

Vocational education and training among rural Indian youth: Uptake and perceptions



About ASER

Since 2005, the Annual Status of Education Report (ASER) has generated evidence on whether children in rural India are enrolled in school and learning. Since 2016, the nationwide ASER focusing on foundational skills is conducted in alternate years, reaching all rural districts of the country to record children's enrollment status (for those aged 3-16) and to assess foundational reading and arithmetic abilities (among children aged 5-16). In the intervening years, ASER focuses on a different aspect of education.

ASER 2023 'Beyond Basics' explores the lives of 14-18-year-old youth in rural India. It aims to understand what youth in this age group are currently doing, their educational and career aspirations, and their ability to apply foundational skills to everyday life situations. The Beyond Basics survey was first conducted in 2017. To the original 2017 domains, ASER 2023 adds the new domain of youths' digital awareness and skills. The survey reached 34,745 youth across 28 districts in 26 states of India. Additionally, a qualitative exploration of youths' educational and career aspirations was carried out through Focus Group Discussions with Std X, XI and XII students in government schools in Dhamtari (Chhattisgarh), Sitapur (Uttar Pradesh), and Solan (Himachal Pradesh).

Introduction

Technical and Vocational Education and Training (TVET) is defined by UNESCO as “those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life.”¹ Other definitions draw a clear distinction between vocational training and academic education – while a degree in subjects like Mathematics can be applied to a wide range of professions, vocational training is targeted at a particular type of job.²

Globally, there is a growing emphasis on TVET as a means to create a skilled labour force. **Target 4.4 of the United Nations Sustainable Development Goals (SDG) aims to “substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship” by 2030.** Besides improving the reach of vocational training as a whole, the United Nations also stresses on ensuring equal access to these opportunities.³



The vocational training landscape in India

Formal skilling and technical training have been a part of the Indian government's policy agenda ever since independence. Post independence, the largely non-mechanised agricultural sector in India made up 49% of the national income and employed 72% of the workforce, while mining, manufacturing and hand trades contributed 17% to the national income and employed only 11% of the total workforce.⁴ As the government started investing in industrial infrastructure to enable a structural transformation of the economy from agriculture to industry, it became crucial to prepare a skilled workforce to support this. In 1950, Industrial Training Institutes (ITIs) were established under the Craftsmen Training Scheme to address the dearth of skilled manpower in the country.

Even today, while industrial output makes up around 30% of India's gross value added, industries employ just 10% of the workforce.⁵ Nearly half of the labour force is still engaged in agriculture. Additionally, India's demography is at a critical juncture with nearly 65% of its population belonging to the working age group of 15-59 years.⁶ This creates the

¹ International Labour Organization. *Technical and vocational education and training for the twenty-first century: UNESCO and ILO Recommendations*. UNESCO, 2003.

² Field, Simon, Kathrin Hoeckel, Viktória Kis, and Malgorzata Kuczera. *Learning for Jobs: OECD Reviews of Vocational Education and Training. Initial Report*. OECD, 2009.

³ Goal 4 | Department of Economic and Social Affairs. United Nations. Accessed April 20, 2024. https://sdgs.un.org/goals/goal4#targets_and_indicators.

⁴ Ministry of Finance. *Final Report of the National Income Committee*. Government of India, 1954.

⁵ Ministry of Finance. *Annual Economic Survey 2022-23*. Government of India, 2023.

⁶ Ministry of Health and Family Welfare. *Report of the Technical Group on Population Projections for India and States 2011-2036*. Government of India, 2020.

opportunity to reap a “demographic dividend”, defined by the United Nations Population Fund (UNFPA) as the “economic growth potential that can result from shifts in a population's age structure, mainly when the share of the working-age population is larger than the non-working-age share of the population.”⁷ However, this demographic distribution offers a limited window for action, as declining fertility rates in the country mean that the population would start ageing after a few decades; the working-age population bulge is expected to last only till 2055.⁸

SDG Indicator 4.3.3 measures the proportion of persons age 15-24 enrolled in vocational education. This proportion stood at 2.4% for India in 2022, much lower than other Asian countries like Vietnam (15%), Indonesia (13.8%), Thailand (12.3%), and Bangladesh (4.7%).⁹

With regard to the current status of vocational training in India, data from the Periodic Labour Force Survey (PLFS) over the years shows that although the proportion of youth in the 15-29 age group in India with formal vocational or technical training has been growing slowly, this figure was less than 5% in 2022-23 and was even lower for rural India (Table 1).

Table 1: % Persons age 15-29 who have received formal vocational/technical training, by location

| Location | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 | 2022-23 |
|----------|---------|---------|---------|---------|---------|---------|
| Rural | 1.7 | 2.0 | 2.9 | 3.0 | 2.9 | 3.4 |
| Urban | 4.4 | 4.7 | 6.8 | 6.9 | 7.1 | 7.2 |
| Overall | 2.5 | 2.8 | 4.1 | 4.1 | 4.1 | 4.4 |

Source: Periodic Labour Force Surveys (PLFS)

Policies for vocational education and training

Recognising the imperative of addressing skill development, the Indian government established the Ministry of Skill Development and Entrepreneurship (MSDE) in 2014. **The 2025 vision statement of MSDE is to “unlock human capital to trigger a productivity dividend and bring aspirational employment and entrepreneurship pathways to all.”** It aims to promote in-demand skills to serve the dual purpose of improving individual labour market outcomes, thereby promoting social and economic mobility, and boosting the productivity and growth of the economy as a whole.¹⁰

The National Policy for Skill Development and Entrepreneurship (NPSDE) 2015 governs all the skill development initiatives and institutions in the country. The Pradhan Mantri Kaushal Vikas Yojana (PMKVY) launched under this policy in 2015 provides free short-term skill training to youth along with a monetary incentive for course completion.¹¹ ITIs, governed by NPSDE, are key drivers of technical and vocational education in the country. Most of these are privately

⁷ United Nations Fund for Population Activities. *Demographic dividend*. Accessed March 14, 2024. <https://www.unfpa.org/demographic-dividend#readmore-expand>

⁸ Chakravorty, Bhaskar, and Gaurav Dalmia. *Is India the World's Next Great Economic Power*. Harvard Business Review, 2023.

⁹ UNESCO Institute for Statistics. 2022. *Indicator 4.3.3 – Proportion of 15- to 24-year-olds enrolled in vocational education, both sexes (%)*. Accessed March 26, 2024. <http://sdg4-data.uis.unesco.org/>.

¹⁰ Ministry of Skill Development and Entrepreneurship. *About MSDE*. Accessed March 14, 2024. <https://msde.gov.in/en/about-msde#:~:text=Vision%20Statement%202025&text=Enable%20individual%20economic%20gains%20and,enterprises%2C%20and%20catalyse%20economic%20growth>.

¹¹ Ministry of Skill Development and Entrepreneurship. *Pradhan Mantri Kaushal Vikas Yojana 2.0 (PMKVY 2.0) 2016-20*. Accessed March 14, 2024. <https://www.msde.gov.in/en/schemes-initiatives/schemes-initiatives-through-nsdc/pradhan-mantri-kaushal-vikas-yojana-pmkvy>.

run, and aim to prepare trainees for semi-skilled work or self-employment. Additionally, the Skill India Mission of the MSDE is currently working to establish one model aspirational skill centre called “Pradhan Mantri Kaushal Kendra” in each district of the country, and has established 721 centres thus far.¹²

Besides these skill development initiatives, the National Education Policy (NEP) 2020 stresses the provision of vocational training in schools and universities. It advocates for “no hard separation between academic and vocational streams”, and places importance on the integration of vocational education with mainstream education. In line with SDG Target 4.4, **chapter 16 of the NEP affirms the goal of exposing at least 50% learners to vocational education by 2025 through collaboration with ITIs, Polytechnics, and local industries, which will help to integrate vocational training in secondary schools over the next decade.** Some Indian states have started working towards this by phasing in vocational courses at the secondary or senior secondary level in schools; information gathered from the field suggests that states like Maharashtra and Odisha are currently piloting vocational programmes that start as early as Std VI. For higher education, NEP has guided universities to allow students enrolled in academic undergraduate degree courses to opt for vocational subjects.¹³

While the lack of vertical mobility for youth pursuing vocational streams instead of mainstream education used to be a deterrent from pursuing skill-based courses in the past, the National Skills Qualifications Framework (NSQF), introduced in 2013, attempts to address this problem. The NSQF is a competency-based framework which organises qualifications according to level of knowledge, regardless of how that knowledge was acquired. This aims to legitimise the gathering of knowledge from sources such as apprenticeships, and allows for transition from vocational to mainstream education.



Evidence from ASER 2023

ASER 2023 data on vocational education was obtained both quantitatively through the household survey as well as qualitatively through 56 Focus Group Discussions (FGDs) with students in Std X, XI and XII.^{14,15} While the survey responses provide evidence on the profile of young people in the 14-18 age group who are taking vocational training (outside of schools and colleges) as well as on the nature of this training, the FGDs provide additional context to these choices by exploring how young people are thinking about their future and where and how vocational options fit into these aspirations.

¹² Ministry of Skill Development and Entrepreneurship. *Annual Report 2022-2023*. Government of India, 2023.

¹³ Ministry of Education. *Linking of Vocational and Higher Education*. Press Information Bureau, 2022.

¹⁴ While data from the ASER 2023 survey is not representative at the national level, its geographical spread makes it fairly indicative of national trends. The figures presented here are aggregates derived from all the 28 surveyed districts. For district-wise data and more details on the sampling process, see the ASER 2023 report. <https://asercentre.org/aser-2023-beyond-basics/>

¹⁵ FGDs were conducted with students in 8 purposively selected secondary and higher secondary schools in 3 districts: Solan (Himachal Pradesh), Sitapur (Uttar Pradesh) and Dhamtari (Chhattisgarh). See the ASER 2023 report for more information. <https://asercentre.org/aser-2023-beyond-basics/>

Figure 1: Questions addressing vocational education in the ASER 2023 household survey questionnaire

| 5. Vocational training/Other classes or courses | | | | | |
|---|----|---------------------|-----|-------|--|
| Are you currently taking vocational training like at an ITI, Polytechnic, etc. or other classes like computer, stitching, etc.? | | if yes, | | | What is the course duration? (Write in months) |
| | | Type of institution | | | |
| Yes | No | Govt | Pvt | Other | |
| ✓ | | | ✓ | | 3 |

Findings from the household survey: Vocational training uptake

Table 2: % Youth enrolled in vocational training or other courses*, by enrollment status and duration of training. ASER 2023

| Enrollment status | % Youth taking vocational training or other courses | Of these, % youth who are in vocational training courses of the following duration: | | | | |
|------------------------|---|---|------------|-------------|---------------------|-------|
| | | 3 months or less | 4-6 months | 7-12 months | More than 12 months | Total |
| Std X or below | 2.4 | 48.3 | 22.8 | 21.3 | 7.6 | 100 |
| Std XI or XII | 7.9 | 42.3 | 22.0 | 22.1 | 13.6 | 100 |
| Undergraduate or other | 16.2 | 37.5 | 18.9 | 27.8 | 15.8 | 100 |
| Not enrolled | 8.2 | 20.1 | 14.5 | 23.7 | 41.7 | 100 |
| All youth | 5.6 | 37.8 | 19.9 | 23.5 | 18.8 | 100 |

* Only courses outside the youth's current educational institution, if any, were included.

Data from the ASER 2023 survey reveals that only 5.6% youth in rural India are currently taking vocational training or similar courses. There has been almost no change in this figure since the ASER 2017 Beyond Basics survey, in which this proportion stood at 5.3%.¹⁶

Disaggregating this data by enrollment status shows that students at the undergraduate level are more likely to be pursuing vocational courses outside their current institution than youth enrolled in school or those not enrolled anywhere. Of the 13.2% unenrolled youth in the sample, less than 10% are currently taking vocational training.

Most youth opt for shorter duration vocational courses of less than 12 months (81.2%). However, this trend changes among youth who are not enrolled, with 41.7% of these youth opting for vocational courses of more than 12 months.

The survey data also finds that most youth taking vocational courses go to private institutions (61.7%) to seek this training.



¹⁶ See the ASER 2017 report, available at <https://asercentre.org/asere-2017/>. The districts surveyed in ASER 2017 were different from ASER 2023, so the estimates are not strictly comparable. However, the sample size and geographical spread of the surveyed districts provide a fairly accurate national picture in both years.

Table 3: % Youth enrolled in vocational training or other courses, by sex and duration of training. ASER 2023

| Sex | % Youth taking vocational training or other courses | Of these, % youth who are in vocational training of the following duration: | | | | |
|-----------|---|---|------------|-------------|---------------------|-------|
| | | 3 months or less | 4-6 months | 7-12 months | More than 12 months | Total |
| Male | 6.8 | 29.9 | 16.9 | 26.3 | 26.9 | 100 |
| Female | 4.5 | 48.2 | 24.0 | 19.7 | 8.3 | 100 |
| All youth | 5.6 | 37.8 | 19.9 | 23.5 | 18.9 | 100 |

The uptake of vocational training is slightly higher among male youth as compared to their female counterparts. However, among those taking vocational courses, the amount of time young people invest in this type of skilling varies substantially by gender. Females are far more likely to take shorter duration courses: almost half are enrolled in courses of 3 months duration or less (48%) and another quarter in courses lasting between 4-6 months (24%). Males, on the other hand, are more likely to enroll in longer duration courses, with more than half of them pursuing courses of more than six months' duration. Findings from the qualitative Focus Group Discussions help to unpack the ways in which young peoples' thinking influences these patterns of uptake.

Findings from the qualitative strand: Perceptions surrounding vocational work

The ASER 2023 survey findings show that most youths' primary aspirations revolve around "white collar" work. Around three quarters of boys and girls who wanted to work in the future reported army, police, engineer, doctor, teacher, civil services, or government jobs as their primary work aspiration. While vocational trades repeatedly came up as an option in the in-depth discussions, these were often seen as a backup plan in case the students were unable to achieve their primary goals. Overall, the FGDs found that there is low social desirability associated with vocational trades, which are therefore not aspirational for youth.

Facilitator (F): Why do you want to be a teacher?

Participant (P): Because unlike a beauty parlour where you have to do manual work, teaching requires intellect and knowledge.

(Solan, Std XII, Girls)

However, what the FGDs also showed clearly is that although vocational trades were not 'aspirational', many of the young people we spoke to did in fact have plans to take up some type of vocational work. Boys, for example, planned to pursue vocations like carpentry and automobile repair, and were mainly driven by the financial prospects. Many of them wanted to start entrepreneurial ventures in these fields.

Girls, on the other hand, talked about sewing and beauty parlour work. They had female role models in their homes and communities working in these trades, and the perceived benefits of doing this work included earning a small income and being able to work alongside doing household chores, which they viewed as their primary responsibility. Many girls viewed vocational trades as practical skills rather than aspired career paths. Even girls who did have career aspirations expressed a desire to pursue vocations like sewing and cooking to be able to make their own clothes and to cook at home, often alongside pursuing their primary career goals.



P: I want to learn parlour work. Not just for myself but to earn money from it. My first choice is sewing and second parlour.

F: What do you think are the benefits of this?

P: I will be able to show my talent. I can also do these things for myself and also for earning money. It can be done from home and I don't have to go anywhere outside for it. And it will also help me improve our financial condition.

(Sitapur, Std XII, Girls)

P2: If we become teachers, no matter how prestigious our job is, we all have to come home and cook for our family.

P3: We should be able to serve food to our parents out of love.

P2: And nowadays it has become so expensive to get suits stitched. So after going home-

P1: -we can stitch our own clothes.

P2: We can stitch our own clothes, and do our own beauty work at home.

F: So along with teaching, you want to do all this at home?

All: Yes

(Solan, Std X, Girls)

As these comments suggest, students who learnt about trades like carpentry or sewing from their community or surroundings viewed these options as practical, not aspirational. On the other hand, when schools in Solan introduced students to seemingly lucrative, context-specific local trades like retail, hotel management and tourism within their schools, they were more attracted to the prospect of pursuing vocational work in the future. These schools were shaping youths' views on vocational trades by offering courses that offer actual career paths and legitimising these alternatives in the eyes of parents. The following excerpt from a discussion with boys in Solan, where joining the armed forces is a dominant aspiration within the community, reflects the positive perception of these trades in places where they are introduced in the school curriculum.

P: I am most interested in joining the army.

F: What does your father say about that?

P: He says that is okay, but Hotel Management is better.

(Solan, Std X, Boys)

Even when vocational work is not young people's primary aspiration, introducing them to certified training within schools provides a viable backup option. The hands-on training provided to students through vocational courses within schools not only broadens their perspective, but also acts as an important source of information and offers a glimpse of what working in these fields is actually like. For instance, the vocational courses offered in schools in Solan included field visits and industry immersion in addition to classroom lectures.

F: Since when do you have these vocational subjects?

P1: 9th grade.

P2: It has been four years.

P3: We go on visits thrice a year.

F: And how far do you go for these visits?

P3: Not that far, like till Solan.

F: And what do you do in the healthcare subject?

P4: We also go on visits to hospitals.

(Solan, Std X, Boys)

At a time when India is facing a favourable demographic distribution, sufficient investment in the education and upskilling of the workforce is crucial to prevent labour inadequacy from being a bottleneck in the growth process. The ASER 2023 report underscores the need for improvement in the vocational training landscape, highlighting the low uptake of these courses among 14-18-year-old youth at the cusp of entering the labour force. The qualitative strand of this report highlights the positive effects of introducing these courses in school. Inculcating hands-on training within schools in line with NEP 2020 offers a promising way forward.