

POLICY BRIEF

Unlocking young women's economic potential through digital mentoring in India

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Executive Summary

Imagine a room full of university students in India: young men and women sitting shoulder to shoulder in equal numbers. Fast forward 10 years: 8 out of those 10 men are likely to be active in the work force compared to only 3 out of 10 of the women. This example illustrates one of the great conundrums of India's female labor force participation: a low and rapidly declining participation rate (even before the COVID-19 pandemic) despite economic growth and women's increasing enrollment in tertiary education. This policy brief demonstrates how a digital mentoring policy and practice ecosystem could attract a range of stakeholders to support the transition of young Indian women from tertiary education into the labor force.

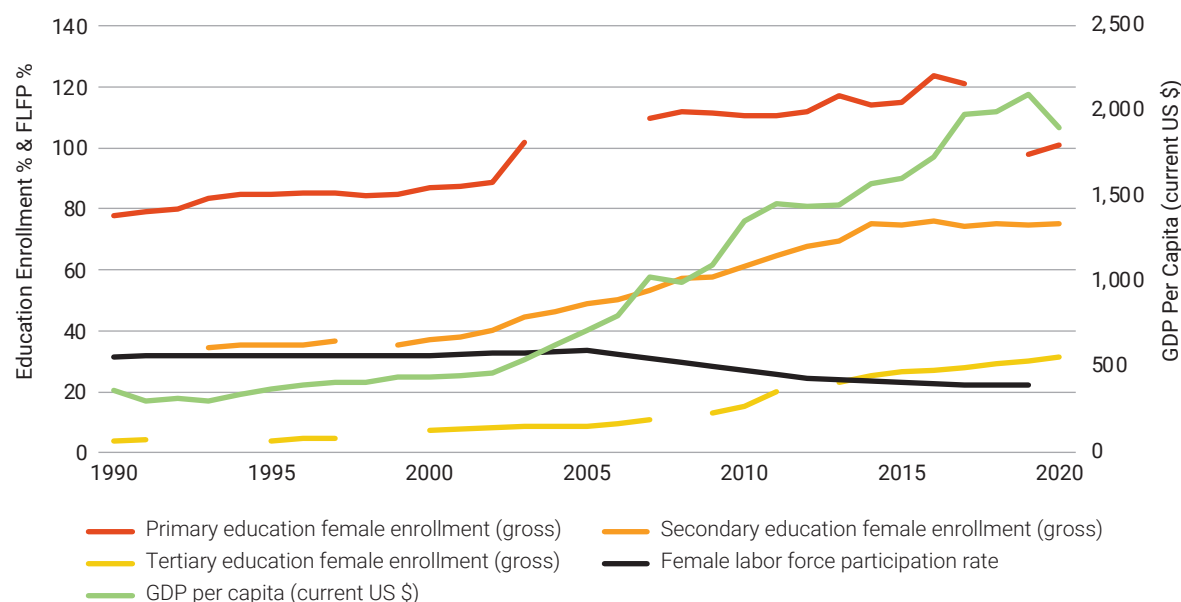
Young women in India face numerous and intersecting challenges that affect their workforce participation, chief among them, the triple impact of a skills deficit, a network gap, and restrictive gender norms that limit women's work readiness and career aspirations. Making demonstrable changes in women's labor participation in India hinges upon interrupting these three threats. This policy brief, based on a case study of the Mentor To Go program implemented with 1,000 young people between March 2020 to April 2021, demonstrates how digital mentoring reached marginalized girls across India and helped them acquire work readiness skills, connect with a diverse mentor network, and experience more egalitarian gender norms, thus showing promise to tackle all three problems. Building from the findings, recommendations are specified for policies and practices to improve the ecosystem of stakeholders and stakeholder-driven support to promote female labor force participation.

The three to four years of tertiary education offer government, educators, employers, and civil society together a unique opportunity to empower young women through skills, networks, and norm changes. The return on investment of 15 cumulative years of education will be much higher when we ensure that young women can transition into and thrive in the labor force.

A conundrum: More women in India have access to education, yet fewer are participating in the labor force

Despite significant economic growth and advances in girls' participation in primary, secondary, and tertiary education (defined in appendix A), in India over the last 30 years, there has not been commensurate progress in the economic empowerment of women. In fact, female labor force participation (FLFP; defined in appendix A) has been declining steadily since 2005 (see Figure 1).

FIGURE 1: Economic growth and female participation in education and the labor force



Source: School enrollment, primary, female (% gross)—India; School enrollment, secondary, female (% gross)—India; School enrollment, tertiary, female (% gross)—India; and GDP per capita (current US\$)—India all from World Bank 2020. Labor force participation rate, female (% of female population ages 15-64) (modeled ILO estimate) from World Bank 2019.

Note: Gross enrollment consists of all students enrolled in a particular education level regardless of age, in relation to the population of the official age group at that level; thus, the rate can exceed 100 percent. Gross enrollment is used here instead of net because of the greater availability of data. Gaps in the lines indicate periods for which no data are available.

As Figure 1 shows, primary school enrollment of girls in India is almost at universal levels, and secondary school enrollment reached 75.2 percent in 2020. Tertiary education enrollment saw a dramatic 678 percent increase over the last 30 years; by 2020, nearly one in three women in India in the tertiary education age-group was studying. Yet in this same period, despite a backdrop of comprehensive economic liberalization across sectors of the economy that has increased gross domestic product (GDP) per capita by 73 percent, FLFP *plunged* by more than 42 percent—a loss of two out of every five women working. India’s current FLFP rate is less than half the average for low-and middle-income countries.

HOW WOULD INDIA BENEFIT FROM GREATER PARTICIPATION OF WOMEN IN THE ECONOMY?

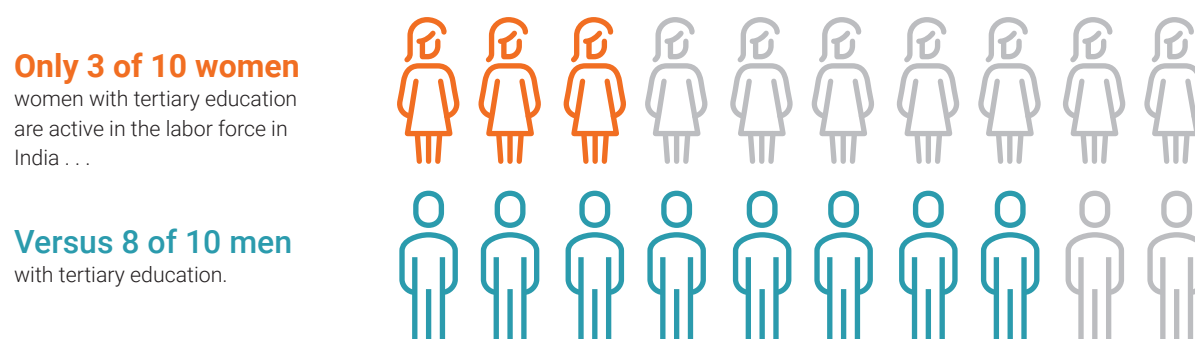
Gender equality in the labor force is more than an end in itself; it is also a way to empower women and achieve a more prosperous society. If women worked at the same rate as men, India’s GDP would be 43 percent higher (Roy and Mukhopadhyay 2019). Women who work have more say in household decision-making (Fletcher, Pande and Moore 2017) and can delay their age at marriage and the birth of the first child (Sivasankaran 2014)—effects that can spill over to the extended family and to the next generation: sisters of women who have worked longer marry

later (Sivasankaran 2014), children of women who work spend more time in school (Qian 2008), and villages with women leaders see fewer cases of female infanticide (Kalsi 2017).

NUMEROUS BARRIERS DETER INDIAN WOMEN FROM PARTICIPATING IN THE LABOR FORCE.

Women in India face numerous challenges to entering and staying in the labor force. On the one hand, supply-side issues like economic growth without the expected increase in jobs, lack of jobs in rural areas for women moving out of agriculture, poor public infrastructure, insecurity, and lack of adequate child-care limit women’s economic participation. On the other hand, demand-side issues include social norms that emphasize women’s caregiving role, lack of enabling family environments, aspirations influenced by gendered norms about work, and higher job-search costs (Table 1). These demand-side constraints are particularly problematic for young women in tertiary education, who, despite studying for advanced degrees, struggle to enter and remain in the labor force (Figure 2). The disparity in male and female labor force participation among those with tertiary education is striking, especially when we consider that young men and women participate in tertiary education in roughly equal numbers (AISHE 2020).

FIGURE 2: Far more men than women with tertiary education are active in the labor force



Source: Labor force with advanced education, female (% of female working-age population with advanced education)—India, World Bank (2019). Labor force with advanced education, male (% of male working-age population with advanced education)—India, World Bank (2019).

TABLE 1: Women in India confront a skills deficit, a network gap, and the lack of enabling gender norms

CHALLENGE	EVIDENCE
Deficit of 21 st century work-readiness skills.	<p>The knowledge and skills that young women gain through the formal education curriculum do not prepare them for the jobs of the future.</p> <p>Nearly 50 percent of what is learned in the first year of a four-year technical degree will be outdated by the time students graduate (WEF 2016). Tertiary curriculums rarely address eight of the ten skills employers value most, which relate to problem-solving, self-management, and working with people (WEF 2020), and they are seldom built through traditional instructional approaches. More than 50 percent of a sample of women out of work in India reported not having the skills required for their desired work (Fletcher, Pande, and Moore 2017).</p> <p>The lack of work-readiness skills is exacerbated by other challenges that women alone face. In India's highly patriarchal society, women often have little self-efficacy and agency in terms of their life pathways (McKelway 2020; see definitions, Appendix A). The process of gender socialization for girls during adolescence is thought to lower their levels of voice and expression—young women often silence their thoughts and feelings to preserve relationships (Liang et al. 2014).</p>
Limited access to job opportunities, career information, and diverse role models.	<p>Women in India tend to have small professional networks because social norms restrict them from engaging freely in order to protect their "purity" (Jayachandran 2021). While limited networks can <i>cause</i> low FLFP, they can also be the <i>result</i> of low FLFP when young women are not surrounded by large numbers of working women. The lack of role models limits aspirations, lowers belief in personal ability, and reduces the likelihood of women breaking stereotypes on gender roles to enter academic or career paths where they do not see other women (Rudman and Phelan 2010).</p> <p>Narrow networks also impact the job-search process and FLFP. Women do not have access to the same amount of information and opportunities in job areas that have been male dominated (Chapman and Mishra 2019). The job-matching process is also harder, especially for women looking for flexible work to allow them to meet family requirements. When seeking jobs, women spend more time unemployed than men and often report having less time to devote to the job-search process because of household duties (Fletcher, Pande, and Moore 2017).</p>
Restrictive societal gender norms, enforced by family members.	<p>Social norms that deter women's participation in the labor force can explain some of the large difference in FLFP rates across countries at the same level of economic development (Jayachandran 2021).</p> <p>In India, norms defining a woman's role as primarily that of a caregiver is one of the main factors discouraging FLFP. In urban areas, women's participation in the labor force drops off in their early to mid-twenties, when marriage and family-related responsibilities tend to increase. Unlike other countries, where women often re-enter the workforce later, in India FLFP is low across the age-span, which suggests that the effects of such norms on the behavior and choices of women persists (Fletcher, Pande, and Moore 2017).</p> <p>Young women often face considerable opposition to their career plans. The strongest influence on whether a woman works after marriage in India is not her personal attributes but the thinking of the marital household (Sudarshan and Bhattacharya 2008). The wife and daughter-in-law of the household head in India are less likely to enter and more likely to exit the labor force, indicating the power of the traditional role of a family head (Sarkar, Sahoo, and Klasen 2017). Almost 80 percent of Indian women surveyed in the Indian Human Development Survey 2012 said that they need permission from a family member even to go to the local market or health center (Garg 2017).</p>

Mentorship can address these barriers to female labor force participation in India

Youth mentoring has held intuitive appeal across a variety of social and cultural contexts because almost every aspect of human development is shaped by interpersonal relationships of the kind promoted by mentoring. Formal youth mentoring emerged as a way to overcome relationship deficits that young people may have because of economic or social marginalization, and to improve educational outcomes, behavior and conduct, and occupational attainments (Baker and Maguire 2005). While local needs have shaped program design and goals in different ways, mentoring is today an established practice for positive youth development, with an increasing international presence (Goldner and Scharf 2014).

In recent times, mentoring programs have been modelled on prevention science in response to the growing complexity of the problems confronting youth—a single negative outcome can have numerous interacting causes. Prevention science aims to reduce the likelihood of dysfunction by identifying and targeting the specific factors that cause it but are still malleable. This approach has meant moving away from viewing mentoring as only a relationship, with the relationship as the end in itself, to seeing mentoring as a context within which to target modifiable risk or protective aspects of a problem (Cavell, Spencer, and McQuillin 2021). Such goal-focused mentoring programs have been found to have on average double the effect of general relationship-focused mentoring programs (Christensen et al. 2020).

There is compelling evidence that the three causal factors for low FLFP highlighted here—the skills deficit, the network gap, and the lack of enabling gender norms—are indeed malleable. (Table 2).



Female engineering student reviews her mentoring sessions on the Mentor To Go app.

TABLE 2: Evidence that improving skills, closing network gaps, and changing gender norms can improve labor force outcomes for women

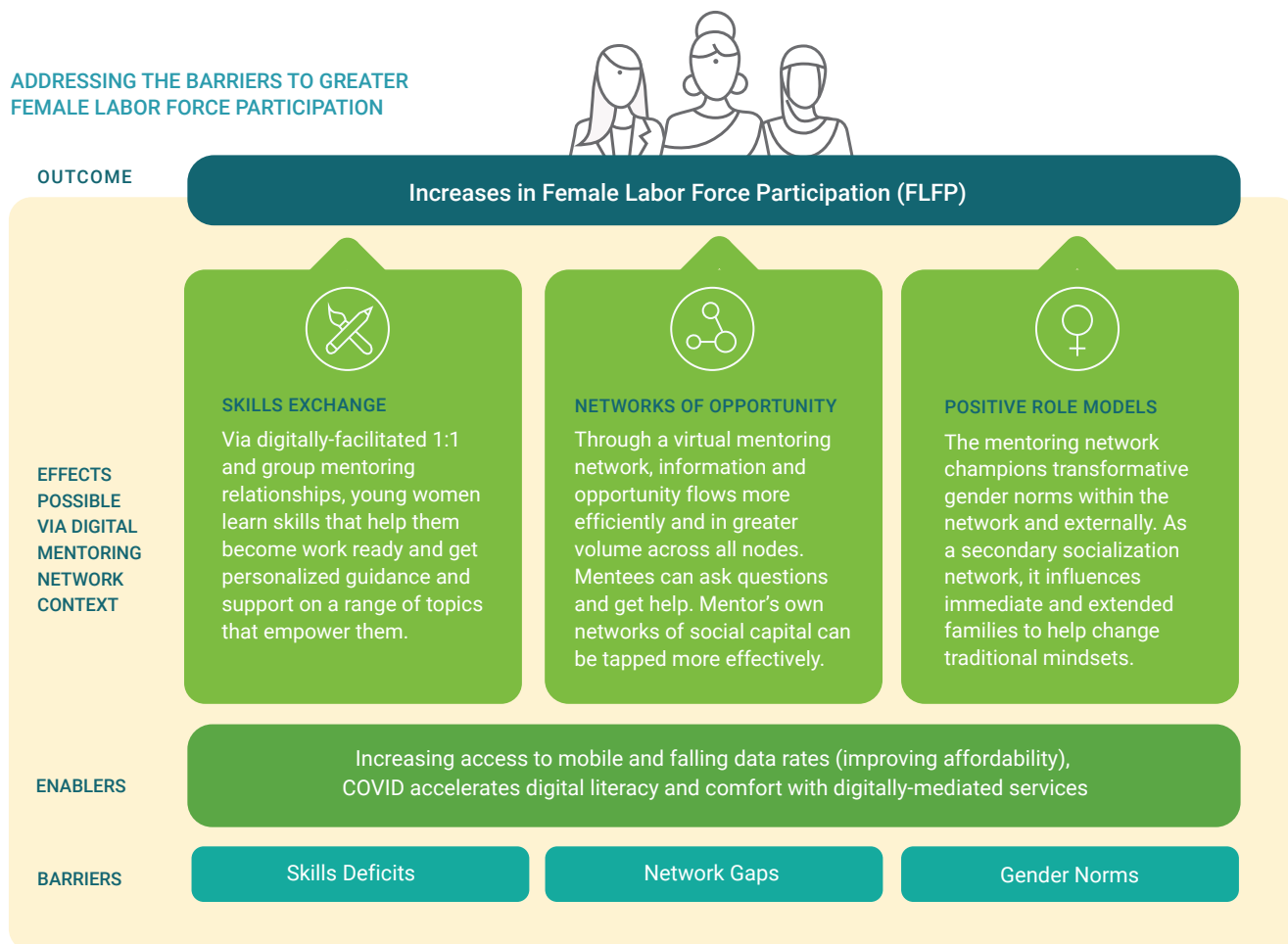
CHANGE IS POSSIBLE: SKILLS DEFICIT	CHANGE IS POSSIBLE: NETWORK GAPS	CHANGE IS POSSIBLE: GENDER NORMS
<p>Generalized self-efficacy in women was increased and sustained through a psychosocial intervention in the Indian state of Uttar Pradesh (McKelway 2020). The key mediating factor was increasing confidence in women to persuade family. This led to increased employment in the short-run.</p> <p>Through on the job training a group of employed garment workers demonstrated growth in a range of non-cognitive skills, such as time management, effective communication, problem-solving, and financial literacy, demonstrating that these skills are malleable in adults (Adhvaryu et al 2017). Skill training led to both productivity gains and modest wage gains.</p>	<p>Reducing job market information gaps for young women in India by creating awareness of employers and actively mapping available jobs, not only increased employment but also delayed age of marriage and age of first child-birth; it also increased career linked aspirations (Jensen 2012).</p> <p>Having a peer network with more gender-egalitarian attitudes and norms heightened the likelihood of UK women working (Cavapozzi et al. 2021).</p> <p>Women entrepreneurs in India who attended business training with other women entrepreneurs increased both their business and their household income (Field et al. 2010, 2016)</p>	<p>When men's overestimation of their peers' disapproval of women working are corrected with accurate information, their wives are more likely to seek employment (Burszsytn et al. 2018).</p> <p>When pluralistic ignorance (mistakes about the prevailing attitude in a community) was corrected, women's intentions to work increased (Aloud et al. 2020). Both of these experiments are from Saudi Arabia, a country where social norms on the role of women in the economy were thought to be entrenched.</p> <p>A school education program in India to shape more egalitarian gender attitudes produced attitudinal and behavioral changes, with larger gains in behavior seen among boys (Dhar et al 2020).</p>

Mentoring holds promise for tackling all three of these factors together. Moreover, digital mentoring, which has grown in the last two decades as access to digital technologies has increased globally (Kaufman et al. 2021), could make mentorship available to larger and more varied groups of young women in India, even those in constrained situations, and offer a way through which to dismantle this trifecta of barriers they face.

- Expanding scale and reach:** Traditional forms of in-person mentoring are hard to scale up. In the United States, where there are more than 5,000 mentoring organizations, the average program reaches only about 285 youths (Garringer, McQuillin, and McDaniels 2017). Matching demand by mentees and the supply of mentors is the core limitation to increasing access. Where social norms severely limit young women from engaging freely outside their homes, digital environments in which young women can interact safely with carefully trained mentors may be the only way young women can access diverse career networks. The COVID-19 pandemic has also highlighted the urgent need for digital programs in education, skills training, and other youth services to prevent disruptions during crises.

- Increasing use of technology by women in India:** India's Internet user base is growing exponentially, having recently doubled in just three years (World Bank 2019). In 2020, for example, the number of Indian women who reported using mobile Internet and owning a smartphone was 11 percent higher than in 2019 and grew even faster than the equivalent rate for men. India's male and female mobile ownership rate stood at 79 percent and 67 percent respectively in 2020. Further, the COVID-19 pandemic does not seem to have led to a decline in mobile ownership among women (GSMA 2021).
- Addressing three causes of low FLFP in one intervention:** Mentees could learn skills through careful personalized matching with mentors; a mentoring network's social capital (as defined in Appendix A) could be tapped to ensure efficient information exchanges with mentees; and the entire mentoring community could advocate for gender-transformative social norms in highly visible ways that influence families and society. Figure 3 illustrates these pathways of change in greater detail. (Relevant mentoring theory to support this is elaborated in Appendix B.)

FIGURE 3: A digital mentoring program facilitates skills exchange, network expansion, and modeling of gender-transformative social norms



Source: Author’s conceptualization, with original design support from Jonathan McKay.

Evidence from the Mentor To Go (MTG) digital mentoring program for young women from low-income families in tertiary education

This study explores (1) the reach and uptake of a digital mentoring program among young women in tertiary education; and (2) the role of that program in improving skills, access to networks, and enabling transformative gender norms.

I present findings from the second year of Mentor to Go (MTG), a digital program conducted across India by Mentor Together, a national nonprofit organization. While the program enrolls young people of all genders in tertiary education, a version of the program launched in April 2020 looks to understand and specifically address the work readiness of young women from low-income families. (Appendix C describes the program goals, structure, and digital mentoring technology.) Data were collected from program records, intermediate outcome data, surveys of young women in the program, and interviews with mentors and mentees (see Appendix D).

ACCESS AND ADOPTION: DIGITAL MENTORING HAS IMMENSE POTENTIAL TO REACH YOUNG WOMEN FROM LOW-INCOME FAMILIES ENROLLED IN TERTIARY EDUCATION IN INDIA

Between February 2020 and March 2021 women comprised 61 percent of total enrollment in the MTG program, although they had not been targeted specifically. The program saw higher interest from those in their first two years of college, from engineering degrees mainly, and coming from low-income backgrounds (see Figure 4), underlining the importance of such a program to marginalized young women.

FIGURE 4: Characteristics of young university women attracted to MTG

UNDERSTANDING THE GIRLS IN THE MENTOR TO GO PROGRAM

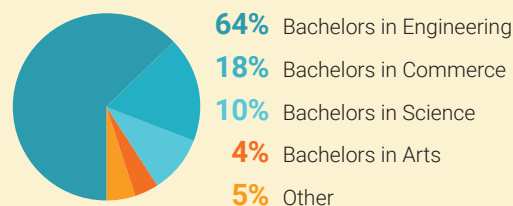
19.8 years

Average age

89%

Come from a family with an annual income less than US\$6,667

Degrees focused on in tertiary education



Indian states and union territories represented in the mentee group:

Karnataka, Telangana, Maharashtra, Andhra Pradesh, Rajasthan, Delhi, Gujarat, Haryana, Uttar Pradesh, Bihar

Source: Program data from Mentor Together.



Female engineering student opens the Mentor To Go app to start her mentoring.

Young women showed greater follow-through in completing the program requirements to get a mentor. Female mentees were 89 percent more likely than men to complete all the eligibility requirements for the mentorship program. Logistics regressions confirmed the difference to be statistically significant (see Appendix E); as a result, female mentees made up 70 percent of the 1,091 mentorships facilitated between May 2020 and May 2021.

Young women recognize the need to tackle skill deficits and network gaps: Young women participating in the MTG program see tertiary education as important for equipping themselves for a future as economically empowered women. For 70 percent of survey respondents, undergraduate study was the stepping stone to work; 38 percent also indicated a specific career they wanted to enter, and 30 percent qualified their goal as a ‘good job’, a ‘secure job’. They thus see mentorship as a way to get support for dealing with skill and network barriers:

“I know it (a career) will be in commerce generally, but which post or which career should I be in? I was confused in that. And I felt that if I get guidance from a specialist who is in that field, I may get good guidance. It will not confuse me, or I won’t have to think whether this person knows about that field or not.” (Mentee, 19, Maharashtra)

“I expected to improve my communication skills because I studied in a government setup and in vernacular medium up to 12th. So when I joined college, everything changed I was very poor at English. I can understand it, but I did not have the confidence to reply in English. At that time, I felt shame and felt very bad. So I was waiting for a chance to learn. I started trying to learn from Youtube and somehow, I learned. But one of my college lecturers advised me to try [Mentor To Go]....you will get a chance to gain knowledge. So I didn’t think about knowledge or anything, but if I get a person who speaks in English, at least I can listen to them.” (Mentee, 20, Telangana)

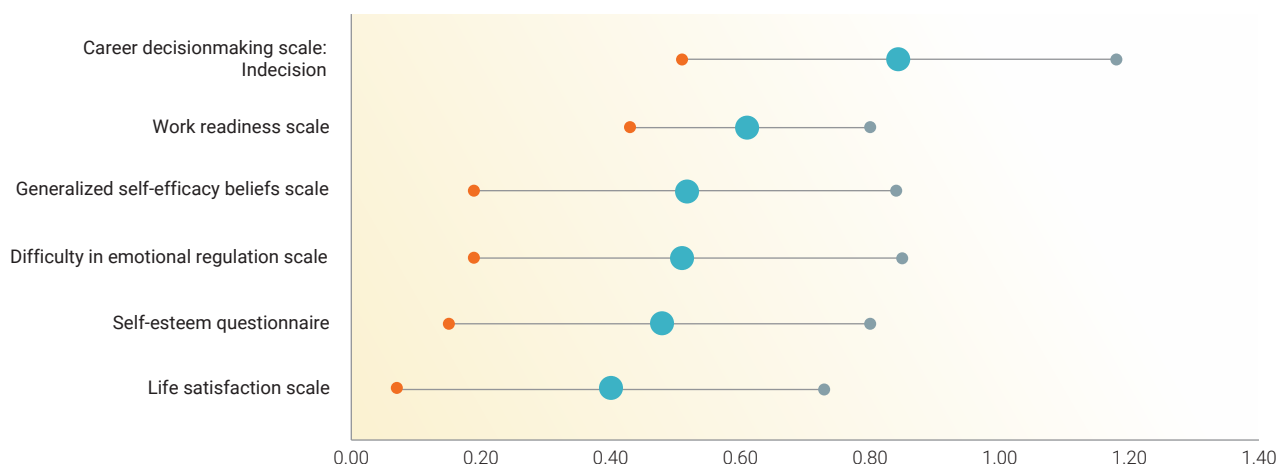
State-level institutional partnerships provide a targeted route to reach young women from low-income families: MTG outreach was done primarily through two government partnerships in Karnataka and Telangana; 53 percent of mentees were from these two States. These partnerships provided great potential for scaling up the program because they were affiliated with over 1,000 educational institutions. The other 47 percent of mentees came through individual partnerships with educational institutions and NGOs in eight other states, indicating potential for the program to reach young women across India. In the four-month period from July to October 2020, the program took in 55 percent of mentees, after virtual learning had begun to stabilize in colleges. In other months there were large fluctuations in the pace of sign-ups; close coordination with educational institutions is necessary so that the program is aligned with college schedules.

ADDRESSING THE SKILLS GAP: YOUNG WOMEN MENTEES BUILT UP THEIR WORK READINESS AND LIFE SKILLS

Young women made changes that were highly statistically significant in their career decision-making, work readiness, self-esteem, self-efficacy, life satisfaction, and emotional regulation skills: Effect sizes in pre- and post-mentorship scores estimated through standardized mean difference, in the classification provided by Cohen (1988), ranged from a little over small in life satisfaction and self-esteem, to medium in self-efficacy, emotional regulation, and overall work readiness, to large in career decision-making (Figure 5). All results of paired t-tests were highly statistically significant (Appendix E spells out detailed test results).

An evidence-based work readiness mentoring curriculum and personalized guidance from mentors emerged as important to improving skills: Supported by an evidence-based work readiness curriculum, mentors and mentees engaged in formal mentorship on a range of topics to help mentees learn and practice work readiness skills. Mentees recounted different ways these skills were helpful (Table 3). The curriculum attempted to build a holistic view of what it means to be work-ready, including self-awareness, emotional regulation, healthy interpersonal skills, practicing personal and professional values, understanding the world of work, setting up support networks, personal visioning, goal setting, and growing in a career (further details can be found in Appendix F).

FIGURE 5: Post-mentorship growth of young women over a range of skill, attitude, and behavioral measures



Source: Program data from Mentor Together.

Note: Mentees answered surveys prior to starting the program and at its conclusion. Effect size was calculated as standardized mean differences (Cohen's d) from pre- and post-mentorship scores and is indicated by the blue dot in graph above. Also calculated were 95 percent upper and lower confidence intervals for the effect sizes, indicated by the horizontal lines on either side of the effect size.

TABLE 3: Mentee comments on how the work and life skills learned were useful

Understanding of success.	"We discussed the meaning for it, because success has a different meaning for different people After that session, I must say this: for me, success is not whether I have sufficient money or not. I must be happy, people around me must be happy. And that I must be healthy, people around me must be healthy. I think for me that is the only success. I had this assumption that success means money—only when we have money will people call us a successful person. . . ."
Self-confidence and self-awareness.	"I've got my own self-confidence. . . . since this mentoring program, I got to know myself more and more."
Value-based decision-making.	"The value-based tasks, like, I used to do some tasks, and I have to take a decision based on the tasks, which don't cause any harm to any of the employees. So that is one of the favorite activities"
Goal planning.	"Planning everyone does, but knowing how to plan well in a way that we can execute our plan is something I really liked, and that's why the roadmap to my vision is my favorite." "Roadmap to my vision was my favorite session. I really liked it because the session explained really well how to plan. Keep oneself disciplined and plan well. I was able to plan well after that and also test myself weekly on what are my weaknesses and strengths, and how I can improve. So I worked on my strengths and weaknesses."
Growth mindset.	"For example, about assignments [in class] . . . I used to take it as a burden. And I really don't like doing them. I used to feel it is just a waste of time. But once in a session. . . . my mentor said if you think of it as a burden, it will be like a tension. If you think of it as a creative task, as an improvement in yourself then it will be fun. And if you get an assignment, take it as a fun [thing], and do it is like a fun [thing], so I think that has changed. I've practiced it in my daily life in my last semester. And I even got extra marks for these because I did it with passion." "My writing skills weren't good, so I worked a lot on that. I improved so much I wrote a blog."
Goal clarity.	"I have the idea, but I don't know how to implement it, or what the idea is called, what the idea is for me. But when I'm discussing with my mentor . . . when we discussed topics like what is my goal and what I would like to do, then I have shared this idea. . . . and he said, AI will help you, ML will help you. Your vision is an AI-based project for students to learn better. And in one line, he gave a clear explanation of my project. On the day, I felt like, yeah, this is what I'm going to do. I got a clear picture of what I would like to do."

The mentors and mentees relied on the curriculum because they found it "comprehensive, well-developed, and providing a useful reference." The mentor's ability to tailor sessions to mentee's experiences, clarify concepts, and have a friendly and engaging style was a necessary prerequisite to the content being perceived as useful. It was also seen as a major differentiator between mentoring and academic experiences.

"We wouldn't directly go to the session. He would first do a full outline . . . , tell me so many stories, so that I could understand the session as we went forward. So then slowly we'd come to the session. For my quizzes, he'd try to understand why I answered the way I had. I would always compare my answer to Sirs. I'd feel my answers maybe weren't always logical. He would say, our age and experience

are different, so our answers will be different. He would help me understand how to frame answers, and beyond that how to understand the topic. He would ask me many questions . . . and this way we would discuss a lot of things."—(Mentee, 20, Uttar Pradesh)

". . . the difference is that I cannot connect much with the teacher in class—there are 80 children. But in the mentorship program, there's just my mentor and me, so we're able to connect well."—(Mentee, 20, Uttar Pradesh)

The virtual mentoring format also allowed for new kinds of asynchronous learning, tracking, and motivational tools to be added to the mentoring experience (see Appendix H for virtual mentoring features seen as helpful).

CLOSING THE NETWORK GAP: VIRTUAL MENTORING CREATED A LARGE AND DIVERSE NETWORK OF CAREER MENTORS AND ROLE MODELS ACROSS INDIA

MTG attracted over 4,000 volunteer mentor applicants over 13 months. The mentor pool was gender-balanced, with mentors having seven to eight years of work experience on average and speaking over ten languages (see Figure 6). The mentor network was created through outreach efforts driven by 26 large corporates, which championed the program internally through corporate social responsibility initiatives. Information technology companies like Cisco, Wipro, BT, and Adobe had the largest mentor cohorts because they already had volunteering cultures and strong internal messaging around the value of becoming a mentor. This corporate partner network then had its own ripple effect; half the final mentor group came from non-partner companies, having heard of the program through their own professional and social media networks.

Virtual mentoring seems to have been the catalyst for such a large network. From Mentor Together’s previous in-person programs in large cities, for example, mentoring networks would grow in a year to at most 150 to 175 mentors.

Mentee trust in the network was rooted in mentor screening: Mentees appreciated that the mentors were carefully vetted:

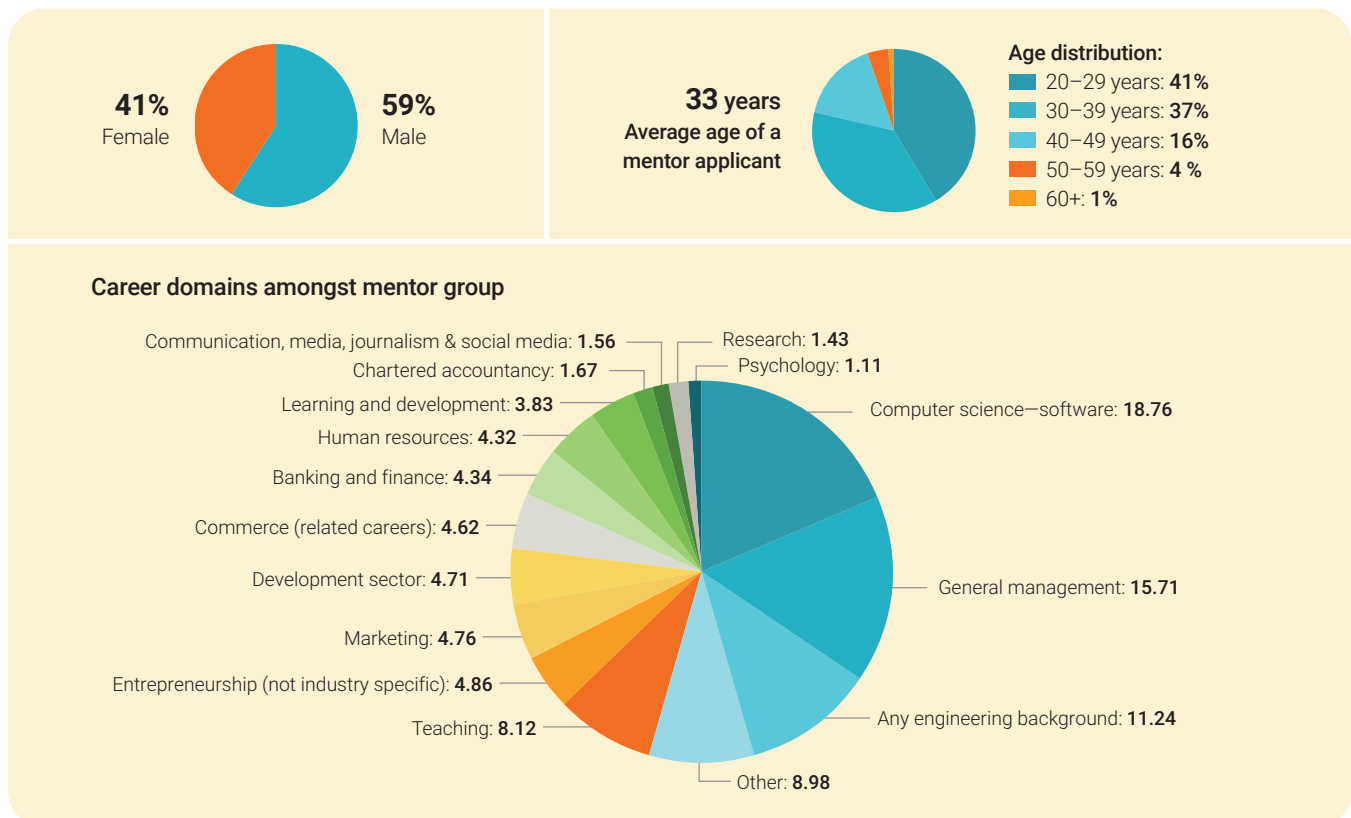
“The process of selecting the mentor is extremely good, I like it very much. As soon as I joined the program, I used to get calls from (program staff), and she used to explain in a great way. . . . she had informed me that they are some companies which are verified by the team. The program took the mentor’s ID, because I too provided mine... If there was no such identity check, I would be doubtful about taking the program.”—(Mentee, 20, Telangana)

Clearly, building a large and diverse mentoring network cannot happen at the cost of building trust through processes that vet member identity and intent.

Facilitating new information and opportunity exchange among all mentors and mentees remains a latent program potential.

Outside of the individual mentoring relationships, the mentoring network at large was not tapped into to identify new information for mentees. In the individual mentoring relationships, a mentor’s network, experiences, and resources were the foundation

FIGURE 6: Mentor To Go created a large and diverse mentor network



Source: Program data from Mentor Together.

on which mentees gained new skills, information, and knowledge; however, this is yet to happen across the MTG network as a whole.

Closing the network gap is vital for young women who lack career pathways through their immediate family or extended networks. The average number of people young women knew who worked in the career that interested them was five to seven. Often, mentees' parents did not have sufficient education and career exposure to support their daughters directly. Only one in five young women had a parent who had studied for a tertiary degree or higher. Only 25 percent of fathers worked in formal salaried jobs; 25 percent were in casual labor or daily wage jobs and 43 percent were self-employed. For most mentees aspiring to enter the service sector, their parents are unable to link them to the information and opportunity networks their daughters need to reach their goals.

MENTORS CHAMPION NORMS RELATED TO THE ECONOMIC EMPOWERMENT OF WOMEN

The young women in this study lived in two parallel worlds. As tertiary education students in the MTG network, their aspirations, career plans, and economic empowerment were championed by mentors.

“And you feel that . . . you're sharing the dream. It is not her dream, it is *our* dream. . . . when you see young women who want to change the world, dreams in their eyes, with some plans, I think, if you can help them even a little bit to change the world positively, we need to...”—(Mentor, 64, Delhi)

Meanwhile their families were planning for them to have marriage and family responsibilities.

“I may also have to face some of the family situations. My parents don't force me regarding anything, but my relatives will do. So I have to answer them. . . . like some of my relatives are asking right now how many more years will my education take? When will I complete my graduation?”—(Mentee, 20, Telangana)

“I don't have much time. Because in India in general, most girls get married at 23 or 24. In my family sometimes 20, 21. But I've been given a chance from my parents that yes, you can do post-graduate, and after that you get a job. And then you will get married. So I have got very little time.”—(Mentee, 19, Maharashtra)

Yet this study also uncovered evidence of some norm changes, in relation to young women enjoying decision-making freedom in the choice of their tertiary education degree. Two out of three young women surveyed said they were fully able to choose the degree they were studying for (e.g., Bachelor in Engineering or in Commerce) and their college. This is encouraging given the evidence that decision-making in so many other areas of daily life is out of the control of young women (see Table 1). The relative lack of parental tertiary education experience may have led to young women having higher decisionmaking power in this realm. Parents seem to let their children choose, with a caveat that the educational institution be close to the student's home.

Young women are confident that marriage should not come at the expense of work. When asked to rate how confident they are that they will be able to work post-marriage, the average score out of 5 was 4.3. But only one in five said that they alone would be able to decide when they would get married; 40 percent said this decision would be taken entirely by the family—mainly parents, sometimes grandparents or siblings. About one in three felt their family might include them in this decision-making. Young women were also emphatic that if they were to grow their family, they would want to balance their work and family in the long term, rather than leave the workforce. Open-ended responses reveal that young women anticipate that their family will need convincing of their wish to work after marriage or starting a family.

With few mentees in the program having to confront such decisions during the mentorship, discussions of these topics were largely hypothetical. Secondary research highlights the importance of having access to networks that champion egalitarian gender norms during periods of decision-making on such topics (Cavapozzi et al. 2021). This speaks to the need for mentoring networks to be present over spans of time or life stages for young women, especially during periods of transition, such as from school to work or marriage and childbirth.

Building a new India: Ensuring every young woman in tertiary education is supported with skills, diverse networks, and norms that champion her economic empowerment

Developing a digital mentoring policy and practice ecosystem is an effective way to support young women during tertiary education and in their transition to economically empowered women actively participating in the labor force.

Such an ecosystem will comprise actors in a range of roles, with different responsibilities, across community, institutional, and regulatory spheres (Figure 7).

FIGURE 7: Principal actors in a digital mentoring policy and practice ecosystem



Source: Author's conceptualization, with original design support from Jonathan McKay.

The recommendations presented here look at three goals: (1) Ensure access to tertiary education, (2) Promote inclusive participation of young women in mentoring programs, and 3) Deliver quality digital mentoring at scale.

1. Ensure that young women continue in tertiary education through targeted financial support for families impacted by the COVID 19 pandemic

While access and affordability issues in tertiary education have not been the focus of this brief, given the negative impact of the pandemic on the livelihoods of those with informal jobs (like most parents of the young women mentored), a range of stakeholders should ensure adequate

need-based financial support to young women and their families to maintain the pace of enrollments seen in the past five years and ensure that current students complete their tertiary education. Data from students applying for financial support from Mentor Together showed that the average yearly fees in tertiary education account for almost 30 percent of annual family incomes. Targeted financial support is thus necessary to ensure India achieves its goal of 50 percent gross enrollment in tertiary education in the next 10 years as outlined in the 2019 National Education Policy, without leaving the most marginalized behind. Table 4 details actions in support of this recommendation.

TABLE 4: Recommendations to identify and support young women in financial need in their tertiary education

ACTION	DETAILS	RESPONSIBLE PARTY
Collect and publish data on student income profiles.	Leverage the All India Survey of Higher Education report for this, so that financial support needs can be understood and addressed by different Central and State scholarship schemes.	Department of Higher Education, Ministry of Education, Government of India.
Promote corporate social responsibility (CSR) spending.	CSR spending under item (ii)—Education, of Schedule VII of the Companies Act 2013, can be encouraged towards scholarships to support education of students who are economically affected by the COVID-19 pandemic.	Ministry of Corporate Affairs, Government of India.
Include digital access costs in financial support.	All tertiary education scholarships should support costs of laptops, mobile phones, and Internet access, so that economically marginalized young women can fully participate in virtual learning.	Scholarship providers in Central and State Governments, non-profits providing scholarships in tertiary education.
Top up CSR grants to cover scholarships.	Corporates can support implementing partners that typically do not provide scholarships by providing funds to extend educational fee support, digital access, and living expenses for students and trainees in need. Such partners would have low to no additional costs in determining financial need because such activities would already have been completed for the program.	CSR Corporate Boards.

2. Promote inclusive participation of young women in mentoring programs through their educational institutions

Higher educational institutions (HEIs) are the most promising channels through which young women continuing their education can avail themselves of mentoring programs. Close to 19 million Indian women are currently in tertiary education

programs across HEIs (AISHE 2020). Ensuring they have access to mentoring will require well-defined state mentoring policies with clear goals, effective coordination across a range of actors, and impactful communication to young women of the benefits of mentoring. Table 5 outlines specific recommendations.

TABLE 5: Recommendations to promote inclusive participation of young women in mentoring programs

ACTION	DETAILS	RESPONSIBLE PARTY
Publish a 5-year State Youth Mentoring Policy.	The policy should outline current FLFP, and FLFP goals, challenges, and priority areas for mentoring young women that align with the state's economic and human development goals.	State Departments of Higher Education.
Set up a nodal organization for the state ("State Nodal Partner") that coordinates all preparation activities for college to workforce transition.	Ensure that such a body has a gender focus sub-group that is concerned with the specific needs of young women in tertiary education. Designate such an organization in each state to disseminate mentoring programs across HEIs and ensure participation of young women.	Department of Higher Education in a state and/or other relevant government department.
Create a yearly strategic plan for mentoring outreach in HEIs.	Ensure that this plan is prepared by the state nodal partner, advised by representatives of all participating HEIs and program implementing organizations, so that program activities are carefully aligned with academic calendars to ensure students can participate in programs without hindrance.	State Nodal Partner.
Align HEI mentoring program design with National Accreditation and Assessment Council (NAAC) requirements.	Work closely with HEIs undergoing the NAAC assessment process so that their mentoring program is part of their formal assessment.	Mentoring program implementing organizations.
Recognize mentoring as an approved internship in the Internship Portal of the All India Council for Technical Education (AICTE).	Drive greater participation in mentorship by young women in engineering programs by having mentoring programs approved as internships by AICTE.	State nodal partner and mentoring program implementing organizations working with AICTE.
Leverage faculty relationships with students to identify young women who could benefit from mentorship, and promote their participation in digital mentoring.	Through access to scholarship and administrative records, target mentorship to young women from marginalized backgrounds (e.g., economic need, caste, religion, and parental education and occupations). Train HEI faculty to leverage opportunities to communicate to young women the benefits of mentoring, dispel doubts, and encourage young women to join mentoring programs.	Mentoring program implementing organizations.

Note: FLFP = female labor force participation; HEIs = higher education institutions.

3. Deliver quality mentoring at scale by championing evidence-based program design and standards for mentoring that meet a range of needs of young women both during their tertiary education and after completing the transition to work.

Although intuitively powerful, mentoring needs to be carefully implemented with adherence to standards like the *Elements of Effective Practice* (National Mentoring Partnership

2019). As seen in the United States, rapid program expansion without careful design of program goals, activities, mentor training, and match supervision, can lead to no or small impacts on outcomes and long-term goals (Dubois 2011). Ensuring quality will require a focus on quality assessment, responsive design, impact measurement, and broad-based funding sources (Table 6).

TABLE 6: Recommendations to champion quality mentoring implementation, responsive program design, and impact measurement

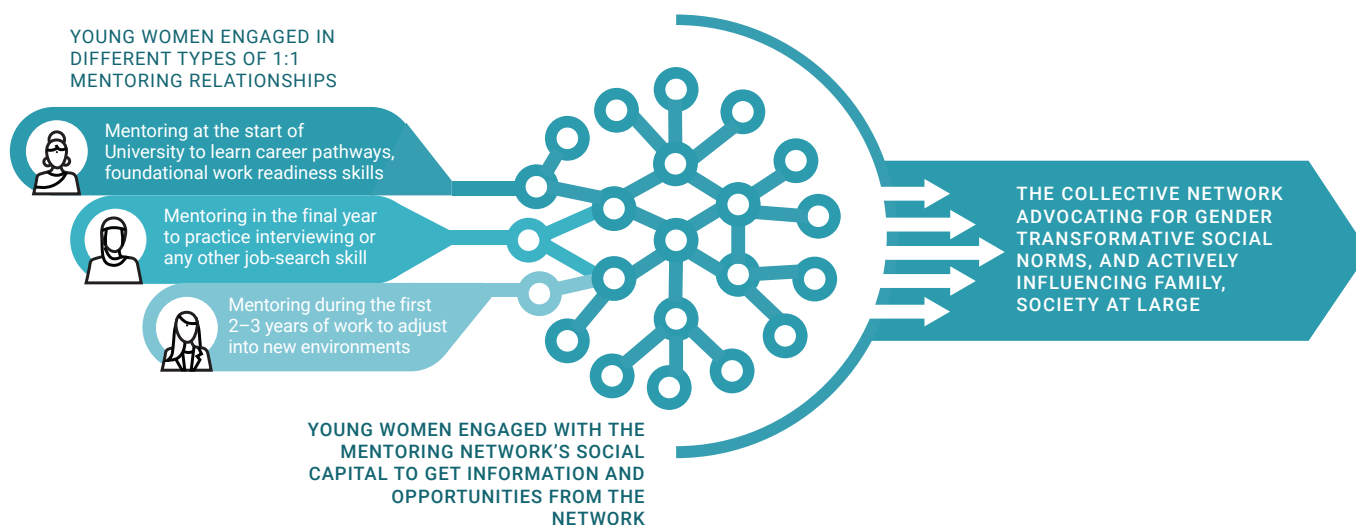
ACTION	DETAILS	RESPONSIBLE PARTY
Draft a framework for quality and hold mentoring programs accountable to it.	Require programs to be assessed yearly by third-party organizations on their internal quality and their screening, training, matching, and monitoring practices.	State nodal partner. Monitoring, learning, evaluation, and quality experts.
Address the work-readiness skills gap.	Implementing programs should closely track emerging skills needs and use evidence-based frameworks to draw up mentoring curriculums that promote needed skills. Skills targeted should transcend those that are narrowly seen as important for work and cover such broader skills as gender sensitivity, religion and caste sensitivity, and climate change consciousness. Leverage the three-to-four-year period of tertiary education to focus more effectively on the different needs of mentees in different time spans: e.g., mentoring for young women to adjust to their new environment when they start tertiary education, mentoring to support interviewing skills in their final year (see Figure 8).	Mentoring program implementing organizations.
Close the network gap.	Activate mentor networks and make social capital more real for mentees by tapping existing networks like LinkedIn, to create more equitable ways for mentees from backgrounds where social capital is limited to be introduced to rich and diverse opportunities and the information present in existing networks of mentors. (see Figure 8).	Corporate partners actively working on creating digital networks. Mentoring program implementing organizations.
Act to influence decision-making in the family networks of young women.	Leverage the larger mentor and mentee network to influence the immediate families of young women, especially in decisions in which young women are typically not included. Mentors can work actively with the families to dispel myths and set positive examples. (see Figure 8).	Mentoring program implementing organizations. Mentors. Mentees.
Transform social norms.	Launch major nationwide campaigns to champion the idea that women belong in the workplace and that the right to work is a human right. Emulate policies and programs that have contributed overall to female education becoming acceptable and desired, such as the Right to Education Act, Sarva Sikshya Abhiyan, and "Bet Bachao, Beti Padhao."	Ministry of Women and Child Development, Ministry of Labor and Employment, Department of Higher Education, and mentoring program implementing organizations. Advocacy organizations. Media companies.
Measure long-term impact and moderating factors.	Build longitudinal evidence of outcomes related to: workforce transition, workforce sustenance and growth, self-employment, marriage, childbirth, personal agency, and household decision-making. Analyze and identify characteristics of individual young women and their backgrounds that may impact program outcomes differently, including personality, age, caste, religion, location, and family socioeconomic status. Adjust policies and practices whenever necessary based on prospects for greater equity and impact.	Mentoring program implementing organizations. Funders. Monitoring, learning, evaluation, and quality experts.

continued

TABLE 6, continued

ACTION	DETAILS	RESPONSIBLE PARTY
<p>Increase the funding base for mentoring.</p>	<p>India's CSR frameworks are a promising opportunity to grow the funding base needed to deliver mentoring programs, especially through concurrent employee volunteering activities. Mentoring programs for marginalized women in tertiary education align well with items (ii), and (iii) of Schedule VII of the Companies Act 2013.</p> <p>Mobilize greater philanthropic capital to meet program innovation needs, as well as the cost of impact evaluations and ecosystem capacity-building.</p>	<p>Funders.</p> <p>Mentoring program implementing organizations.</p> <p>State nodal partners.</p>

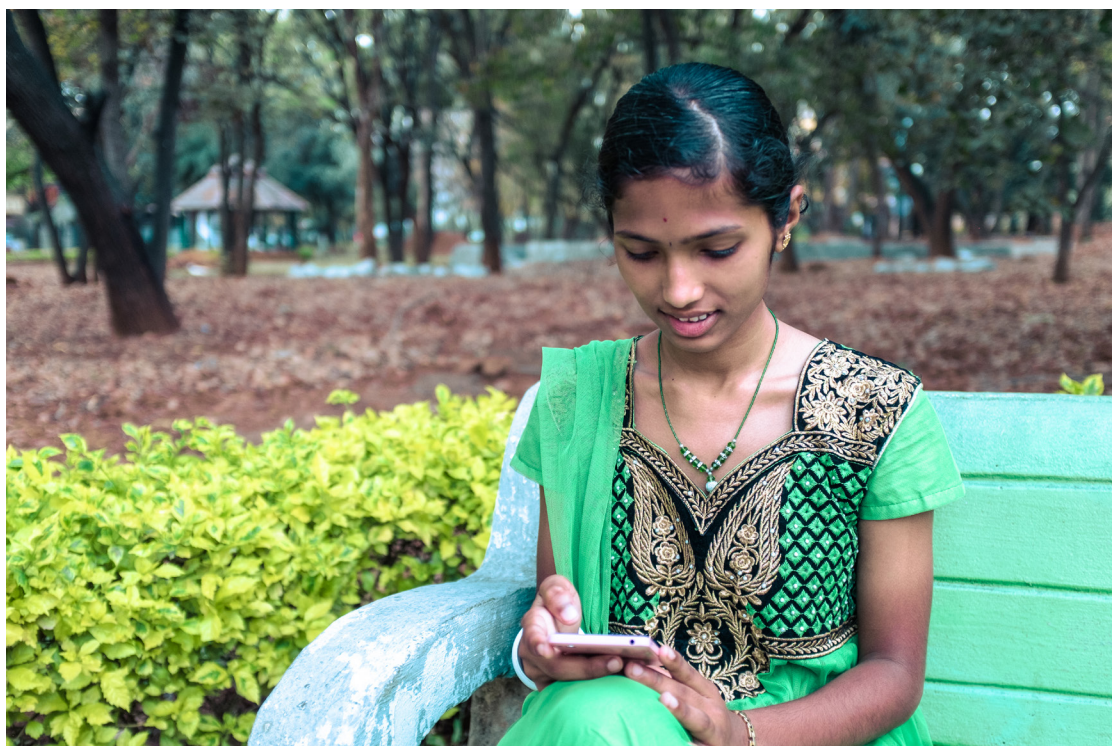
FIGURE 8: Digital mentoring journeys for young women



Source: Author's conceptualization, with original design support from Jonathan McKay.

Conclusion

Building the work-readiness skills of girls, opening up their access to diverse opportunity networks and role models, and transforming family and patriarchal societal norms related to the role of women are critical to solving India's low and falling female labor force participation. It is not enough to create more jobs or to ensure that young women complete education. Young women need aspirations and self-beliefs unencumbered by gendered norms for work, clear goals and plans for achieving their aspirations, skills that match the careers they aspire to, networks that increase their access to job market opportunities, and social and family norms that champion the economic empowerment of women. A digital mentoring policy and practice ecosystem is proving to be an effective way to support young women during tertiary education and in their transition to economically empowered women actively participating—and thriving—in the labor force.



Female mentee waits for her mentor's call on the Mentor To Go app.

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APPENDIX A

Definitions

1. **Agency:** the ability to define one's goals and act upon them (Kabeer 1999).
2. **Female labor force participation (FLFP)** shows the extent to which women are active in the labor force; comprises people who identify as female, ages 15– 64, who supply labor for the production of goods and services during a specified period. It includes people who are currently employed, people who are unemployed but seeking work, and first-time job-seekers.
3. **Gender socialization** is a process whereby individuals develop, refine, and learn to internalize gender norms and roles as they interact with such agents of socialization as their family, social networks, and other social institutions (John et al. 2017).
4. **Prevention science:** Prevention is used to indicate practices designed to reduce the likelihood that developmental vulnerabilities will compromise the health and well-being of developing youth. Prevention science is the identification and prevalence of disorder, and the design of interventions addressing causal and mediating factors (Cavell and Elledge 2014)
5. **Self-efficacy:** belief in one's abilities to organize and execute the courses of action required to produce given attainments (Bandura 1997).
6. **Social capital:** The sum of actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit. Social capital comprises both the network and the assets that may be mobilized through that network (Nahapiet and Ghoshal 1998)
7. **Tertiary education:** Tertiary education refers to all formal post-secondary education, including public and private universities, colleges, technical training institutes, and vocational schools (World Bank 2021)

APPENDIX B

Mechanisms for digital mentoring to address skills deficits, network gaps, and restrictive gender norms

Digital mentoring as a mechanism to address skills deficits

Mentoring relationships can be a significant tool for emotional, cognitive, and identity development of female mentees if they demonstrate attributes of a “growth-fostering relationship”: mutuality, authenticity, empowerment, and the ability to deal with conflict (Liang, Bogat and Duffy 2014)

Through the course of engagement between a mentor and mentee, a zone of “proximal development” builds, where a mentee learns interpersonal skills that can generalize to relationships beyond the mentor, critical-thinking and reasoning skills through exposure to new information and horizons beyond their immediate access, and identity and positive self-belief through active exploration with the mentor of current and future selves (Rhodes et al. 2006)

Digital mentoring as a mechanism to close network gaps

A key ingredient of mentorship is creating social capital. Social capital is a key resource for accessing knowledge, people and structures (see Appendix A for a definition).

Mentoring can help create bonding, bridging, and linking social capital. *Bonding Social Capital*: Close and trusting relationships within the mentoring program can help young women and mentors build a shared sense of values and norms despite differences in age, class, socio-economic status, etc. *Bridging and Linking Social Capital*: a mentor from a career field a mentee is interested in can be a bridge and a ladder, helping connect them to opportunities and more accurate information about the field. Mentoring can create diverse webs of support for young people during different developmental periods.

Digital mentoring as a mechanism to tackle restrictive gender norms

Mentoring programs have been found to be effective in helping youth handle discriminatory social norms about race (Sánchez et al., 2017). Mentoring was specifically found to improve coping efficacy.

A large mentoring network can change culture and norms through what is understood as the faster-moving component of cultural change: social interactions among secondary socialization networks (as compared to the slower-moving intergenerational transmission and socialization between children and parents).

A mentoring network that has egalitarian norms and is seen as consisting of important influencers in traditional societies could effectively corral new ideas and influences against restrictive social norms, and persuasively communicate or make available such ideas not just to mentees but also to families.

APPENDIX C

Goals, structure, and features of the Mentor To Go digital program

GOALS

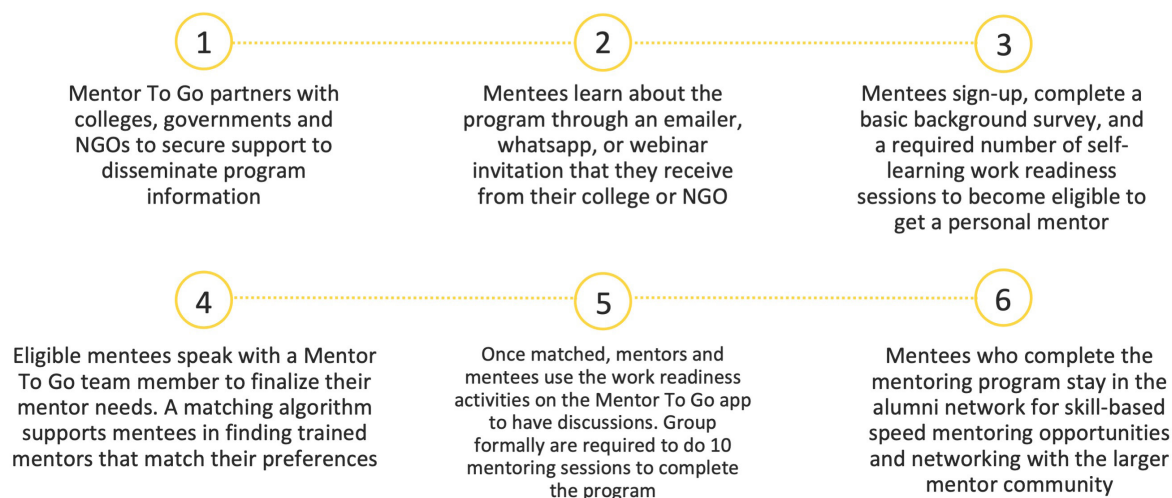
1. Break gender socialization patterns that may have been ingrained through gender norms and roles that were modelled by key agents of socialization from a young age.
2. Actively re-shape aspirations of women that may have been shaped by sociocultural norms, perceptions about what a woman can and should do (caregiving at home versus work), and gendering of occupations.
3. Work on career beliefs, especially those that impede workforce participation, e.g., stigma because certain jobs are not considered appropriate to education levels, gender stereotyping in relation to jobs.
4. Provide young women with growth-fostering relationships that allow for true expression of self, emotional support, and active problem-solving help during periods of stress.
5. Impart technical skills and general workforce readiness that matches industry requirements, especially considering the digital economy, higher skill jobs, and future proof industries and occupations.
6. Help women expand their networks to learn more about job opportunities.

Source: Internal Mentor Together documents.

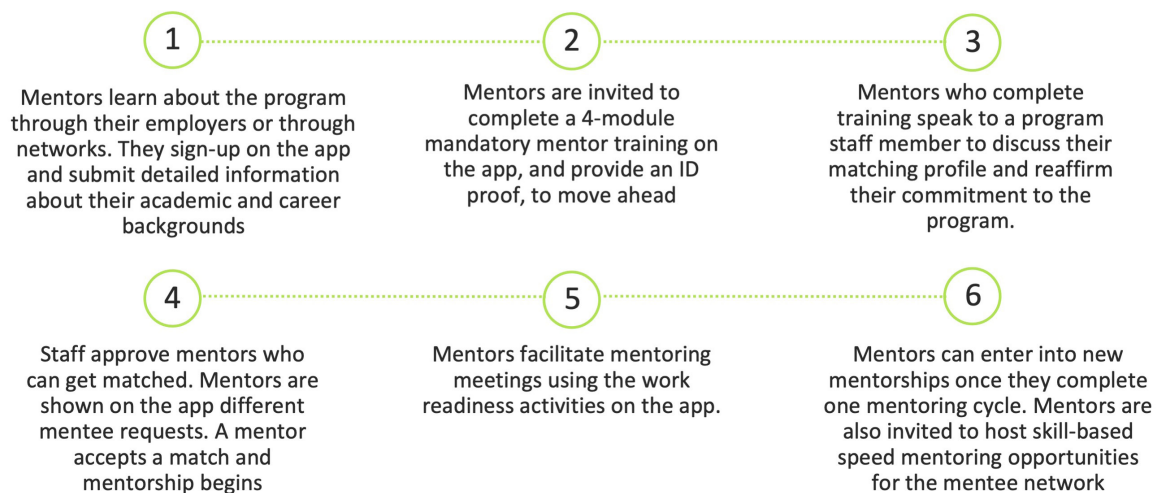
STRUCTURE OF THE MENTOR TO GO DIGITAL MENTORING PROGRAM



A young woman's journey




A mentor's journey



Source: Internal Mentor Together documents.

FEATURES OF THE MENTOR TO GO DIGITAL MENTORING PLATFORM



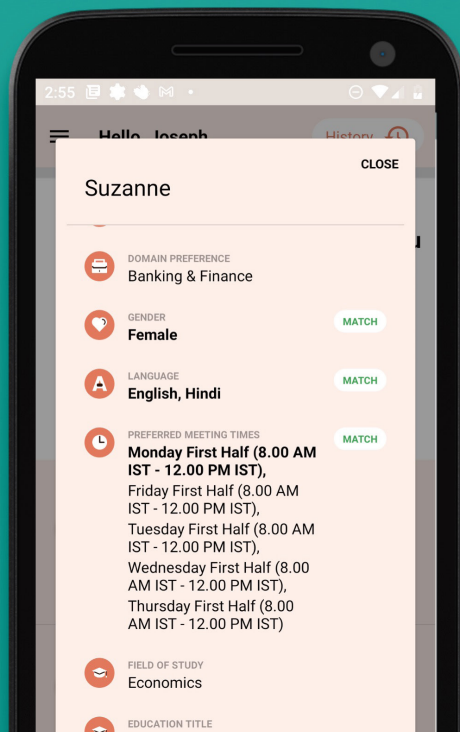
Surveys

To support data needs across the life cycle of mentorship, data is collected for screening, matching, and impact measurement purposes. Mentors and mentees both submit data, through a range of customisable surveys, that program staff can setup with a range of question in multiple local languages



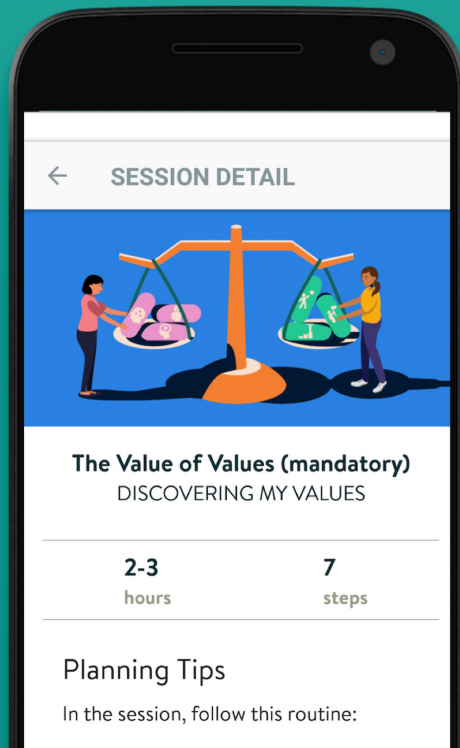
Self Learning Hub

Mentors and mentees learn mentoring skills and work readiness skills, through self-paced sessions, that have text and video content and quizzes to test learning. Self-learning session completion serves as a pre-requisite for mentorship eligibility.



Algorithmic Matching

Intuitive workflows help mentors and mentees find the right personalized matches, supported by a matching algorithm's recommendations. Mentors and mentees can start 1:1 pairings or a 1 mentor to 2 mentees group. In any group matching, mentees have similar mentoring needs



Mentoring

Mentors and mentees use an evidence-based work readiness toolkit that helps them learn asynchronously through quizzes and content in their own time, and sync up for virtual mentoring meetings. Progress trackers and learning badges keep mentors and mentees on track to complete their mentorship successfully

Source: Internal Mentor Together documents.

APPENDIX D

Data sources and methodology

The base dataset consisted of internal records of 7,117 young people and 4,000 mentors who signed up to the Mentor To Go program between February 2020 and March 2021. Demographics of mentees and mentors and program outreach were analyzed using Microsoft Excel.

Baseline and endline psychometric data from a subset of 238 female mentees who had completed the mentorship program were further analyzed to estimate effect size and significance. Data came from psychometric scales chosen by the Mentor Together program staff from a review of published and standardized scales that had been used in similar youth-focused studies. Relevance of those published scales to the goals of the program and general content validity of the scale questions for the mentee population was considered when selecting the scales. Scales used are listed below:

1. Work Readiness Scale (Caballero et al. 2011)
2. Generalised Self Efficacy Scale (Schwarzer and Jerusalem 1995)
3. Global Self-Esteem Scale (DuBois et al. 1996)
4. Difficulty in Emotional Regulation Scale (Gratz and Roemer 2004)

5. Career Decision Scale (Osipow et al. 1976)
6. Students' Life Satisfaction Scale (Huebner 1991)

Regressions, Cohen's d, and Paired T-Tests were conducted on R statistical software.

From the group of mentees and mentors who had completed the program, the Mentor Together program staff identified a sample of 7 mentees and 6 mentors for in-depth interviews, using a semi-structured protocol. The sample was selected to provide variation by geographical location, mentee field of study, mentor gender, and mentor career. Interviews were recorded, auto-transcribed on Otter.ai, and then manually reviewed and corrected. Transcripts were coded on Roam Research.

Finally, an additional survey on career aspirations, decision-making, gender norms, and family backgrounds was rolled out to female mentees who had completed mentorship in a first phase, and then to other female mentees in the program. 156 mentees responded to this survey. Their responses were analyzed using Microsoft Excel.

APPENDIX E

Results of the statistical analysis

Female mentees are significantly more likely than male to complete the program activities necessary to become eligible for mentoring.

COEFFICIENTS	ESTIMATE	STANDARD ERROR	Z-VALUE	P-VALUE
Intercept	-1.65	0.05	-31.93	<2e-16 ***
Gender (Female)	+0.64	0.06	10.33	<2e-16 ***

Source: Author elaboration of Mentor Together program data.

Note: Logistic regressions were conducted on 7,117 records of mentees based on their gender and eligibility for mentorship. Through the regression an estimate of the odds of a female mentee being eligible against a reference base of a male mentee were calculated. Estimates are in the log scale and are exponentiated to get the odd ratio. P-Values were estimated using the Wald's ChiSquare Test.

Standardized mean differences and paired t-test results from the pre- and post-mentorship scores of mentees show highly statistically significant results

SCALE	NUMBER OF RESPONDENTS	PRE-MENTORSHIP		POST-MENTORSHIP		COHEN'S D STANDARDIZED MEAN DIFFERENCE, 95 PERCENT CI	T-STATISTIC	P-VALUE
		MEAN	SD	MEAN	SD			
Career Decision Making Scale—Indecision	75	37.91	10.81	28.95	10.45	0.843 (0.51–1.18)	6.30	<0.0001***
Work Readiness Scale	238	479.43	63.02	516.17	56.96	0.61 (0.43–0.80)	8.12	<0.0001***
Difficulty in Emotional Regulation Scale	75	72.44	18.12	63.01	18.55	0.51 (0.19–0.84)	5.32	<0.0001***
Generalised Self-Efficacy Beliefs Scale	75	31.19	4.98	33.76	4.90	0.52 (0.19–0.85)	4.47	<0.0001***
Self Esteem Questionnaire	75	21.83	3.78	23.56	3.51	0.48 (0.15–0.80)	3.97	<0.0002***
Life Satisfaction Scale	74	19.35	3.47	20.82	3.84	0.40 (0.07–0.73)	3.35	0.0013***

Source: Mentor Together program data.

Note: Mentees answered surveys before beginning the program and at the conclusion of mentorship. In all scales except the Career Decision Making Scale—Indecision, and the Difficult in Emotional Regulation Scale, a higher score at the end indicates improvement. For those two scales, a lower score indicates improvement. Effect size was calculated as standardized mean differences (Cohen 1998). Also calculated were 95 percent upper and lower confidence intervals for the effect sizes.

APPENDIX F

Themes from the Mentor To Go work readiness curriculum

THEMES	SNAPSHOT OF RESOURCES CONSIDERED FOR ACTIVITIES
Understanding myself and my needs	The components of work readiness: personal characteristics, organizational acumen, social intelligence, work competence. Adapted from the Work Readiness Scale (Caballero et al 2011)
Knowing emotions and managing them well	Emotional regulations model (Gross 2015)
Building and managing healthy relationships	High quality connections (Stephens, Heaphy, & Dutton 2011)
Discovering my values	Theory of basic values (Schwartz 2012)
Understanding the world of work	Self-efficacy theory (Bandura 1987); Future selves visioning (Oyserman et al. 2014)
Goal setting (short, medium, and long term)	Goal setting theory (Lunenburg 2011)
Building and growing my career	Growth mindset (Dweck 2006)
Saying goodbye	Elements of effective practice of mentoring (National Mentoring Partnership, 2019)

APPENDIX G

Learning, tracking, and performance motivational tools on the MTG platform

LEARNING AND TRACKING METHODS	DESCRIPTION
Self-learning (asynchronous)	Before their meetings pairs could each on their own time browse content and do quizzes on work-readiness topics. With a goal of mentoring being bi-directional, where the mentor is a co-learner rather than an instructor, the activities were done by all members of a group, and answers of a partner could be viewed only once the other had submitted their own. In 2020, content was available only in English. In 2021, it was also made available in four Indian languages: Hindi, Kannada, Marathi, and Telugu.
Pair calls (synchronous)	During synchronous calls, which are like in-person meetings, mentors and mentees could discuss a range of topics. The curriculum sessions provided them with prompts to facilitate the calls. Mentors had “mentor tips,” visible only to them.
Tracking	The app allowed for sessions, steps, and quizzes to be easily tracked and visually represented to members of a pair or group. Pairs also had calendars within the app to set up meetings or other deadlines for themselves.
Rewards	Learning badges were configured for sessions depending on members ratings on how well they had accomplished session objectives.
Streaks	To encourage a consistent pace of mentoring, members could unlock streaks by doing a set number of quizzes each week.



Arundhuti Gupta is the Founder and CEO of Mentor Together, a nonprofit organization in India that provides mentoring relationships and networks to young people from socioeconomically disadvantaged backgrounds. Mentor Together runs programs at schools and universities across India through partnerships with state governments, NGOs, corporate partners, and over 1,000 carefully screened and trained volunteer mentors.

Arundhuti is an Ashoka Fellow, a World Economic Forum Global Shaper, and an International Youth Foundation Global Laureate. She completed her MSc in Finance at the Manchester Business School as a Commonwealth Scholar and graduated as the top-rank holder from the Bangalore University's Bachelor of Commerce program in 2007.

Acknowledgments

At 23 I set up Mentor Together to pay forward mentorship, which had been catalytic in my life. 12 years later, to be writing about how mentorship is transforming the lives of young women across India is surreal and humbling. Thank you to the young people and mentors who have allowed us to journey with them since day 1. You are at the center of everything we do.

Writing this has made me even prouder of being a part of our resourceful and detail-focused team at Mentor Together. I hope I've done justice to your everyday excellence. Thank you especially to Archana and Jean for handling my responsibilities with such grace and spirit, and to Rahul for all the research support.

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