growing fields such as STEM.

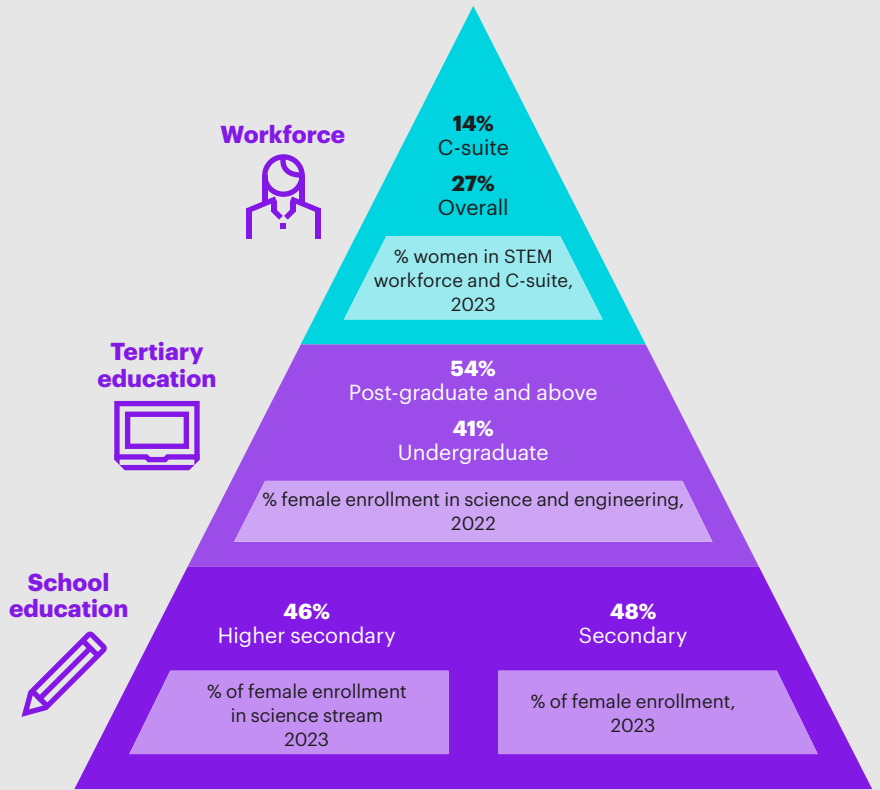
³ These profiles are for illustrative purposes only and do not depict any actual person.

Figure 3

India's gender gap widens for women in STEM as they progress from schooling to leadership roles in the workforce

Gender gap in STEM for India

% women participation across various stages in STEM



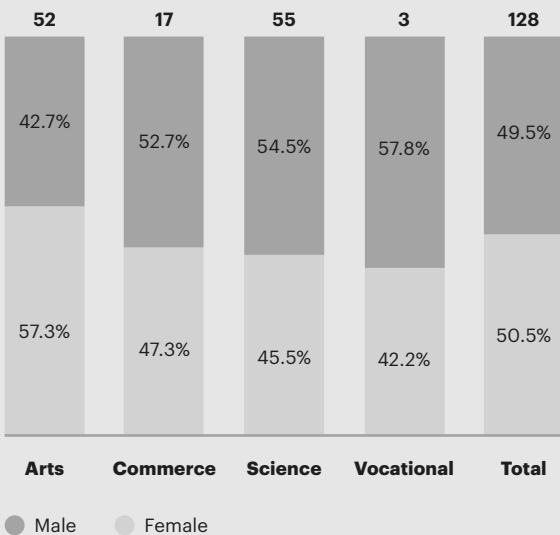
Sources: results of secondary and higher secondary examinations, All-India Survey on Higher Education, World Bank, Times of India; Kearney analysis

Figure 4

Women account for less than half of the science students in higher secondary education

Gender split in higher secondary education, 2023

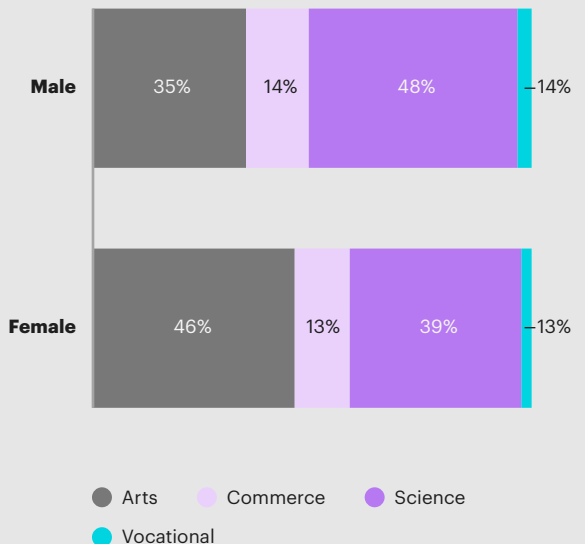
% distribution across genders, total number of students (in lakhs)



Sources: results of secondary and higher secondary examinations; Kearney analysis

Inclination toward streams by gender

% of students in respective discipline



Local education policies, social challenges, and state-specific initiatives have a significant impact on girls' choices of academic disciplines, which translates into regional variations in STEM participation of girls in school. For example, the uptake of science subjects by girls in India is uneven, with South Indian states having a much higher percentage of girls graduating in science compared with other parts of India (see figure 5).

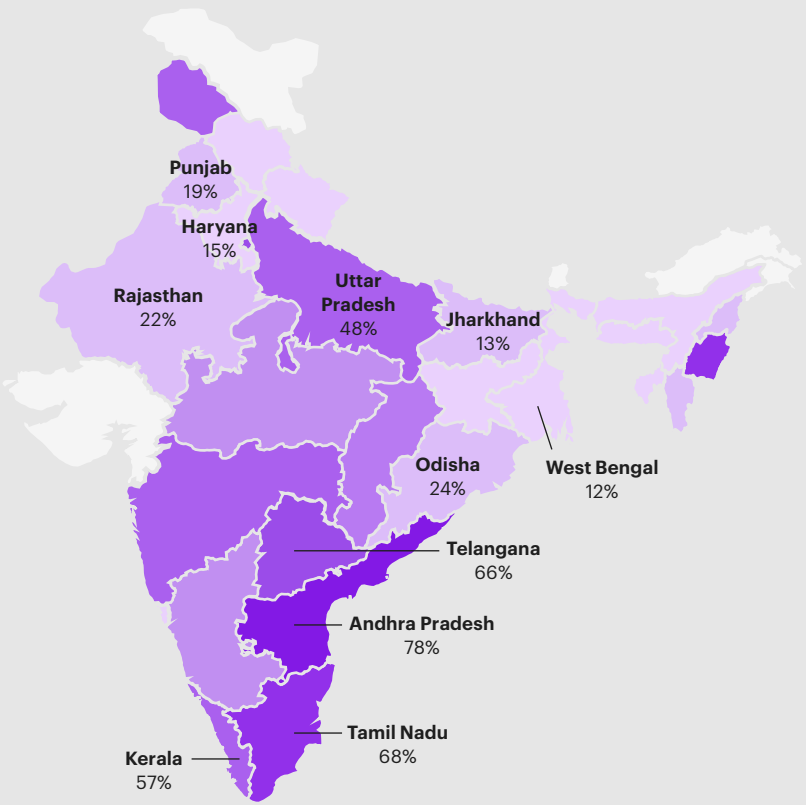
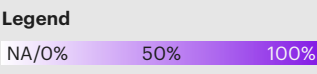
Patterns of poverty, child marriage, early pregnancies, and high maternal mortality rates can severely restrict educational and employment opportunities for women in certain states and regions, perpetuating cycles of disadvantage.

Patterns of poverty, child marriage, early pregnancies, and maternal mortality rates can restrict educational and employment opportunities.

Figure 5
In several regions of India, fewer than 25 percent of higher secondary science graduates are girls

% of girls graduating in science stream in higher secondary

As a % of total girls graduating across streams, across respective state boards



Sources: results of secondary and higher secondary examinations; Kearney analysis

2.2.b

Tertiary education: the gap widens

With its large demographic dividend, India has the highest number of STEM graduates²³ in the world: more than 10 million in 2021–2022 with 34 percent of students graduating in STEM disciplines. However, there are significant gender disparities.

In 2021–2022, women accounted for 51 percent²⁴ of all non-STEM enrollment in India, but only about 42 percent of the country’s science and engineering graduates were women (see figure 6). Women enrollment is higher in science education, which is considered relatively less demanding in terms of curriculum and subsequent careers compared with engineering. Following a similar pattern, within STEM disciplines, women are concentrated in select sub-fields such as life sciences along with computer and electronics engineering (see figure 7 on page 9). Beyond science and engineering, the uptake of other STEM courses such as IT and computers, forensic science, cybersecurity, and marine science is low across genders: only ~3.5 percent of male graduates and ~2.5 percent of graduates are enrolled in these disciplines. Female enrollment in these disciplines is similar to science and engineering with ~39 percent female participation. Hence, there is a potential to introduce and popularize more STEM designated programs, especially for female students.

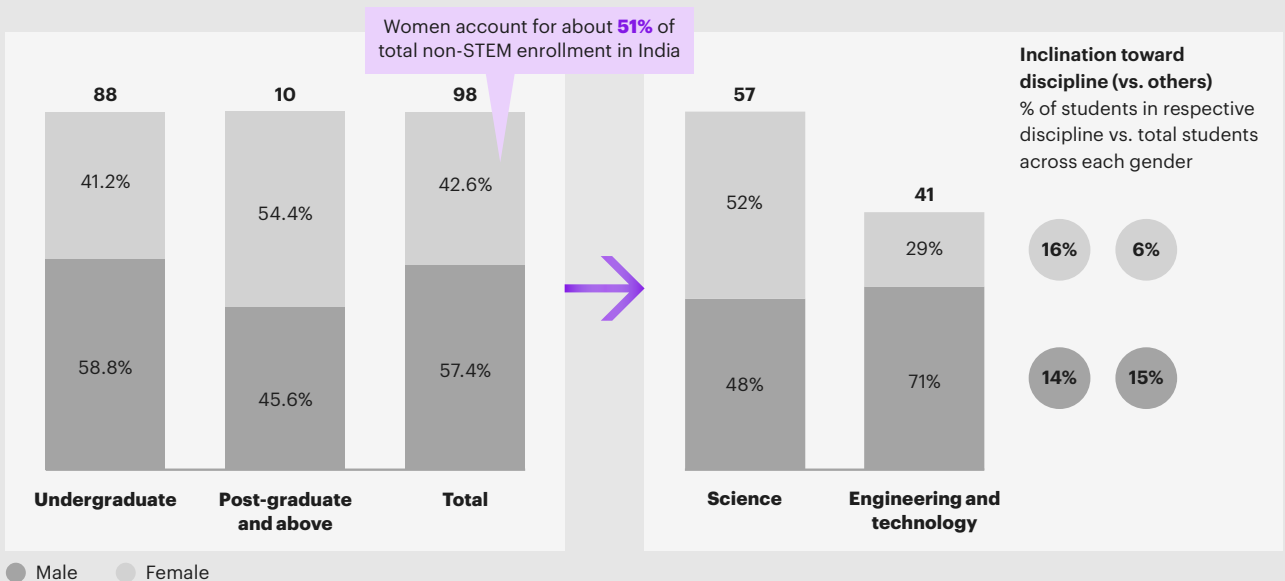
Given the skewed enrollment of women in STEM education, it is imperative to evaluate how this impacts their participation in the STEM workforce.

Figure 6

Fewer than half of science and engineering students are women, with the majority enrolled in science

Science and engineering enrollment in tertiary education, 2021–2022

% distribution across genders, total number of students (in lakhs)



Sources: All-India Survey on Higher Education; Kearney analysis

Figure 7

Women’s higher education is skewed toward fields such as zoology, botany, and electronics along with computer engineering

Women participation across top 5 sub-fields

Science

Field	% of total discipline strength	Women’s participation
Chemistry	22%	54%
Mathematics	15%	61%
Physics	13%	53%
Zoology	10%	72%
Botany	8%	73%

Engineering and technology

Field	% of total discipline strength	Women’s participation
Computer engineering	31%	34%
Electronics engineering	15%	39%
Mechanical engineering	14%	8%
Civil engineering	11%	23%
Electrical engineering	9%	26%

Sources: All-India Survey on Higher Education 2021–2022; Kearney analysis

2.2.c

Workforce: the “drop to the top”

Despite India contributing the highest number of STEM graduates globally, the participation of women in the country’s STEM workforce is still disproportionately low. According to the Gender Gap Report 2023, India’s 27 percent female representation in the STEM workforce is behind the global average of 29.2 percent.

The representation of women in the STEM workforce varies across industries.²⁵ On one hand, traditional, field-based industries with few women leaders and role models, such as manufacturing and utilities, are perceived as being male-dominated, creating a vicious cycle that perpetuates the low representation of women. However, advancements in technology and automation warrant a shift in this mindset that enables more women to participate in technical and analytical roles. Meanwhile, women comprise of more than 30 percent of the STEM workforce in fields such as healthcare and medicine along with education (see figure 8 on page 10). Ratios at entry levels are better, but it becomes more challenging as women progress through their careers. Although women are well-represented in teaching roles at the primary and secondary levels, their numbers dwindle in higher education and administrative positions. Similarly, women participation is high in entry roles within healthcare, such as nurses, pharmacists, junior doctors, and biomedical researchers, but it plummets at senior positions, such as hospital administrators and medical research leaders.

Figure 8
Women make up more than a third of the STEM workforce in select fields

Industry	% women in India's STEM workforce
Administrative and support service	33%
Healthcare and medicine	32%
Education	32%
Government administration	31%
Financial services	29%
Manufacturing	17%
Utilities	14%
Oil, gas, and mining	13%
Construction	12%

Sources: secondary research Kearney analysis

Although several government and private organizations have introduced policy interventions such as proactive hiring of women, most solutions only focus on increasing the number of women at entry levels while representation at leadership levels continues to be concerningly low. Women currently hold only 12.4 percent of vice president roles and 14 percent of C-suite positions in the STEM workforce. Over the past few years, there have been concerted efforts to improve this statistic. Between 2013 to 2022, women's representation on boards has risen rapidly from 6 percent to 18 percent.²⁶ However, it varies widely across industries and is positively impacted by the presence of women promoters or founders. Among the 22 Nifty-500 companies with more than 40 percent women representation in their boards, several of them, including Apollo Hospitals, Godrej Consumer Products and Colgate Palmolive, have women chairpersons or CEOs.²⁷

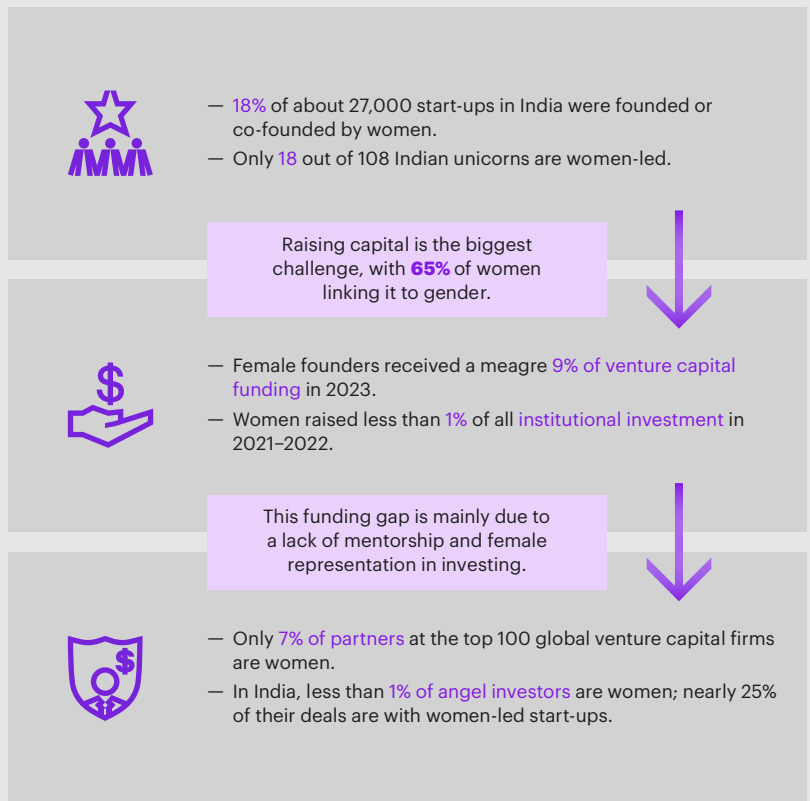
Given the positive correlation between the presence of a female founder and women's representation at senior levels, it is essential to take a closer look at the entrepreneurial participation of women (see figure 9 on page 11).

Along with entrepreneurship, addressing the gender gap in research is crucial for the advancement of women and for enhancing the overall effectiveness of innovation within India. Women's participation in sponsored R&D projects²⁸ has increased from 13 percent in 2000–2001 to 25 percent in 2019–2020 due to various government initiatives. However, India continues to lag the world average in terms of women representation in research (see figure 10 on page 11).

India's efforts to improve women enrollment in STEM education are improving the participation of women in STEM workforce, but we are yet to reach desired representation levels across industry, entrepreneurship and research.

Figure 9

India has few female entrepreneurs



Sources: “The State of Women’s Entrepreneurship in India 2023,” YourStory; “State of Women Entrepreneurship,” Kalaari Capital; Kearney analysis

Figure 10

India is lagging in the number of female researchers

Women’s participation in STEM research	India	World
% share of women among researchers	18.6%	30%
% female share in authorship of scientific publications	28%	35%
% share of women among grant awardees	30%	37%
% share of women in science academies	9%	16%

Sources: Ministry of Science and Technology, Government of India; Elsevier, Gender and Diversity in Research Report; GenderInSITE survey on women’s representation in Indian academia and conference (2024); Kearney analysis

2.3 Government and private-sector interventions playing catch-up

There have been numerous policies and programs around the globe that have been instrumental in promoting women in STEM. For instance, Kenya’s STEM Bootcamps for Girls²⁹ promotes women education in ICT and STEM, while European Union’s Gender Equality Strategy 2020–2025³⁰ and Australia’s Advancing Women in STEM Strategy (2019)³¹ promote women education, research, and workplace inclusivity through various initiatives and funding opportunities. The United Kingdom’s Women in Innovation Program³² supports female entrepreneurs and innovators in STEM through funding, mentorship, and business support to help women develop and commercialize their innovations.

Closer to home, there have been several initiatives by government and private organizations to encourage women’s participation in STEM education and India’s workforce. It is critical to understand the scope and impact of these policies and to uncover challenges that have yet to be addressed and identify potential solutions.

2.3.a Promoting STEM education

There have been several interventions to close the gender gap in education and promote STEM fields. Government policies such as Beti Bachao Beti Padhao, the National Education Policy 2020, and the National Scheme of Incentive to Girls for Secondary Education (NSIGSE), along with private-sector efforts such as HDFC Bank’s Parivartan and Project Nanhi Kali, focus on improving girls’ education. STEM-specific programs include Rashtriya Avishkar Abhiyan and INSPIRE along with initiatives such as Google’s Code to Learn and Intel’s Digital Readiness Program. Beyond these, interventions across four themes promote education for women in STEM (see figure 11).

Figure 11

India has four types of interventions to promote women in STEM education

Themes	Description	Select examples
Targeted scholarships	Scholarships that aim to reduce financial barriers for women, especially from economically disadvantaged backgrounds, to pursue STEM education	Public: AICTE Pragati Scholarship, CBSE Udaan Scheme Private: Dr. Reddy’s Foundation Sashakt Scholarship, L’Oréal India For Young Women in Science Scholarship, scholarships from organizations such as Google, Adobe, Biocon
Skill development through mentoring and workshops	Programs designed to build STEM skills and confidence in young women, particularly in rural areas, through mentoring, workshops, and hands-on experiences	Public: Vigyan Jyoti program Private: TCS GoIT Girl, IBM STEM for Girls, Mastercard’s Girls4Tech, Covestro’s STEM workshops, Cisco’s Girls Power Tech, Vedanta’s Unchi Udaan
Supernumerary seats in educational institutions	Additional seats reserved for women to increase their enrollment in STEM courses at higher educational institutions	Public: IITs supernumerary seats, West Bengal government’s 20% reservation for women in technical institutes
Infrastructure development for STEM institutes	Development of women-specific infrastructure and research facilities in STEM institutions to promote gender inclusivity and support women in higher education and research	Public: DST’s CURIE program Private: Cummins India’s women-only technical colleges in Pune and Nagpur

Source: Kearney analysis

Targeted initiatives have boosted STEM education for women in India. The All India Council for Technical Education Pragati Scholarship is awarded to 10,000 students³³ each year, and scholarships from Dr. Reddy’s Foundation and L’Oréal India³⁴ have benefitted more than 400 women from disadvantaged backgrounds. Furthermore, skill development programs such as Vigyan Jyoti³⁵ have reached more than 30,000 girls across 200 districts, and IBM’s STEM for Girls³⁶ has impacted over 140,000 students. The Indian Institutes of Technology (IITs) supernumerary scheme has driven up female representation to 20 percent³⁷ across most IITs. Infrastructure investments under the Department of Science and Technology’s Consolidation of University Research for Innovation and Excellence (CURIE) program³⁸, including INR 40 crore for women-only universities and INR 4.2 crore for AI labs, help support development of women scientists. These efforts are indeed commendable and have had an impact in their respective target cohorts. However, such initiatives still fall short of the high demand for scholarships, and several are underutilized because of a lack of awareness and high transaction costs.

2.3.b Promotion of STEM employment

Several government and private interventions aim to create economic and employment opportunities for women through skilling, entrepreneurship training, and mentoring. Hindustan Unilever’s Project Shakti, Support to Training and Employment Program for Women (STEP), and Mahila Shakti Kendra are some great examples. Furthermore, to enable women to transition from STEM education to STEM jobs and research, the government along with several private organizations have implemented initiatives across four overarching themes (see figure 12).

Figure 12

Four areas are helping Indian women transition into STEM jobs and fields of research

Themes	Description	Select examples
Apprenticeship programs	Apprenticeships and internships to help women transition from education to STEM careers by gaining practical experience and industry exposure	Public: TechSaksham program by AICTE, SAP, Microsoft Private: Adobe’s Women in Tech, Dell Resident Program, Vedanta’s Project Panchhi
Grants for promoting research participation	Financial grants and fellowships aimed at increasing women’s participation in STEM research and academia	Public: DST’s WISE-KIRAN program, SERB-POWER, CSIR-ASPIRE
Opportunities for women employment in STEM	Initiatives to break gender barriers in traditionally male-dominated STEM roles and emerging fields, providing job opportunities for women	Private: Tata Steel’s Women @ Mines, Adobe’s CodeHers, Flipkart’s Girls Wanna Code, Hindustan Zinc’s all-women underground mine rescue teams
Women inclusive infrastructure	Infrastructural interventions in workplaces to ensure safety, inclusivity, and convenience for women	Public: Maternity Benefit (Amendment) Act, National Crèche Scheme, AIS 140-compliant GPS tracking in public transport Private: Tata Motors’ all-women assembly line, Tata Chemicals’ support structures at Mithapur

Source: Kearney analysis

TechSaksham³⁹ aims to upskill 62,000 women from rural areas in AI, cloud computing, and web design, preparing them for future job markets. Research grants and fellowships such as CSIR-ASPIRE and SERB-POWER support more than 300 women scientists⁴⁰ and 250 projects⁴¹ in a year. Focused efforts to employ women in STEM have also seen great success, including Tata Steel’s women@mines⁴² recruiting of 100 women as heavy earth-moving machinery operators and deployment of women across all shifts. Vedanta’s Panchhi program⁴³ has employed 40 girls from disadvantaged backgrounds at the company’s Lanjigarh operations after their higher school education and is designed as a combined paid apprenticeship and college funding program to improve skills and employability. While women-only teams help organizations address operational blind spots and break gender stereotypes, ensuring effective implementation of government policies and improving safety and infrastructure will be essential to enable and scale up similar programs.

2.3.c Retention in STEM jobs

Several government schemes and company programs aim to reduce the dropout rate for women in STEM by creating more inclusive work environments, enabling women to return to the workforce after a career break, and supporting the growth of women in leadership roles (see figure 13).

Efforts to retain women in STEM are gaining momentum. Since 2018, the Department of Science and Technology’s Women Scientists Scheme has enabled 1,962 women scientists⁴⁴ to re-enter the workforce. The Biotechnology Industry Research Assistance Council’s Women Leadership in STEM Programme⁴⁵ will support 20 mid-career women annually by providing leadership training through workshops, networking, and mentorship. These initiatives not only facilitate workforce re-entry and retention but also contribute to long-term career growth, fostering a more balanced and diverse STEM ecosystem. Maintaining momentum, thoughtful design and extension of inclusive policies across smaller organizations, and addressing deep-seated social biases around career breaks and women leaders will be essential to plug the “drop-to-the-top.”

Figure 13

Three areas can help reduce the dropout rate for women in STEM jobs

Themes	Description	Select examples
Inclusive work environment	Programs and policies to create supportive and inclusive work environments that encourage women to stay in STEM jobs	Public: DST’s GATI program, AICTE Lilavati Awards Private: Flexible work arrangements by TCS, Infosys, and other tech giants, IBM’s Department of Research, Diversity, and Inclusion
Re-entry into the workforce	Initiatives to support women returning to STEM careers after a break via structured programs that refresh skills and provide mentorship	Public: DST’s Women Scientist Scheme Private: TCS Rebegin, Microsoft Springboard, IBM Tech Re-entry, Tata Motors SCIP program, L&T Renew
Leadership development programs	Mentoring and sponsorship programs focused on developing leadership skills among women in STEM, helping them advance to higher positions in their careers	Public: Biotechnology Industry Research Assistance Council Women Leadership in STEM Programme Private: Cisco’s WISE Women of Impact and JUMP programs, Wipro’s WOW program

Source: Kearney analysis

2.3.d

Promoting women in STEM across the continuum

Programs that showcase successful women in science and engineering play a vital role in shaping the aspirations of young girls and encourage them to pursue careers in STEM fields (see figure 14). Similarly, “women in STEM” networks can provide crucial support, mentorship, and professional development opportunities, helping to bridge the gender gap. They can also foster a sense of community, empowering women to navigate and excel in their educational and career paths.

The Indian Women Scientists’ Association⁴⁶ (IWSA), started by 12 women scientists, has grown into a community of more than 2,000 members across 11 branches nationwide. Through strategic efforts to spotlight successful women in STEM and cultivate robust support networks, the IWSA not only amplifies its reach but also creates a ripple effect, inspiring and empowering the next generation of women.

Although these initiatives have helped increase the number of women in STEM education and careers, there are still gaps in both awareness and implementation. A survey of students and working professionals revealed that a vast majority are unaware of the specific education and workforce policies available to them, underscoring a critical gap in the ability of these policies to reach and impact a broader audience. Additionally, transitioning from reactive to proactive policy creation and installing tracking mechanisms is essential to make a real change.

Figure 14

Putting a spotlight on women in STEM roles can inspire the next generation

Themes	Description	Select examples
Women role models and networks in STEM	Building visibility for successful women in STEM and fostering support networks to inspire and guide the next generation of women in these fields	Indian Women Scientists’ Association, Women For STEM India, HCL’s SheInspires, Grace Hopper Celebration, Women in Technology India, Google’s Women Techmakers

Source: Kearney analysis



Navigating challenges in STEM: the stories of Rekha, Disha, and Alizeh

Illustrating barriers and breakthroughs across different career stages²

Disha's path to success

At 28, Disha is a successful entrepreneur, but her journey from a village near Hisar to the tech world was far from easy. As a bright student, Disha's passion for STEM was kindled by a teacher who recognized her potential. When a competitive exam offered a laptop as a prize, Disha saw it as a steppingstone to her dreams. She excelled, but her father refused to let her travel to Hisar for the final round, prioritizing her brother's education instead. Undeterred, Disha sought her teacher's help and discovered a government scholarship portal. Through merit-based scholarships and the Udaan scheme, she funded her education and earned a place at IIT.

Her parents were reluctant to send her to Delhi, even as they supported her brother's private education in Mumbai. Ignoring their doubts, Disha used scholarships to cover her college expenses, graduating with top honors. She landed a job at a multinational tech firm and eventually started her own company. Disha's success made her father reconsider his views on STEM education for girls. Humbled, he not only supported her but also helped fund her start-up. Disha's journey also inspired young girls from her village to pursue their dreams in STEM.



Rekha's journey: balancing motherhood and career in Chennai

At 31, Rekha, an engineering manager in Chennai, was thriving in her career when she faced the challenge of balancing motherhood with work. As her pregnancy progressed, Rekha considered leaving her job, a decision that weighed heavily on her. Understanding her value, her company offered a flexible work arrangement—three days a week with adjustable hours. Her husband and family also rose to the occasion, fully supporting Rekha in taking care of the child and helping her continue at her job.

Recognizing the broader need, the company introduced an on-site childcare facility, a move that resonated with many female employees. Inspired by Rekha's experience, more women began to achieve work-life harmony. As the company's supportive policies gained attention, it attracted and retained more female talent, significantly boosting employee satisfaction and contributing to the company's success.



² These profiles are for illustrative purposes only and do not depict any actual person.

Alizeh's journey: breaking barriers in mining operations³

Alizeh, a third-year chemical engineering student, was passionate about mining and ore operations—a field often dominated by men. Her enthusiasm was met with skepticism; friends at college told her it was a man's job, while her parents worried about the safety risks of working in remote, isolated locations.

Her hard work and determination paid off when she secured an apprenticeship program at a renowned mining company. However, her excitement was dampened when she found herself stuck in administrative roles, instead of exciting fieldwork. Her male managers were hesitant to let her engage in the physically demanding, hands-on tasks that had drawn her to the field in the first place.

Frustrated but resolute, Alizeh raised her concerns with leadership, which acknowledged that she had the required capabilities, especially with automated processes reducing the need for physical labor. After getting an opportunity to take on the field role, Alizeh, quickly mastered the machinery and was rewarded for her efforts with a Pre-Placement Offer. Her success inspired other girls in her college to pursue their passions, even in fields traditionally considered unsafe or unsuitable for women.

When Alizeh returned to the mining operation for her final year, she noticed significant changes. Security cameras had been installed, special night travel accommodations for women, and more women in field roles, inspired by the trail she had blazed.



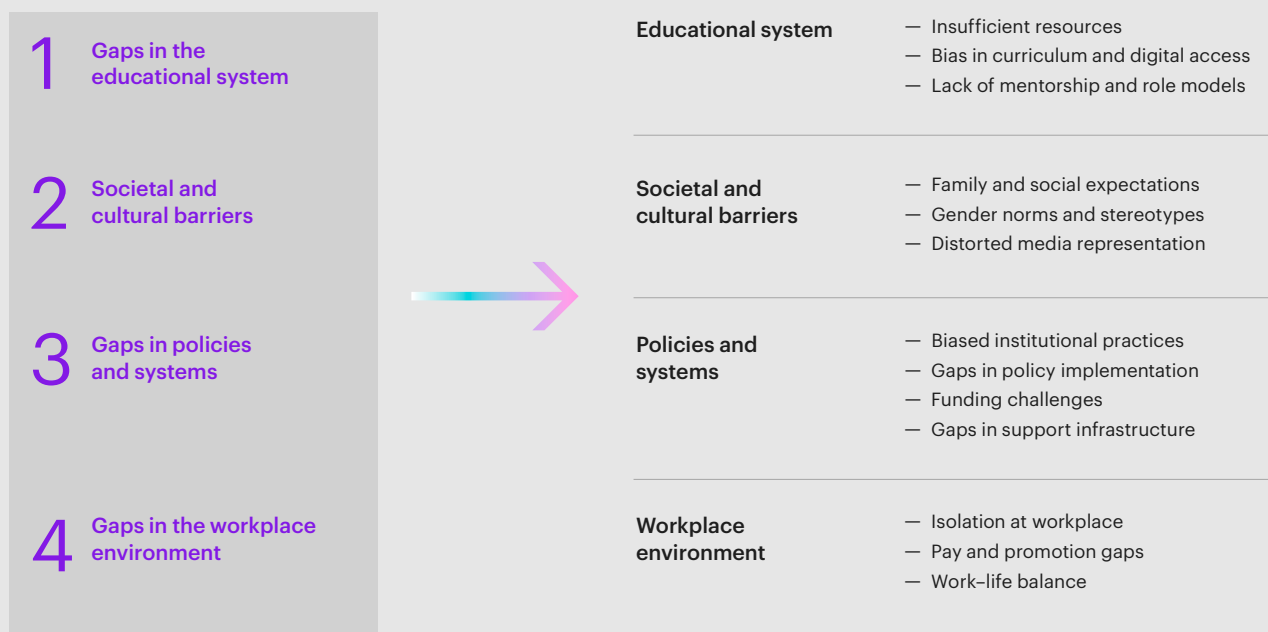
³ This profile is for illustrative purposes only and do not depict any actual person.

3. Unpacking the challenges behind the gender gap in STEM

With the established need to boost the representation of women in STEM fields, it is essential to explore the four major challenges that limit their participation in such domains (see figure 15).

Figure 15

Four areas are contributing to India's STEM gender gap



Sources: Kearney analysis

3.1 Gaps in the educational system

Insufficient resources

India's educational system faces gaps in availability of schools, lab and trained teachers. While these challenges affect all students, they are accentuated for female students. The infrastructure imbalance is stark⁴⁷: India has about 12 lakh primary schools, but only 1.5 lakh each of secondary and higher secondary schools. Furthermore, there is a large urban-rural divide in availability of schools: only 38 percent of rural households have a secondary school within 1 km, compared to 70 percent in urban areas. The lack of schools in the vicinity coupled with inadequate transport infrastructure creates additional barriers for girls, who often face higher restrictions on mobility due to safety concerns.⁴⁸ These mobility challenges have been flagged as a key reason for drop-out rate among girls especially in rural areas.⁴⁹ These challenges potentially lead to the lower performance of female students as against their male counterparts in arithmetic and reading English text.⁵⁰

Beyond availability of schools, India's teacher shortage indicated by the high pupil-teacher ratio⁵¹ against global averages: 26 at primary level against a global average of 23 and 27 at higher secondary against a global average of 17⁵², affects the quality of education imparted to all students. Specifically for female students, research shows that exposure to female STEM teachers during secondary education increases their propensity of enrollment in tertiary STEM programs.⁵³ However, female STEM teachers decrease in proportion at higher education levels; from 94 percent in pre-primary to just 43 percent at the tertiary level⁵⁴, potentially leading to lower enrollment of women in STEM.

Bias in curriculum and digital access

STEM topics are rapidly evolving, and STEM learning is best imparted in a hands-on, engaging manner. Traces of gender stereotyping in learning materials and a lack of female STEM role models create a male-dominated narrative for STEM. These challenges are compounded by unconscious biases in teachers or parents, which can discourage girls from pursuing STEM. Interactions with academia and industry reveal that a teacher-centric model focused on rote learning stifles curiosity and effective learning for all students, but particularly girls, who benefit more from interactive learning. Instances of assessments that overlook students' abilities to apply knowledge in real-world scenarios also limit their engagement with STEM.

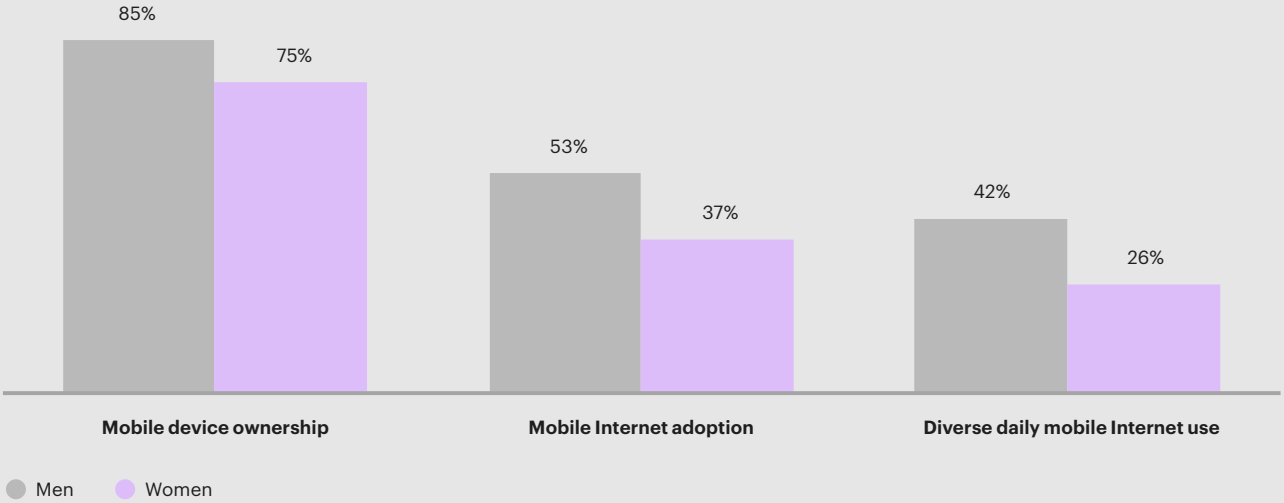
To address these issues, initiatives such as the Rashtriya Avishkar Abhiyan and the National Education Policy (NEP) promote hands-on learning through tinkering labs, excursions, and industry-oriented training. However, implementation remains a challenge. The persistent gender gap in digital access, especially in rural areas, continues to limit girls' participation in STEM education and the broader digital world. This digital divide, highlighted by the GSMA Consumer Survey⁵⁵, underscores the need for targeted interventions to ensure equal opportunities in STEM education for all students (see figure 16 on page 19).

According to UNESCO⁵⁶, using the mother tongue in education boosts participation, improves academic outcomes, and enhances social inclusion. Students often struggle to grasp abstract science concepts while simultaneously learning English, and girls are seen to perform better in their regional language whereas they lag behind in English⁵⁷. Hence, the lack of STEM curricula in vernacular languages poses a larger challenge to the participation and performance of girl students.

Figure 16

India has a digital divide when it comes to Internet access

Digital gender gap in India (% of total adult population)



Notes: Base = total population aged 18+. A mobile owner is defined as a person who has sole or main use of a SIM card (or a mobile phone that does not require a SIM) and uses it at least once a month. Mobile Internet users do not have to personally own a mobile phone. Diverse daily Internet use is defined as performing at least three mobile internet use cases daily.

Sources: GSMA Consumer Survey, 2023; Kearney analysis

Lack of mentorship and role models

The lack of mentorship and role models in STEM education disproportionately affects female students, particularly those from non-STEM family backgrounds. Gender stereotypes and the absence of mentors often lead to girls being encouraged to pursue subjects like home science instead of mathematics after the eighth grade.⁵⁸ This deters many from choosing science in higher education, contributing to higher dropout rates and lower participation in advanced STEM courses. In India’s rapidly evolving STEM landscape, a lack of awareness about career opportunities perpetuates these stereotypes, as students are rarely exposed to the changing dynamics of STEM professions. Research⁵⁹ shows that presence of role models can double the number of girls interested in STEM education. Comprehensive guidance across academics, career navigation, and financial aid access is critical to drive participation in STEM education and ensure successful transition to STEM careers for women.

The lack of mentorship and role models in STEM education disproportionately affects female students.

3.2 Societal and cultural barriers

Family and social expectations

From an early age, women face social pressures to prioritize household and family duties over education and career aspirations. These pressures intensify as they progress, often leading women to choose subjects that align with domestic responsibilities and have lower attendance requirements. Early marriages exacerbate this issue, with 23.3 percent of Indian women aged 20 to 24 married before 18. This practice, driven by the unfortunate perception of daughters as economic liabilities in several pockets of society, prematurely ends their education, with fewer than two in 10 married girls⁶⁰ staying in school. Post-marriage, women often bear the dual burden of managing a household and a profession. Later, responsibilities such as childcare and eldercare make demanding STEM careers even more challenging, leading to high dropout rates. According to the PLFS survey, nearly 44.5 percent women cited childcare and homemaking commitments as the reason for not participating in the workforce.⁶¹ The lack of support at home can create a guilt complex that pushes women out of careers. The “trailing spouse” phenomenon, where women follow their partner’s career moves at the expense of their own, is another challenge.

Cultural norms, such as restrictions on working in mixed-gender environments, traveling alone, or living away from home, also limit women’s opportunities in STEM education and careers. Moreover, restrictions on attending professional events prevent women from building connections and networking, hindering their growth and sense of inclusion in their fields.

Gender norms and stereotypes

Gender biases at home, school, and the workplace restrict women’s STEM participation at all stages. A UNESCO⁶² study reveals that teachers often underestimate girls’ mathematical abilities compared with boys, even when their performance is similar. This undermines girls’ confidence, especially around age 13 when their interest in science begins to wane. Parents often hesitate to invest in expensive STEM degrees for girls, perceiving lower returns due to the gender pay gap and the likelihood of girls moving to a different family after marriage. Even within STEM, women are often directed toward fields seen as more nurturing, such as teaching and healthcare, rather than “masculine” fields such as engineering. The digital divide, stemming from social biases, also limits women’s exposure and opportunities.

In the workplace, a global survey by Information Technology Intelligence Consulting Corp. found that 78 percent of female STEM professionals report gender bias, yet only 9 percent⁶³ file formal complaints. Women also face the “glass ceiling” and “pink ghetto” phenomena, when they’re passed over for promotions or assigned to train male peers who are then promoted ahead of them.

Distorted media representation

Gender perceptions are shaped by real-life experiences and media representations. On screen, engineers, scientists, and mathematicians are predominantly depicted by men, with male STEM roles appearing seven times more frequently than female roles. Only 12 percent of characters with identifiable STEM jobs in movies are women. This disparity not only reflects but also reinforces gender biases⁶⁴, impacting perceptions and aspirations of young women considering careers in STEM fields.

3.3 Gaps in policies and system

Unconscious biases in institutional practices

Hiring practices in STEM fields often have unconscious gender biases influenced by factors such as age, marital status, and childbearing. A study of 133 AI systems found 44 percent⁶⁵ showing gender bias in job listings for higher-paying positions. Ageism in research grants, owing to grant practices based on typical male career trajectories, disadvantages women who may have taken career breaks. In the workplace, social conditioning and institutional practices affect gender-based role allocation. Even though well-intentioned, managers who feel responsible for women’s safety often give them administrative tasks while men receive more strategic and high-risk assignments. Such practices undermine women’s confidence and reinforces stereotypes.

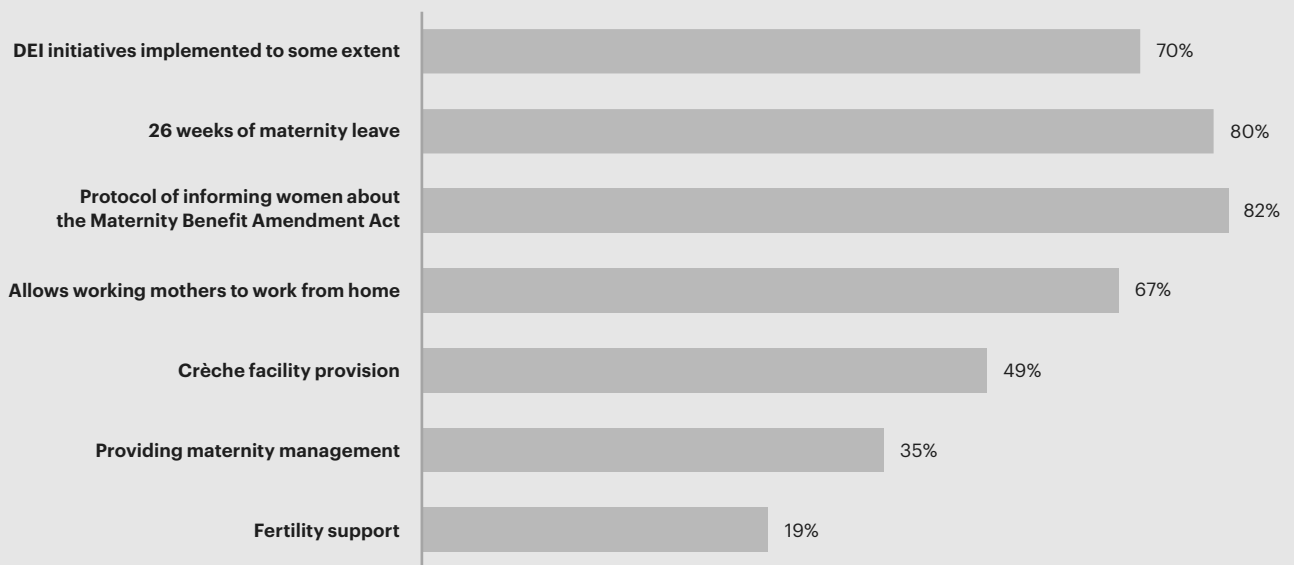
Career breaks, often taken for family reasons, significantly impact women’s growth in STEM. The “mommy track” phenomenon often derails promotions and pay raises. Although some large organizations offer structured returnship programs to address these gaps, many workplaces still fail to appreciate or accommodate resume gaps.

Gaps in policy implementation

India has enacted several laws and policies to support women’s participation in the workforce, including the Maternity Benefit Act (2017), Sexual Harassment of Women at Workplace Prevention, Prohibition and Redressal Act (2013), and the Equal Remuneration Act (1976). However, according to the WTW’s Wellbeing Programmes India Survey⁶⁶, only 70 percent of employers have implemented diversity, equity, and inclusion (DEI) initiatives to various extent (see figure 17).

Figure 17
Many companies in India do not have DEI policies

% of companies that have implemented DEI initiatives



Note: DEI is diversity, equity, and inclusion.
Sources: India Brand Equity Foundation’s “India Spend” report; Kearney analysis

Similarly, policies against sexual harassment often fail due to poor enforcement. A 2018 study⁶⁷ revealed that 59 percent of women in STEM in India encountered a pervasive “hard-hat culture,” influencing them to dress to avoid harassment. The lack of equitable parental leave policies is also a major concern; while maternity leave is well-defined, paternity leave is not uniformly available. This disparity along with social stigma attached to men taking extended paternity leave perpetuates traditional gender roles, placing a disproportionate burden on women to manage childcare responsibilities and hindering their career progression.

Funding challenges

Limited financial support hinders student participation in STEM programs, particularly for women. In Indian urban higher secondary schools, the cost of pursuing STEM subjects is 139 percent higher than humanities, while in rural areas, it is 58.5 percent more expensive.⁶⁸ This disproportionately affects women, as financially constrained families often prioritize boys’ education. Although some financial aid programs exist, there are few scholarships specifically for women in STEM. The substantial effort required for scholarship applications and intense competition for limited funds complicate STEM education financing. The issue of fund availability is compounded by the underutilization of existing aids because of a lack of awareness and a lack of guidance from mentors, seniors, and guides in educational and professional spheres.

Additionally, research funding and grants are skewed toward male researchers. Women-led research labs struggle to access necessary equipment, limiting their capacity for groundbreaking projects. Limited visibility in research awards and conferences also discourages women from pursuing STEM careers. Re-evaluating grant approval processes, particularly the composition of review committees and their assessment criteria, is essential.

Gaps in support infrastructure

The rigorous nature of STEM education and careers often requires frequent travel to specialized coaching centers, schools, and remote working locations. Availability of safe transport options, hygiene infrastructure, and overall security are significant constraints for women’s participation in STEM education and workforce. According to an Observer Research Foundation study, 52 percent⁶⁹ of women across India reported that safety concerns led them to decline education or work opportunities. Nearly 80 percent use public transportation, and with safety cited as a key deterrent among those who do not, ensuring a safe public transportation system is essential to increasing women’s workforce participation. Despite government mandates for GPS tracking devices and emergency buttons in public transport vehicles, inconsistent enforcement⁷⁰ and operational inefficiencies undermine their effectiveness, leading to significant gaps in safety.

The Menstrual Hygiene Management scheme and the Samagra Shiksha scheme work toward raising menstrual health awareness among adolescent girls and providing subsidized sanitary napkins. While such initiatives have led to an increase in the use of hygienic methods for menstrual protection, there continue to be gaps in sanitation facilities, specially beyond metros. In rural India, around 40 percent of schools lacked functional toilets, significantly impacting girls’ education, who tend to miss school due to their inability to manage their periods at school. This eventually leads to almost 23 percent⁷¹ of girls dropping out of school when they reach puberty. An International Labour Organization study found that only 21 percent⁷² of factories in India have separate toilets for men and women, and even fewer workplaces offer facilities for menstrual hygiene management.

A secure environment at the workplace and beyond is also essential to expand women’s workforce participation. Research indicates that for every additional crime per 1,000 women in a district, roughly 32 women are deterred from joining the workforce. However, there are very few public safety and workplace security initiatives⁷³ in place today.

3.4 Gaps in the workplace environment

Isolation in the workplace

Throughout their STEM careers, many women face feelings of inadequacy and not fitting in, experiencing a social identity threat or imposter syndrome. Women often lack peers and informal support networks at work, particularly in engineering, where female peers boost motivation, participation, and career aspirations. This need is even greater at higher career levels. The male-dominated STEM landscape creates a perpetuating problem, where women exit careers because they feel out of place in a “boys club” despite their talents. Studies⁷⁴ also show that the lack of female leaders and mentors hinders career advancement for women. Affirmative action through reservations and quotas aims to boost female participation in STEM. However, it is crucial to sensitize stakeholders to prevent discriminatory bias against beneficiary women.

Gaps in pay and promotions

While societal norms heavily influence career choices and push women into lower-paying STEM roles, the pay gap persists even when women and men choose the same field and have equivalent skills. In a global survey⁷⁵, 64 percent of women in STEM reported being paid less than their male counterparts for equivalent work, and an Aon plc study reported a 28 to 30 percent⁷⁶ gender pay gap in the Indian tech sector. On average, women researchers receive about 50 percent⁷⁷ of the grant funding compared with their male counterparts; men typically request more funding, but women receive less even when the request is the same.

Societal norms, lack of confidence in salary negotiations, and prevalent gender stereotypes contribute to this pay gap. A study by Kelly Services⁷⁸ reveals that 76 percent of India’s STEM workforce believes men have a genetic advantage in math and science, while 66 percent believe a woman would never achieve a top position regardless of her abilities. This highlights a significant confidence gap in skills and career progression opportunities. The confidence gap and biases also impact job-seeking and promotions. While applying for jobs or promotions, women are less likely to take risks than men are. A Hewlett Packard report⁷⁹ shows that women apply for promotions only when they meet 100 percent of the qualifications, compared with 60 percent for men.

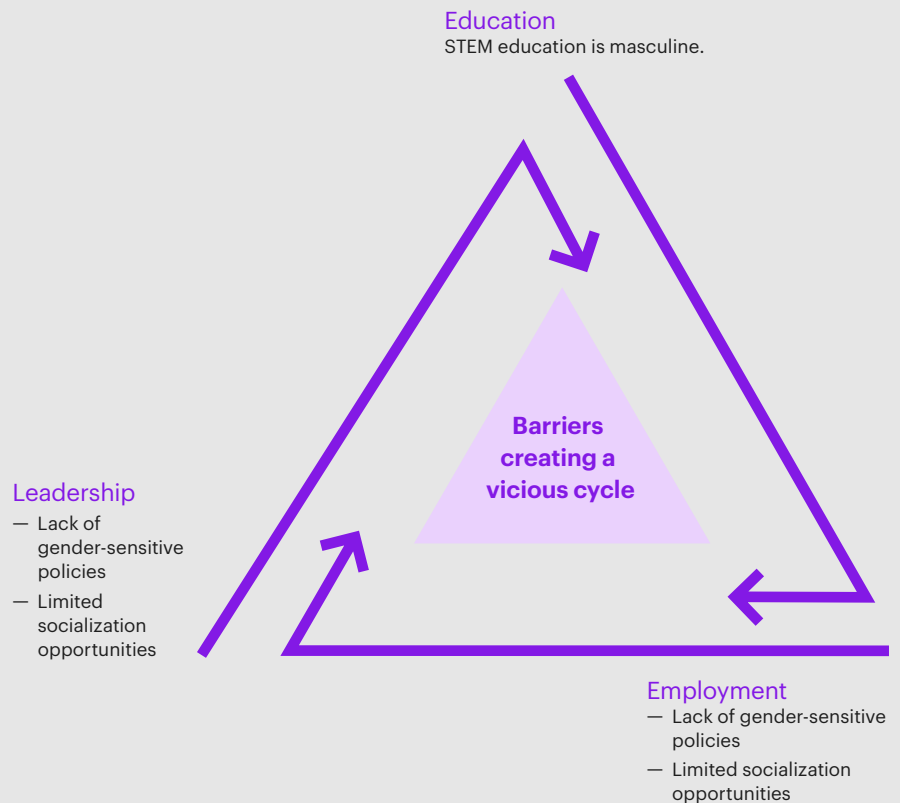
The expectation that women will take a step back in their careers for family reasons perpetuates this cycle, as they are more likely to be passed over for promotions or pay raises, reinforcing the systemic pay gap in STEM fields. Lower pay also means that the burden of childcare and elderly care falls on the lower-paid spouse, creating a vicious cycle. Networking and sponsorship are essential for career progression, but support services often favor male representation because of the lack of female leaders. Eighty-one percent of women in India perceived bias in performance evaluations due to such issues, which restrict their access to STEM opportunities, resources, and career pathways. Addressing these systemic issues is crucial for achieving gender equality in STEM fields.

Work-life balance

The need for flexible working hours and short-term career breaks to fulfill childcare and elderly care responsibilities are among the top challenges that disproportionately affect women. While some large organizations have introduced flexible work options, 11 percent⁸⁰ of organizations are yet to implement such policies, the lack of which becomes a major reason for women exiting their jobs. Even when flexible work options are offered, there are risks of discrimination and operational challenges. According to a LinkedIn survey⁸¹, ~35 percent of India's working women have had their request for flexible work denied while ~88 percent had to take a pay cut to work flexibly. Similarly, despite 78 percent working women taking career breaks, 77 percent of those who took a break felt that the break had set them back in their careers due to the stigma associated to career breaks among employers. While the COVID-19 pandemic made hybrid work more acceptable, women continue to remain reluctant about flexible working fearing exclusion, discrimination, pay and promotion implications, and lack of work adjustment. This underscores the need for organizations to implement flexible work policies thoughtfully, ensuring they do not inadvertently disadvantage the beneficiaries.

The gender bias in STEM is a vicious cycle of interconnected issues (see figure 18). Stereotypes discourage girls from pursuing STEM education, leading to fewer women entering STEM careers. In the workplace, a lack of inclusive policies and networking opportunities owing to limited female leaders further marginalizes women, perpetuating the underrepresentation in leadership roles. This scarcity of female role models then discourages the next generation of girls from engaging in STEM, thus completing and reinforcing the cycle. Breaking this pattern requires comprehensive support for women throughout their educational and professional STEM journey.

Figure 18
India's gender bias in STEM is a vicious cycle of interconnected issues



Source: Kearney analysis

4. Bridging the divide: solutions for closing the gender gap

A variety of solutions can help bridge the STEM gender gap (see figure 19 on page 26).

4.1 Communication and awareness

4.1.a Launch an organized government effort to address social bias

Government-led public awareness campaigns such as Pulse Polio and Swachh Bharat Abhiyaan have helped create large-scale changes on vital issues. While Beti Bachao Beti Padhao was focused on improving the child sex ratio and driving girl education, there is a need for a concentrated government-led effort to boost women's participation in the workforce, particularly in new-age STEM roles. A comprehensive campaign, like Japan's "Womenomics"⁸², using data-backed evidence to establish women's abilities and skills, should be developed to address gender stereotypes, highlight the benefits of women joining the workforce, and showcase women role models across fields, including STEM. This can help promote equality and create social change at scale.

4.2 Policy implementation

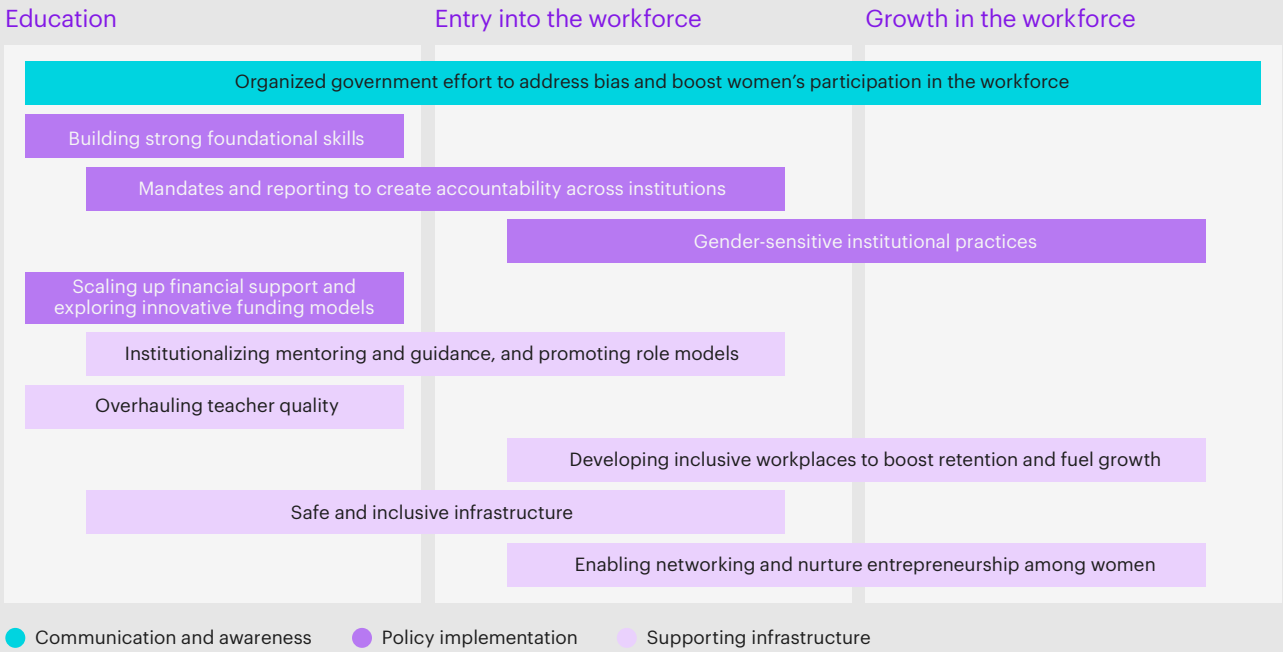
4.2.a Build strong foundational skills

The National Education Policy aims to overhaul STEM education through multidisciplinary learning options, vocational integration, local language programs, career counselling, and expanded digital resources. Drawing inspiration from Estonia's successful e-School system⁸³, which uses interactive and gamified learning, programs with a digital learning focus could revolutionize access to quality STEM education across India. Interventions similar to the Girlstart After School program⁸⁴ in the United States, which incorporates interactive workshops and experiential learning both within and beyond schools, are also essential to realize the NEP's vision. These interventions could include extracurricular activities, field visits, and competitions to spark curiosity and help girls envision STEM careers.

The NEP also proposes clustering schools, similar to the system in Finland⁸⁵, to pool resources and enhance education quality. Initiatives such as the Academic Bank of Credits, which allows educational re-entry after breaks, are expected to particularly benefit women in STEM. Although the policy is comprehensive, NEP's success depends on adequate funding, awareness, and implementation monitoring.

Figure 19

Solutions throughout women’s lives can help bridge the gender gap in STEM



Source: Kearney analysis

The NEP strongly advocates for allocating 6 percent of India’s GDP to education and setting up a gender inclusion fund to provide equitable quality education. However, the nation continues to allocate only about 4.6 percent to education—the lowest among the top five global economies⁸⁶. Hence, there is a pressing need for India to prioritize educational investment. Given the significant gender disparities in access to education and opportunities, gender-responsive budgeting (GRB) is crucial to ensure that these investments address the specific needs of women and girls. Presently, only 5 percent⁸⁷ of public expenditure is reported for GRB, and it is imperative to increase GRB for education to ensure that gender commitments translate to budgetary commitments for effective policy implementation.

While CSR initiatives exist to promote STEM education, they are often short-term and lack consistent vision. To make these efforts sustainable, continuous involvement of local government bodies such as Panchayats and planning support such as guidance on school development plans is critical to unlock organized funding through public channels and to foster a strong STEM culture within institutions.

While CSR initiatives exist to promote STEM education, they are often short-term and lack consistent vision.

4.2.b

Use mandates and reporting to create accountability across institutions

Mandates such as the supernumerary scheme in IITs and requirements for female representation on boards have proven effective in boosting women's participation in STEM and leadership roles. Expanding the supernumerary scheme to all educational institutions and extending the women representation mandate across all levels at the workplace through targeted hiring drives can create more opportunities for women in both education and careers. Additionally, mandated reporting of DEI initiatives and their impact would enhance transparency and accountability in advancing gender diversity. Advocacy for government tax incentives for companies that actively hire women in STEM can also encourage organizations to prioritize gender diversity within their workforce.

4.2.c

Develop gender-sensitive institutional practices

Implementing targeted workforce interventions is crucial for increasing women's participation and retention in STEM fields. This includes training hiring managers to avoid biases and mandating diverse interview panels with a fixed percentage of female candidates. Companies should also ensure that any attrition among women is addressed by hiring female replacements to maintain gender balance. Early career initiatives, such as management trainee programs, internships, exclusive job fairs, and grassroots community sourcing, are vital for building a strong pipeline of female talent. Programs that provide skill training and internships in underserved areas, such as TechSaksham, can also empower women. Retention efforts should focus on gender-sensitive and transparent promotion pathways.

On the research front, there is merit in scaling up women-specific grants and revisiting age barriers for grants to account for academic age instead of biological age to ensure gender parity. Government initiatives for returning women such as Women Scientists Scheme-A (WOS) should ensure that women's workforce participation continues beyond fixed-term projects, and advocacy at the global level is required to revisit bibliometric measures used for research grants so that they are gender-sensitive.

4.3 Support infrastructure

4.3.a

Scale up financial support and explore innovative funding models

Scaling up women-only coaching programs such as Udaan⁸⁸ and merit- or need-based scholarships such as Dr. Reddy's Foundation Sashakt Scholarship can encourage STEM education for girls. Implementing cash transfer programs such as those in Brazil and Turkey⁸⁹ and considering tuition subsidies such as those offered by select Vietnamese universities can also help alleviate financial burdens. Beyond this, innovative financial models such as Study Now and Pay Later using income sharing agreements (ISAs) or income contingent loans (ICLs) and social impact bonds are also worth exploring. Australia's HECS-HELP⁹⁰ government loan allows students to defer university fees until they reach a certain income level, while ISAs⁹¹ with several US universities provide funding in exchange for a fixed percentage of future income. Development impact bonds, such as the one launched by UBS Foundation⁹² and Educate Girls, engage private investors to fund education programs with returns linked to success. These models, combined with an open digital scholarship network that connects donors with deserving students, could streamline the financial aid process, enhance transparency, and ensure targeted support so that financial constraints do not hinder talent individuals, especially girls, from pursuing STEM education and careers.

4.3.b

Institutionalize mentoring and guidance, and promote role models

To boost women's participation in STEM fields, a comprehensive digital public infrastructure, similar to Singapore's SkillsFuture⁹³, can unify stakeholders, including students, mentors, institutions, employers, nongovernmental organizations, and government bodies. This type of platform could connect students, particularly in rural areas, with tailored career guidance and job opportunities. Central to this ecosystem is the role of mentors and role models at every stage of a woman's STEM journey. From early education through career advancement and leadership positions, mentors can provide crucial support in terms of building capabilities and aspirations, coaching on specific topics, offering guidance on financial resources, and providing access to relevant networks. Early interventions such as physical interactions, workshops, and assessments of girls' interests as early as class 7 and 8 are essential for guiding them toward STEM fields.

Programs such as the Indira Gandhi Delhi Technical University for Women initiative⁹⁴, where each female student mentors at least five girls from class 9 to 12, along with Tata Consultancy Services' goIT Girl⁹⁵ and IBM STEM for Girls⁹⁶ demonstrate the power of mentorship. These programs can be scaled across various educational institutions and organizations, providing continuous support for women entering STEM fields, returning after career breaks, and aspiring to leadership roles. Additionally, showcasing women role models in STEM and recognizing their achievements through dedicated awards can inspire more women to pursue and persist in STEM careers, as role models have been seen to inspire women in STEM careers more than men.⁹⁷ These role models serve not only as inspiration but also as potential mentors, creating a supportive network that nurtures women's progression in STEM from education through their professional lives.

4.3.c

Overhaul teacher quality

The success of initiatives such as multidisciplinary learning and Atal Tinkering Labs⁹⁸ hinges on having passionate, well-qualified teachers. Although it is a respected profession in India, teaching suffers from low salaries, poor working conditions, and limited professional development, making the profession less attractive. Revising the salary structure can help attract and retain talent; studies show that a 10 percent salary increase⁹⁹ boosts student performance by 0.2 points in math and English. Additionally, setting strict qualifications for both permanent and temporary teachers, capping the percentage of contractual faculty in private institutions, and promoting teachers based on student outcomes¹⁰⁰ can enhance education quality. Additionally, special drives for hiring more female STEM teachers can potentially increase interest and enrollment of girl students in STEM. A public-private initiative to train teachers in STEM and gender sensitivity will go a long way in reigniting their passion for teaching and busting stereotypes.

4.3.d

Develop more inclusive workplaces to improve retention and fuel growth

While several larger organizations have implemented measures to create a conducive workplace for women, strategic public-private partnerships that are focused on gender inclusivity can help institutionalize key interventions across all organizations, including smaller enterprises and start-ups. Best practices for developing an inclusive workplace include implementing gender sensitization workshops, promoting male allyship, and making the reporting of microaggressions more accessible. Investing in leadership development, returnship programs, and mentoring initiatives can help improve women's retention and growth. Furthermore, tailored internships and apprenticeships enable women to make more informed decisions about their roles and help break internal biases. Raising awareness and ensuring adherence to government mandates of gender-neutral policies such as parental leave, childcare infrastructure, flexible arrangements, and mentoring programs should be extended to all organizations to create equal work opportunities for women.

4.3.e

Create safe and inclusive infrastructure

Enhancing women's safety in public spaces and workplaces requires having more women in leadership positions to create gender-sensitive policies. Initiatives such as having more women officers in public transport and offering women-driven cab services can foster a sense of security, while proactive safety measures, including alert buttons and rapid-response squads such as the Bhopal Police's Nirbhaya Vans¹⁰¹, can ensure strict adherence to safety protocols. Additionally, community-driven programs such as collective travel to educational centers and residential initiatives, such as those by NavGurukul and Sajhe Sapne, can offer safety in numbers and build more supportive networks. Expanding these services and ensuring quick response times will enhance women's safety and public participation. In addition, measures such as installing CCTV cameras and deploying female security personnel can help develop a more secure environment for women at their workplaces.

4.3.f

Enable networking and nurture entrepreneurship among women

A variety of programs offer training, mentorship, resources, and professional opportunities to women in STEM and entrepreneurship, such as Goldman Sachs' 10,000 Women¹⁰², Google's Women Will¹⁰³, and Women in Big Data.¹⁰⁴ These networks create a supportive ecosystem that nurtures and empowers women and act as platforms to enable women to explore and access professional opportunities. They are also sources that organizations can tap into for diverse STEM talent. Similarly, networking opportunities such as conferences and industry-agnostic events connect women across sectors, enabling collaboration and the exchange of ideas. Hackathons and entrepreneurship programs can also play a pivotal role by encouraging companies to develop solutions to women-specific challenges, such as creating affordable safety buttons for public transport. By linking these initiatives with an infusion of capital through women-specific start-up funds and connecting participants to experts who can refine their solutions, India can accelerate the development and implementation of impactful innovations designed by women, for women.

It's time to close the gap

Across all of these potential solutions, effective public-private partnerships, control and measurement mechanisms, and concentrated marketing efforts will be crucial success factors. It is imperative for every individual and organization to reflect on the participation of women in STEM at a local and national level, identify the impediments and internal biases that have created the gender gap, and move beyond the dialogue on women in STEM to challenge the landscape and bring about real change.

It is imperative for every individual and organization to reflect on the participation of women in STEM at a local and national level.

Notes

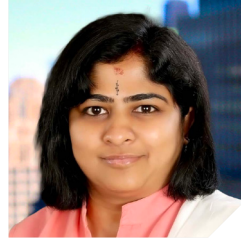
- ¹ <https://www.thehindu.com/education/how-after-school-programmes-can-help-close-the-gaps-in-stem-education/article67140960.ece>
- ² <https://sdgs.un.org/goals/goal5>
- ³ <https://www.weforum.org/publications/global-gender-gap-report-2023/>
- ⁴ <https://aishe.gov.in/aishe-final-report/>
- ⁵ https://nces.ed.gov/programs/digest/d22/tables/dt22_318.45.asp
- ⁶ <https://ec.europa.eu/eurostat/de/web/products-eurostat-news/w/ddn-20240308-2>
- ⁷ <https://timesofindia.indiatimes.com/india/why-the-gender-gap-is-worse-in-stem/articleshow/101995032.cms>
- ⁸ <https://docs.iza.org/dp11908.pdf>
- ⁹ <https://iwage.org/wp-content/uploads/2024/02/Women-in-STEM-Challenges-and-Opportunities-in-India-Report.pdf>
- ¹⁰ <https://www.euronews.com/next/2023/06/29/womens-jobs-will-be-disproportionately-affected-by-ai-according-to-new-research>
- ¹¹ <https://www.elibrary.imf.org/view/journals/022/0054/003/article-A014-en.xml?ArticleTabs=fulltext>
- ¹² <https://news.microsoft.com/europe/features/if-we-want-more-girls-in-stem-its-our-responsibility-to-inspire-them/>
- ¹³ <https://www.forbes.com/councils/forbesbusinesscouncil/2023/08/16/the-power-of-diversity-and-inclusion-driving-innovation-and-success/>
- ¹⁴ <https://hbr.org/2013/12/how-diversity-can-drive-innovation>
- ¹⁵ <https://economictimes.indiatimes.com/tech/technology/low-pay-and-schedule-biggest-deterrents-for-indian-women-in-stem/article-show/98674144.cms>
- ¹⁶ <https://sdgs.un.org/goals/goal4>
- ¹⁷ <https://unesdoc.unesco.org/ark:/48223/pf0000389406>
- ¹⁸ <https://www.worldbank.org/en/topic/gender/publication/the-equality-equation-advancing-the-participation-of-women-and-girls-in-stem>
- ¹⁹ <https://unesdoc.unesco.org/ark:/48223/pf0000253479>
- ²⁰ <https://www.weforum.org/publications/global-gender-gap-report-2023/in-full/gender-gaps-in-the-workforce/>
- ²¹ <https://data.uis.unesco.org/>
- ²² https://www.education.gov.in/statistics-new?shs_term_node_tid_depth=380
- ²³ <https://www.weforum.org/agenda/2023/03/which-countries-students-are-getting-most-involved-in-stem/>
- ²⁴ <https://aishe.gov.in/aishe-final-report/>
- ²⁵ <https://timesofindia.indiatimes.com/india/why-the-gender-gap-is-worse-in-stem/articleshow/101995032.cms>
- ²⁶ https://ias-cms.s3.ap-south-1.amazonaws.com/F2_1_Corporate_India_Women_on_Boards_Nov_2022_19912556cb.pdf
- ²⁷ <https://economictimes.indiatimes.com/jobs/c-suite/one-in-five-board-members-at-india-inc-is-now-a-woman/articleshow/104535032.cms?from=mdr>
- ²⁸ <https://sansad.in/getFile/annex/262/AU2210.pdf?source=pqars#:~:text=As%20per%20the%20latest%20statistics,16.6%25%20in%202018%E2%80%9319>
- ²⁹ <https://unesco.go.ke/stem-girls-boot-camp/#:~:text=The%20Kenya%20National%20Commission%20for,14%2D16th%20August%202023.>
- ³⁰ https://www.etui.org/sites/default/files/2023-01/05_The%20EU%20Gender%20Equality%20Strategy%202020-2025%20the%20beginning%20of%20a%20new%20season.pdf
- ³¹ <https://www.industry.gov.au/publications/advancing-women-stem-strategy>
- ³² <https://iuk.ktn-uk.org/programme/women-in-innovation/>
- ³³ <https://www.aicte-india.org/schemes/students-development-schemes#:~:text=Pragati%20percent20Scholarship,50000%20percent20as%20percent20incidentals%20percent20each%20percent20year.>
- ³⁴ <https://www.loreal.com/en/india/articles/commitments/the-india-for-young-women-in-science-scholarship-programme/>
- ³⁵ <https://pib.gov.in/Pressreleaseshare.aspx?PRID=1886841>
- ³⁶ <https://www.ibm.com/blog/stem-for-girls-shaping-womens-education-and-careers-in-india/>
- ³⁷ <https://timesofindia.indiatimes.com/india/four-years-on-20-womens-quota-fully-filled-in-most-iits/articleshow/93668336.cms>
- ³⁸ <https://dst.gov.in/pressrelease/curie-initiative-dst-enhancing-research-facilities-women-universities>
- ³⁹ [https://www.aicte-india.org/sites/default/files/MoU/SOI%20\(Clean%20Version\)%20Sep_09_TechSaksham%20-%20signed.pdf](https://www.aicte-india.org/sites/default/files/MoU/SOI%20(Clean%20Version)%20Sep_09_TechSaksham%20-%20signed.pdf)
- ⁴⁰ <https://pib.gov.in/PressReleaseframePage.aspx?PRID=2025355>
- ⁴¹ <https://dst.gov.in/sites/default/files/Brief%20Statement%20of%20Activity%202023-24%20English.pdf>
- ⁴² <https://www.moneycontrol.com/news/business/trailblazing-truckers-women-steer-monster-trucks-in-tata-steels-drive-for-diversity-12426231.html>
- ⁴³ <https://vedantaaluminium.com/media/press-releases/list/vedanta-launches-project-panchi-for-recruiting-1000-girls-from-underserved-communities-nationally-in-odisha/>
- ⁴⁴ <https://pib.gov.in/PressReleaseframePage.aspx?PRID=1985995>
- ⁴⁵ <https://www.womenentrepreneursreview.com/news/women-leadership-in-stem-programme-launched-by-birac-nwid-4174.html>
- ⁴⁶ <https://www.vogue.in/content/how-the-indian-women-scientists-association-defined-a-feminist-future-within-stem>
- ⁴⁷ <https://www.sattva.co.in/ski/barriers-to-breakthroughs-encouraging-girls-participation-in-stem-education/>
- ⁴⁸ <https://aif.org/the-3-biggest-reasons-that-indias-girls-drop-out-of-school/>
- ⁴⁹ <https://educationforallinindia.com/dropout-rates-in-schools-in-india/>
- ⁵⁰ <https://www.hindustantimes.com/india-news/25-teens-in-age-group-14-18-can-t-read-grade-2-text-fluently-aser-report-101705477288545.html>
- ⁵¹ https://www.education.gov.in/sites/upload_files/mhrd/files/statistics-new/udise_21_22.pdf
- ⁵² https://data.worldbank.org/indicator/SE.SEC.ENRL.UP.TC.ZS?most_recent_value_desc=true
- ⁵³ <https://www.sciencedirect.com/science/article/pii/S0738059322000414#:~:text=The%20percent20results%20indicate%20that%20percent20female,is%20not%20percent20observed%20for%20percent20men.>
- ⁵⁴ <https://www.unesco.org/en/equality/and-through-the-teaching-profession>
- ⁵⁵ <https://www.gsma.com/r/wp-content/uploads/2024/05/The-Mobile-Gender-Gap-Report-2024.pdf>
- ⁵⁶ <https://timesofindia.indiatimes.com/blogs/voices/why-vernacular-content-in-education-is-essential/>
- ⁵⁷ <https://www.hindustantimes.com/india-news/25-teens-in-age-group-14-18-can-t-read-grade-2-text-fluently-aser-report-101705477288545.html>
- ⁵⁸ <https://www.sattva.co.in/ski/barriers-to-breakthroughs-encouraging-girls-participation-in-stem-education/>
- ⁵⁹ <https://news.microsoft.com/europe/2020/03/06/heads-up-why-female-role-models-matter/>
- ⁶⁰ <https://data.unicef.org/resources/ending-child-marriage-a-profile-of-progress-in-india-2023/>
- ⁶¹ <https://labour.gov.in/sites/default/files/pib2004075.pdf>

- ⁶² <https://unesdoc.unesco.org/ark:/48223/pf0000253479>
- ⁶³ <https://cacmb4.acm.org/news/277759-sexual-harassment-gender-bias-against-women-in-stem-remains-ripe-study-finds/fulltext>
- ⁶⁴ <https://www.weforum.org/agenda/2020/02/stem-gender-inequality-researchers-bias/>
- ⁶⁵ <https://www.undp.org/sites/g/files/zskgke326/files/2024-03/Women%20in%20STEM%20Asia%20Pacific%20Study%2C.pdf>
- ⁶⁶ <https://www.ibef.org/blogs/the-diversity-equity-inclusion-de-i-landscape-in-india>
- ⁶⁷ https://www.kellyservices.com.sg/media/kelly-services-sg/client/women_in_stem.pdf
- ⁶⁸ <https://www.sattva.co.in/ski/barriers-to-breakthroughs-encouraging-girls-participation-in-stem-education/>
- ⁶⁹ https://www.orfonline.org/wp-content/uploads/2021/05/ORF_Monograph_WomenOnTheMove.pdf
- ⁷⁰ <https://www.thehindu.com/news/national/karnataka/poor-response-to-rule-on-panic-button-and-tracking-device/article68214496.ece>
- ⁷¹ [https://www.forbesindia.com/blog/public-good/how-building-school-toilets-can-keep-our-girls-in-school/#:~:text=A%202020%20survey%20of%201%2C967,General%20of%20India%20\(CAG\).](https://www.forbesindia.com/blog/public-good/how-building-school-toilets-can-keep-our-girls-in-school/#:~:text=A%202020%20survey%20of%201%2C967,General%20of%20India%20(CAG).)
- ⁷² <https://www.britsafe.in/safety-management-news/2023/toilet-trouble-how-india-s-female-workers-face-inadequate-sanitation-at-work>
- ⁷³ <https://www.econstor.eu/bitstream/10419/248862/1/GLO-DP-1023.pdf>
- ⁷⁴ <https://www.bizjournals.com/bizwomen/news/profiles-strategies/2024/01/new-study-highlights-what-women-in-stem-want.html>
- ⁷⁵ <https://cacmb4.acm.org/news/277759-sexual-harassment-gender-bias-against-women-in-stem-remains-ripe-study-finds/fulltext>
- ⁷⁶ <https://economictimes.indiatimes.com/opinion/et-editorial/tech-sec-be-more-gender-savvy/articleshow/105601740.cms>
- ⁷⁷ <https://phys.org/news/2023-05-gender-gap-grant-award-amounts.html>
- ⁷⁸ https://www.kellyservices.com.sg/media/kelly-services-sg/client/women_in_stem.pdf
- ⁷⁹ <https://hbr.org/2014/08/why-women-dont-apply-for-jobs-unless-theyre-100-qualified>
- ⁸⁰ <https://nasscom.in/knowledge-center/publications/dei-landscape-india-inc-bridging-gap-between-rhetoric-and-reality>
- ⁸¹ <https://yourstory.com/herstory/2022/04/linkedin-report-women-quit-flexibility>
- ⁸² <https://sgp.fas.org/crs/row/R43668.pdf>
- ⁸³ https://www.oecd-ilibrary.org/education/strengthening-the-governance-of-skills-systems_298d6678-en;jsessionid=Oll_jjC_D9NfiA5pdh-hlZNj-zSImVhs4xN7D1VyS.ip-10-240-5-78
- ⁸⁴ <https://girlstart.org/>
- ⁸⁵ <https://unesdoc.unesco.org/ark:/48223/pf0000159776>
- ⁸⁶ <https://www.financialexpress.com/jobs-career/education-budget-2024-indias-education-spend-lowest-amongst-top-5-global-economies-find-out-why-353251/>
- ⁸⁷ <https://www.orfonline.org/research/gender-responsive-budgeting-in-india-a-stocktaking#:~:text=In%20terms%20of%20the%20government's,-to%20INR%2088%2C044.21%20this%20year>
- ⁸⁸ <https://vikaspedia.in/education/policies-and-schemes/scholarships/udaan-a-program-to-give-wings-to-girl-students>
- ⁸⁹ <https://www.aile.gov.tr/uploads/sygm/uploads/pages/arastirma-raporlari/policy-paper-on-improving-conditional-cash-transfer-programme-in-turkey-collaboration-with-unicef.pdf>
- ⁹⁰ <https://www.deakin.edu.au/study/fees-and-scholarships/government-help-schemes/hecs-help#:~:text=HECS%2DHELP%20is%20an%20Australian,loan%20from%20your%20employment%20income>
- ⁹¹ <https://socialfinance.org/wp-content/uploads/2022/11/Workforce-Realigned-The-Emergence-of-Income-Share-Agreements-Dubravka-Ritter-Doug-Webber.pdf>
- ⁹² <https://www.ubs.com/global/en/sustainability-impact/social-impact-and-philanthropy/optimus-foundation/our-impact/development-impact-bond.html>
- ⁹³ https://www.skillsfuture.gov.sg/docs/default-source/skills-framework/sfw_tae_booklet_20181101_finalv01.pdf?sfvrsn=95b14440_3
- ⁹⁴ <https://csd.igdtuw.ac.in/assets/images/publication/sdg.pdf>
- ⁹⁵ <https://studyworkgrow.com/experience/goit-girls-work-experience-program/>
- ⁹⁶ <https://www.ibm.com/blog/stem-for-girls-shaping-womens-education-and-careers-in-india/>
- ⁹⁷ <https://www.cwjjobs.co.uk/advice/importance-of-female-role-models-in-stem>
- ⁹⁸ <https://aim.gov.in/atl.php>
- ⁹⁹ https://www.realclearscience.com/articles/2022/03/22/when_public_school_teachers_are_paid_more_students_perform_better_822893.html
- ¹⁰⁰ <https://www.nber.org/papers/w15323>
- ¹⁰¹ <https://www.wricitiesindia.org/sites/default/files/Women%27s%20Safety.pdf>
- ¹⁰² <https://www.goldmansachs.com/citizenship/10000women/>
- ¹⁰³ <https://womenwill.google/>
- ¹⁰⁴ <https://www.womeninbigdata.org/>

Authors



Nidhi Tiwari
Partner, Mumbai
nidhi.tiwari@kearney.com



Barathi Srinivasan
Partner, Bengaluru
barathi.srinivasan@kearney.com



Nivedita Sinha
Principal, Bengaluru
nivedita.sinha@kearney.com



Amrita Trehan
Consultant, Mumbai
amrita.trehan@kearney.com



Aryan Mittal
Consultant, Gurugram
aryan.mittal@kearney.com

The authors would like to extend gratitude to Saumya Krishna, Nishant Nishchal, Rutvi, Jahnvi Jaipuriyar, Pranav Jain, and Nilanjana Rajkhowa from Kearney for their contributions to this report.



About Confederation of Indian Industry

The Confederation of Indian Industry (CII) works to create and sustain an environment conducive to the development of India, partnering Industry, Government and civil society, through advisory and consultative processes.

For more than 125 years, CII has been engaged in shaping India's development journey and works proactively on transforming Indian Industry's engagement in national development. CII charts change by working closely with Government on policy issues, interfacing with thought leaders, and enhancing efficiency, competitiveness and business opportunities for industry through a range of specialized services and strategic global linkages. It also provides a platform for consensus-building and networking on key issues.

In the journey of India's economic resurgence, CII facilitates the multifaceted contributions of the Indian Industry, charting a path towards a prosperous and sustainable future. With this backdrop, CII has identified "Globally Competitive India: Partnerships for Sustainable and Inclusive Growth" as its Theme for 2024-25, prioritizing 5 key pillars. During this year, it would align its policy recommendations, initiatives, and activities with this overarching framework to facilitate strategic actions for driving India's global competitiveness and growth through a robust and resilient Indian Industry.

With 70 offices, including 12 Centres of Excellence, in India, and 8 overseas offices in Australia, Egypt, Germany, Indonesia, Singapore, UAE, UK, and USA, as well as institutional partnerships with about 300 counterpart organizations in almost 100 countries, CII serves as a reference point for Indian industry and the international business community

www.cii.in

About Kearney

Kearney is a leading global management consulting firm. For nearly 100 years, we have been a trusted advisor to C-suites, government bodies, and nonprofit organizations. Our people make us who we are. Driven to be the difference between a big idea and making it happen, we work alongside our clients to regenerate their businesses to create a future that works for everyone.

kearney.com

For more information, permission to reprint or translate this work, and all other correspondence, please email insight@kearney.com. A.T. Kearney Korea LLC is a separate and independent legal entity operating under the Kearney name in Korea. A.T. Kearney operates in India as A.T. Kearney Limited (Branch Office), a branch office of A.T. Kearney Limited, a company organized under the laws of England and Wales. © 2024, A.T. Kearney, Inc. All rights reserved.



KEARNEY



Confederation of Indian Industry

KEARNEY