# Women Techmakers India Research Report

Google

Women Techmakers

1.

# Background

Google's Women Techmakers commissioned this study to gain a clearer picture of Indian women's involvement in and experience with the tech industry.

With the knowledge gained, we hope to get a better understanding of how to:

**Support women interested in beginning a career in tech.**

**Help those already working in the industry stay in the field, continue to grow, and successfully climb the corporate ladder.**

**Empower women build their own startups.**

India's tech industry employs 10 million people. Women make up 34% of employees. The higher up in organizational structure you go, however, the lower the percentage of women you'll find. While women hold 40% of entry-level tech jobs, they hold 30% of mid-level positions and only 20% of senior-level roles.

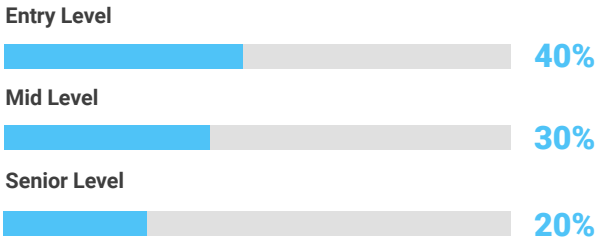
Aware of the gender divide in India's tech industry, many companies, schools, and state governments are working to bring balance to the domain. These groups are undertaking numerous initiatives including college admissions quotas for women students, women-centric workplace policies, and personal safety measures, all designed to remove barriers for women in tech.

It is hoped that these measures will not only encourage more women to pursue tech, but will empower them to take on a wider variety of roles within the industry.

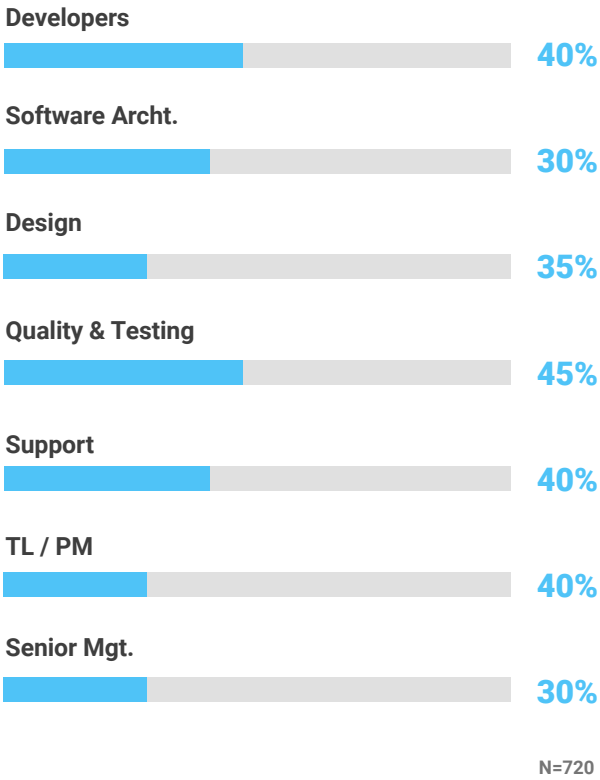
At present, women often take on roles considered to be "less demanding," like quality control and testing (45%).
This is followed by support, project management, and contrary to expectation, software development (women hold 40% of jobs in each of these fields).

When it comes to tech entrepreneurship, women make up a mere 10%. In getting a clear picture of the industry, we can help bring about gender parity in this aspect of tech workplace, as well as in the field at large.

**Average share of women (vs men) in the total tech workforce across levels**




**Average share of women (vs men) in the total workforce across different roles and domains**

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## 2.

# Methodology

For this study, we interviewed a wide range of individuals spanning a diversity of career level, field of study, and geographic location.

**Our interviewees included: women professionals, women tech students, HR managers in tech firms, sociologists, government officials, and women entrepreneurs. A total of 960 quantitative interviews and 48 in-depth, qualitative interviews were conducted across the following areas*:**

Delhi National Capital Region
Bangalore
Cochin
Chennai
Hyderabad
Kolkata
Mumbai
Pune

**Respondents Covered**

| Total in-depth interviews in Pune and Bangalore | |
|---|---|
| Entry level female professionals | 6 |
| Mid level female professionals | 6 |
| Senior level female professionals | 6 |
| Female students | 6 |
| HR managers, Sociologists and Government officials | 14 |
| Entrepreneurs | 4 |
| Additional IDIs with developers (Delhi NCR, Cochin, Chennai, Hyderabad, Kolkata and Mumbai) | 6 |
| **TOTAL** | **48** |

| Total Quantitative Interviews | |
|---|---|
| Entry level female professionals | 240 |
| Mid Level female professionals | 240 |
| Senior level female professionals | 240 |
| Female students | 240 |
| **TOTAL** | **960** |

3.

# Barriers to working in tech

## Academic

**Women make up 29% of all Indian students enrolled in tech courses at the undergraduate level, and 40% at the graduate level. Of students going abroad for STEM courses, 31% are women.**

Boosting these numbers necessitates early intervention. 35% of students set their educational goals by age 16, when they reach the milestone of finishing class 10, and 26% decide which course of study to pursue by age 18, at the end of class 12. Since self-interest is, according to this study, a major factor in most students' decisions to pursue a career in technology, STEM exposure and education needs to occur in secondary school, or even junior college, before girls become too acclimatized to negative societal biases regarding STEM and women. Such education can have a ripple effect. Interviewees reported that seeing a sibling or cousin pursue tech often factored into their own decision to take up studies in the field.

In addition to a lack of early exposure, financial concerns may also deter women from pursuing tech-related majors.

Educational expenses are one of the main reasons students don't leave their hometowns for college. In these cases, students often are forced to take available courses instead of those that best suit their areas of interest.

## Societal

**Some of the greatest roadblocks to women pursuing tech careers are societal.**

One such roadblock is the cultural expectation that Indian women should be their family's primary caregiver. 65% of women report that family priorities, whether related to their children, husband, or elders, is the leading barrier to their advancement in the tech industry. Unless their companies have policies to help them balance family and work, women often take on less challenging roles or decide not to come back after family- or pregnancy-related sabbaticals. This contributes to the perception that women won't be able to prioritize the demands of work over family.

> *"Many times, we are not given an opportunity in the first place on account of pre-national assumption that we would not be able to handle a full time leadership commitment along with other priorities."*
>
> **Senior employee, Indian MNC**

For these reasons, and in general, women feel they're underestimated in the workplace and have to prove it time and again that they're as capable as their male counterparts. These biases have a particularly potent effect when it comes to entrepreneurship.

About 60% of women interviewed said Indian culture's presumption that men are the decision makers, especially when it comes to money, is one of the reasons why they don't pursue creating their own startup.

Societal stereotypes often affect women's self-confidence, and even if a woman decides to start her own company, biased perceptions makes it hard for her to network and secure funding.

> *"Women have to prove it harder than a men."*
>
> **A 69 years old Entrepreneur**

## Workplace

**Workplace-related societal biases begin having an effect while women are still in school. 46% of tech students interviewed said they'd heard of instances where women and men were not given equal opportunities in the workplace.**

About 50% of women students prefer to avoid these biases altogether by opting for "less challenging" tech roles. Additionally, nearly 30% of women students believe tech recruitment is biased towards men.

One of the potential reasons recruitment is biased is because of the cost of security measures needed for women in the workplace. Working late or commuting during off-hours poses a safety risk to women. As a result, in-office security guards, as well as guard or cab services for commutes, are a necessity when women work late. Even with such measures in place, women still feel concerned for their safety. As tech roles often require long or late hours, this poses a significant problem.

Safety isn't women's only concern in the workplace. Interviewees reported gender bias in their workplace, especially when it came to travel and promotion opportunities, remuneration, and assigned responsibilities. These biases became more pronounced the higher women ascended the corporate ladder. At entry and mid level, 25% of women tech professionals felt they faced competency-based biases, but at the senior level, this number rose to 44%.

4.

# Existing resources & aid

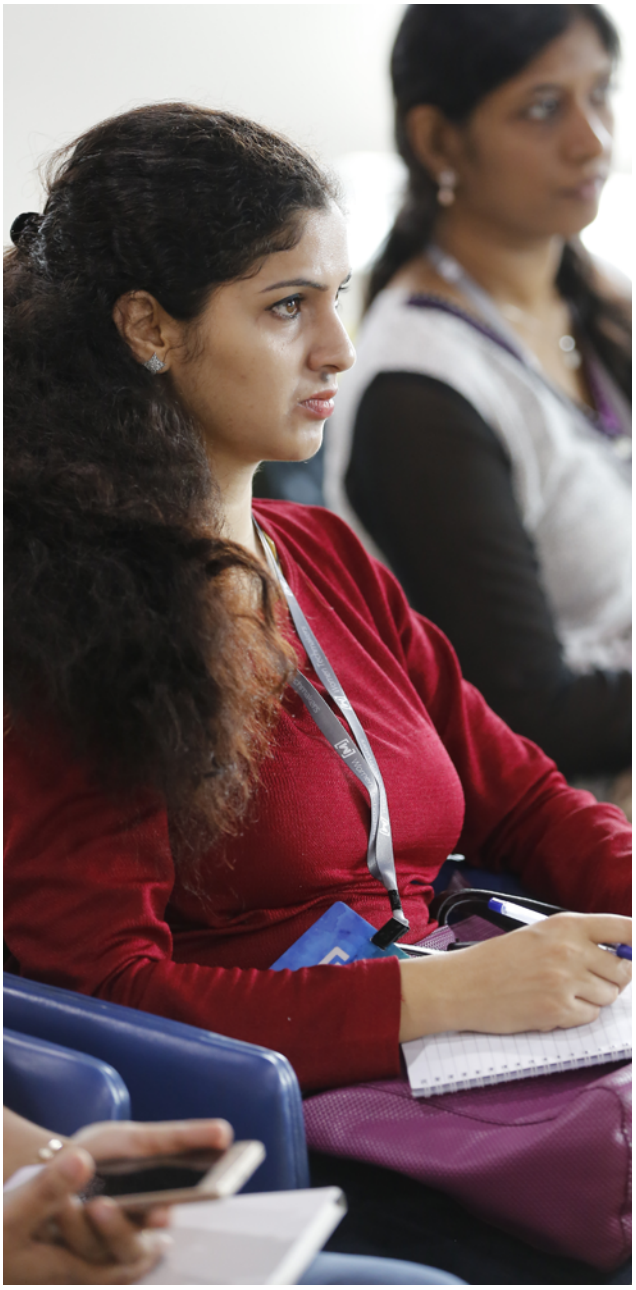

## Institutional Initiatives

Governments and universities are starting to make headway in getting more Indian women into tech. Many colleges, as well as some state governments, now have admissions quotas designed to enroll more women students. In order to provide additional incentive, some colleges even decrease the cost of classes for women pursuing tech studies.

Once they're enrolled in college, the vast majority of women students (97%) find great benefit in additional programs offered by colleges, namely seminars and workshops hosted by industry professionals and company visits and presentations. Such events give students a good understanding of how they may fit into a given company and help prepare them for the workforce. These measures, along with many initiatives undertaken by corporations, are making the Indian tech industry more accessible to women.

## Corporate Programs

**Aware of the issues that women face, many corporations are working to bring gender balance to their companies. Although 92% of interviewees were unaware of women-specific recruitment drives, several organizations do have them.**



In addition, many corporations have a range of programs designed to make the tech workplace more women-friendly. One main area of focus is helping women balance their work life and family obligations. To achieve this goal, companies offer programs such as flexible working hours, in-house or discounted childcare, and paid maternity leave, as well as initiatives that help women smoothly return from sabbaticals, which women sometimes take to attend to family care demands.

Beyond work-life balance, many large tech companies have programs specifically designed to help women grow and advance in their career. Several companies have mentorship programs that pair mid-level employees with senior-level mentors, and a handful even offer growth-oriented classes in leadership, safety-centric courses like self-defense and fitness, and more.

Companies also recognize how women's safety is impacted by late working hours. Despite the cost this incurs, many corporations offer cab services or security guards to ensure women are protected when working or commuting late. In addition, most corporations have stringent anti-harassment policies and systems to deal with any related issues.

This robust array of programs is having a positive effect. 76% of women tech professionals interviewed said they feel satisfied with the workplace support they receive.

## Communities and Networking

A large number of communities and nonprofits exist in the tech sphere. This includes a number of women-focused ones such as Google's Women Techmakers, the Anita Borg Institute, and Girls in Tech. These communities offer conferences, hackathons, mentorship, and more.

Women Techmakers

WOMEN WHO CODE

pyladies

ANITA BORG INSTITUTE
WOMEN TRANSFORMING TECHNOLOGY

Hexagon

Despite the opportunities and resources offered by these communities, most women professionals (83%) are not involved with them. This low participation rate most often derives from a lack of awareness (59%) or the feeling that community involvement is a lower priority than work and home obligations.

LEAN IN
Women in Tech India

## Continuing Education

To keep their industry knowledge up to date, women tech professionals most often turn to online reading. The accessibility of this option contributes to its popularity, with 76% of respondents utilizing it. The second and third most popular means of keeping skills fresh are third-party workshops or seminars (45%), often held at workplaces, and tech forums such as CNET and TechCrunch (43%). Close behind at 42% is learning from one's peers and coworkers.

## 5.

# What next?

While the results of this study are encouraging, there's still a lot of work that can be done to improve women's engagement in India's tech industry. Here are a few of the ways to have an impact:

**In Education:**

**Increase exposure & awareness** to/of the tech industry and opportunities within it, starting in secondary school or junior college.

**Institute widespread scholarships and school quotas** that help women applying to tech-related majors.

**Offer enrichment opportunities** in college like career guidance, internship help, workshops, seminars, and entrepreneurship events.

**In the Workplace:**

**Increase women-friendly policies industry-wide**, including robust programs for child care, re-entry after sabbaticals, flexible work hours, work from home, and women's security, as well as strictly written and enforced anti-harassment policies.

**Cultivate community** through in-person and online forums and mentorship programs.

**Women-centric recruitment programs** should be developed and promoted.

**Institute unconscious bias training** for all employees.

**In the Industry At Large:**

**Help women tech workers connect with each other** so they can share experiences, ask questions, get advice, and network. This can be done online or in-person, and can take the form of forums, blogs, corporate partnerships, mentorship programs, and more.

**Encourage venture capitalists to invest in women-founded startups** to combat current fundraising roadblocks faced by women entrepreneurs.

**Encourage women to write about their experiences online** since women are more apt to engage there than in offline communities.

Implementing changes such as these will not only help attract more women to India's tech industry, it will help retain women employees and pave the way for women to take on more challenging roles. With time, smart policies, and deliberate effort, we can make India's tech industry more women-friendly and empower women to succeed in all areas of the tech landscape.