



Breaking the Cycle of Vulnerability Education, Skills and Employability for Indian Youth

By Sabina Dewan and Lina Khan

July 2019



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or write to us at **info@justjobsnetwork.org**

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Glossary

AIM	Atal Innovation Mission
ASER	Annual Status of Education Report
BPL	Below Poverty Line
DAY-NRLM	Deendayal Antyodaya Yojana - National Rural Livelihoods Mission
DAY-NULM	Deendayal Antyodaya Yojana-National Urban Livelihoods Mission
DDU-GKY	Deendayal Upadhyaya-Grameen Kaushalya Yojana
DGT	Directorate General of Training
GER	Gross Enrollment Ratio
IHDS-II	India Human Development Survey-II
ILO	International Labor Organization
ITI	Industrial Training Institute
KGBV	Kasturba Gandhi Balika Vidyalaya
LFPR	Labor Force Participation Rate
LMIS	Labor Market Information System
MHRD	Ministry of Human Resources and Development
MOSPI	Ministry of Statistics and Programme Implementation
MSDE	Ministry of Skill Development and Entrepreneurship
MSMEs	Micro, small and medium-size enterprises
NAPS	National Apprenticeship Promotion Scheme
NAS	National Achievement Survey
NEET	Not in education, employment or training
NETAP	National Employability Through Apprenticeship Program
NGO	Non-governmental Organization
NIOS	National Institute of Open Schooling

NSDC	National Skill Development Corporation
NSQF	National Skills Qualification Framework
ORF	Observer Research Foundation
PLFS	Periodic Labour Force Survey
PIA	Program Implementing Agency
PMKVY	Pradhan Mantri Kaushal Vikas Yojana
RMSA	Rashtriya Madhyamik Siksha Abhiyan
RSETI	Rural Self Employment Training Institute
RPL	Recognition of Prior Learning
SANKALP	Skills Acquisition and Knowledge Awareness for Livelihood Promotion
SSA	Sarva Shiksha Abhiyan
SSC	Sector Skills Councils
SSDM	State Skill Development Mission
STRIVE	Skills Strengthening for Industrial Value Enhancement
U-DISE	Unified District Information System for Education
UIS	UNESCO Institute of Statistics
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
UNESCO	United Nations Educational, Scientific and Cultural Organization
USTTAD	Upgrading Skills and Training in Traditional Arts/Crafts for Development
WEF	World Economic Forum
WIDE	World Inequality Database on Education

Executive Summary

The protagonists of India's story are its youth. Representing over a quarter of the country's population, young people between the ages of 15 to 29 are part of a demographic dividend, in which the share of the working age population in the total population increases to exceed the dependent population. How India's demographic advantage unfolds depends on the nation's ability to realize the aspirations of its youth, harness their productive potential, and help them build successful economic trajectories.

Yet, economic trajectories are not just built on aspirations and potential, but also on opportunity. Many of India's youth face constraints on opportunity as a result of differences in income, caste, tribe, gender, special needs and religion. These inequities in opportunity from one's childhood manifest in the inequality of outcomes in education and in the world of work.

Building on the findings of a report entitled, *From Education to Employability: Preparing South Asian Youth for the World of Work* by Dewan and Sarkar, this report hones in on the school-to-work transition for vulnerable youth in India. Themes include education and employment outcomes, labor market trends and youth aspirations, programs to improve youth employability, and gaps that must be addressed with public and private sector engagement. JustJobs Network's analysis of primary data, secondary literature, government and international data sources, and

stakeholder and youth insights form the basis for the report's findings and recommendations.

Key findings and recommendations are as follows:

- High rates and near gender parity in enrollment at the primary and upper primary school levels are not complemented by the same degree of achievement in learning outcomes or school progression – especially for those from Scheduled Castes or Scheduled Tribes. The transition from primary to secondary, and from lower to upper secondary levels are the hardest as youth are under-prepared to tackle the next level in their education. Children tend to drop out of school at these transition points. Drop-out rates between upper primary and secondary school are the highest for youth from Scheduled Tribes, followed by youth from Scheduled Castes. **These findings warrant attention to enabling better transitions during school, and addressing the particular disadvantages that vulnerable youth encounter. Steps should include setting up accessible secondary and higher secondary schools; improving in-school resources and curricula to respond to socio-economic disadvantage without compromising on quality; and developing out-of-school social and community support.**
- While technology offers potential to enable access to content and learning at scale, it is neither a panacea nor can it compensate

for the learning that takes place person-to-person. **Programs that can effectively integrate technology to strengthen learning outcomes and employability should be considered carefully.**

- Girls from poor households and youth from marginalized or religious minority backgrounds have the highest out-of-school rates. A family's background – socio-economic status, caste, tribe or religion—has a bearing on a young person's ability to attend and stay in school, and therefore their eventual success in the labor market. Deep-seated attitudes toward girls, and based on social groups, continue to influence their access to opportunity. These results suggest that what happens out of school matters as much as what happens in school. Taken together, these factors result in a path dependency for vulnerable groups that cannot be broken without enduring efforts to bring about behavioral change in communities, families and individuals. **Ad hoc interventions focused on improving educational and labor market outcomes will remain insufficient if unaccompanied by programs to bring about long-term change in societal attitudes. Efforts shown to help girls remain in school should be expanded, such as providing resources to enhance incentives for girls and families to delay marriage. These efforts should be complemented by community campaigns to raise awareness about future employment and financial prospects for girls continuing in education.**
- About 30 percent of youth are not in education, employment or training (NEET), representing the nation's untapped potential. More girls than boys are NEET.
- While school performance between girls and boys is comparable, girls' uptake of skills training and their labor market outcomes lag behind their male counterparts. Female labor force participation rates have been declining since 2004. This drop can be attributed to several factors ranging, for instance, from girls staying in education longer and delaying their entry into the labor market, to the 'middle income effect.' Falling demand from non-farm sectors that traditionally hire more women workers, like manufacturing, and continuing social disapproval are both important factors. Other culprits include migration and the nuclearization of families, which lead to fewer women in the household to contribute to domestic work.
- Female youth may also face pressure to marry early, have children, and tend to domestic responsibilities, but beyond these, concerns such as safety in transport or accommodation are also factors. This is particularly true for the nation's urban areas where female labor force participation has been stagnant for nearly two decades. **To improve education, skills training and employment outcomes for female youth, these ancillaries must be kept in mind, especially to make cities, commuting and workplaces more hospitable for young women.**

- Per capita income for female youth is lower than that of male youth, and per capita income declines as one moves down the caste hierarchy. Even with skills training, women, compared to men, face uneven results in leveraging training for a good job, and research suggests that pitfalls exist for women at every stage in the world of work. Young women are often relegated to low-value added, often poor quality work, with unequal pay to their male counterparts. **There is a need to ensure that labor laws are enforced equally for young women and men, and that young women employed in informal work can avail of these laws.**
- The lower one is in the caste hierarchy, the more likely s/he is to participate in the labor market and to work. This is because the most vulnerable youth cannot afford to be unemployed. Conversely, data shows that unemployment is higher among the educated, and lower among those with less financial means and education. Those that can afford to educate themselves also tend to be in a position to wait for a job that meets their requirements to come along. Those that are not as financially fortunate must find a means of making a living, no matter how poor quality the work may be. **This points to the fact that unemployment and employment are poor indicators of labor market performance. Rather the quality of jobs, especially productivity and wages, should be the criteria to assess upward mobility of vulnerable youth.**
- Over the coming years, large-scale disruptors such as technology will alter India's labor market. Skills requirements will change accordingly. Employers value both job-based knowledge and transferable skills that will help employees adapt to different job roles and responsibilities. **In this respect, it is also important that skills training build on a requisite level of basic education, not try to compensate for its absence.**
- Youth aspire to jobs that are well-paid and that offer potential for advancement. Several major skills development programs exist, but findings suggest that youth face significant barriers in turning skills into employment, and especially into productive and well-remunerated employment. Challenges range from training on outdated job requirements; to mismatches between youth and employer expectations of income and responsibilities, as well as in channels for hiring.
- **More private sector support is required to expand on-the-job learning, internships and apprenticeships in addition to channels such as Recognition of Prior Learning that acknowledge skills and experience acquired through informal means. Greater private sector engagement must underpin efforts to skill youth. Career counseling needs to be expanded to help youth identify strengths and skills gaps and gain realistic expectations of available jobs in the market, but also those that they are qualified for.**

- Entrepreneurship programs are a challenge to scale up with sustainable results, and may be a less viable option for many youth. It is also important to recognize that, when it comes to being an entrepreneur aptitude matters as much as attitude. **Entrepreneurship promotion efforts should be targeted to youth who demonstrate aptitude, not just aspiration, and should incorporate targeted business sector expertise.**

The nation's youth are its backbone. Whether salaried or self-employed, whether on family farms or in manufacturing facilities, youth across India's diverse landscape rely on their education, skills and work to earn a living, to fulfill family and social obligations, and to satisfy the aspirations that drive and motivate them daily. Yet inequities in opportunity must be rectified to deliver on equality of outcomes for Indian youth.



1. Introduction

The protagonists of India's story are its youth. The nation's 361 million young people between the ages of 15 to 29ⁱ represent 26.7 percent of the country's population.¹ Estimates suggest that over the next three decades, perhaps as early as 2027, India will have the world's largest working age population.² Today, more young people have higher levels of education than ever before, offering tremendous productive potential.³ Inspired by the narrative of an emerging market economy with high levels of relatively consistent economic growth, India's youth have rising aspirations for their future.

This demographic window, in which those of working age constitute a rising share in the total population with a relatively smaller dependent population, will close in approximately two decades.⁴ How the story of India's demographic advantage unfolds depends on the nation's ability to realize the aspirations of its youth, harness their productive potential, and help them build successful economic trajectories.

Yet economic trajectories are not just built on aspirations and potential, but also on opportunity. Many of India's youth face constraints on

opportunity as a result of differences in income, caste, tribe, genderⁱⁱ, special needsⁱⁱⁱ and religion.^{iv} These vulnerable youth sit somewhere between the "inequality of opportunity in childhood" that manifests in an "inequality of outcomes in adulthood."⁵

Against this backdrop, this report hones in on the nation's vulnerable youth between the ages of 15 to 29. A great deal of research focuses on early childhood development and primary schooling on the one hand, or on the skills ecosystem and youth employment on the other. Few studies examine how vulnerabilities manifest in a young person's decisions or ability to achieve positive outcomes in secondary education, skills development, and employment.

This report builds on the findings of a report entitled, *From Education to Employability: Preparing South Asian Youth for the World of Work* by Dewan and Sarkar.^v The previous study looked at South Asian youth; in this report, the authors take a more detailed look at the school-to-work transition of Indian youth. This entails understanding the state of education and skills in the country and assessing ways to harness

ⁱ This report adopts the Indian government's definition of youth as those individuals between the ages of 15 and 29 ("National Youth Policy, 2014," Ministry of Youth Affairs & Sports). The international definition of youth, as per the International Labour Organization, is those individuals between the ages of 15 to 24 (see also ILOSTAT, <https://www.ilo.org/ilostat>, including youth labor data for India).

ⁱⁱ Gender generally refers to personal or broader social perceptions about one's sex, while sex refers to biological differences between females and males. For the purposes of this report, gender is generally used to describe the category of female or male, though individuals can identify beyond this binary.

ⁱⁱⁱ Special needs refers to those with disabilities or the specially abled. A disability is defined as a physical or mental impairment that substantially limits major life activity, such as impaired vision, hearing, or movement, among other conditions.

^{iv} This report collectively refers to those with low income, religious minorities, those from Scheduled Castes or Tribes, females, and/or those with special needs as vulnerable youth. There are many dimensions of how these vulnerabilities play out. This report is specifically interested in how these vulnerabilities manifest in educational and labor market outcomes for youth.

^v Sabina Dewan and Urmila Sarkar, "From Education to Employability: Preparing South Asian Youth for the World of Work" (JUN, UNICEF, 2017).

the potential of young people to enhance their employability—with a focus on those that are most vulnerable. This report strives to connect the dots in the various narratives pertaining to India's young people and their economic mobility.

Specifically, this study examines the following: How do the vulnerabilities that one is born into manifest in school enrollment, learning and youth labor market outcomes? What are current trends in labor market demand and youth aspirations? What programs exist to improve the employability of youth? What would it take to enhance private sector engagement? Ultimately, this report hones in on identifying the gaps in the existing paradigm that must be addressed to build economic trajectories for youth, especially for those who are the most vulnerable.

The report draws from the JustJobs Network's repository of primary data, secondary literature and data sources including Unified District Information System for Education (U-DISE), National Achievement Survey (NAS), India Human Development Survey-II (IHDS-II), Ministry of Statistics and Programme Implementation (MOSPI), and the most recent 2017/18 Periodic Labour Force Survey (PLFS), among others. It mostly relies on national sources, occasionally supplemented by international ones. To ground the findings, the JustJobs Network engaged with a range of stakeholders to garner their insights and complement secondary sources. Finally, the authors profile youth from vulnerable backgrounds to highlight their stories, their aspirations, resilience and drive in confronting various challenges along the transition from

school-to-work, anchoring inferences from data and literature in the textured realities of life.

By way of setting the context, section two of this report investigates the trends in enrollment and learning outcomes with an emphasis on how vulnerable youth fare on these dimensions. Beyond those youth who are enrolled in school, there are those who drop out, or those that are “not in education, employment or training” (NEET). Section two of this report uses available secondary data to understand the profiles of youth who drop out of school or are NEET. To this end, the report compares indicators across female and male youth and social groups. It concludes with an overview of the labor market outcomes for youth and provides some insight into how vulnerability manifests in the school-to-work transition for youth.

Section three examines labor market demand and which sectors are expected to grow in the coming years. It then considers how these trends match up to youth aspirations for employment. With an understanding of supply and demand, one can examine the skills landscape and how it does, or does not, match the qualifications and aspirations of youth with labor market demand.

Section four maps the landscape of skills development programs targeted to youth, and vulnerable youth in particular. This includes government and non-government initiatives to cultivate entrepreneurship and connect youth to employment. The government skills landscape in India includes the introduction of skills standards with private sector input, short-term and long-term training, and efforts to match youth to

employers or facilitate on-the-job learning. Many non-governmental organizations also engage with youth on employability, such as by providing career counseling or entrepreneurship support.

To effectively harness the capabilities of youth, build on education to develop skills, and

connect youth to employment opportunities, interventions must clearly reflect labor market demand and the needs of employers, as well as the aptitude and aspirations of youth. Section five of this report discusses the gaps in the current education, skills and employability landscape, and section six offers recommendations.





2. From Education to Employment: Outcomes of Vulnerable Youth

A person's trajectory starts being charted the minute s/he is born. The home that one is born into has a bearing on available opportunities to develop, learn and participate in the economy. This section of the report explores the trends in school enrollment, learning outcomes and literacy rates for vulnerable youth to understand how they fare in school, and how this translates into future labor market participation and outcomes.

As of 2017-2018, individuals from Scheduled Castes made up 19.6 percent of the total population, Scheduled Tribes made up 9.3 percent, and individuals from Other Backward Classes made up 42.8 percent.⁶ There are varying estimates of the number of persons with disabilities. Some estimates suggest that the differently abled constitute approximately 2 percent of the population,⁷ but other estimates suggest that there is under-reporting of the actual numbers and that the percentage is higher.⁸

2a. In-School Education and Outcomes

India has made improvements in school enrollment and gender parity in enrollment over the last decade.⁹ Yet, progress on learning outcomes has lagged.¹⁰ The recently released 2019 Draft National Education Policy notes, "... there is a severe learning crisis in India, where children are enrolled in primary school but are failing to attain

even basic skills such as foundational literacy and numeracy."¹¹

Children from vulnerable backgrounds inevitably face a different set of possibilities than those who are socially and economically better off. The support for learning that families provide to their children outside of school has a strong bearing on learning in schools.¹² Socio-economic background, caste, religion, or gender influence the extent to which families can support learning, and are therefore significant determinants of the schooling and economic possibilities available to a young person.¹³

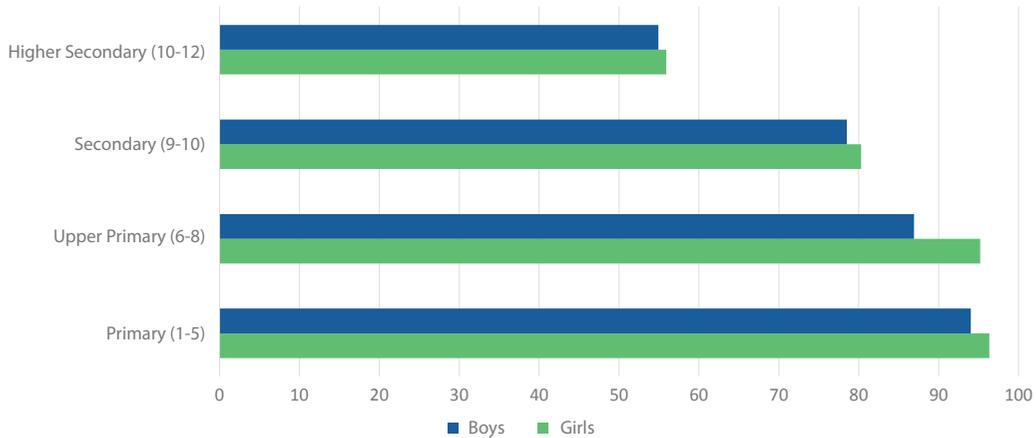
Unified District Information System for Education (U-DISE) data show that gross enrollment ratios (GERs) are high in primary school (standards 1-5) and relatively high in upper primary school (standards 6-8).^{vi} These trends are comparable for girls and boys (**Figure 1**), and across social groups (**Figure 2**). In addition, girls have a higher GER compared to boys for all levels, but this is most pronounced at the upper primary level. The proportion of children with special needs to total enrollment in standards 1 through 8 has also risen slightly, from .8 percent in 2011-2012 to 1.1 percent in 2016-2017.¹⁴

However, GERs drop at the secondary and especially higher secondary levels, for girls and

^{vi} While Net Enrollment and Adjusted Net Enrollment Ratios can more accurately capture enrollment and school coverage, this data is not available by social group.

Figure 1

Gross Enrollment Ratios by Stage of Education and Sex, 2016-2017

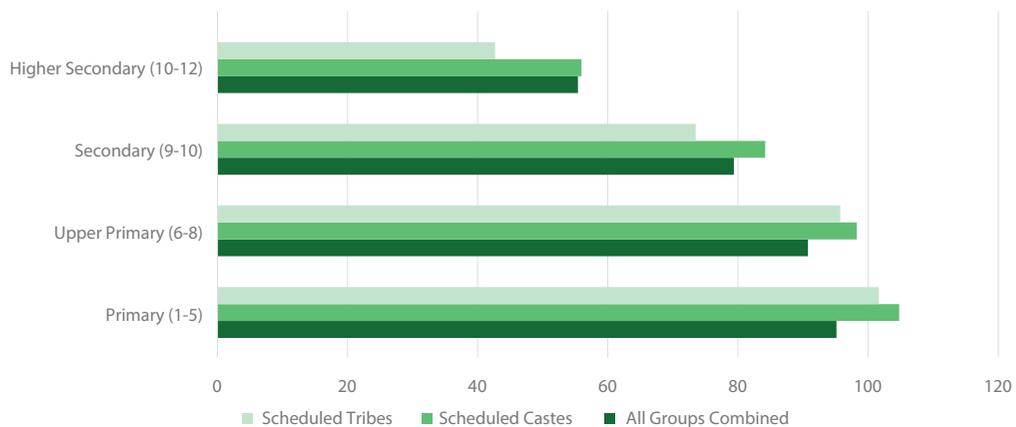


Source: National Institute of Educational Planning and Administration. "U-Dise Flash Statistics, 2016-2017." School Education in India, 2018.

Note: Gross enrollment ratios in a particular stage of school education, regardless of age, expressed as a percentage of the population of the official age- group which corresponds to the given stage of school education in a given school year.

Figure 2

Gross Enrollment Ratios by Stage of Education and Social Group, 2016-2017



Source: National Institute of Educational Planning and Administration. "U-Dise Flash Statistics, 2016-2017." School Education in India, 2018.

Note: Gross enrollment ratios in a particular stage of school education, regardless of age, expressed as a percentage of the official age-group of the population which corresponds to the given stage of school education in a given school year.

boys (**Figure 1**) and across social groups (**Figure 2**). Generally, enrollment drops before or during secondary school.¹⁵ Enrollments are especially low at the secondary and higher secondary levels for youth from Scheduled Tribes, as shown in Figure 2.

Results from the National Achievement Survey (NAS) 2017, which consider learning outcomes at government schools, show that for class eight, the average performance of girls slightly exceeded, or was equal to, that of boys in language, mathematics, science and social studies.¹⁶ Although the Annual Status of Education Report (ASER) does not disaggregate findings by social group, it considers learning outcomes for rural adolescents and youth. According to ASER's 2019 report, at the national level, the ability to read at least standard 2 text is comparable for girls and boys in the 14-16 age group; however,

about 44 percent of girls in the same age group—compared to 50 percent of boys—can correctly solve a division problem.¹⁷ The NAS and ASER results show variation at the state level, with girls outperforming boys for selected subjects in some states, and boys outperforming girls for the same subjects in other states. Other evidence suggests that girls generally outperform boys in school.¹⁸ But girls' uptake of skills training and their labor market outcomes are lower than that of their male counterparts.

NAS results show that adolescents from Scheduled Tribes and Scheduled Castes scored slightly lower than the general population in all categories – 8th standard language, math, science and social studies.¹⁹ Research also shows that children from families close to the poverty line, and/or from Scheduled Castes or Tribes, experience lower reading and math outcomes.²⁰



Anchal

18 years, Schedule Caste (SC), Completed 12th grade, currently pursuing a Bachelor of Arts

When it came upon Anchal's father to raise her alone, he thought it would be best if Anchal went to boarding school. There, he surmised, her needs would be better tended to than by a single, uneducated, father who had to work full-time. So, as a young child of around five years old, Anchal went to a private hostel in her own State of Bihar, paid for by her father. In grade seven, she gained admission into an all-expenses paid government boarding school.

Anchal worked hard in school and managed to finish twelfth grade. She is now pursuing graduation in Arts. It was her dream to get into medical school, but she was unable to get admission in this field. A testament to her tenacity, she has applied to nursing school and hopes that she will be able to break into the medical field as a nurse, if not as a doctor.

Source: Interview and photo by JustJobs Network.

Language or reading outcomes affect adult literacy rates. Literacy rates have been steadily increasing since 1951, but at 69.6 and 83.9 percent respectively, the gap between female and male literacy rates persists.²¹ The literacy rate for Scheduled Castes stands at 70.8 percent and that of Scheduled Tribes stands at 67.7 percent, which lag behind the national average of 76.9 percent.²² Available data suggest that less than 60 percent of persons with disabilities are literate.²³

2b. Out-of-School Youth

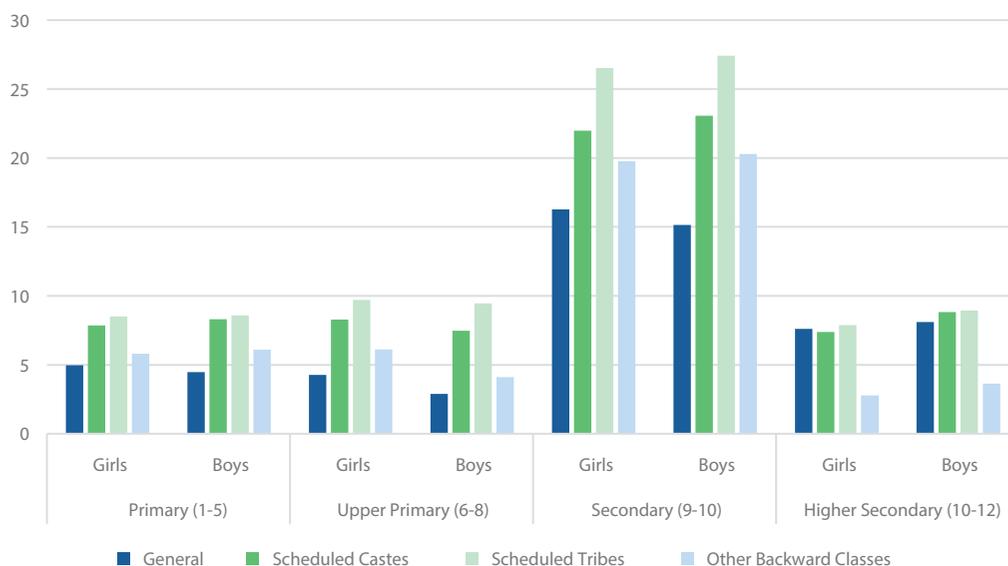
Despite high enrollment rates at the primary and upper primary levels, there are still millions of children that are not in school, especially

those from vulnerable backgrounds. According to estimates from 2011, the most recent year for which data is available, about 32 million Indian children between the ages of 6-13 had never attended school.²⁴

Then there are those who either discontinue or drop out of school. U-DISE defines drop-outs as a proportion of students from a cohort enrolled at a given level of education, for a given school year, who are no longer enrolled the following school year.²⁵ According to U-DISE data, drop-out rates by stage of education are highest at the secondary level (standards 9-10), especially for youth from Scheduled Tribes (**Figure 3**). Drop-

Figure 3

Drop-out Rates by Stage of Education, Sex, and Social Group, 2016-2017



Source: National Institute of Educational Planning and Administration. "U-Dise Flash Statistics, 2016-2017." School Education in India, 2018.

Note: Drop-outs are reported as a proportion of pupils disaggregated by social category from a cohort enrolled in a given stage at a given school year who are no longer enrolled in the following school year.

out rates by stage of education between girls and boys are generally comparable (**Figure 3**), though they vary across social group. In addition, available data suggests that about one in four children, adolescents or youth with disabilities do not attend school.²⁶

U-DISE Dashboard data on average annual drop-out rates as of 2016-2017 include additional data across social groups up to the upper primary level.²⁷ The data show that average annual drop-out rates at the upper primary level (standards 6-8) are highest for children from Muslim families, followed by children from Scheduled Tribes.²⁸

Drop-out rates are also high at points of transition in the education system. U-DISE data show that drop-out rates are highest at the transition from primary to upper primary education (between standards 5 and 6), and at the transition from upper primary to secondary education (between standards 8 and 9).²⁹ Promotion rates, or the proportion of pupils from a cohort enrolled in a given school year who study in the following school year, are lowest between standards 10 and 11. Between standards 8 and 9, more girls than boys drop out, and promotion rates are higher for boys than for girls. Also at the primary level, promotion rates are lowest at the transition from upper primary to secondary education.³⁰ At the secondary level, drop-out rates are highest and promotion rates are lowest at the transition

from secondary to higher secondary education (between standards 10 and 11).³¹

In the aggregate, an estimated 30 percent of Indian youth of upper secondary school age (15-17 years old) are out of school, based on UNESCO Institute of Statistics (UIS) data as of 2016, the most recent data available.^{vii} These youth who are not in education face lower labor market prospects in the future, among other challenges.³²

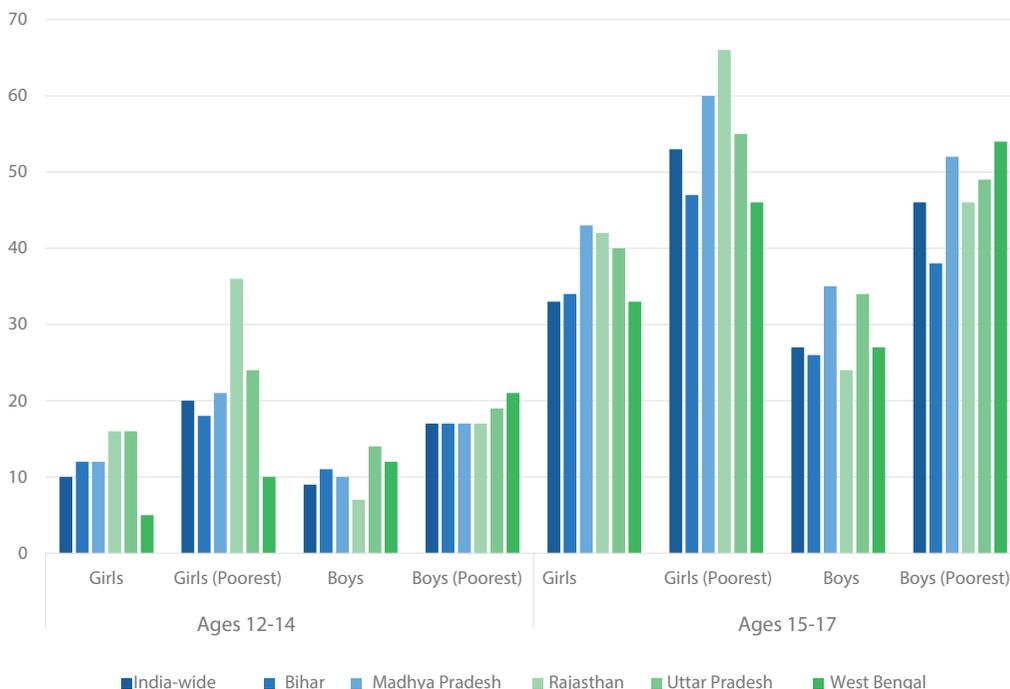
On average, girls from poor households, as well as adolescents and youth from traditionally marginalized or religious minority groups, have the highest out-of-school rates.³³ Analysis of World Inequality Database on Education (WIDE) data as of 2015 show that out-of-school rates are as high as 42 percent for youth ages 15-17 from Muslim families, and 41 percent for youth from Scheduled Tribes of the same age group.³⁴ Though average out-of-school rates for adolescents ages 12-14 are comparable for girls and boys, they are higher for girls ages 15-17 (**Figure 4**). Having the least wealth widens the gender gap even more (**Figure 4**).^{viii} This trend appears across States with high out-of-school rates in India, with the exception of West Bengal, where boys with the least wealth have higher out-of-school rates (**Figure 4**). Higher out-of-school rates for girls are the result of the disproportionate burden of domestic responsibilities and marriage that is placed on girls, in addition to factors such as distance to school or other restrictions on mobility.

^{vii} While UIS reports the rate of out-of-school youth for 2016, it does not report the total number. As of 2013, the most recent year for which data are available, 46,792,439 youth of upper secondary school age (about 15-17 years old) are estimated to be out of school in India. Sources: UIS.Stat. UNESCO Institute for Statistics (UIS). <http://data.uis.unesco.org/>. Accessed 4 April, 2019; and UNESCO, "One in Five Children, Adolescents and Youth Is Out of School." Fact Sheet No. 48, UIS/FS/2018/ED/48, 2018.

^{viii} WIDE uses housing characteristics and assets to measure wealth for out-of-school adolescents and youth in India. Households are classified into five groups, from the lowest to the highest wealth (World Inequality Database on Education (WIDE). "A Brief Data Note on the World Inequality Database on Education," n.d.).

Figure 4

Out-of-School Rates (Percent) Across India and Selected States, by Age, Sex and Wealth, 2015



Source: World Inequality Database on Education (WIDE). “Out-of-School Youth, India,” 2018. (Data for India from 2015). <https://www.education-inequalities.org/share/qa3n2>. Custom data acquired from website; and World Inequality Database on Education (WIDE). “A Brief Data Note on the World Inequality Database on Education,” n.d.

Note: WIDE uses housing characteristics and assets to measure wealth for out-of-school adolescents and youth in India. Households are classified into five groups, from the lowest to the highest wealth.

A complex set of “forces” influence whether girls and boys continue through school, or whether they drop out (**Box 1**).

For girls, the most frequently reported reason for dropping out of school is to engage in domestic activities.³⁵ In contrast, the most frequently reported reason by boys is to engage in economic activity.³⁶

Other factors cited for girls dropping out at the secondary level are distance to school, parental disinterest in education, safety concerns, and marriage.³⁷

These trends demonstrate the pervasive lack of confidence in girls’ economic potential³⁸ and how normative pressures vary by gender, with girls shouldering the burden of household work and boys undertaking activities that contribute

to household income as early as adolescence. However, understanding the complete context that propel these trends is critical for addressing them effectively (**Box 1**). Assessing the many forces that compel children, adolescents and youth to drop out of school – ranging from the reasons cited by youth themselves, to those of their families, and communities, within the existing social and economic context, is important to identifying solutions.

2c. Youth Not in Education, Employment or Training

Over 30 percent of Indian youth ages 15-29³⁹— over 100 million—are not in education, employment, or training (NEET). Some NEET youth have not completed school. Some do not undertake the transition from school-to-work and drop out before entering the labor market. Others are not in education or training, they are not employed, but are looking for work. Still others, are not in education, training, or employment and they are not looking for work; in other words, they are not in the labor force. When youth that have been NEET do enter the labor market, they are more susceptible to being employed in precarious work⁴⁰ – that is, informal, casual or contractual employment.

Representing almost a third of youth in India, NEET youth are untapped potential. While there is some data on the aggregate numbers of NEET youth, more in-depth study about their circumstances and attitudes is needed to fully grasp this cohort. Limited information notwithstanding, data suggests that far more female youth than male youth are NEET. Among youth between the ages

Box 1

Why do children, adolescents and youth drop out of school?

Several social, economic, cultural, and individual forces are at work when a child drops out of school. These forces are at play in the child's mind, in family dynamics, in the immediate community, in broader society and in the education system.

The balance of these forces affects a child's school trajectory. And the forces of disadvantage – such as gender, community traditions and societal norms, the distance to the nearest secondary school, the availability of good jobs as one motivator of obtaining an education – can come together to act against the individual staying in school.

If we end up framing issues as economic when they, at their core, are not just economic issues, then we end up with inappropriate solutions.

Anurag Behar

Chief Executive Officer, Azim Premji Foundation; Member, Drafting Committee for India's National Education Policy 2019; Vice Chancellor, Azim Premji University; Chief Sustainability Officer, Wipro Limited

of 15-24, almost 50 percent of girls and young women in India are NEET, compared to less than 10 percent of boys and young men.⁴¹

Of the cohort of female NEET youth in India, the vast majority are economically inactive – this includes those that are unemployed as well as those that are not doing remunerated work.⁴² This information underscores the fact that cultural norms,⁴³ early marriage⁴⁴, pregnancy and domestic responsibilities⁴⁵ play a major part in

determining whether a girl stays in school and in her future labor force participation (**Box 2**).

At one third of the global total, India has the most child brides in the world.⁴⁶ There has been a significant decline in the incidence of child marriage; however, at 27 percent, more than one in four women aged 20-24 years were married before age 18 in 2015-2016.⁴⁷ About eight percent of female youth between the ages of 15-19 have already become a mother or are pregnant, based on data from 2015-2016, the most recent data

Box 2

Understanding Female Youth Who are NEET

Analysis of data from the India Human Development Survey-II (IHDS-II) for 2011-2012, the most recent data available, provides some insight into the characteristics of youth who are NEET. The data show that about 33.56 percent of youth between the ages of 15-29 could be classified as NEET.

Most NEET youth (88.55 percent) are female; of these, just under 85 percent are engaged primarily in household work. The data suggests that the high proportion of girls and young women that remain at home may explain the high NEET youth rate in India.

Data on marital status, education, and mobility also provide insight into female NEET youth, though additional research is needed. Most female NEET youth are married (75.6 percent). Levels of education vary, but about 1 out of 4 female NEET youth attended no school or are illiterate. Most female NEET youth must ask for permission to leave the home for a health visit (88.6 percent), and more than half (64.7 percent) must ask for permission to go to the store.

Additional research is needed to understand current trends. The extent that girls and young women are exercising their individual agency or are facing pressure to remain home is relevant information to design effective programs that help female youth remain in the education system, participate in training or join the labor force. These trends also have implications about the roles of families and communities in this process.

Source: JustJobs Network analysis of Institute of Human Development Survey-II (IHDS-II) data, 2011-2012

available.⁴⁸ Early marriage in India is ascribed to cultural norms and economic considerations – tied to the perception that girls are less likely than boys to bring economic security to the family.⁴⁹ This contrasts with the perception of boys, who are seen to be earners for the family and providers of economic security for their parents in old-age.⁵⁰

Given the dearth of India-specific research on NEET youth, this report examines some research from international sources to delve deeper. Relevant factors contributing to the numbers of those that are NEET are education challenges or low success in searching for a job. For example, some NEET youth have reported leaving school because of lack of interest, poor health, or poor education outcomes such as struggling with numeracy or literacy.⁵¹ Other research shows that some youth who are NEET try to find work and give up because they do not find jobs or they believe that jobs are unavailable, or do not know how to find jobs.⁵² Finally, migration has also been cited as a cause for youth falling outside of the education system and the labor force.⁵³

From a program and policy standpoint, NEET youth are a diverse population and addressing the particular challenges they face cannot be encapsulated in a simple, linear strategy to support them. Additional information is needed to identify the primary causes for Indian youth who are NEET. For example, of the youth who leave school before graduating in order to work, what percentage are unable to find work? How are their needs distinct from youth who have graduated from the formal education system but are unable to find work? How many NEET youth are persons

with disabilities? Of female NEET youth, how many were working previously, but then dropped out of the labor force? Understanding these factors is important for developing solutions that improve the employability of youth.

2d. Vulnerable Youth and Labor Market Outcomes

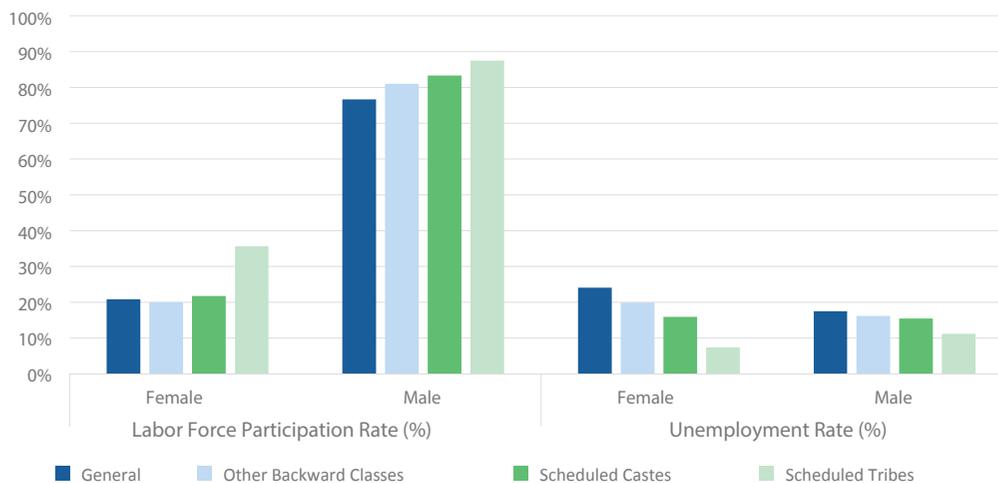
Data on Labor Market Outcomes

According to the Pew Research Center's 2017 Global Attitudes Survey, three out of four Indians believe that, "when children today in India grow up, they will be better off financially than their parents."⁵⁴ Delivering on this optimism calls for a series of measures that will break the perpetual cycle of vulnerability. This entails a life-cycle approach to developing the capacities of individuals. It is in youth that a strong educational foundation, skills and employability come together to determine a person's transition into gainful livelihoods.

The National Statistical Office Periodic Labour Force Survey (PLFS) data for 2017-2018 show that the labor force participation rate (LFPR), or the proportion of youth ages 20-29 who are working or looking for work, varies by social group and sex (**Figure 5**). LFPR is highest for youth from Scheduled Tribes, followed by youth from Scheduled Castes (**Figure 5**). Compared to male youth, far fewer female youth are in the labor force. Female labor force participation hovers around 20 percent across all social groups, with the exception of female youth from Scheduled Tribes, who have a labor force participation rate of 35.7 percent (**Figure 5**).

Figure 5

Youth (ages 20-29) Labor Force Participation and Unemployment by Social Group and Sex, 2017-2018



Source: Ministry of Statistics and Programme Implementation, National Statistical Office. "Annual Report, Periodic Labour Force Survey (PLFS), 2017-2018," 2019.

Note: Youth labor force participation rate captures youth who are employed or looking for work (or the sum of individuals employed and unemployed) as a proportion of the working-age reference group. Unemployment rate captures only youth who are not employed, as a proportion of those who are in the labor force.

Table 1

Employment Status by Completed Education, Youth (ages 18-29), 2015-2016

Education Level Completed	Employed (%)	Unemployed (%)	Not in Labor Force (%)
Not literate	43.0	2.2	54.8
Below Primary Level	46.7	2.5	50.8
Primary Level	47.2	3.1	49.8
Middle/Secondary/Higher Secondary Level	28.3	3.3	68.4
Certificate Course at Undergraduate Level	29.3	9.0	61.7
Diploma at Graduate Level	35.1	10.5	54.4
University graduate and above	34.5	18.4	47.1

Source: "Report on Youth Employment - Unemployment Scenario, Volume II, 2015-2016." Ministry of Labour and Employment, Labour Bureau, 2016

Note: Employed youth expressed as youth who are employed, as a proportion of all youth who are employed or looking for work, i.e. participating in the labor force. Unemployed youth expressed as youth who are not employed, as a proportion of youth who are in the labor force. Youth that are not in the labor force expressed as youth that are not employed nor looking for work, as a proportion of all youth in the working-age reference group.

About .5 percent of youth ages 15-29 report not joining the labor force due to disability.⁵⁵ Other data suggest that only about one-third of persons with disabilities are employed,⁵⁶ though more data are needed to understand labor force and employment trends for youth with disabilities. Youth with disabilities likely face hiring and workplace discrimination, due in part to misperceptions about their capabilities.⁵⁷

At 17.8 percent, Indian youth have a far higher unemployment rate than the national average of 6.1 percent.⁵⁸ Among youth, unemployment is highest for those ages 15-19 (25.5 percent), followed by youth ages 20-24 (23.7 percent), and youth ages 25-29 (10.7 percent).⁵⁹ But unemployment tends to be lower among the lower socio-economic strata and among vulnerable youth that work out of necessity, often in precarious work. Corroborating this inference, for instance, is the fact that unemployment is lowest for youth from Scheduled Tribes (**Figure 5**).

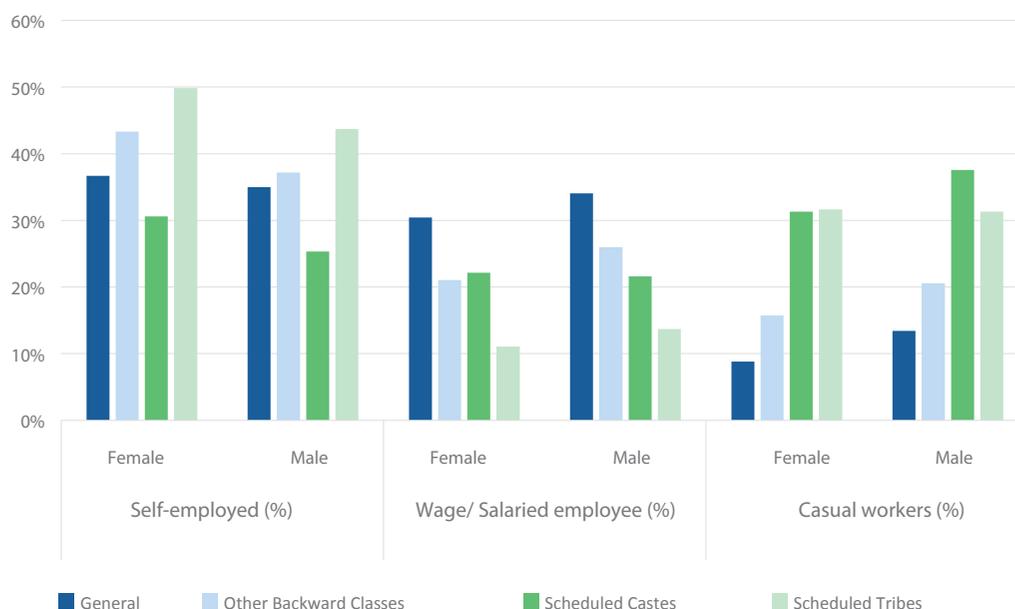
In addition, recent data show that unemployment is higher among the educated who can wait for the right job to come along, and lower among those with less financial means and education.⁶⁰ Put another way, as one moves from lower levels to higher levels of education, unemployment also rises (**Table 1**). Table 1 also illustrates the high proportion of youth at all education levels that are not in the labor force. Among youth ages 18 to 29 that completed a middle, secondary or higher secondary level of education, 68.4 percent are not in the labor force.

Among the different types of work that youth are engaged in, self-employment and casual work are the most pervasive. But these forms of work tend to be characterized by the sharing of low-productivity work and low wages. For example, casual work is generally associated with underemployment, and tends to garner lower wages.⁶¹ Niti Aayog has further highlighted underemployment as a critical challenge in India.⁶² A marker for underemployment is the extent that working individuals would be willing to work more. Though data are not broken down by age, as of 2017-2018 about 9.7 percent of all workers reported that they were available for additional work.⁶³ Given high rates of precarious work and unemployment among youth, more of them are susceptible to underemployment.

Male youth from Scheduled Castes make up the highest share of casual workers, while female and male youth from Scheduled Tribes make up the highest share of the self-employed, and the lowest share of wage or salaried workers (**Figure 6**). These trends further underscore the fact that vulnerabilities play out in education and later in labor market outcomes. In her experience connecting youth from vulnerable backgrounds to jobs, Gayathri Vasudevan, CEO of LabourNet, a social enterprise and skills provider, also finds that “vulnerable youth face both systemic and societal challenges. Youth from low-income families do not have access or means to upgrade their skillset and usually end up doing menial jobs in the informal sector with low wages.”

Figure 6

Youth (Ages 20-29) Type of Employment by Social Group and Sex, 2017-2018



Source: Ministry of Statistics and Programme Implementation, National Statistical Office. “Annual Report, Periodic Labour Force Survey (PLFS), 2017-2018,” 2019.

When considering income^{ix} for female and male youth, and by social groups and religion (**Figures 7, 8, and 9**), income is lowest for vulnerable youth. As Figure 7 illustrates, females have lower income per capita than men. Per capita income also declines as one moves down the caste hierarchy, with youth from Scheduled Tribes having the lowest (**Figure 8**). Across religious groups, youth who are Muslim have the lowest income, followed by youth who are Buddhist, and youth who are Hindu (**Figure 9**).

Low Female Youth Labor Force Participation

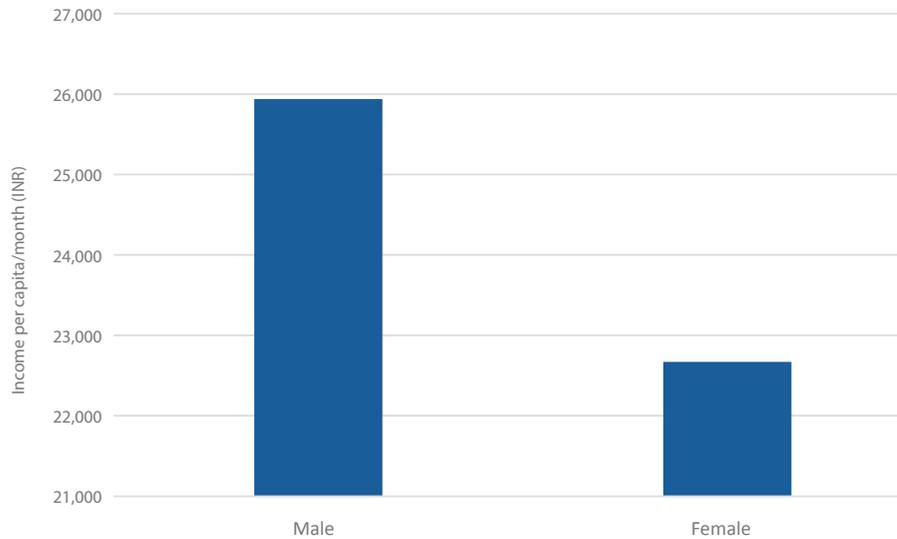
The previous section identified relevant factors for high NEET rates among female youth. This section considers other factors that contribute to low female labor force participation.

Fewer than one in four women 15 years and above—23.3 percent—enter the labor market.⁶⁴ Female labor force participation has declined consistently since 2004, when it was 42.7 percent.⁶⁵ This drop can be attributed to several

^{ix} PLFS 2017-2018 income data is not disaggregated by age. IHDS data for income per capita per month as of 2011-2012, the most recent data available, captures data by age and income from multiple sources, including the following categories: salaries and bonuses, agricultural wages, non-agricultural wages, remittances, income from property and pensions, and government and NGO benefits (Desai, Sonalde, Amaresh Dubey, and Reeve Vanneman. “India Human Development Survey-II (IHDS-II), 2011-2012: User Guide.” University of Maryland and National Council of Applied Economic Research, New Delhi, 2015. Ann Arbor, MI: Inter-university Consortium for Political and Social Research).

Figure 7

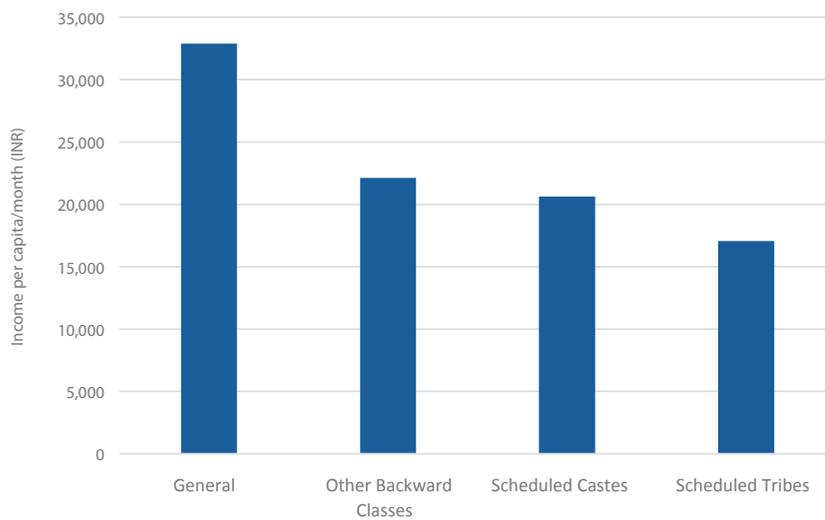
Youth (ages 15-29) Income by Sex, 2011-2012



Source: Institute of Human Development Survey-II (IHDS-II), 2011-2012.

Figure 8

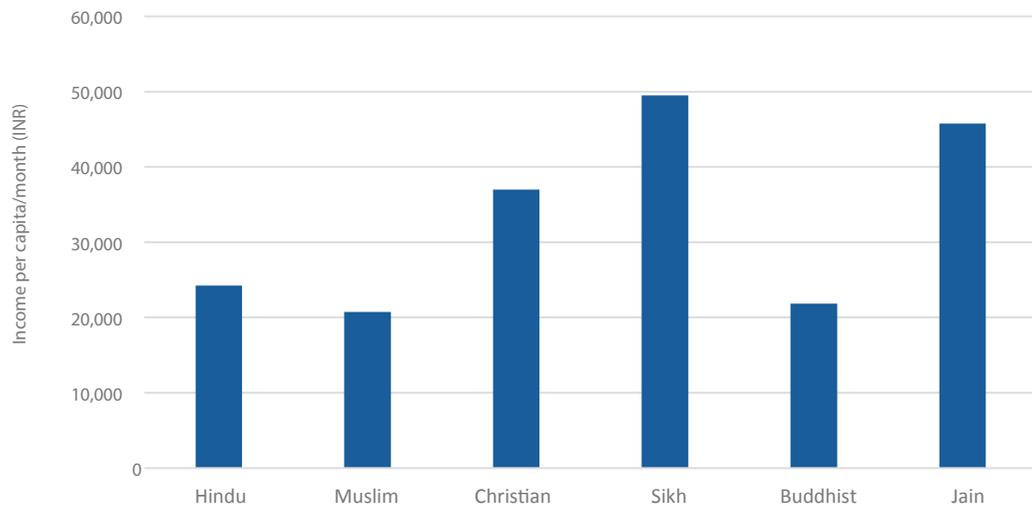
Youth (ages 15-29) Income by Social Group, 2011-2012



Source: Institute of Human Development Survey-II (IHDS-II), 2011-2012.

Figure 9

Youth (ages 15-29) Income by Religion, 2011-2012



Source: Institute of Human Development Survey-II (IHDS-II), 2011-2012.

factors ranging, for instance, from girls and young women staying in education longer and delaying their entry into the labor market, to the ‘middle income effect’—whereby women drop out of the labor force when household incomes go up.⁶⁶ Declining rural female employment in agriculture,⁶⁷ falling demand from non-farm sectors that traditionally hire more women workers, such as manufacturing, and continuing social disapproval are also important factors.⁶⁸ Other culprits include migration and the nuclearization of families, which leads to fewer women to manage the household⁶⁹—since the

burden of domestic work falls disproportionately to women.

Rituparna Chakraborty, Co-Founder and Executive Vice President of TeamLease, a human resource company, also describes the challenges that young women face in finding stable work with the potential for career growth. She notes, “women are highly overrepresented in informal, low paying occupations like domestic service, agricultural work, garments and textiles, and face high under-representation in medium- to high-skilled occupations.”

Female youth are more likely than male youth to engage in unpaid domestic duties as their primary activity.^x For example, one percent or less of male youth between the ages of 15-29 engage primarily in domestic duties.⁷⁰ Far more women focus mainly on domestic duties. About 19.3 percent of female youth ages 15-19 engage only in domestic duties, which jumps to 48.7 percent of female youth ages 20-24, and peaks at 55 percent of female youth ages 25-29.⁷¹

Although young women engaged in domestic activities can contribute to the economic well-being of the household, available evidence suggests that a large portion of domestically based women would prefer to be working.

Over 30 percent of women engaged mainly in domestic activities would like to work, according to the most recent data available.⁷²

As noted in the section on NEET youth above, cultural norms and expectations are a major factor, in addition to the extent that female youth can afford to remain out of the labor force. For example, high-caste Hindu and Muslim women generally show the lowest rates of labor force participation, from youth into adulthood.⁷³ These findings show myriad constraints to a young woman's choice to participate in the labor force. Low labor force participation among young women seeking to work is a loss of precious productive potential.



Sangeeta Kumari

26 years, SC,
Completed 11th grade,
dropped out of 12th

Sangeeta Kumari is a woman with soul. Originally from Bundelkhand, Uttar Pradesh, defying all norms at the age of 16, she fell in love with a young man from Chennai. But when she and her partner approached their parents to allow them to marry, both sets of parents were against the union. Sangeeta, who had until that point been in school, was just beginning twelfth standard. But with the turmoil in her life, she dropped out of school to elope and marry the man she loved.

The couple, happily married, now have two sons, Manan, aged 4 and Tanmay, aged 8. Sangeeta would like to assist her husband with household expenses by taking up some stitching work that she can perform from home. But she would only do this after their children are a bit older. She would also be amenable to working outside the home, but she worries that this may reflect badly, in the eyes of society, on her husband's ability to provide for their family.

Source: Interview and photo by JustJobs Network.

^x Demonstrating the extent of the unequal burden of unpaid care work that female youth likely face, the amount of time that women (all ages) engage in unpaid care work as a primary activity in India is over nine times the amount of men (297 minutes per day for women, compared to 31 minutes per day for men) (International Labor Organization (ILO), "Care Work and Care Jobs: For the Future of Decent Work," 2018).

Marriage and being NEET also shape women's preferences and the employment opportunities they have available to them, should they seek to join the labor force. One study across four large cities in India found that female youth who were married or had children, and were seeking work, preferred to work from home; this reduces available options for work.⁷⁴ Childcare and domestic expectations may also shape time preferences. While findings vary, one survey of young people ages 18-30 found that 82 percent of females prefer full-time work (compared to 87 percent of male youth).⁷⁵ However, another survey found that only 22 percent of women ages 15-55 prefer full-time work, compared to 73 percent who prefer part-time work and five percent who prefer occasional full-time or part-time work; though the youngest women were more likely to report wanting full-time work.⁷⁶ These findings suggest that the expectation that women take on the majority of childcare and domestic responsibilities affects not only women's preferences for home-based or part-time work, but the kinds of jobs that could meet those preferences.

Even with skills training, compared to male youth, female youth face uneven results in turning training into jobs. Prillaman, Pande, Singh and Moore conducted a study in 2017 about youth participants in a skills training program in India, and found that compared to male youth, female youth were less likely to receive a job offer, and those who did receive a job offer were less likely

to accept it.⁷⁷ In the study, even after controlling for factors such as sector, age, education level, and caste and minority status, female youth were less likely than male youth to receive a job offer (about 72 percent of female trainees received a job offer, compared to 85 percent of male trainees).⁷⁸ Of female youth who received job offers, only 56 percent accepted a job offer, compared to 70 percent of male youth who accepted a job offer.⁷⁹ The main reasons female youth gave for not taking a job offer were personal and family concerns, followed by concerns about migration.⁸⁰

Most trainees (female and male) left their jobs post-training within the first year, and only 12 percent of female youth, compared to 33 percent of male youth were employed again after leaving the job.⁸¹ Compared to men, women were more likely to give reasons such as personal problems at home, family pressure, marriage or pregnancy, or health issues as reasons for leaving their job.⁸² These findings suggest that although training programs can help address skills gaps for women, other major barriers continue to inhibit women from working. These results illustrate the pitfalls that exist for women at every stage of joining the labor force. Existing research already shows that women face discrimination in hiring and wages.⁸³ Compared to men, women also experience more social and familial constraints to participating in skills programs or working, and women continue to face family pressure that leads them to leave a job if they have one.⁸⁴

3. Labor Market Demand and Youth Aspirations

3a. Labor Market Demand: Growing Sectors and Employment Needs

The National Skill Development Policy of 2015 identifies 24 sectors that are likely to need more skilled workers.⁸⁵ The top four in order of need are: building and construction, retail, transportation and logistics, and beauty and wellness. Jobs

in sectors such as information technology, infrastructure including clean and renewable energy, tourism and hospitality, and healthcare are also expected to grow rapidly in India.⁸⁶

The skill needs are high. An additional 109.73 million skilled workers will be needed,⁸⁷ while an estimated 46 percent of workers will be employed

Box 3

Matching Youth Labor Supply to the Needs of Employers

Changing technologies and the associated shift in the needs of businesses calls for newer skills for even medium-skilled and low-skilled job roles. This adaptability has become essential to ensure that a young person is employable not just today, but also in the future. Digital skills are sought after but imparting them depends on enabling the provision of digital services and tools for last mile access.

The three biggest challenges employers confront in hiring youth are (i) mismatches between what businesses want and the available youth workforce, (ii) improving the youth workforce so that they can meet the demands of employers and (iii) preparing youth for employer demand.

These manifest in the high cost of acquisition of candidates for even base-level openings in sales, logistics and customer service and in high levels of attrition. The Micro, Small and Medium Enterprises and the startup sector is particularly affected by this on account of their inability to bridge these gaps through their own resources.

To meet the needs of employers, youth need creativity, persuasion, collaboration, adaptability and time management.

Rituparna Chakraborty

Co-Founder and Executive Vice President of TeamLease

TeamLease is a human resource company in India and a partner to the National Employability Through Apprenticeship Program. TeamLease supports youth, including youth from low-income households, with employment matching and training services.

Box 4

What do Small Businesses Need? Perspectives from a Private Skills Foundation

Our curriculum is low on theory and high on practice, lab work and experiential learning. Since the training program and content is sourced from an industry/sector leader, it ensures that training is aligned with specific skill demands in the labor market and specifically the employment needs of the given sector.

Employers from small- and medium-size businesses are very clear that the potential hire must have core domain skills such as plumbing or haircutting. Local employers also tend to place value on customer centricity and professional workplace behavior.

80 percent of all our employers are local businesses—small and medium in size. The challenge is for youth to have realistic expectations about the job, such as salary, workplace environment, or job titles.

Sanjay Shivnani

Senior Vice President and Head, Aditya Birla Skills Foundation

Aditya Birla Skills Foundation provides vocational education and skill training to youth between the ages of 18-30.

in jobs that currently do not exist or that will require radically different skills.⁸⁸

A little less than half—about 47.4 percent—of the educated or formally trained workforce is considered to be employable as of 2019.⁸⁹ The only Bachelor's degrees with over 50 percent of its graduates employable are Bachelor of Engineering or Technology degrees.⁹⁰

New skills will be needed for jobs across skills levels (**Box 3**). Skills gaps include higher-level cognitive skills; soft skills such as professionalism, communication, discipline, and technology skills;

along with sector-specific knowledge.⁹¹ Apart from technical, sector-specific expertise, the top three skills that employers in India hire for are communication skills, adaptability, and readiness to learn.⁹²

Box 4 highlights the skills needs of small businesses.

Key goals of India's skills training efforts include increasing access to employment, improving productivity and the wage potential of workers.⁹³ Due to changes in job needs, youth may need to continue skill development over time (**Box 5**).



Box 5

Skills Training To Keep Up With the Labor Market

Today's youth are interested in jobs that provide them higher salaries, opportunities for career growth and job security. Employers value experience, willingness to learn and the ability to use technology.

As part of its approach, LabourNet connects with industry associations and companies' different employers for placement and staffing solutions. Connections help link students with jobs and apprenticeship opportunities.

Given the changing employment landscape and technological change, there is a need to re-skill on a regular basis.

Gayathri Vasudevan

CEO, LabourNet

LabourNet is a social enterprise and provides skills training, employment and entrepreneurship support to youth and adults, including women, candidates from Other Backward Classes, Scheduled Castes, and Scheduled Tribes.

Yet, until employers buy into the idea that higher skills merit a higher wage, employers, especially those in the informal sector, may continue to pay low wages to workers.⁹⁴ The sectors that currently have the highest demand for workers are also low skill-intensive and pay below-average wages.⁹⁵ These conditions suggest that short-term skills training alone may not lead to an increase in pay for youth.⁹⁶

Vasudevan of LabourNet has similarly found that the average salaries for youth who get a job after participating in skills programs is comparable to, or lower than the minimum wage. She finds that wages rise gradually with work experience. On-the-job training and continued skills development over the long term can help increase productivity, and hopefully wages follow.

Box 6 describes employer hiring practices.

3b. Youth Aspirations

Youth in India aspire to stable and fulfilling jobs, see the value in skills training, and want more career guidance. They are also interested in entrepreneurship opportunities. This is exactly what a nation would want from its youth. But these aspirations are often tempered by reality. The biggest task confronting those working to deliver on these aspirations is to root their interventions in the real struggles that these youth are likely to face on their journeys.

For both female and male youth, among the top criteria that youth look for in a job are good pay, career advancement, and job security.⁹⁷ These factors also contribute to higher job turnover among youth in India,⁹⁸ and a high demand for a more limited supply of government jobs.⁹⁹ Vasudevan of LabourNet finds that most youth “aspire for public sector or government jobs. As per one of our primary surveys...youth today

Box 6

How do Employers Hire?

To hire workers, employers primarily prefer job portals, internal referrals or support from hiring consultants.ⁱ Only 2 percent prefer hiring through job fairs.ⁱⁱ In JustJobs Network discussions with employer associations for a forthcoming study in Haryana, employers similarly prefer informal personal connections, advertising in nearby areas, or the help of hiring firms. Youth rely on family or friend networks, among other approaches. When employers and youth rely on different channels in their respective searches, it exacerbates the mismatch between labor supply and employer demand.

i, ii. Wheebox, PeopleStrong, Confederation of Indian Industry, “India Skills Report-2019,” 2018.

are inclined more towards the service sector as compared to manufacturing and agriculture.”

Prospects for future income also influence decisions to migrate for work, with youth weighing the trade-offs. For example, Vasudevan finds that youth may be more willing to be unemployed than to migrate for work. Anurag Behar, CEO of Azim Premji Foundation, also finds that youth are less willing to migrate when the costs of relocating are higher than expected earnings at the destination. On the other hand, Shashank Vira, Managing Partner of The Hearth

Education Advisors, an education consulting service, notes that perceptions about available opportunities and what one’s potential income could be, can also drive youth to migrate.

In a recent Observer Research Foundation (ORF) and World Economic Forum (WEF) survey in India, when asked for their preferred work arrangements, about 42 percent of female youth and 40 percent of male youth value flexible work arrangements, such as flexible work location or schedule.¹⁰⁰ Youth also have high expectations for their income generating potential. In response



Neeraj Kumar

29 years, SC,
Completed 7th grade,
dropped out before
starting 8th

By his own admission, Neeraj was always more interested in being active than in the sedentary routine of studying for school. Neither of Neeraj’s parents are educated. They did not push him to remain in school. After Neeraj dropped out, he worked in various jobs from assisting in auto repairs in informal workshops, to assisting with false ceiling installations, and eventually as a driver.

It was by coincidence that close to where Neeraj worked as a driver, there was a dance academy. It was then that Neeraj acknowledged his passion. He wanted to be a performer. Neeraj attended the dance academy for three months and then began working with one of the teachers there. He performed at weddings and even traveled to Italy and Thailand to perform. In 2011, he appeared in India’s Got Talent.

In 2015, Neeraj borrowed 1.5 lakhs from his mother, who was supportive of his choices, and started his own dance troupe. Since then, he has accumulated other debt to pay for inputs like costumes and lighting for his shows. Today, Neeraj is an entrepreneur, he has passion, talent and aspires to move into choreography. But he is still mired in debt. Next month, he is getting married. What, he asks, happens then... who knows?

Source: Interview and photo by JustJobs Network.

to a question in a recent YouGov-Mint survey, the majority of youth ages 18-21 expected to earn at least INR 30,000 per month as their starting salary.¹⁰¹ For context, over 80 percent of working women and men in India earn less than INR 10,000 per month.¹⁰²

Youth desire skills training and learning opportunities. Generation Unlimited, a partnership with UNICEF and other organizations, recently conducted consultations with youth in six states and Delhi. Youth who had dropped out of school wanted alternative and flexible learning opportunities.¹⁰³ In the ORF/WEF survey, about 76 percent of youth said they are very interested in pursuing skills training.¹⁰⁴ However, while 96 percent of young women said they are very or moderately interested in training, only 19 percent had enrolled.¹⁰⁵ But the desire for training doesn't always translate into enrollment, and as seen earlier, obtaining skills training does not always translate into better employment outcomes in terms of productivity or wages.

Primary motivators for wanting skills training include having greater options in job opportunities, and higher pay.¹⁰⁶ Youth prefer a moderate time commitment, and they prefer that the training program offer financial compensation and certification.¹⁰⁷

Youth also desire more guidance in their work-related decisions and opportunities for on-the-job learning. In the ORF/WEF survey, over half of respondents said that a lack of guidance to identify jobs that match their skills is the main barrier to finding a job they want.¹⁰⁸ Almost half indicated that interacting with industry professionals

would be the best form of guidance.¹⁰⁹ Youth who participated in Generation Unlimited consultations also desired career guidance and support for career planning.¹¹⁰ In addition, youth are interested in on-the-job learning. In a survey by Wheebox, graduates prefer internships or apprenticeships as a means to adapt to a work environment and identify their strengths and weaknesses before landing a full-time job.¹¹¹

It is important to note that at present, there are not enough opportunities for on-the-job training, apprenticeships and internships in the formal sector of the kind that many of these youth aspire to, given the nation's large youth population, and those with low levels of education and learning. Much more needs to be done to address the specific needs of vulnerable youth to ensure that they also have access to these opportunities, and to also consider certification through mechanisms like Recognition of Prior Learning for those that receive training through informal modes of on-the-job experience, internships and apprenticeships.

When it comes to entrepreneurship, JustJobs Network's research suggests that a majority of youth would—in order of preference—rather have a government job, then a private sector job; and if neither of these options pan out, young people look to entrepreneurship.¹¹² Youth, and their families, place high value on job security and stability of income, both of which are harder to ensure with entrepreneurship.

About 38 percent of youth in the ORF/WEF survey said that self-employment as an entrepreneur would be an ideal job, though of these youth,

a third said they do not feel prepared for it.¹¹³ Youth who participated in Generation Unlimited consultations similarly wanted more information and guidance to fulfill entrepreneurship aspirations.¹¹⁴ Youth aspirations to become entrepreneurs must be assessed not only on the basis of their aspirations, but also on the basis of their aptitude, ranging from level of education

and learning, skill and factors such as appetite for risk. What resources a young person has available to them – from access to finance, to registration assistance, and other forms of business support – are also key, and determine their ability to start a business, build it into a viable enterprise, and most importantly sustain and grow it.



Priya Kumari

23 years, SC

Although they themselves were not educated, Priya's parents wanted her and her siblings to have better opportunities than they themselves had. They went to great lengths to support their children's education. This motivated Priya to work hard.

Priya did well in school – but she faced significant challenges in transitioning from 10th to 11th grade. She aspired to become a chartered accountant (CA), but the math she learned until 10th did not lay the foundations for the calculus and matrices that she confronted in 11th grade. According to Priya, it is near impossible for a young person to make it through upper secondary without external coaching and tuition. This, she acknowledged, is difficult for income-strapped households to afford.

But a girl with tremendous resolve, Priya sought out a local non-profit that provided affordable coaching. She also worked as a tutor herself to support the extra costs to pull herself through upper secondary. After she finished 12th grade, she was unable to get into a CA program, so she did a correspondence Bachelor of Commerce from Delhi University and pursued a one-year diploma in finance and banking at a local training institute. Priya believed that this institute was somehow affiliated with PMKVY – though she was unclear about the exact link. The diploma did little to help with placement, and Priya feels that it added little value to helping her achieve her goal of becoming a CA.

Today, Priya is pursuing a Masters in Commerce from the Indira Gandhi National Open University. At the same time, she works at MNS Credit Management Group (P) Ltd, a credit rating company, and she continues to tutor at the same non-profit that helped her through secondary school. Even though the non-profit pays low, she acknowledges, she feels an obligation to help youth in the same way that the non-profit helped her when she needed it.

Source: Interview and photo by JustJobs Network.



4. Landscape of programs to strengthen youth employability

The aim of skills development, employment or entrepreneurship programs¹¹⁵ is to help reduce unemployment, and equally importantly underemployment, by helping youth leverage opportunities to engage in productive and appropriately remunerated work.

- **Skills development** imparts job-specific skills, business skills, or transferable skills. Also known as life skills or soft skills, transferable skills include capacities such as communication, problem-solving, and the ability to adapt to situations that arise on the job.¹¹⁶ Along with basic cognitive skills, technology skills and digital literacy are increasingly identified as critical.¹¹⁷ Skills training can be delivered through skills training courses, and on-the-job learning opportunities such as internships and apprenticeships.
- **Employment services** help youth find jobs or connect to employers, such as through improved job search efforts, job placement or employer-matching.
- **Career counseling** could include one-on-one consultations, mentoring, and coaching. Career counseling helps to assess one's interests, abilities, and available tools to strengthen

career prospects.¹¹⁸ These tools could include enrolling in skills development programs.

- **Entrepreneurship promotion** helps participants start or expand a small business. These programs provide technical support or facilitate access to financing. The backgrounds of entrepreneurs vary.¹¹⁹ For example, some entrepreneurs start enterprises out of necessity, and to contribute to household income.¹²⁰ Other entrepreneurs aspire to creating enterprises and see them grow as an end to itself.

4a. National Youth Employability Framework and Government Programs

The Ministry of Skill Development and Entrepreneurship (MSDE), established in 2014, guides the Skill India initiative and the evolving ecosystem of youth employability efforts in India.¹²¹ The national framework for skills standards, training, and job placement is summarized in Box 7, below. The framework supports skills efforts by MSDE and other government ministries.

As coordinators of the private sector, the National Skill Development Corporation (NSDC) and Sector Skills Councils (SSCs) are important players in the national skills framework (**Box 8**).

Framework for Youth Employability in India: Skill Standards, Training and Job Placement

Dimension	Description
Skills Standards	<p>What are the skills standards?</p> <p>The National Skills Qualification Framework (NSQF) standardizes skill levels from 1-10. Youth are certified under NSQF—to signal to employers their level of employable knowledge and skills. The NSQF levels are based on occupational standards by sector and job roles. The standards are also known as Qualification Packs, which are made up of National Occupation Standards. Under the Recognition of Prior Learning (RPL) process, the aim is to certify youth with informally acquired skills in line with NSQF.</p> <p>How do standards reflect the private sector?</p> <p>Sector Skills Councils (SSCs), which are guided by the private sector, create the standards that inform the NSQF. 40 SSCs exist across services, production and agriculture. For example, there are SSCs for retail, IT, and healthcare, to name a few.</p>
Training	<p>Who provides skills training?</p> <p>Private sector and NGO Training Partners and Program Implementing Agencies (PIA) help deliver trainings and job placements. The National Skill Development Corporation (NSDC), a public-private partnership, approves Training Providers and designates PIAs such as SSCs, and funds training centers. Training providers help to assess and certify youth post-training and certify youth RPL levels.</p> <p>Industrial Training Institutes (ITIs), Polytechnics and other vocational programs also provide training and are overseen by the Directorate General for Education and Training (DGT) under MSDE.</p> <p>How are States involved?</p> <p>States help implement national programs and have State-specific funding programs. State Skill Development Missions (SSDMs) help mobilize trainees such as through job fairs. They also take steps to target programs to vulnerable youth, such as school drop-outs.</p> <p>What kind of training is offered, and for how long?</p> <p>The duration of short-term training varies. For example, under Pradhan Mantri Kaushal Vikas Yojana (PMKVY), short-term trainings range from 150 to 300 hours, or about 3-6 months depending on the job roles. Trainees learn sector-specific skills and other skills such as soft skills and digital literacy.</p> <p>Under Deendayal Upadhyaya-Grameen Kaushalya Yojana (DDU-GKY), trainings range from short-term—576 hours or 3 months, to long-term—2304 hours or 1 year. Trainees learn sector-specific skills, and soft skills, English and IT literacy. Under the long-term training, trainees can also gain 8-10th standard qualification under the National Institute of Open Schooling (NIOS).</p> <p>Other long-term trainings generally range from 1-2 years, such as at ITIs. At ITIs, trainees learn more intensive technical skills for engineering and non-engineering trades. Other skills such as entrepreneurial skills are being incorporated.</p>
Joining the workforce	<p>What are the opportunities for on-the-job learning?</p> <p>Opportunities for trainees to learn on the job include paid apprenticeships, on-the-job learning through training programs, and internships.</p> <p>How are trainees connected to employers?</p> <p>Some skills programs take steps to place trainees into jobs. These include programs like ITIs, PMKVY and (DDU-GKY) among others.</p>

Dimension	Description
Incentives	<p>What are incentives to trainees and employers?</p> <p>Programs like PMKVY and DDU-GKY subsidize training costs for trainees. PMKVY provides monetary incentives to RPL-certified youth. DDU-GKY offers benefits such as lodging for residential programs or transport assistance.</p> <p>Programs such as the National Apprenticeship Promotion Scheme (NAPS) help to cover employer costs for stipends paid to apprentices, and reimburse training costs by training providers.</p>

Source: JustJobs Network analysis of Indian government information from Ministry websites, reports, and information released in Press Information Bureau documents.

Box 8

Harnessing Public Private Partnerships to Improve Labor Market Outcomes

The National Skill Development Corporation (NSDC) was set up as a PPP in 2008, reflecting the desire for disruption in favor of a new, better way to achieve results in training the nation's labor force, especially its youth. The goal was to enable industry to give collective input to the education and skills training systems about the type of employees they need.

Several gaps in the landscape provided impetus for setting up the NSDC.

First, there was a need for information on available jobs and to understand how demand projections would change in subsequent years – what sectors would need how many workers and when? Second, there was a need to know what competencies and qualifications were needed for which job roles. Third, there was a need to have a body that could craft a strategy to leverage and achieve economies of scale in training. Fourth, there was a need for accreditation that made sure there was evidence of skill and experience that workers accumulated as they moved from one job to the next. Fifth, apprenticeships and internships were less popular among youth than, for instance, a job in the public sector. There was a need for a wider range of skills training that could go beyond apprenticeships and internships.

These are gaps that industry can help fill. NSDC and the Sector Skills Councils must be appropriately vested with the ability to institute the change the ecosystem needs to address these gaps.

Public Private Partnerships (PPPs) reflect the desire to do something new, to disrupt the current way of doing things.

Dilip Chenoy

Secretary General, Federation of Indian Chambers of Commerce and Industry (FICCI)

Figure 10 illustrates the major government skills, employment and entrepreneurship programs primarily targeted at youth and vulnerable groups. JustJobs Network identified a diverse set of programs across eight government ministries, including MSDE, the Ministry of Rural Development, Ministry of Minority Affairs, and Ministry of Human Resource Development, among others.

Most skill development programs, especially those targeted to youth, focus on employment in entry-level jobs. Almost half of the programs identified do not require formal education or not more than a 5th standard level, and are more directly targeted to youth who have dropped out of school. PMKVY has the highest number of trainees per year (**Figure 10**). The annual job placement rates of trainees range from below

to over half of trainees. For example, about 44 percent of PMKVY trainees, and 56 percent of DDU GKY trainees, have been placed into jobs as of 2018-2019. These job placement rates reflect a number of employment conditions, including the ability of trainees to find jobs with newly gained skills; and challenges beyond skill levels as noted above, such as youth aspirations or the availability of jobs.

According to one estimate, annual spending for major skills schemes in India totals about INR 42,780 crore;¹²² this figure includes general education and technical and vocational education. As of 2018, about 7.1 percent of youth between the ages of 15-29 reported receiving vocational or technical training—about 4.6 percent received informal training, such as self-learning; and 2.5 percent received formal training.¹²³

Figure 10

Government Programs to Improve Employability of Youth, Including Vulnerable Youth

	Program	Target Group	Annual Accomplishments
	Ministry of Skill Development and Entrepreneurship Pradhan Mantri Kaushal Vikas Yojana (PMKVY) <i>Est 2015</i>		8.7 lakh trained 3.8 lakh placed in jobs Recognition of Prior Learning: 6.5 lakh trained, 4.7 lakh passed
	Ministry of Skill Development and Entrepreneurship National Apprenticeship Promotion Scheme (NAPS) <i>Est 2016</i>		6 lakh Apprentices engaged on Skill India Apprenticeship Training Portal (year not designated) Eligibility: Completed at least 5th standard

LEGEND

-  Skills development. Includes skills training courses or on-the-job learning such as internships or apprenticeships.
 -  Employment services or career counseling. Employment services include job placement. Career counseling includes consultations or mentoring on steps to improve job prospects.
 -  Entrepreneurship promotion. Includes technical support or facilitating access to finance for sustaining a business.
-
-  Youth
 -  School drop-out
 -  Rural
 -  Low-income
 -  Marginalized/minority communities
 -  Women

	Program	Target Group	Annual Accomplishments
	Ministry of Skill Development and Entrepreneurship Jan Shikshan Sansthan <i>Est 2000</i>		1.6 lakh trained 20,000 entrepreneurs established
	Ministry of Skill Development and Entrepreneurship Pradhan Mantri Yuva Yojana (PM-YUVA) <i>Est 2016</i>		11,154 trained 6,000 oriented for entrepreneurship
	Ministry of Skill Development and Entrepreneurship Skill Saathi <i>Est 2018</i>		10 lakh received counseling
	Ministry of Rural Development Deendayal Upadhyaya-Grameen Kaushalya Yojana (DDU GK) <i>Est 2014</i>		2.3 lakh trained 1.3 lakh placed in jobs
	Ministry of Rural Development Rural Self Employment Training Institutes (RSETIs) <i>Est 2011</i>		41,323 trained 8,776 connected to credit 2,238 placed in wage jobs 20,714 settled in self-employment
	Ministry of Rural Development Deendayal Antyodaya Yojana - National Rural Livelihoods Mission (DAY-NRLM) <i>Est 2011</i>		24,572 trained 40,000 gainfully employed
	Ministry of Human Resource Development Saakshar Bharat/Padma Likhna Abhiyan <i>Est 2009</i>		From 2010-2017: 66.9 million adults passed exams by National Institute of Open Schooling and National Literacy Mission Authority.*
	Ministry of Human Resource Development National Apprenticeship Training Scheme (NATS)** <i>Est 1961</i>		4.2 lakh trainees Eligibility: Completed at least 10th standard
	Ministry of Minority Affairs Seekho aur Kamao <i>Est 2013</i>		67,000 trained, placed in employment Eligibility: Completed at least 5th standard
	Ministry of Minority Affairs Nai Roshni <i>Est 2012</i>		59,400 women trained

	Program	Target Group	Annual Accomplishments
	Ministry of Minority Affairs USTTAD (Upgrading Skills and Training in Traditional Arts/ Crafts for Development) <i>Est 2015</i>		16,200 trained
	Ministry of Minority Affairs Nai Manzil <i>Est 2015</i>		20,101 trained
	Ministry of Minority Affairs Gharib Nawaz Skill Development Training for Minorities <i>Est 2017</i>		11,925 trained
	Ministry of Housing & Urban Affairs Deendayal Antyodaya Yojana-National Urban Livelihoods Mission (DAY-NULM) <i>Est 2013</i>		1.1 lakh placed into jobs
	Ministry of Textiles Integrated Skill Development Scheme <i>Est 2011</i>		2.8 lakh trained 1.7 lakh placed into jobs
	Ministry of Electronics and Information Technology Skill Development in Electronics System Design and Manufacturing (ESDM) <i>Est 2014</i>		96,477 trained 66,261 certified Eligibility: Completed at least 8th standard
	Ministry of Youth Affairs and Sports Nehru Yuva Kendra Sangathan, Education in Basic Vocations and Soft Skills program, planned -		-

Source: JustJobs Network analysis of Indian government information and data from Ministry websites, reports, and information released in Press Information Bureau documents.

Marginalized/minority groups include individuals from Scheduled Tribes, Scheduled Castes, religious minorities, persons with disabilities, or other groups with traditionally lower socioeconomic status.

* NCAER, "Skilling India: No Time to Lose," 2018.

** Under the Ministry of Human Resource Development & All India Council on Technical Education, the National Employability Through Apprenticeship Program (NETAP) was also established as a public-private partnership in 2014.

Note: Training and Placement data as of 2018-2019, or most recent year for which data are available. Yearly averages calculated if yearly data were not available.

As of 2018, annual spending is estimated for the following programs: PMKVY: 1776 crore; DDU GKY: 871 crore; Saakshar Bharat: 320 crore; Jan Shikshan Sansthan: 40 crore; Apprenticeship Training: 556 crore. (NCAER, "Skilling India: No Time to Lose," 2018).

Although DDU-GKY is relatively new, limited evidence suggests that there is uptake by vulnerable groups. For a study in 2016, JustJobs Network collected primary data from enrolled trainees and training center managers across Industrial Training Institutes (ITIs), NGO-run and for-profit training providers in Odisha.¹²⁴ Most of the trainees received financial support from DDU-GKY to cover the cost of training, though the program did not cover the cost of training at ITIs. About 80 percent of trainees in the sample had a Below Poverty Line (BPL) card, 81 percent had completed at least secondary schooling, and the proportion by female and male youth was distributed evenly. About 50 percent of trainees in the sample had also been NEET before training. About 76 percent preferred to attend a government-approved training center or programs recognized as meeting government quality standards.

Vocational Training Institutions

MSDE, NSDC and DGT oversee vocational training institutions. Courses at ITIs are open to youth who have completed at least 8th or 10th standards.¹²⁵ Basic Diploma and other vocational

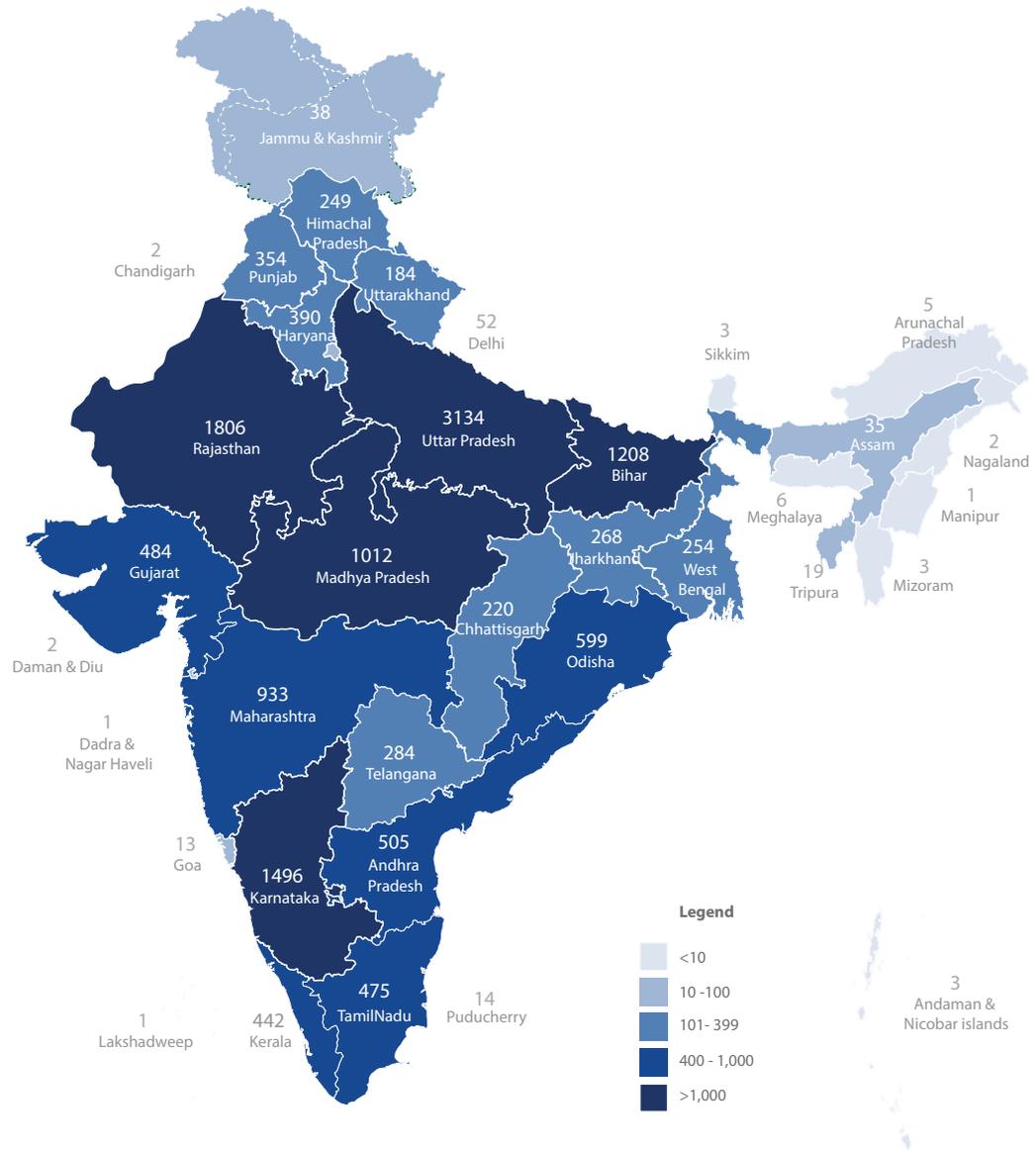
stream programs operate at the upper secondary level (standards 11-12), the Advanced Diploma program is post-secondary level, and Bachelor of Vocational Education and Polytechnics are tertiary level.¹²⁶

ITIs incorporate skills initiatives such as the Craftsman Training Scheme, Entrepreneurship Skill Development, and academic equivalence.¹²⁷ Under academic equivalence, youth who have 8th standard qualifications and complete two years at an ITI can take National Institute of Open Schooling exams to earn the equivalence of 10th standard qualifications, and youth with existing 10th standard qualifications who complete two years at an ITI can take exams for 12th standard qualifications.¹²⁸ The initiative is intended to help ITI graduates to gain vocational skills as well as secondary or higher secondary certification simultaneously, while potentially allowing them to pursue higher education.

In 2017, 12.12 lakh individuals completed training across government and private sector ITIs.¹²⁹ As of July 2019, there are about 14,497 ITIs in India.¹³⁰ The number of ITIs by State are listed below in **Figure 11**.

Figure 11

Map of Industrial Training Institutes (ITIs), by State, 2019



Source: Ministry of Skill Development and Entrepreneurship, NCVT Management Information System, "ITI Count - India All ITIs." Data acquired from website, <https://ncvtmis.gov.in/Pages/ITI/Count.aspx>, July 2019.

Labor Market Information Systems

MSDE has also developed and is working to improve its labor market information system (LMIS). Currently, the LMIS provides national and sub-national data about skills programs, such as key sectors with certified training candidates.¹³¹ Under the Skills Acquisition and Knowledge Awareness for Livelihood Promotion (SANKALP) project, the LMIS is envisioned to become a service platform that provides additional information relevant to job seekers and employers.¹³²

To support matching between job seekers and employers, the National Career Service within the Ministry of Labour and Employment has also developed a common platform.¹³³ As of 2018, the portal had 98.9 lakh—almost 1 crore—job seekers, compared to 9,822 employers registered.¹³⁴ The

platform is considered a key strategy for guiding youth about employment opportunities.¹³⁵

Education programs at the secondary level, especially for vulnerable youth

Multiple government programs focus on improving outcomes for youth at the secondary level (**Table 2**). These include programs to help vulnerable youth complete secondary and higher secondary levels, especially girls and youth from Scheduled Tribes. To promote girls' attendance at secondary schools, the programs incorporate components that have been found to be promising in evaluations of other programs.¹³⁶ For example, the programs provide monetary incentives through scholarships, or mitigate concerns about travel to school by providing lodging.

Table 2
Government Programs to Improve General Education for Youth, Including Vulnerable Youth

Program	Youth Target Groups	Description	Accomplishments
Samagra Shiksha: Integrated Scheme for School Education Ministry of Human Resource Development	Marginalized/ minority groups, low income, rural	As proposed in 2018, subsumes Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Siksha Abhiyan (RMSA), and Teacher Education. Goals: Introduce vocational and life skills such as communication, self-management, technology and entrepreneurship. Envisions industry partnerships.	From 2018-2019: -44 schools upgraded from secondary to senior secondary schools. -Additional subjects approved in 851 senior secondary schools.
Vocationalisation of Secondary Education Ministry of Human Resource Development	Youth in secondary education	Provides funds to support vocational curricula, courses and teaching.	As of 2016: -created 21,000 sections in 9,619 schools -supported capacity of about 10 lakh students

Program	Youth Target Groups	Description	Accomplishments
Begum Hazrat Mahal Scholarship Ministry of Minority Affairs	Girls, religious minority groups	Meritorious scholarship awards for standards 9-12	From 2016-2017: 45,000 girls received scholarships
Eklavya Model Residential Schools (EMRS) Ministry of Tribal Affairs	Scheduled Tribes	Residential schools incorporating standards 6-12	As of 2018: -284 EMRSs have been approved -219 of approved EMRSs in operation -65,231 students enrolled
Kasturba Gandhi Balika Vidyalaya (KGBV) Ministry of Human Resource Development	Girls, marginalized/ minority groups, low income, prior school drop-outs	Residential schools at the upper primary level (standards 6-8), with plans to expand to standards 9-12	As of 2018: -3,703 KGBVs approved -3,697 of approved KGBVs in operation -3.78 lakh girls enrolled -1,314 girls' hostels functional
Atal Tinkering Lab - Atal Innovation Mission (AIM) Niti Aayog	Youth enrolled in standards 6-12	Labs to be established in schools for students in standards 6-12 to create and experiment with technology	As of 2019: 5,441 schools have been selected for grants to establish labs

Source: Indian government information and data from Ministry websites, reports, and information released in Press Information Bureau documents.

Vocational training in the general education system seeks to balance teaching of employable skills in an academic or traditional school environment (**Box 9**). Shashank Vira of The Hearth Education Advisors finds that, “While trade skills have value for all children, the intensity required to convert these into careers might need greater focus and delivery capability than schools (at scale across the country) are likely to be able to

provide. There are some exceptions of course – such as skills of the new age, including coding and digital technologies.” Though it is too early to tell, these trends suggest that efforts such as the Atal Tinkering Lab, part of Niti Aayog’s Atal Innovation Mission (**Table 2**), could be a promising effort for students to advance their technology skills in a general education environment.

Box 9

Integrating Future Employment Needs in General Education

Employability of youth is an important outcome that the schooling system in India must deliver—though it is one among many outcomes. Skills to make youth employable should be integrated into various elements of the school education curriculum, and should not be siloed in a separate track.

Opportunities for developing employability skills should be found in different parts of the school curriculum, particularly from middle school years onwards. Crucial skills include: critical thinking, English language abilities, digital literacy, financial literacy, workplace ethics, including, for instance, punctuality, inclusion and respect for diversity of gender and backgrounds, leadership and working with others.

Merely tagging on a ‘soft skills’ component to an academic school curriculum will not serve the purpose.

Shashank Vira

Managing Partner, The Hearth Education Advisors

The Hearth Education Advisors is an education research and consulting service, including advising on vocational and general education.

4b. Selected NGO Youth Employability Programs

In addition to public efforts in skilling, non-governmental organizations play a critical role in cultivating employability among the nation's youth, often reaching vulnerable populations that may otherwise fall through the cracks. Table 3 is an effort to highlight a sampling of NGO programs working toward this end in India. With 23 programs in total cited below, this is not an exhaustive list, but it illustrates a range of youth employability programs and non-profit providers.

The programs impart soft skills, digital skills, and/or job-specific skills across industries such as retail, healthcare, and technology. Over half of the programs offer career counseling to support youth's transition into the workforce. For example, some programs provide information about available job opportunities to participants, help

youth assess their strengths and abilities, or help youth take other steps to promote self-awareness. Several programs also support job placement or on-the-job learning, such as internships. In addition, about one-third of programs offer entrepreneurship support, including connecting youth to sources of capital, support for starting up or managing an enterprise, mentorship, financial literacy, or imparting business practices such as cost/benefit analysis and negotiation.

Career counseling is a means of helping youth match their interests to employer needs, and address skills gaps. According to Vasudevan of LabourNet, understanding a job-seeker's interests and abilities is essential to helping them connect to viable job opportunities. She also finds that providing information about job opportunities linked directly to skills training helps motivate youth to continue with training and understand their likely job prospects.

Table 3

Selected Non-Governmental Organization (NGO) Youth Employability Programs

Non-Governmental Organization	Youth Target Group	Program Description	States active
Aditya Birla Skills Foundation	Low income	Career counselling through assessments, Soft skills (including English Language and Communication, Financial Literacy, Innovative thinking and Entrepreneurship training), vocational training (domain specific labs, course list - Water Skills Expert (Plumbing), Accounts Assistant (Tally), Domestic BPO, Sewing Machine Operator, Smartphone Technician, Field Technician - Consumer Durables, Patient Care Assistant, Computer Hardware Technician, Household Electrician, Financial Service Associate, Office Assistant, F&B Service Associate, Solar PV Installer, Beauty Assistant, Retail Associate)	India-wide (7 states)
Aga Khan Rural Support Program	Rural	DDU-GKY provider. Soft skills (English language, Basic IT literacy, Life skills, Work Place Readiness), vocational training (digital lessons, theory-based lectures, role-plays, presentations, on-the-job training), placement (through partnerships with several industries in retail, BPO, Computer Hardware, Nursing, Beauty and Wellness, sewing and stitching).	Gujarat, Bihar
Antarang	Urban, low income	Career counselling for school students in grades 8-10 (explore multiple industries, identify individual strengths), soft skills (self-awareness, work ethics, work skills), links to full-time/part-time employment and further education and vocational training	Maharashtra, Rajasthan
Anudip Foundation	Low income, Persons with Disabilities	Skilling by technology-driven courses (Communicative English, Workplace Etiquettes and Communicative English, Retail Associate, Ethical Hacking, Chip-level Engineer - Printer and Laptop, Accounting with Tally, Computer in Operation and Digital Education ,Digital Marketing, Graphic Designing, Web Designing, Hardware Associate Skills, Networking Associate Skills, Networking Professional Skills, Server Administrator), placement (via corporate relations cell) and post-placement support (tracking and mentorship for six months) (careers in e-commerce, logistics, retail, mobile payments, banking and finance, telecom and other sectors)	West Bengal

Non-Governmental Organization	Youth Target Group	Program Description	States active
Don Bosco Tech Society	Low income, NEET (Not in Education, Employment or Training), Persons with Disabilities	Career counselling, soft skills (communicative English, computer skills, work-readiness), vocational training (exposure visits, industry-specific classroom and practical training, on-the-job training), and placement, post-placement support (in sectors like apparel, automotive, banking & finance, beauty & wellness, construction, capital goods, electronics, healthcare, hospitality, IT/ITES, plumbing, power sector, retail)	India-wide (28 states)
Dr. Reddy's Foundation	Low income, Persons with Disabilities	Skilling (English, Communicative English, Computer skills and Interview skills), career counselling (via analytics driven training platform), placement in inclusive workspaces for persons with disabilities	India-wide (12 states)
Dream a Dream	Low income	Career Connect Program : career awareness workshops, short-term modules (computers, English, communication skills), provide access to internships, scholarships, vocational training and jobs	Karnataka
Etasha Society	Low income, women	Career counselling (access to information on opportunities, discover strengths and abilities) and life skills training (develop confidence, set future goals, individual counselling for personal concerns) for adolescents in Middle & High School, vocational and soft skills (English communication, financial literacy, computer skills, social confidence), training for young girls and boys, placement support, entrepreneurship training and enterprise management support for women including mothers	Delhi, Haryana
Lend-a-Hand India	Low income	Career counselling, vocational training (in 20 different skills such as welding, electrical wiring, plumbing, carpentry, gardening and landscaping, health and hygiene, agriculture and food processing etc.) for secondary school (ages 14-16) students, capital and mentorship support for entrepreneurs	Maharashtra

Non-Governmental Organization	Youth Target Group	Program Description	States active
Magic Bus Foundation	Low income (focus on 12-18 year olds)	Activity-based curriculum for imparting life-skills (communication, managing self, teamwork, learning to earn, problem solving) to adolescents in grades 5-10, career counselling (high-quality IAG (Information, Advice and Guidance), personal needs assessment), skilling (work place skills, mock interviews), support for further vocational training/placement/post-placement.	India-wide (22 states)
Medha	Low income, college students	career counselling (career exploration, self-awareness), skilling (Public Speaking+Presentation, Internet Research+MS Office, Customer Research, Leadership+Teamwork, Planning+Time Management, Professional Writing, Financial Planning), Placement (internships, full-time jobs)	Uttar Pradesh, Haryana, Bihar, Meghalaya
Mentor Together	Urban youth	Connect students with professional mentors, for mentorship and to raise awareness of job opportunities.	Maharashtra, Karnataka, Tamil Nadu, Delhi
Naandi Foundation	Scheduled Caste, Scheduled Tribe, or Other backward class	NULM provider (Mahindra Pride Schools); common curriculum (life skills, English language proficiency, soft skills, computer literacy and personal grooming), specializations courses (practical assignments, exposure visits to industry, simulations, role plays and internship), placements (in corporate client base in four verticals- ITeS - IT enabled Services, Hospitality Craft, Retail Sales and Auto)	Telangana, Karnataka, Bihar, Maharashtra, Punjab, Jammu and Kashmir, Tamil Nadu
Pratham Institute, and Pratham Education Foundation	Low income	PMKVY provider; soft skills (English, computer literacy), vocational training (construction (including electrical, plumbing, masonry and welding), hospitality (housekeeping, food and beverage service and food production), automotive mechanic, healthcare nursing and beauty & wellness services), entrepreneurship support (provide capital asset, mentoring support to set up micro-enterprises), placement and post-placement support (tracking and mentorship for one-year period, Pratham Alumni (PAL) Network, which provides support in the form of accommodation and mess facilities, counselling, social networks, mediation with employers, support in accessing health services, etc)	India-wide (15 states)

Non-Governmental Organization	Youth Target Group	Program Description	States active
Project Disha (in partnership with UNDP)	Girls, young women	Career counselling (provide information about opportunities available in the field of education, jobs and enterprise), vocational training (for e.g. plastic engineering, steel industry), entrepreneurial training for women farmers, artisans (start-up workshops, financial literacy)	Delhi, Haryana, Karnataka, Maharashtra, Telangana
Salaam Bombay	Urban youth	Career guidance, vocational training for adolescents from resource-poor schools (in Technology [Robotics, Computer Hardware Repair, Mobile Repair, and Home Appliances Repair], 21st-century skills [Web Design, Graphic Design, Software Development], Design [Fashion Design and Jewelry Design], Retail Management, Beauty and Wellness, Baking and Confectionery), high-quality training in the arts, sports, media	Maharashtra, West Bengal
Smile Foundation	Urban youth	Skill enhancement (English Proficiency, Basic Computer Education and Soft Skills), career counselling, exposure visits, placement (in retail and service sectors)	Delhi, Maharashtra, Tamil Nadu, West Bengal, Karnataka, Telangana
Swades Foundation	Rural youth	Skills training, placement in formal employment, and enterprise development. Skills development to support following sectors: Automotive, Banking & Financial Services, Electronics & IT hardware industry, Healthcare Services, IT & IT enabled services, Transportation and Logistics, Retail, Telecommunications and Tourism & Hospitality. Support entrepreneurship with training, exposure visits and best practices for enterprise development.	India-wide (16 states)

Non-Governmental Organization	Youth Target Group	Program Description	States active
Udyogini	Low-income and illiterate women	Skill and Entrepreneurship Training (SET) (business idea generation, feasibility, planning, business costing, pricing and assessing of break-even point (BEP), market negotiation), Functional literacy (skills in reading, writing, maintaining WEG (Women Enterprise Groups) records and doing basic calculations), Grassroot Management Trainings (GMT) (business counselling designed after training need analysis (TNA) that assesses knowledge, attitude, aptitude, and skill needs of women producers, BDSPs (Business Development Service Provider), entrepreneurs and producer institutions), market linkage support for understanding the 4Ps (product, place, price, promotion) of the market, financial linkages (for credit, micro-insurance, government subsidies)	Chhattisgarh, Jharkhand, Madhya Pradesh, Rajasthan, Uttarakhand
Vidya	Urban youth, dropped out of school	Training in spoken English, basic computer literacy and life skills; courses in tailoring, cooking/baking and cosmetology; for dropout youth - help them pass their 10th and 12th standard exams and further career guidance by enrolling in vocational trainings	Delhi, Maharashtra, Karnataka
Youth4Jobs Foundation	Persons with Disabilities	NSDC training provider; Life skills (Grooming, Health & Hygiene, Confidence, Money Management, corporate culture, interview preparation, English language skills), Sector specific training (Retail, BPO, IT/ITeS, Hospitality, Banking and Finance, Manufacturing), skill assessment and placement (entry-level jobs for engineers and graduates in MNCs and large IT companies)	India-wide (14 states)
Yuva Parivartan (Kherwadi Social Welfare Organization)	Youth, dropped out of school, girls, Scheduled Tribe	DDU GKY provider; Livelihood Training in skills like Electrical Wireman, A/C Refrigeration, Motor Mechanic, Motor Driving, etc. for boys and courses like Tailoring, Cutting, Beautician, Mehendi etc. Job placement assistance across un/organized sectors; training in farm-based and traditional occupations, job preparedness, financial literacy and changing attitude towards responsibility.	India-wide (11 states)

Source: Information from NGO websites.



5. Gaps in Skills, Employment and Entrepreneurship Programs

Progression to secondary school levels, especially for girls and vulnerable youth, remains a challenge

High rates of school enrollment and gender parity in enrollment at the primary and upper primary school levels have been a trend, but learning outcomes are less favorable, and the incidence of drop-outs is significant, especially at the secondary school level. The latter is particularly true for youth from vulnerable backgrounds—including girls and girls from the lowest income brackets in particular, and youth from Scheduled Tribes, Scheduled Castes, and religious minority groups. These translate into difficult school-to-work transitions and suboptimal labor market outcomes.

Regarding out-of-school rates, Anurag Behar of Azim Premji Foundation approaches potential solutions from the following lens: “We need to compensate for the particular disadvantages that girls and boys face.” Disadvantages and their root causes differ across a number of factors. For example, in more rural or remote areas, distance to the nearest secondary school could be a source of disadvantage. Across communities, cultural norms have discouraged girls to leave the home in pursuit of education. The extent that this disadvantage impacts a girls’ trajectory can vary by community, down to the level of her family. As Behar notes, families weigh the perceived benefits and costs of supporting their children’s

education. For example, families may consider whether continued education will improve their children’s social prospects, or expected job or income potential.

The need far outstrips the supply of programs—existing programs targeted to girls and vulnerable youth from upper primary to higher secondary school levels are not operating on a large enough scale. Government programs like Kasturba Gandhi Balika Vidyalayas (KGBV) support education (standards 6-12) for girls from marginalized or low-income families, including girls who were previously school drop-outs.

Other programs such as Eklavya model schools support education (standards 6-12) for girls and boys from Scheduled Tribes. As of 2018, KGBVs have reached 3.78 lakh girls, and Eklavya schools have enrolled 65,231 students (**Table 2**, above). While this is promising, these numbers represent all students, not secondary students alone, and the numbers are small given the high prevalence of out-of-school girls and vulnerable youth. As noted above, available data show that about 4.68 *crore* youth of upper secondary school age (about 15-17 years old) are estimated to be out of school in India,¹³⁷ with out-of-school rates highest for girls from the lowest income bracket (over 50 percent), as well as for girls and boys from Scheduled Tribes and religious minority groups.¹³⁸

Relatively low participation in the above programs, compared to the sheer need, reflect that attendance at these programs—or the programs themselves—need to be expanded. In addition, other forces continue to hold a powerful effect on the ability of girls and vulnerable youth to progress through the education system. Programs targeted to youth alone are not enough. For example, there is a shortage of an estimated ten lakh teachers in India in 2019, with shortages more acute in rural areas; classrooms that combine multiple grade levels are associated with poor learning outcomes.¹³⁹ Other challenges at the secondary level include teachers' focus on completing school syllabi instead of building students' competencies, and use of outdated trades in vocational education.¹⁴⁰

Moreover, students with gaps in their education—such as those who were previously out-of-school—need additional support. In recognition of this issue, the Right to Education Act requires schools to provide special training for students previously out of school to reach the learning outcomes of their peers.¹⁴¹ However, the RTE Forum, a collective of national education networks, teachers' organizations and education specialists, found that government schools are not meeting this need in practice.¹⁴² RTE Forum reported that teachers lack the training to bridge previously out-of-school children to age-appropriate learning levels, there is a shortage of qualified teachers to do so, and existing curricula do not address the needs of these children.¹⁴³

To build students' learning outcomes and technology skills in school, efforts like the Atal Tinkering Lab, part of Niti Aayog's Atal Innovation

Mission (**Table 2**, above), could be promising. However, low adoption of basic technology by rural youth, and infrastructure constraints, highlight the challenge of integrating technology in education. These constraints also affect how youth can build digital skills toward better employment opportunities. In a 2017 survey of adolescents and youth ages 14-18, only 28 percent used the internet, and only 26 percent used computers.¹⁴⁴ Internet usage across India is relatively low; the percentage of individuals estimated to be using the internet is estimated to be as low as 34.45 percent as of 2017.¹⁴⁵ To ensure access for students in rural areas or low-resource neighborhoods, technology interventions in education will need to be implemented carefully.

Not enough female youth are enrolling in skills training or turning training into jobs

In terms of enrollment and school performance, girls are comparable to or exceed the results of their male counterparts. Yet, they lag behind in their uptake of skills training and in their labor market outcomes. Although evidence suggests that the vast majority of young women want to pursue skills training, only a fraction enroll.

Corroborating findings discussed in section two above, Vasudevan of LabourNet has found that multiple barriers exist to women enrolling in skills training, employment or entrepreneurship programs. For example, young women between the ages of 15-18 often face higher expectations for attending to domestic work, and challenges such as harassment at work or while traveling to and from work. For women between the ages of 20-30, similar challenges, such as security and family pressures, exist. Other barriers include

restrictions against women traveling alone, and balancing household work and childrearing with paid work. In her experience with supporting women entrepreneurs, Vasudevan finds that “women need to be supported with placement linkages, along with regular counselling post-skill training, to ensure that they are able to sustain a business or job.”

Existing indicators for labor market outcomes aren't enough to measure progress for youth

Employment and unemployment are insufficient indicators of labor market performance. The kind of jobs, especially productivity and wages, should also be criteria by which to assess upward mobility of vulnerable youth. In addition, little is known about what came before a young person became NEET and what comes after, and the extent that these factors differ by gender or social group.

Mismatches persist between employers and youth job-seekers

Moreover, there are also significant gaps in information on labor market demand. What do employers – varying by size, sector and degrees of formality, look for in an employee? What will help improve their hiring and the provision of better working conditions for their employees? There is a need for a much more evidence-based, demand-driven approach to skills training and job placement.

As discussed in section four, a small percentage of youth—less than ten percent—report enrolling in technical and vocational training. Some perceive a stigma against enrolling in vocational education or apprenticeships, especially if

these opportunities are not seen as generating possibilities for high-paying or non-manual labor jobs.¹⁴⁶

In addition, mismatches exist between employer recruitment and youth job search channels. While State Skill Development Missions draw from job fairs to help mobilize youth (**Box 7**, above), available evidence discussed in section three suggests that relatively few employers hire through job fairs. As noted in section four, far more job-seekers than employers are registered on the National Career Service platform.

Other challenges suggest that skills training does not necessarily enhance employability. As of 2018, the most recent year for which data is available, less than a third—about 29.46 percent—of ITI graduates were considered to be employable.¹⁴⁷ Low employability rates are attributed to weak industry ties and a lack of certain skills considered to be critical for enhancing employability, such as soft skills.¹⁴⁸

In JustJobs Network fieldwork in Odisha, training providers reported insufficient existing education of trainees as a constraint, which suggest that a lack of requisite education can constrain skills uptake.¹⁴⁹ In JustJobs Network's fieldwork for an ongoing study in Haryana, employer associations also report that ITI graduates learn outdated technology or techniques that employers must upgrade.¹⁵⁰ In another survey, most companies reported that ITI graduates did not have adequate application-oriented knowledge, problem-solving skills, or exposure to industry—and needed on-the-job training to become employable.¹⁵¹

Collaboration between employers and skills infrastructure is lacking, which can limit the extent that trainees gain skills that employers need. For example, employers or industry bodies have not been involved in curriculum development for trade apprenticeships.¹⁵² In JustJobs Network's fieldwork in Odisha and Tamil Nadu, skills training providers similarly reported few linkages with industries.¹⁵³ Other constraints at skills institutions can reduce the employability of graduates. For example, curricula and infrastructure have been found to be outdated, and there is a shortage of trained teachers and trainers.¹⁵⁴ In JustJobs Network fieldwork, skills training providers in Odisha and Tamil Nadu also cited difficulties finding good trainers. In recognition of these challenges, MSDE has recently launched initiatives such as Skills Strengthening for Industrial Value Enhancement (STRIVE) to improve the relevance of skills training provided through ITIs and apprenticeships.¹⁵⁵

Entrepreneurship programs are a challenge to scale up and may be a less viable option for many youth

Supporting entrepreneurs and entrepreneurship can expand opportunities, for the business owner and her future employees. Promoting entrepreneurship can also spur job creation when it leverages the resources and assets of the area. For example, entrepreneurship development in sectors such as specialty agriculture and sustainable tourism could be promising in the Indian Himalayan Region, which currently has relatively few sectors for gainful employment.¹⁵⁶

However, creators of start-ups and new business owners benefit from long-term, tailored support, in addition to targeted business expertise.¹⁵⁷ As

such, entrepreneurship promotion programs can be a challenge to scale up quickly in a way that offers sustainable results for youth.¹⁵⁸ From developing a viable business idea, to registration to managing and growing a business, it can take years to go from entrepreneurship to enterprise. Often times, organizations that support entrepreneurship development allocate short-term funding that does not allow for the enduring and sustainable support that an entrepreneur needs to thrive.¹⁵⁹ Organizations may also encounter difficulties connecting participants to critical business expertise and know-how.¹⁶⁰

Based on her experience with entrepreneurship promotion, Ms. Vasudevan of LabourNet sees promise for supporting budding business owners. For example, entrepreneurs benefit from programs that connect them to suppliers for materials at competitive rates, provide mentorship and create industry linkages. However, she suggests that entrepreneurship could be a less viable employment option for youth between the ages of 15-20. This is in part because becoming a successful entrepreneur for the long-term requires experience, sustained services, market linkages and capacity-building.

Sanjay Shivnani of Aditya Birla Skills Foundation finds that individual force of will is needed to succeed in entrepreneurship and self-employment efforts. He notes that "those who choose to set up micro-enterprises or self-employment are often driven internally and self-motivated. Domain skills gained in Aditya Birla Skills Foundation programs give them the confidence and wings to leverage their internal drive to do something of their own."

6. Conclusion and Recommendations

Efforts to help build successful economic trajectories for youth must work to address the vulnerabilities and restrictive social norms that vulnerable youth, including girls, are born into. This entails a systems approach as opposed to ad hoc approaches that treat the symptoms, not the cause.

Most importantly, improving employment outcomes for youth, especially vulnerable youth, requires an enduring, long-term commitment that will most likely only yield iterative results. Focusing solely on education, without looking at skills and career counseling, or only on jobs and labor market outcomes without looking at the education to skills continuum, are all incomplete solutions that will yield incomplete results. This also means that training programs must develop technical skills, as well as transferable skills. In this respect, it is important that skills training builds on a requisite level of basic education, not try to compensate for its absence. If implemented, the following recommendations can help to address disadvantages for vulnerable youth, but they must complement a broader scope of policy and technical research for improving outcomes for youth.

1. Take steps to help more youth progress through the secondary education system

Although the disadvantages that stop youth from completing secondary education vary, the following steps would address some of the challenges vulnerable youth face, and require

coordination among government, NGO, private sector and international stakeholders:

- Establish geographically accessible secondary and higher secondary schools. Supporting travel by providing transport or other resources could help.¹⁶¹ For example, a program that provided bicycles to secondary school girls in Bihar was found to increase girls' school enrollment, and the number of girls who passed the State's secondary school exam.¹⁶² Interventions that show promise should be implemented and scaled with care and additional research that takes place-specific characteristics of communities into account.
- Enhance incentives for girls to remain in school. For example, researchers at the Abdul Lateef Jameel Poverty Action Lab have found that cash or in-kind transfers could help convince girls and families to delay marriage and promote school attendance.¹⁶³ These efforts should be complemented by community campaigns to raise awareness about employment prospects from continued education, and about the benefits of allowing girls to leave the home in pursuit of continued education.
- The curriculum for each standard must prepare students to meet the learning requirements of the subsequent one. This warrants particular attention between primary and secondary and between secondary and upper secondary levels. Among other steps, stakeholders should

expand in-school resources to compensate for socio-economic disadvantage, such as provide more teachers; and re-design curricula to respond to disadvantage without compromising on quality and learning expectations. Effective skills education should be integrated into mainstream education with attention to which aspects are relevant at which age and stage of learning. To support these efforts, stakeholders should prioritize greater investment in teacher recruitment.¹⁶⁴ There is also a need to improve education system infrastructure in India, such as staffing academic curriculum institutions, setting up management and information systems, and strengthening accountability measures.¹⁶⁵

- While technology offers potential to enable access to content and learning at scale, it is neither a panacea nor can it compensate for the learning that takes place person-to-person. Moreover, to ensure inclusion of technology interventions in education for youth from vulnerable groups, including those in rural areas, interventions should be adapted to low-connectivity environments. Programs that can effectively integrate technology to strengthen learning outcomes and employability should be considered carefully.

2. To improve skills training and jobs outcomes for female youth, keep the ancillaries in mind

Programs that target young women must also address barriers to participation, ranging from the need for safe transport and gender-sensitive work environments such as having separate female and male toilets, to working with families

and communities to bring about iterative change in restrictive social norms.

Research suggests that improving women's access to education and skills alone is not sufficient to raise female labor force participation.¹⁶⁶ Changing expectations regarding early marriage, pregnancy and the disproportionate burden of domestic responsibilities that falls to girls and young women, are essential to enhancing the ability of female youth to access education, skills and good employment. The effect of marriage and childrearing on young women's career trajectories also underscore the importance of supporting parental leave policies and accessible childcare, such as ensuring the reach of the National Creche Scheme.¹⁶⁷ There is also a need to ensure that labor laws are enforced equally for young women and men, and that young women employed in non-contract or informal jobs can avail of these laws.

Government, non-profit and private sector stakeholders should also conduct information campaigns about job opportunities and income potential from training,¹⁶⁸ and campaigns should be targeted to young women and their families. For example, efforts to address broader social norms, such as those by the 10 to19 Dasra Adolescents Collective,¹⁶⁹ could be supported as part of a holistic approach to connecting girls and female youth to meaningful livelihoods.

3. Collect more data and find appropriate indicators to measure progress

Although there is more data on schooling, skills and labor market participation of youth, several glaring gaps remain. Employment and

unemployment are not sufficient indicators to assess labor market performance or the economic trajectories of youth. Rather, the kind of jobs, especially productivity and wages, should be among the criteria used to assess upward mobility of vulnerable youth. To understand trends, progress and challenges by gender and social group, data by public, NGO and private stakeholders also needs to be disaggregated, and additional data are needed about youth with disabilities.

There is also a need to address information gaps about NEET youth. While there is some data on the aggregate numbers of NEET youth, more in-depth study about their circumstances and attitudes is needed to identify primary causes, and program strategies, for Indian youth who are NEET.

4. Be a matchmaker for demand and supply

Greater private sector engagement must underpin efforts to skill youth. Career counseling needs to be expanded to help youth identify strengths and skills gaps and gain realistic expectations of available jobs in the market, but also those that they are qualified for. Beyond addressing the gaps in information, more private sector engagement is required to expand on-the-job learning, internships and apprenticeships.

In addition, Sector Skills Councils and State Skill Development Missions should take steps to solicit buy-in and commitment from employers in skills initiatives, and in helping them to recognize the returns to skilling for youth. Labor market information mechanisms should be built out

as a platform around which employers and job-seekers can obtain more and better information about available human capital, the employment landscape and market demand. Efforts to engage employers should also target micro, small and medium-size enterprises (MSMEs) from the informal sector in addition to those in the formal sector.

5. For entrepreneurship, be measured in recognizing that aptitude matters as much as attitude

In order to foster entrepreneurship, government, NGO and private stakeholders must target long-term entrepreneurship promotion efforts to youth who demonstrate aspirations and aptitude for starting a business. In all capacity-building efforts, stakeholders should identify and closely incorporate the expertise of business development experts.

Endnotes

- ¹ United Nations, Department of Economic and Social Affairs, Population Division, "World Population Prospects: The 2017 Revision," 2017. Figure for 2018. Custom data acquired via website.
- ² Afridi, Farzana, and Bidisha Barooah. "Educational Attainment and Learning in India, 2004–2012." In *Regional Growth and Sustainable Development in Asia*, edited by Amitrajeet A. Batabyal and Peter Nijkamp, 7:221–36. Cham: Springer International Publishing, 2017. https://doi.org/10.1007/978-3-319-27589-5_11.
- ³ MHRD, Ministry of Human Resource Development, Department of Higher Education, "All India Survey on Higher Education 2017-18," 2018, <http://aishe.nic.in/aishe/viewDocument.action?documentId=245>.
- ⁴ United Nations, Department of Economic and Social Affairs, Population Division, "World Population Prospects: The 2017 Revision," 2017. Custom data acquired via website.
- ⁵ Rama, Martin, et al, *Addressing Inequality in South Asia*, (Washington, DC: World Bank Group, 2015).
- ⁶ Ministry of Statistics and Programme Implementation, National Statistical Office, "Annual Report, Periodic Labour Force Survey (PLFS), 2017-2018," 2019.
- ⁷ Ministry of Statistics and Programme Implementation, Social Statistics Division, "Disabled Persons in India: A Statistical Profile, 2016," 2017, http://mospi.nic.in/sites/default/files/publication_reports/Disabled_persons_in_India_2016.pdf.
- ⁸ Meera Shenoy, "Persons with Disability & The India Labour Market: Challenges and Opportunities" (International Labor Organization (ILO), 2011).
- ⁹ Ministry of Statistics and Programme Implementation (MOSPI), "Women and Men in India: A Statistical Compilation of Gender-Related Indicators in India, 2018," 2018.
- ¹⁰ Joint Review Mission, MHRD, "5th Joint Review Mission: Rashtriya Madhyamik Shiksha Abiyan (RMSA)," 2015, https://mhrd.gov.in/sites/upload_files/mhrd/files/upload_document/JRM_5.pdf. "Ministry of Human Resource Development, "NAS 2017: National Achievement Survey, Class: 3, 5, and 8," 2017. http://nas.schooleduinfo.in/dashboard/nas_ncert#/; ASER Centre, "Annual Status of Education Report (Rural) 2018," 2019.
- ¹¹ Committee for Draft National Education Policy (Committee constituted by Ministry of Human Resource Development), "Draft National Education Policy 2019," 2019.
- ¹² Azim Premji Foundation, "Is Education a Level Playing Field? Engagement of Non-School Work and Availability of Out-of-School Learning Support," Field Studies in Education, 2019.
- ¹³ Azim Premji Foundation.
- ¹⁴ Unified District Information System for Education (U-DISE). "Proportion of CWSN to total enrollment in Elementary classes, Percentage." (NIEPA, 2019). Data acquired from website, <http://udise.schooleduinfo.in/dashboard/elementary#/>.
- ¹⁵ National Institute of Educational Planning and Administration. "U-Dise Flash Statistics, 2016-2017," School Education in India, 2018.
- ¹⁶ Ministry of Human Resource Development, "NAS 2017: National Achievement Survey, Class: 3, 5, and 8," 2017. http://nas.schooleduinfo.in/dashboard/nas_ncert#/.
- ¹⁷ ASER Centre, "Annual Status of Education Report (Rural), 2018," 2019.
- ¹⁸ Samarth Bansal and Manas Sharma, "HT Analysis: Girls Outperform Boys in Every Major Subject in CBSE Class 12," *Hindustan Times*, 2017, <https://www.hindustan-times.com/education/ht-analysis-more-girls-opt-for-economics-boys-go-for-maths-in-cbse-class-12/story-WcG2s6YxKyFaj5i0ToP4TL.html>. Karthik Balasubramanian, "Why Do Indian Girls Outperform Boys in School, Year after Year?," *Scroll.In*, 2014, <https://scroll.in/article/654416/why-do-indian-girls-outperform-boys-in-school-year-after-year>.
- ¹⁹ Ministry of Human Resource Development, "NAS 2017: National Achievement Survey, Class: 3, 5, and 8," 2017. http://nas.schooleduinfo.in/dashboard/nas_ncert#/.
- ²⁰ Farzana Afridi and Bidisha Barooah, "Educational At-

tainment and Learning in India, 2004–2012,” in *Regional Growth and Sustainable Development in Asia*, ed. Amitrajeet A. Batabyal and Peter Nijkamp, vol. 7 (Cham: Springer International Publishing, 2017), 221–36, https://doi.org/10.1007/978-3-319-27589-5_11. In addition, Article 46 of the Indian Constitution calls for the promotion of educational and economic interests for individuals from designated Scheduled Castes, Scheduled tribes, and other vulnerable sections of the community (see Article 46, n.d., Central Government Act, accessed Feb. 2, 2019, available at: <https://indiankanoon.org/doc/352126/>). For the purpose of programs such as Indian government reservations or education initiatives, these other groups have generally been termed other backward classes (OBC).

- ²¹ Ministry of Statistics and Programme Implementation, National Statistical Office, “Annual Report, Periodic Labour Force Survey (PLFS), 2017-2018.”
- ²² Ministry of Statistics and Programme Implementation, National Statistical Office.
- ²³ Ministry of Statistics and Program Implementation, Social Statistics Division, “Disabled Persons in India: A Statistical Profile, 2016.”
- ²⁴ CARE India, “Why Are Our Girls Not in School?,” CARE India, October 26, 2018, <https://www.careindia.org/news/girls-not-school/>.
- ²⁵ National Institute of Educational Planning and Administration. “U-Dise Flash Statistics, 2016-2017.” School Education in India, 2018. Note: MOSPI provides an alternate definition of drop-outs. Children “who did not enroll in a particular level, after completing the previous level are termed as discontinued, whereas those who enrolled/attended a specific level but did not complete that level successfully are called drop-outs (Ministry of Statistics and Programme Implementation (MOSPI), “Women and Men in India: A Statistical Compilation of Gender-Related Indicators in India, 2018”).
- ²⁶ Ministry of Statistics and Program Implementation, Social Statistics Division, “Disabled Persons in India: A Statistical Profile, 2016.”
- ²⁷ Unified District Information System for Education (U-DISE), “Annual Average Dropout Rate at Upper Primary Level, Percentage, By Social Groups.” (NIE-PA, 2019). Data acquired from website, <http://udise.schooleduinfo.in/dashboard/elementary#/>
- ²⁸ Unified District Information System for Education (U-DISE), “Annual Average Dropout Rate at Upper Primary Level, Percentage, By Social Groups.” (NIE-PA, 2019). Data acquired from website, <http://udise.schooleduinfo.in/dashboard/elementary#/>
- ²⁹ National Institute of Educational Planning and Administration. “U-Dise Flash Statistics, 2016-2017.” School Education in India, 2018.
- ³⁰ National Institute of Educational Planning and Administration. “U-Dise Flash Statistics, 2016-2017.” School Education in India, 2018.
- ³¹ National Institute of Educational Planning and Administration. “U-Dise Flash Statistics, 2016-2017.” School Education in India, 2018.
- ³² Sabina Dewan and Urmila Sarkar, “From Education to Employability: Preparing South Asian Youth for the World of Work” (JJN, UNICEF, 2017).
- ³³ World Inequality Database on Education (WIDE). “Out-of-School Youth, India,” 2018. (Data for India from 2015). <https://www.education-inequalities.org/share/jyrwi>. Custom data acquired from website. Note: To view share of out-of-school youth by overall population, the option marked ‘share of population’ was selected.
- ³⁴ World Inequality Database on Education (WIDE), 2018. (Information for India based on data from 2015)
- ³⁵ Ministry of Human Resource Development, Department of School Education & Literacy, “Educational Statistics at a Glance,” 2018; data cited from National Sample Survey.
- ³⁶ Ministry of Human Resource Development, Department of School Education & Literacy, “Educational Statistics at a Glance,” 2018; data cited from National Sample Survey.
- ³⁷ ASER Centre, “A Study of Access, Transition and Learning In Secondary Schools,” 2018.
- ³⁸ See also Girls Not Brides, “India,” 2019, <https://www.girlsnotbrides.org/child-marriage/india/#stats-references>. Accessed 10 April, 2019.
- ³⁹ OECD. (2017). OECD economic surveys: India. DOI: https://dx.doi.org/10.1787/eeco_surveys-ind-2017-en, p. 54. Note: NEET rates are an indicator for UN Sustainable Development Goal 8: Promote sustained,

- inclusive and sustainable economic growth, full and productive employment and decent work for all. See ILO, "Global Employment Trends for Youth, 2017," 2017.
- ⁴⁰ International Labor Organization (ILO) and United Nations Children's Fund (UNICEF), "GirlForce: Skills, Education and Training for Girls Now," 2018.
- ⁴¹ ILO and United Nations Children's Fund (UNICEF), "GirlForce: Skills, Education and Training for Girls Now," 2018.
- ⁴² International Labor Organization (ILO) and United Nations Children's Fund (UNICEF), "GirlForce: Skills, Education and Training for Girls Now."
- ⁴³ International Labor Organization (ILO) and United Nations Children's Fund (UNICEF).
- ⁴⁴ International Labor Organization (ILO) and United Nations Children's Fund (UNICEF).
- ⁴⁵ International Labor Organization (ILO), "Asia-Pacific Employment and Social Outlook," 2018.
- ⁴⁶ UNICEF and UNFPA, "Ending Child Marriage in India," 2017.
- ⁴⁷ International Institute for Population Sciences and Macro International, "National Family Health Survey (NFHS-4), 2015–16: India Fact Sheet," IIPS, Mumbai, 2016, p.2. https://dhsprogram.com/pubs/pdf/OF31/India_National_FactSheet.pdf.
- ⁴⁸ Ministry of Health and Family Welfare, International Institute for Population Sciences, "National Family Health Survey (NFHS-4), 2015-2016," N.d.
- ⁴⁹ Girls Not Brides, "India," 2019. <https://www.girlsnotbrides.org/child-marriage/india/#stats-references>. Accessed 10 April, 2019.
- ⁵⁰ Girls Not Brides, "India," 2019. <https://www.girlsnotbrides.org/child-marriage/india/#stats-references>. Accessed 10 April, 2019.
- ⁵¹ ILO, "Global Employment Trends for Youth, 2017," 2017; OECD, "Society at a glance 2016: OECD social indicators," 2016. <https://doi.org/10.1787/9789264261488-en>.
- ⁵² International Labor Organization (ILO), "Asia-Pacific Employment and Social Outlook." ILO, "Global Employment Trends for Youth, 2017," 2017.
- ⁵³ OECD, "Society at a glance 2016: OECD social indicators," 2016.
- ⁵⁴ Pew Research Center, "Global Attitudes & Trends," 2017 Survey Data.
- ⁵⁵ Ministry of Statistics and Programme Implementation, National Statistical Office, "Annual Report, Periodic Labour Force Survey (PLFS), 2017-2018."
- ⁵⁶ Ministry of Statistics and Programme Implementation, Social Statistics Division, "Disabled Persons in India: A Statistical Profile, 2016."
- ⁵⁷ Shenoy, "Persons with Disability & The India Labour Market: Challenges and Opportunities."
- ⁵⁸ Ministry of Statistics and Programme Implementation, National Statistical Office, "Annual Report, Periodic Labour Force Survey (PLFS), 2017-2018." PLFS reports unemployment using a 'usual status' approach; it includes individuals' principal status and subsidiary status, for a reference period of one year.
- ⁵⁹ Ministry of Statistics and Programme Implementation, National Statistical Office.
- ⁶⁰ Sabina Dewan, "Is the Unemployment Crisis for Real? It's Complicated," *The Hindu*, 2019. <https://www.thehindu.com/opinion/op-ed/is-the-unemployment-crisis-for-real/article26272911.ece>
- ⁶¹ Ajit K. Ghose, *India Employment Report 2016: Challenges and the Imperative of Manufacturing-Led Growth* (New Delhi: Oxford University Press, 2016).
- ⁶² Niti Aayog, "India Three Year Action Agenda: 2017-2018 to 2019-2020," 2017, <http://niti.gov.in/writereaddata/files/coop/IndiaActionPlan.pdf>.
- ⁶³ Ministry of Statistics and Programme Implementation, National Statistical Office, "Annual Report, Periodic Labour Force Survey (PLFS), 2017-2018."
- ⁶⁴ Ministry of Statistics and Programme Implementation, National Statistical Office.
- ⁶⁵ Sabina Dewan, "A Clarion Call for Just Jobs: Addressing the Nation's Employment Crisis," (Centre for Policy Research: 2019). https://www.cprindia.org/clarion-call-just-jobs-addressing-nation%E2%80%99s-employment-crisis#_edn3. Accessed 2 July, 2019.

- ⁶⁶ Erin Fletcher, Rohini Pande, and Charity Maria Troyer Moore, "Women and Work in India: Descriptive Evidence and a Review of Potential Policies," *Working Papers: Cener for International Development at Harvard University*, 2017, <https://doi.org/10.2139/ssrn.3116310>.
- ⁶⁷ Sabina Dewan and Divya Prakash, "A Just Jobs Index for India: How do Indian States Fare in the Creation of Good Jobs?," 2019.
- ⁶⁸ Shamindra Nath Roy and Partha Mukhopadhyay, "What Matters for Urban Women's Work: A Deep Dive into Female Labour Force Participation," in *Mind the Gap: The State of Employment in India in 2019*, ed. Ranu Kayastha Bhogal (New Delhi, Oxfam India: 2019), 62-95; Azim Premji University, Centre for Sustainable Employment, "State of Working India, 2018," 2018.
- ⁶⁹ Fletcher, Pande, and Moore, "Women and Work in India."
- ⁷⁰ Ministry of Statistics and Programme Implementation, National Statistical Office, "Annual Report, Periodic Labour Force Survey (PLFS), 2017-2018."
- ⁷¹ Ministry of Statistics and Programme Implementation, National Statistical Office.
- ⁷² Fletcher, Pande, and Moore, "Women and Work in India."
- ⁷³ See also Fletcher, Pande, and Moore.
- ⁷⁴ Ernst & Young LLP, "Women's Voices: Employment and Entrepreneurship in India," 2015, <http://www.in.undp.org/content/dam/india/docs/poverty/Womens%20Voices%20Employment%20and%20Entrepreneurship%20In%20India%20Report.pdf>.
- ⁷⁵ Vidisha Mishra et al., "Young India and Work: A Survey of Youth Aspirations" (Observer Research Foundation, World Economic Forum, 2018), <https://www.orfonline.org/wp-content/uploads/2018/11/YA-Digital1.pdf>. Terri Chapman et al., "Future of Growth and Work in India: Inclusion, Growth & Transformation, An Enterprise Survey" (Observer Research Foundation, World Economic Forum, 2018).
- ⁷⁶ Fletcher, Pande, and Moore, "Women and Work in India."
- ⁷⁷ Training participants were rural youth below the poverty line, and between the ages of 15-35. Soledad Artiz Prillaman et al., "What Constrains Young Indian Women's Labor Force Participation? Evidence from a Survey of Vocational Trainees" ((Working Paper), 2017).
- ⁷⁸ Prillaman et al.
- ⁷⁹ Prillaman et al.
- ⁸⁰ Prillaman et al.
- ⁸¹ Prillaman et al., "What Constrains Young Indian Women's Labor Force Participation? Evidence from a Survey of Vocational Trainees."
- ⁸² Prillaman et al.
- ⁸³ Ranu Kayastha Bhogal, ed. *Mind the Gap: The State of Employment in India in 2019*, (New Delhi, Oxfam India: 2019).
- ⁸⁴ Prillaman et al.
- ⁸⁵ Ministry of Skill Development and Entrepreneurship, "National Policy for Skill Development and Entrepreneurship – 2015," 2015.
- ⁸⁶ E&Y, NASSCOM, FICCI, "Future of Jobs in India: A 2022 Perspective," 2017. Ashish Gupta, "10 Jobs of the Future," *Fortune India*, 2015, <https://www.fortuneindia.com/macro/10-jobs-of-the-future/100367>. Ashok Reddy, "Five Sectors on a Hiring Spree," *Money Today*, 2011, <https://www.businesstoday.in/moneytoday/careers/retail-infrastructure-healthcare-sectors-to-hire-more-in-india/story/19528.html>.
- ⁸⁷ MSDE, "National Policy for Skill Development and Entrepreneurship 2015," 2015, <https://www.msde.gov.in/assets/images/Skill%20India/policy%20booklet-%20Final.pdf>.
- ⁸⁸ E&Y, NASSCOM, FICCI, "Future of Jobs in India: A 2022 Perspective."
- ⁸⁹ Of Bachelor's degrees, only Bachelor of Engineering or Technology degrees have over 50 percent employable graduates. Wheebox, PeopleStrong, Confederation of Indian Industry, "India Skills Report-2019," 2018, <https://www.aicte-india.org/sites/default/files/India%20Skill%20Report-2019.pdf>.
- ⁹⁰ Wheebox, PeopleStrong, Confederation of Indian Industry. Wheebox, PeopleStrong, Confederation of Indian Industry.

- ⁹¹ E&Y, NASSCOM, FICCI, "Future of Jobs in India: A 2022 Perspective."
- ⁹² Wheebox, PeopleStrong, Confederation of Indian Industry, "India Skills Report-2019."
- ⁹³ MSDE, "National Policy for Skill Development and Entrepreneurship 2015." MSDE, NSDC, Skill India, "PMKVY Guidelines (2016-2020)," n.d.; Sunita Sanghi and Mr Kuntal Sensarma, "Skill Challenges of Informal Sector in India," 2014.
- ⁹⁴ FICCI, KPMG, "Skilling India: A Look Back at the Progress, Challenges and the Way Forward," 2014, <http://ficci.in/spdocument/20405/FICCI-KPMG-Global-Skills-report.pdf>. MSDE, "Report of the Committee for Rationalization & Optimization of the Functioning of the Sector Skill Councils, Vol. I.," 2016, <https://www.msde.gov.in/assets/images/ssc-reports/SSC%20Vol%20I.pdf>.
- ⁹⁵ National Council of Applied Economic Research/NCAER, "Skilling India: No Time to Lose," 2018.
- ⁹⁶ MSDE, "Report of the Committee for Rationalization & Optimization of the Functioning of the Sector Skill Councils, Vol. I." National Council of Applied Economic Research/NCAER, "Skilling India: No Time to Lose."
- ⁹⁷ Mishra et al., "Young India and Work: A Survey of Youth Aspirations."
- ⁹⁸ MichaelPage, "2015/2016 Employee Intentions Report," 2015, https://www.michaelpage.co.in/sites/michaelpage.co.in/files/15507_IN_Employee%20Intentions%20Report_FINAL_0.pdf. Sylvia Vorhaus-Smith, "How to Stop Employee Turnover in India," *Forbes*, 2012, <https://www.forbes.com/sites/sylviaivorhausersmith/2012/07/02/how-to-stop-employee-turnover-in-india/>.
- ⁹⁹ Azim Premji University, Centre for Sustainable Employment, "State of Working India, 2018." Wheebox, PeopleStrong, Confederation of Indian Industry, "India Skills Report-2019."
- ¹⁰⁰ Youth participating in the ORF/WEF survey were between the ages of 15-30. Mishra et al., "Young India and Work: A Survey of Youth Aspirations."
- ¹⁰¹ Nikita Kwatra, "Young India Not so Hopeful about Job Prospects," *Livemint*, September 3, 2018, <https://www.livemint.com/Industry/gw0jCKRG6dWpa4WkmYQBN/Young-India-not-so-hopeful-about-job-prospects.html>.
- ¹⁰² Azim Premji University, Centre for Sustainable Employment, "State of Working India, 2018."
- ¹⁰³ YuhWaah, UNICEF, "Consultation with Young People and Solution Providers: Main Findings," 2018.
- ¹⁰⁴ Mishra et al., "Young India and Work: A Survey of Youth Aspirations."
- ¹⁰⁵ Mishra et al.
- ¹⁰⁶ Mishra et al.
- ¹⁰⁷ Mishra et al.
- ¹⁰⁸ Mishra et al.
- ¹⁰⁹ Mishra et al.
- ¹¹⁰ YuhWaah, UNICEF, "Consultation with Young People and Solution Providers: Main Findings."
- ¹¹¹ Wheebox, PeopleStrong, Confederation of Indian Industry, "India Skills Report-2019."
- ¹¹² JustJobs Network, "Better Jobs for More People: A System's Approach to Addressing India's Quest for a Job-Rich Economy" (forthcoming).
- ¹¹³ Mishra et al., "Young India and Work: A Survey of Youth Aspirations."
- ¹¹⁴ YuhWaah, UNICEF, "Consultation with Young People and Solution Providers: Main Findings."
- ¹¹⁵ Jochen Kluge et al., "Interventions to Improve the Labour Market Outcomes of Youth- A Systematic Review," Campbell Systematic Review (Campbell Collaboration, 2017).
- ¹¹⁶ Dewan and Sarkar, "From Education to Employability: Preparing South Asian Youth for the World of Work."
- ¹¹⁷ Dewan and Sarkar.
- ¹¹⁸ National Skill Development Corporation (NSDC), "Skill India Introduces a New Career Counselling Cum Mobilization Program," 2018, <https://nsdcindia.org/sites/default/files/NSDC-collaborates-with-iDream-Career-27-07-18.pdf>.
- ¹¹⁹ Global Alliance for Mass Entrepreneurship, Sattva Consulting, "GAME Landscape Resource Report," 2019.

- ¹²⁰ Global Alliance for Mass Entrepreneurship, Sattva Consulting. National Council of Applied Economic Research/NCAER, "Skilling India: No Time to Lose."
- ¹²¹ "Skill India—Highlights 2018." (Press Information Bureau, and Ministry of Skill Development and Entrepreneurship 2018). <http://pib.nic.in/newsite/PrintRelease.aspx?relid=186803>
- ¹²² National Council of Applied Economic Research/NCAER, "Skilling India: No Time to Lose."
- ¹²³ Ministry of Statistics and Programme Implementation, National Statistical Office, "Annual Report, Periodic Labour Force Survey (PLFS), 2017-2018."
- ¹²⁴ This study included information from managers and 422 trainees across 22 institutes. JustJobs Network, "Skills for Competitiveness: Realizing India's Progress in Skilling its Population," 2016.
- ¹²⁵ MSDE, Skill India, "Skill India Strengthening New India," 2018, <https://www.msde.gov.in/assets/images/eBooks/English%20ebook.pdf>.
- ¹²⁶ UNESCO, UNEVOC, PSSCIVE, "TVET Country Profile," 2018.
- ¹²⁷ National Council of Applied Economic Research/NCAER, "Skilling India: No Time to Lose." Press Information Bureau, "Skill India - Highlights 2018," December 26, 2018. Ministry of Micro, Small & Medium Enterprises (MSME), "Entrepreneurship Skill Development Programme (ESDP)," accessed April 26, 2019, <http://www.dcmsme.gov.in/esdpDetail.htm>.
- ¹²⁸ Press Information Bureau, "Skill India - Highlights 2018." MSDE, Skill India, "Skill India Strengthening New India," 2018.
- ¹²⁹ Press Information Bureau, "Year End Review, 2017, Ministry of Skill Development & Entrepreneurship," January 3, 2018.
- ¹³⁰ Ministry of Skill Development and Entrepreneurship, NCVT Management Information System, "ITI Count - India All ITIs." Data acquired from website, Data acquired from website, <https://ncvtmis.gov.in/Pages/ITI/Count.aspx>, July 2019.
- ¹³¹ "Skills Exchange: A Labor Market Information System." (National Skill Development Agency, Ministry of Skill Development and Entrepreneurship, 2019). <https://www.lmis.gov.in/>. Accessed April 2019.
- ¹³² Ministry of Skill Development and Entrepreneurship, "Note on SANKALP" N.d., <https://www.msde.gov.in/assets/images/sankalp/note.pdf>.
- ¹³³ Ministry of Labour and Employment, "Year End Review- 2018: Ministry of Labour & Employment," 2018, <http://pib.nic.in/newsite/PrintRelease.aspx?relid=186346>.
- ¹³⁴ Ministry of Labour and Employment.
- ¹³⁵ Ministry of Labour and Employment.
- ¹³⁶ UNICEF, J-PAL, "Supporting Adolescent Transition to Adulthood: What Works and What Doesn't," 2017.
- ¹³⁷ UIS.Stat. UNESCO Institute for Statistics (UIS). <http://data.uis.unesco.org/>. Accessed 4 April, 2019; and UNESCO, "One in Five Children, Adolescents and Youth Is Out of School." Fact Sheet No. 48, UIS/FS/2018/ED/48, 2018.
- ¹³⁸ World Inequality Database on Education (WIDE), 2018. (Information for India based on data from 2015)
- ¹³⁹ Alok Kumar and Seema Bansal, "Creating Schools That Are Functional: The Most Basic Input to Improving Learning Outcomes," *The Financial Express*, April 25, 2019, <https://www.financialexpress.com/opinion/creating-schools-that-are-functional-the-most-basic-input-to-improving-learning-outcomes/1558122/>.
- ¹⁴⁰ Alok Kumar and Seema Bansal, "Improving Learning Outcomes: Shifting the Focus from Syllabus," *The Financial Express*, April 26, 2019, <https://www.financialexpress.com/opinion/improving-learning-outcomes-shifting-the-focus-from-syllabus/1559302/>.
- ¹⁴¹ RTE Forum, "Status of implementation of the Right of Children to Free and Compulsory Education Act, 2009: Year four (2013-14)," (Right to Education (RTE) Forum, 2014). http://rteforumindia.org/wp-content/uploads/2018/11/Year-4-Stocktaing-Report_RTE-Forum.pdf.
- ¹⁴² RTE Forum, "Status of implementation of the Right of Children to Free and Compulsory Education Act, 2009: Year four (2013-14)," (Right to Education (RTE) Forum, 2014). http://rteforumindia.org/wp-content/uploads/2018/11/Year-4-Stocktaing-Report_RTE-Forum.pdf.
- ¹⁴³ RTE Forum, "Status of implementation of the Right of Children to Free and Compulsory Education Act, 2009: Year four (2013-14)," (Right to Education (RTE)

- Forum, 2014). http://rteforumindia.org/wp-content/uploads/2018/11/Year-4-Stocktaing-Report_RTE-Forum.pdf.
- ¹⁴⁴ ASER Centre, "Annual Status of Education Report (Rural)", 'Beyond Basics', 2018.
- ¹⁴⁵ ITU, "Percentage of individuals using the internet, Country ICT data (until 2018)", 2019. Statistics. Available at: <https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx>. Note: The Digital India program has aimed to digitally connect 250,000 of India's villages and Gram Panchayats with internet and phone connections by 2019, but actual implementation and uptake may take time. See also ITU, "Connecting the unconnected: Working together to achieve Connect 2020 Agenda Targets," 2017.
- ¹⁴⁶ Dasra and Godrej Group, "Leveraging the Dividend: Enhancing Employability in India," 2012. <https://www.dasra.org/resource/enhancing-youth-employability>
- ¹⁴⁷ "India Skills Report-2019" (Wheebox, PeopleStrong, Confederation of Indian Industry, 2018), <https://www.aicte-india.org/sites/default/files/India%20Skill%20Report-2019.pdf>.
- ¹⁴⁸ Wheebox, PeopleStrong, Confederation of Indian Industry, "India Skills Report-2019."
- ¹⁴⁹ JustJobs Network, "Skills for Competitiveness: Realizing India's Progress in Skilling its Population," 2016.
- ¹⁵⁰ JustJobs Network, "Better Jobs for More People: A System's Approach to Addressing India's Quest for a Job-Rich Economy" (forthcoming).
- ¹⁵¹ Santosh Mehrotra et al., "Vocational Education and Training Reform in India," 2014, 60.
- ¹⁵² ILO & World Bank, "Possible futures for the Indian apprenticeship system: Options paper for India," 2013.
- ¹⁵³ JustJobs Network, "Skills for Competitiveness: Realizing India's Progress in Skilling its Population," 2016.
- ¹⁵⁴ UNESCO, UNEVOC, PSSCIVE, "TVET Country Profile," 2018, ILO & World Bank, "Possible futures for the Indian apprenticeship system: Options paper for India," 2013.
- ¹⁵⁵ Ministry of Skill Development and Entrepreneurship, "Two New Skill Development Scheme Approved," 2019, <http://pib.nic.in/newsite/PrintRelease.aspx?relid=187252>.
- ¹⁵⁶ Jyotsna Sitling and Dr Soumyadeep Banerjee, "Strengthening Skill and Entrepreneurship Landscape in Indian Himalayan Region," Report of Working Group IV (NITI Aayog, 2018).
- ¹⁵⁷ Global Alliance for Mass Entrepreneurship, Sattva Consulting, "GAME Landscape Resource Report."
- ¹⁵⁸ Global Alliance for Mass Entrepreneurship, Sattva Consulting.
- ¹⁵⁹ Global Alliance for Mass Entrepreneurship, Sattva Consulting.
- ¹⁶⁰ Global Alliance for Mass Entrepreneurship, Sattva Consulting.
- ¹⁶¹ TNN, "India Beats China in Schools But Lags in Education," *The Times of India*, March 30, 2019, <https://timesofindia.indiatimes.com/india/india-has-3-times-more-schools-than-china-but-they-are-a-mess/articleshow/68616961.cms>.
- ¹⁶² UNICEF, J-PAL, "Supporting Adolescent Transition to Adulthood: What Works and What Doesn't."
- ¹⁶³ UNICEF, J-PAL.
- ¹⁶⁴ Alok Kumar and Seema Bansal, "Five Steps That India Needs to Take to Improve Learning Outcomes," *The Financial Express*, April 27, 2019, <https://www.financial-express.com/opinion/five-steps-that-india-needs-to-take-to-improve-learning-outcomes/1560384/>.
- ¹⁶⁵ Alok Kumar and Seema Bansal, "Five Steps That India Needs to Take to Improve Learning Outcomes," *The Financial Express*, April 27, 2019, <https://www.financial-express.com/opinion/five-steps-that-india-needs-to-take-to-improve-learning-outcomes/1560384/>.
- ¹⁶⁶ Luis A. Andres et al., "Precarious Drop: Reassessing Patterns of Female Labor Force Participation in India," Policy Research Working Papers (The World Bank, April 4, 2017), <https://doi.org/10.1596/1813-9450-8024>.
- ¹⁶⁷ Ministry of Women & Child Development, "National Creche Scheme," 2019.
- ¹⁶⁸ UNICEF, J-PAL, "Supporting Adolescent Transition to Adulthood: What Works and What Doesn't."
- ¹⁶⁹ Dasra Adolescents Collaborative, Bank of America, "Dasra Collaborative Force - 10 to 19," 2018.

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Whitespace35
www.whitespace35.com
venkatesh@whitespace35.com
+91 97414 51309