#### Focus

# Potential of India's Future Workforce

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India is one of the developing countries with a demographic advantage recognized almost two decades ago. However, has India been able to transform this demographic advantage into human capital to achieve an inclusive and sustainable economic growth? In this paper we are trying to look at the strengths of our existing workforce, identify the gaps existing in the reach of our social programs for enhancing the educational and skill levels of our workforce of the future, and the path to be followed for building our potential human capital for achieving a faster and equitable distribution of the benefits of economic growth.

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# Introduction

India has a strong demographic advantage, with a population whose average age of 29 years1. The youth (15-29 years) accounted for 27.3 percent of our population (371.4 million) in 2021<sup>2</sup>. The potential of this age group turning into a productive workforce and the country reaping the demographic dividend depends on capacity building in terms of education, skill and health attainments. India also has a sizeable child population who are our future workforce. The number of children in the age group 4-17 years was projected at 340.1 million in 2021. Thus, India presently has a sizeable young population, more than 60 percent, with the potential to enter the labour market or are ready to enter the labour market. But their potential to contribute to the economy needs to be looked into in greater detail in terms of our labour market and skill indicators. There is an urgency here as well, because this advantage would start waning by 2036 (MoSPI, 2022). Even now, only 3-4 percent of the workforce is formally skilled. The sectoral distribution of the workforce also reflects that most of the workforce is employed in the low-skilled jobs in the agriculture and construction. The educational profile of the workforce shows that a majority of them have only secondary level education. The government has been implementing various skill development policies and programmes through convergence and direct intervention. Yet, the proportion of skilled workforce has not increased. This is mainly due to the low educational attainment (at the school level) of the workforce, making them ineligible to pursue skill training.

#### **Profile of Current Workforce**

The quality of the workforce depends upon the age-profile, educational attainment and vocational skills gained. As per PLFS 2020-21, the disparity in rural-urban, male-female

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literacy rate still exists. Rural female literacy rate is only 67.7 percent as compared to 83.3 percent in urban areas, while rural male literacy rate is relatively higher at 83.2 percent and urban male literacy rate is 92.2 percent. The labour force participation rate of women continues to be lower at 27.7 percent in the rural areas and 18.6 percent in the urban areas, while male participation rates were above 50 percent (57.1 percent rural and 58.4 percent urban). Low literacy rates accompanied with low skill levels reflects in the status of employment. Our workforce is mostly self-employed or engaged in casual labour. The proportion of self-employed rural workforce engaged was 59.7 percent male and 64.8 percent female, while the corresponding proportion in the urban areas was 39.9 percent male and 38.4 percent female. Within the selfemployed segment in the rural areas, 48.6 percent of the male workforce was engaged as own account worker / employer; the corresponding proportion for female workforce was 21.9 percent. A sub-segment of the selfemployed segment is the helper in household enterprise, which is unpaid work assisting the own account worker. The proportion of the rural male workforce engaged in this sub-segment was only 11 percent as compared to 42.8 percent female workforce. Thus, a high proportion of rural female workforce was engaged mainly as 'unpaid' helpers. Similarly, around 26 percent of the male and female rural workforce was engaged as casual labour, while in the urban areas it was 14 and 11 percent respectively. The proportion of workforce engaged as regular wage and salaried workforce, while low in rural areas, was around 45.3 percent and 50.1 percent respectively for men and women in urban areas.

Sectoral distribution of workforce also shows a high proportion of the workforce engaged in the agricultural

sector in the rural areas while in the urban areas it was distributed among trade, hotels and restaurants, manufacturing, construction and transport, storage, and communications. Another indicator which throws light on the quality of our workforce is the percentage of workers engaged in the informal sector. The percentage of workers engaged in the informal non-agricultural sector in India was 71.4 percent, wherein men account for 75.3 percent and women 56.7 percent.

# Educational Attainment of the Current Workforce

SDG 4.1 calls for 12 years of schooling of which at least 9 years is compulsory for everyone without discrimination. This is already being implemented through the implementation of compulsory elementary education for children in the 6-14 age group, through the Sarva Shiksha Abhiyan which commenced in 2001-02, and with the enactment of the Right of Children to Free and Compulsory Education Act, 2009. It is evident from Table 1, however, that the compulsory 12 years of formal schooling as emphasized in SDG 4.1 is still a distant dream among the young workforce (15-29 years) as well as for those above this age bracket.

# Vocational/Technical Training

Acquiring vocational training adds to the skillset of the workforce and makes it more attractive in the job market. In India, apart from the short-term skill courses conducted by the Ministry of Skill Development & Entrepreneurship, trade-related skill training is provided by the Industrial Training Institutes and polytechnics, as well as specialized professional bodies. But the long-term training courses are counted as formal vocational training. Table 2 shows

Table 1: Average Number of Years of Formal Education of Workers (PLFS 2020-21)

| Category of Workers | Age of workers |                  |  |  |  |  |
|---------------------|----------------|------------------|--|--|--|--|
|                     | 15-29 years    | 15 years & above |  |  |  |  |
| Rural Male          | 9.9            | 9.2              |  |  |  |  |
| Rural Female        | 9.5            | 8.2              |  |  |  |  |
| Urban Male          | 11.1           | 10.9             |  |  |  |  |
| Urban Female        | 12.6           | 11.1             |  |  |  |  |
| All India           | 10.2           | 9.6              |  |  |  |  |

Source: Annual Report, PLFS 2020-21

Table 2: Status of Vocational/Technical Training Received (PLFS 2020-21 - 15-59 Years)

|              |            |                   |                     | Not    |                        |                       |          |      |
|--------------|------------|-------------------|---------------------|--------|------------------------|-----------------------|----------|------|
| Category     | Formal     |                   | Ot                  | Total  | Received<br>Vocational |                       |          |      |
| T Offinal    | Hereditary | Self-<br>learning | Learning on the job | Others | Total<br>(Informal)    | (Formal+<br>informal) | Training |      |
| Rural Male   | 2.5        | 7.2               | 4.7                 | 6.6    | 0.6                    | 19.0                  | 21.5     | 78.5 |
| Rural Female | 1.9        | 3.7               | 2.7                 | 1.6    | 0.6                    | 8.7                   | 10.6     | 89.4 |
| Urban Male   | 6.2        | 1.9               | 5.2                 | 11.1   | 1.1                    | 19.2                  | 25.5     | 74.5 |
| Urban Female | 5.3        | 0.6               | 2.7                 | 2.5    | 0.8                    | 6.6                   | 12.0     | 88.0 |
| All India    | 3.3        | 4.2               | 3.8                 | 4.9    | 0.7                    | 13.6                  | 16.9     | 83.1 |

Source: Annual Report, PLFS 2020-21

the vocational training acquired by the workforce, both formal and informal, as well as those who have not received any vocational training. The workforce who have not acquired vocational training account for a significant proportion of the workforce at 83.1 percent.

Among the current workforce aged 15-59 years, the proportion of the workforce receiving formal vocational training at the all India level is only 3.3 percent; it is relatively

higher among the urban workforce as compared to the rural workforce. The field of training chosen is predominantly IT & ITES, followed by power, electrical and electronics. But everyone who is formally trained is not gainfully employed; there is a sizeable proportion of unemployed people, and a higher proportion of people, especially women, who are not in the labour force at all, as is evident from Table 3.

Table 3: Status of Formal Vocational/Technical Training (15-59 Years)

| Category of Persons | Employed | Not in Labour Force |      |
|---------------------|----------|---------------------|------|
|                     | R        | ural                | ·    |
| Male                | 74.5     | 12.5                | 13.0 |
| Female              | 44.8     | 6.7                 | 48.4 |
| Person              | 61.9     | 10.0                | 28.1 |
|                     | l        | Jrban               |      |
| Male                | 75.7     | 13.0                | 11.3 |
| Female              | 43.9     | 8.4                 | 47.7 |
| Person              | 61.2     | 10.9                | 27.9 |
|                     | Al       | l India             |      |
| Male                | 75.1     | 12.7                | 12.1 |
| Female              | 44.3     | 7.7                 | 48.0 |
| Person              | 61.5     | 10.5                | 27.9 |

Source: Annual Report, PLFS 2020-21 Note: All numbers are in percentages

Table 4: People Who Received Formal Vocational/Technical Training (15-29 Years)

| PLFS    | Male | Female | Person |
|---------|------|--------|--------|
| 2017-18 | 2.8  | 2.2    | 2.5    |
| 2018-19 | 3.2  | 2.5    | 2.8    |
| 2019-20 | 4.3  | 3.8    | 4.1    |
| 2020-21 | 4.5  | 3.7    | 4.1    |

Source: Annual Report, PLFS 2020-21

The situation is all the more alarming among the future workforce. It is evident from Table 4 that less than 5 percent of the persons in the age group 15-29 years have been receiving formal training.

Even before the onset of the fourth Industrial Revolution, our workforce had a dominant presence in agricultural and construction sectors in the rural areas and in manufacturing, trade, and transport sectors in the urban areas. With the advent of the fourth Industrial Revolution however, digital technology is evolving rapidly. The traditional skillsets as well as job profiles are undergoing rapid change. The skillsets acquired are losing relevance. While employers are not able to obtain workers with the right skillset, the youth are not able to get jobs that meet their aspirations. The emerging as well as the conventional job profiles in industry or service sector have become technology intensive. The number of workers required for the execution of certain routine jobs has decreased with the application of digital enabled technologies. For instance, in corporate hospitals, hotels, large restaurants, offices, corporate spaces, the job of cleaning is done using various devices, reducing the need for manpower. With the computerization of administrative operations, the need to maintain physical registers and record rooms has come down. In other words, the requirement for Level 1 to Level 3 jobs on the National Skill Qualification Framework (NSQF) is coming down. We need to focus more on upskilling the workforce at NSQF Levels 4 to 7.

#### Are we ready?

India is looked upon as a nation with a youth population ready to enter the labour market. The state-wise population of youth as projected for 2021 may be seen in Table 5. States with potential youth population include UP, Bihar, Maharashtra, Madhya Pradesh, Rajasthan, and West Bengal, among others.

A minimum level of educational attainment is required for upskilling. However, the dropout rate at the primary and upper primary level is still significant, particularly, in the states of Bihar, Jharkhand, Odisha, and Uttar Pradesh. These are the states where India's potential demographic advantage lies. If we are to convert this advantage to a dividend, we need to improve the educational attainment of this section of our population.

The educational profile of the future youth, especially in states which have demographic advantage is not bright. The number of children completing schooling is relatively better off in the urban areas as compared to the rural areas where the drop-out rate at different levels are high. Out of a total of 241.80 lakh students enrolling in Class I at the all India level, the number of students enrolled in Class XII went down to 133.30 lakhs. About 108.50 lakh children are unaccounted for, out of which, boys account for 58.36 lakhs and girls 50.14 lakhs.

It is evident from Table 6 that the number of children who dropped out between Classes I and IX is 43.94 lakhs at the all India level, of which boys account for 20.19 lakhs and girls 23.75 lakhs. Similarly, the number of children who dropped out between Classes IX and XII is 64.56 lakhs of which boys account for 29.95 lakhs and girls 34.60 lakhs. If we look at the numbers from some of the major states (Table 6), the dropout rates of students at the middle school and secondary school levels is high in the rural areas as compared to urban areas, except for Delhi, where the dropout rate of students is significantly high in the urban areas. Further, the dropout rate of students is higher among states with a high proportion of youth (Table 5).

Despite the Right to Education Act, 2009 guaranteeing free schooling up to Class VIII, an important reason for the high dropout rate of children aged 6-14 years could be the lack of teachers, especially in rural areas. Vacancies at the secondary and higher secondary levels,

Table 5: Projected Population of Youth in India by Age Group (2021)

| State/UT          | Age Group 18-23 | Percentage share |  |  |
|-------------------|-----------------|------------------|--|--|
| A&N Islands       | 50523           | 0.033            |  |  |
| Andhra Pradesh    | 5285000         | 3.467            |  |  |
| Arunachal Pradesh | 177680          | 0.117            |  |  |
| Assam             | 4019000         | 2.636            |  |  |
| Bihar             | 15374000        | 10.085           |  |  |
| Chandigarh        | 171229          | 0.112            |  |  |
| Chhattisgarh      | 3352000         | 2.199            |  |  |
| DD & DNH          | 114242          | 0.075            |  |  |
| Delhi             | 2339000         | 1.534            |  |  |
| Goa               | 182730          | 0.120            |  |  |
| Gujarat           | 7477000         | 4.905            |  |  |
| Haryana           | 3312000         | 2.173            |  |  |
| Himachal Pradesh  | 742000          | 0.487            |  |  |
| J&K               | 1653497         | 1.085            |  |  |
| Jharkhand         | 4724000         | 3.099            |  |  |
| Karnataka         | 6728000         | 4.413            |  |  |
| Kerala            | 3155000         | 2.070            |  |  |
| Lakshadweep       | 7998            | 0.005            |  |  |
| Madhya Pradesh    | 9690000         | 6.356            |  |  |
| Maharashtra       | 12965000        | 8.505            |  |  |
| Manipur           | 368321          | 0.242            |  |  |
| Meghalaya         | 380269          | 0.249            |  |  |
| Mizoram           | 144922          | 0.095            |  |  |
| Nagaland          | 273077          | 0.179            |  |  |
| Odisha            | 4867000         | 3.193            |  |  |
| Puducherry        | 153781          | 0.101            |  |  |
| Punjab            | 3135000         | 2.057            |  |  |
| Rajasthan         | 9415000         | 6.176            |  |  |
| Sikkim            | 87482           | 0.057            |  |  |
| Tamil Nadu        | 7034000         | 4.614            |  |  |
| Telangana         | 3993000         | 2.619            |  |  |
| Tripura           | 485265          | 0.318            |  |  |
| Uttar Pradesh     | 28901000        | 18.959           |  |  |
| Uttarakhand       | 1357000         | 0.890            |  |  |
| West Bengal       | 10337000        | 6.781            |  |  |
| India             | 152443000       | 100.000          |  |  |

Source: Data Source UDISE + 2021

Table 6: Difference in Enrolment of Students between Classes (UDISE 2021-22)

| -               |               | С       | lass 9 and Clas | ss 1    | Class 12 and Class 9 |         |         |  |
|-----------------|---------------|---------|-----------------|---------|----------------------|---------|---------|--|
| States          | Rural / Urban | Girls   | Boys            | Total   | Girls                | Boys    | Total   |  |
| Andhra Pradesh  | Rural         | 5921    | 4191            | 10112   | -112674              | -133229 | -245903 |  |
| Andhra Pradesh  | Urban         | 26089   | 23770           | 49859   | 11802                | 8962    | 20764   |  |
| Assam           | Rural         | -120913 | -168696         | -289609 | -168487              | -138635 | -307122 |  |
| Assam           | Urban         | 6507    | 1116            | 7623    | -5489                | -1787   | -7276   |  |
| Bihar           | Rural         | -332662 | -432788         | -765450 | -424737              | -392170 | -816907 |  |
| Bihar           | Urban         | 24797   | 3939            | 28736   | 227                  | 3689    | 3916    |  |
| Chhattisgarh    | Rural         | -56671  | -71285          | -127956 | -40466               | -56165  | -96631  |  |
| Chhattisgarh    | Urban         | 2549    | -4669           | -2120   | -4125                | -11006  | -15131  |  |
| Delhi           | Rural         | -1050   | -43             | -1093   | -506                 | -730    | -1236   |  |
| Delhi           | Urban         | 46680   | 58167           | 104847  | -44353               | -60708  | -10506  |  |
| Gujarat         | Rural         | -87401  | -68891          | -156292 | -128774              | -163513 | -29228  |  |
| Gujarat         | Urban         | -3450   | -763            | -4213   | -52192               | -70798  | -12299  |  |
| Haryana         | Rural         | -11793  | -8796           | -20589  | -31128               | -44505  | -75633  |  |
| Haryana         | Urban         | 3218    | 4227            | 7445    | -15136               | -23089  | -38225  |  |
| Jammu & Kashmir | Rural         | -37946  | -36490          | -74436  | -21990               | -22367  | -44357  |  |
| Jammu & Kashmir | Urban         | -1548   | -2027           | -3575   | 7231                 | 6137    | 13368   |  |
| Jharkhand       | Rural         | -70026  | -104502         | -174528 | -135510              | -130984 | -26649  |  |
| Jharkhand       | Urban         | 17665   | 13416           | 31081   | 6936                 | 3481    | 10417   |  |
| Karnataka       | Rural         | -72555  | -83152          | -155707 | -182391              | -205022 | -38741  |  |
| Karnataka       | Urban         | -5804   | -22353          | -28157  | -23044               | -40195  | -63239  |  |
| Kerala          | Rural         | -8391   | -5157           | -13548  | -21251               | -36102  | -57353  |  |
| Kerala          | Urban         | 11837   | 6656            | 18493   | -565                 | -7751   | -8316   |  |
| Madhya Pradesh  | Rural         | -220875 | -227140         | -448015 | -157054              | -188990 | -34604  |  |
| Madhya Pradesh  | Urban         | 2037    | -6269           | -4232   | -24177               | -29775  | -53952  |  |
| Maharashtra     | Rural         | -106248 | -89746          | -195994 | -163024              | -153738 | -31676  |  |
| Maharashtra     | Urban         | 30759   | 49754           | 80513   | -31834               | -60907  | -92741  |  |

| Odisha        | Rural | -14925   | -22932   | -37857   | -142793              | -150249  | -293042 |
|---------------|-------|----------|----------|----------|----------------------|----------|---------|
| Odisha        | Urban | 2644     | 758      | 3402     | 14055                | -1146    | 12909   |
| Punjab        | Rural | -19030   | -12345   | -31375   | -22464               | -24800   | -47264  |
| Punjab        | Urban | -1910    | -4901    | -6811    | 2465                 | -2307    | 158     |
| Rajasthan     | Rural | -189290  | -202583  | -391873  | -106610              | -141034  | -247644 |
| Rajasthan     | Urban | -44531   | -43092   | -87623   | -9109                | 11535    | 2426    |
| Tamil Nadu    | Rural | -30714   | -22057   | -52771   | -52771 -53070 -83582 |          | -136652 |
| Tamil Nadu    | Urban | 54810    | 38205    | 93015    | 2475                 | -33372   | -30897  |
| Telangana     | Rural | -35634   | -51989   | -87623   | -58979               | -74624   | -133603 |
| Telangana     | Urban | 18872    | 12199    | 31071    | -13930               | -12344   | -26274  |
| Uttar Pradesh | Rural | -734651  | -747111  | -1481762 | -405986              | -512635  | -918621 |
| Uttar Pradesh | Urban | -7865    | 8346     | 481      | -68082               | -61595   | -129677 |
| West Bengal   | Rural | -23574   | -99298   | -122872  | -263340              | -298390  | -561730 |
| West Bengal   | Urban | 34460    | 28050    | 62510    | -32435               | -37344   | -69779  |
| All India     |       | -2019125 | -2375301 | -4394426 | -2995356             | -3460647 | -645600 |

Source: Calculated using UDISE 2021-22 enrolment data

especially in government schools is high in these states. There are also instances of teachers being surplus in urban areas and not willing to be posted in rural areas. Schools in remote, backward areas are often without school heads, subject teachers, often with a single teacher managing more than 100 students. Redeployment of surplus teachers to deficit areas is an initiative that is being undertaken in these states. Middle and Secondary Schools being far away from home also makes it difficult for children to complete their schooling. Other reasons for children being out of school are migration of parents, economic considerations especially among boys, forcing children to drop out and enter the labour market as unskilled labour.

# Section III

The recent interventions implemented as part of the National Education Policy (NEP), 2020 are Early Childhood Care & Education, NIPUN Bharat Mission, introduction of voluntary education from secondary school onwards, and introduction of digital literacy in schools from an early age onwards. The NEP, foreseeing the challenges of Industry

4.0, is addressing the challenges emerging in the education and skill system. Apart from educational interventions, nutrition and mental health of children are also important for ensuring their educational attainment. For instance, the levels of malnutrition and undernutrition are important issues that need to be addressed. Female literacy and adult education are also important indicators that need to be monitored to bring about a behavioral change in the community to guide and motivate children towards better health and higher educational attainments. The male literacy rate in rural areas of persons aged 7 years and above is 81.5 per cent and the female literacy rate is 65 percent, while in urban areas the corresponding figures for male and female literacy rate is 92.2 percent and 82.8 percent respectively3. The gender gap in malefemale literacy rate is 16.5 in rural areas and 9.4 in urban areas4. The states that reported rural female literacy rates (7 years and above) lower than the national average of 65 percent are Andhra Pradesh (53.4 percent), Bihar (58.7 percent), Rajasthan (52.6 percent), Telangana (53.7 percent), Jharkhand (61.4 percent), Karnataka (63.1

Table 7: Highest Level of Education Successfully Completed (15 years and above)

| Highest level of education completed |       | Rural  |        | Urban |        |        |  |
|--------------------------------------|-------|--------|--------|-------|--------|--------|--|
|                                      | Male  | Female | Person | Male  | Female | Person |  |
| Not literate                         | 22.2  | 41.2   | 31.5   | 8.8   | 19.3   | 13.9   |  |
| Literate upto primary                | 21.2  | 20.4   | 20.9   | 13.5  | 15.9   | 14.7   |  |
| Middle                               | 19.8  | 14.4   | 17.2   | 14.6  | 13.4   | 14.0   |  |
| Secondary                            | 17.3  | 12.5   | 15.0   | 20.4  | 17.9   | 19.2   |  |
| Higher secondary                     | 12.0  | 7.6    | 9.9    | 18.1  | 15.1   | 16.6   |  |
| Graduate and above                   | 7.4   | 3.9    | 5.7    | 24.6  | 18.6   | 21.7   |  |
| AII                                  | 100.0 | 100.0  | 100.0  | 100.0 | 100.0  | 100.0  |  |

Source: Women and Men in India, 2020, MoSPI, Table: 3.11

Table 8: Reasons for not Enrolling for Education (2018)

| Major Reasons                                   | R    | ural   | Uı   | rban   |
|---|------|--------|------|--------|
|   | Male | Female | Male | Female |
| Percentage of people who never enrolled         | 12.6 | 19.3   | 7.1  | 9.6    |
| Not interested in education                     | 20.4 | 20.7   | 14.5 | 15.7   |
| Financial constraints                           | 13.9 | 13     | 19.4 | 16.5   |
| Engaged in domestic activities                  | 1.6  | 12.5   | 0.8  | 7.9    |
| Engaged in economic activities                  | 4.8  | 1.2    | 3.2  | 1.2    |
| School is far off                               | 0.6  | 1.5    | 0.4  | 0.7    |
| Fimings of educational institution not suitable | 0.6  | 0.5    | 0.3  | 0.4    |
| Language/Medium of instruction used unfamiliar  | 0.1  | 0.1    | 0.2  | 0.1    |
| nsufficient number of teachers                  | 0    | 0.1    | 0    | 0      |
| Quality of teachers not satisfactory            | 0    | 0.1    | 0.2  | 0.1    |
| Route to educational institution not safe       | 0.1  | 0.1    | 0.1  | 0.1    |
| No tradition in community                       | 2    | 4.5    | 1.7  | 6.4    |
| Non-availability of female teacher              | -    | 0      | -    | 0      |
| Non-availability of girls' toilet               | -    | 0.1    | -    | 0.1    |
| Marriage  | -    | 0.4    | - 1  | 0.5    |
| Others  | 55.9 | 45.2   | 59.1 | 50.4   |
| <i>3</i> *                                      | 100  | 100    | 100  | 100    |

Source: Women and Men in India, 2020, MoSPI, Table: 3.11

percent), Madhya Pradesh (61 percent) and Uttar Pradesh (60.4 percent)<sup>5</sup>. The adult literacy rate in India was 74.1 percent for rural males and 50.6 percent for rural females in 2017-18<sup>6</sup>. The corresponding figures for the urban sector in 2017-18 were 88.3 percent for males and 76.9 percent for females<sup>7</sup>. The female adult literacy rates in a household do have a bearing on the educational attainment of children and youth.

As seen in Table 7, successful completion of education decreases as the level of education increases, especially in the rural areas. The percentage of men and women completing middle and secondary level education is low in both rural and urban areas. As we move to higher secondary and graduation, the percentage of rural women successfully completing courses is extremely low.

In the age group 3-35 years, the percentage of people who 'never enrolled' ranged from 7.1 percent among urban men to 19.3 percent among rural women. Of the reasons cited for not enrolling, 'not interested in education', 'financial constraints' and 'Others' account for a major share (Table 8).

On the other hand, we have people of age 3-35 years who were enrolled, but did not attend school. Among men in both rural and urban areas, the reasons attributed were not interested in education, and financial constraints because of which, a major proportion dropped out to pursue economic activities (rural - 34.9 percent, urban - 41.5 percent). Among women (rural - 40 percent, urban - 47.8 percent), the major reason cited was being engaged in domestic duties (rural - 31.9 percent, urban - 26.7 percent) (Table 9).

The reasons cited for not attending school, such as, financial constraints, entering the labour market at an early age to support the family, being engaged in domestic duties to facilitate parents in the labour market, indirectly indicate that the aspiration to go to school and the benefits from education are yet to get embedded in the minds of a vast majority of our young population both in rural and urban areas. Despite providing free schooling up to Class 8, provision of free uniforms, textbooks, midday meals etc., the transition rate from primary, to upper primary, secondary and higher secondary education shows a significant downfall. The fact that the completion of 12 years of schooling can enhance skill acquirement and earning capability in the job market is yet to sink into the vast majority of the youth, as is evident from Tables 6 and 7. It was against this backdrop that vocational education was introduced in schools from secondary school onwards, so that children leaving schools are equipped with some vocational skills. Yet, the stigma that vocational education is for school dropouts and children weak in academics continues. Further, children completing vocational education at the higher secondary were not able to pursue mainstream courses. The introduction of the National Skill Qualification Framework was meant to address these gaps. Schools now are aligning vocational courses to the NSQF, so that children also get an NSQF certificate when they leave school. Despite this, vocational education is yet to seep into schools, especially private unaided schools which have higher enrolment numbers. Similarly, NSQF accreditation is yet to take off in a big way. Out of a total of 2,92,850 secondary and higher secondary schools, only 13,206 schools have vocational courses operated under NSQF, and out of a total enrolment of 6.71 crore students in secondary and higher secondary schools, only 1.78 crore students are registered under the NSQF at the secondary and higher secondary levels. The state-wise distribution of secondary and higher secondary schools providing voluntary courses under the NSQF may be seen in Table 10. It is mostly the government owned schools that are offering vocational courses. In government aided and private unaided schools, these courses are either absent or have minimal enrolments. In fact, private unaided schools have substantial enrolments, but the penetration of NSQF aligned vocational courses seems to be almost nil (Table 10).

Table 11 shows that in government schools which account for a major share in enrolment, more than 40 percent, at the secondary and higher secondary level, the share of students' enrolment in vocational education as per NSQF is only 1.09 percent at the secondary and 13.53 percent at the higher secondary levels. In other categories of schools, the penetration of vocational education very meager as compared to their student enrolment numbers.

The National Education Policy, 2020 focuses on the promotion of vocational education right from upper primary class onwards. Under the Ministry of Education, the Samagra Shiksha Scheme covers the vocational education component as well.

## Section IV

To promote vocational education in secondary schools in a big way, convergence in the implementation of schemes at the district level needs to be focused upon, for the betterment of the future youth of our country. Different

Table 9: Reasons for Enrolling, but not Attending (3-35 Years) - 2018

| Major Reasons  | Ru   | ral    | Urban |        |  |
|--|------|--------|-------|--------|--|
|  | Male | Female | Male  | Female |  |
| Percentage of enrolled people, currently not attending education | 41.3 | 40.0   | 46.2  | 47.8   |  |
| Not interested in education                                      | 20.6 | 15.9   | 14.9  | 12.6   |  |
| Financial constraints  | 25.6 | 18.4   | 21.4  | 16.1   |  |
| Engaged in domestic activities                                   | 4.7  | 31.9   | 2.3   | 26.7   |  |
| Engaged in economic activities                                   | 34.9 | 4.4    | 41.5  | 7.3    |  |
| School is far off  | 0.6  | 3.3    | 0.1   | 1.2    |  |
| Timings of educational institution not suitable                  | 0.0  | 0.1    | 0.1   | 0.1    |  |
| Language/Medium of instruction used unfamiliar                   | 0.1  | 0.1    | 0.1   | 0.2    |  |
| Insufficient number of teachers                                  | 0.0  | 0.1    | 0.0   | 0.0    |  |
| Quality of teachers not satisfactory                             | 0.1  | 0.1    | 0.0   | 0.0    |  |
| Route to educational institution not safe                        | 0.0  | 0.2    | 0.0   | 0.1    |  |
| Unable to cope up with studies/failure in studies                | 4.1  | 3.7    | 3.1   | 2.6    |  |
| Unfriendly atmosphere at school                                  | 0.2  | 0.1    | 0.1   | 0.1    |  |
| Completed desired level/class                                    | 4.2  | 4.2    | 9.5   | 11.2   |  |
| Preparation for competitive examination                          | 1.8  | 0.6    | 3.2   | 1.9    |  |
| Non-availability of female teacher                               | -    | 0.1    | -     | 0.1    |  |
| Non-availability of girls' tollet                                | -    | 0.1    | -     | 0.1    |  |
| Marriage   | -    | 12.4   | -     | 15.0   |  |
| Others   | 3.1  | 4.4    | 3.6   | 4.9    |  |
| All  | 100  | 100    | 100   | 100    |  |

Source: Women and Men in India, 2020, MoSPI, Table: 3.18

Ministries are implementing vocational courses, the Ministry of Education - School & Higher Education Departments, Ministry of Skill Development & Entrepreneurship, Ministry of Rural Development, Ministry of Health & Family Welfare, Ministry of Tourism, Ministry of Electronics & Information Technology. Besides these ministries, state governments also implement state level vocational education and training courses. Within the states, development is not evenly spread out. We have 112 aspirational districts<sup>8</sup> spread across India and 3479

educationally backward blocks<sup>9</sup> where the learning outcomes are poor. It is in these districts that the future workforce of India is to emerge from. There should therefore be a convergence of schemes from the central and state governments at the district level and the resources required for improving learning outcomes and skill training should be focused on these aspirational districts and educationally backward blocks within the states/UTs. It has been observed that the schemes though well-intentioned are being implemented in silos. In state where

Table 10: Number of Schools Covered under Vocational Education

| States/UTs                              |                    |       | of Seconda<br>econdary S | Number of Secondary and<br>Higher Secondary schools<br>having vocational courses under<br>NSQF at secondary/higher<br>secondary level |        |                   |       |                |
|---|--------------------|-------|--------------------------|---|--------|-------------------|-------|----------------|
|   | All<br>Management  | Govt. | Govt.<br>Aided           | Pvt.<br>unaided   | Others | All<br>Management | Govt. | Govt.<br>Aided |
| Andaman &<br>Nicobar Islands            | 122                | 100   | 2                        | 20  | -      | 73                | 73    | -              |
| Andhra Pradesh                          | 15041              | 7253  | 499                      | 7274  | 15     | 505               | 505   | -              |
| Arunachal Pradesh                       | 483                | 332   | 34                       | 117   | -      | 99                | 99    | -              |
| Assam                                   | 9705               | 4714  | 1084                     | 3249  | 658    | 339               | 339   | -              |
| Bihar                                   | 12475              | 9417  | 327                      | 2187  | 544    | -                 | -     | -              |
| Chandigarh                              | 173                | 103   | 7                        | 59  | 4      | 38                | 38    | -              |
| Chhattisgarh                            | 7347               | 4878  | 106                      | 2362  | 1      | 591               | 591   | -              |
| Dadra & Nagar Haveli<br>and Daman & Diu | 99                 | 58    | 8                        | 32  | 1      | 9                 | 9     | -              |
| Delhi                                   | 2199               | 1119  | 180                      | 900   | -      | 134               | 134   | -              |
| Goa                                     | 543                | 96    | 413                      | 34  | -      | 140               | 88    | 52             |
| Gujarat                                 | 12764 <sup>°</sup> | 1999  | 5065                     | 5697  | 3      | 335               | 327   | 8              |
| Haryana                                 | 8587               | 3436  | 15                       | 5104  | 32     | 1074              | 1074  | -              |
| Himachal Pradesh                        | 4266               | 2865  | -                        | 1401  | -      | 1003              | 1003  | -              |
| Jammu & Kashmir                         | 4416               | 2587  | 1                        | 1816  | 12     | 1033              | 1033  | -              |
| Jharkhand                               | 4948               | 2897  | 182                      | 1349  | 520    | 440               | 440   | -              |
| Karnataka                               | 21056              | 6548  | 4366                     | 10136   | 6      | 204               | 204   | -              |
| Kerala                                  | 4913               | 1303  | 1437                     | 2079  | 94     | 294               | 244   | 50             |
| Ladakh                                  | 162                | 128   | 1                        | 33  | -      | 30                | 30    | -              |
| Lakshadweep                             | 13                 | 13    | -                        |   | -      | -                 | -     | -              |
| Madhya Pradesh                          | 18063              | 9422  | 270                      | 8368  | 3      | 1195              | 1195  | -              |
| Maharashtra                             | 28612              | 1972  | 16602                    | 9939  | 99     | 661               | 661   | -              |
| Manipur                                 | 1229               | 468   | 90                       | 671   | -      | 97                | 97    | -              |
| Meghalaya                               | 1848               | 137   | 733                      | 779   | 199    | 53                | 53    | -              |
| Mizoram                                 | 911                | 345   | 156                      | 368   | 42     | 46                | 46    | -              |

| Total         | 292850 | 117439 | 43691 | 126797 | 4923 | 12886 | 12770 | 116 |
|---------------|--------|--------|-------|--------|------|-------|-------|-----|
| West Bengal   | 10710  | 9619   | 40    | 984    | 67   | 603   | 603   | -   |
| Uttar Pradesh | 33546  | 2686   | 5148  | 23337  | 2375 | 159   | 159   | -   |
| Uttarakhand   | 3985   | 2404   | 399   | 1135   | 47   | -     | -     | -   |
| Tripura       | 1181   | 1009   | 33    | 132    | 7    | 135   | 134   | 1   |
| Telangana     | 14684  | 6977   | 287   | 7418   | 2    | 192   | 192   | -   |
| Tamil Nadu    | 14496  | 6338   | 1821  | 6302   | 35   | 173   | 173   | -   |
| Sikkim        | 267    | 218    | 11    | 38     | -    | 194   | 194   | -   |
| Rajasthan     | 31406  | 15669  | -     | 15695  | 42   | 1049  | 1049  | -   |
| Punjab        | 9523   | 3925   | 363   | 5234   | 1    | 989   | 989   | -   |
| Puducherry    | 387    | 141    | 30    | 216    | -    | 18    | 18    | -   |
| Odisha        | 11916  | 5952   | 3981  | 1869   | 114  | 949   | 944   | 5   |
| Nagaland      | 774    | 311    | -     | 463    | -    | 32    | 32    | -   |

Source: UDISE plus 2021-22

Table 11: Total and NSQF Enrolment in Secondary and Higher Secondary Schools

| Management Type  | Secondary<br>(9-10) | Higher Secondary<br>(11-12) |
|--|---------------------|-----------------------------|
| Government Schools   | 17771002            | 11670050                    |
| Percent share of total enrolment   | 46.12               | 40.83                       |
| Percent share of NSQF enrolment with respect to total enrolment              | 1.09                | 13.53                       |
| Government aided schools   | 7632234             | 6158682                     |
| Percent share in total enrolment   | 19.81               | 21.55                       |
| Percent share in NSQF enrolment with respect to govt. aided school enrolment | 0.04                | 0.16                        |
| Private unaided recognized schools   | 12847281            | 10653421                    |
| Percent share in total enrolment   | 33.34               | 37.28                       |
| Percent share in NSQF enrolment with respect to govt. aided school enrolment | -                   | -                           |
| Other schools  | 278114              | 96897                       |
| Percent share in total enrolment   | 0.72                | 0.34                        |
| Percent share in NSQF enrolment with respect to govt. aided school enrolment | -                   | -                           |
| Total enrolment (all school types)   | 38528631            | 28579050                    |

Source: UDISE plus 2021-22

there are educationally backward districts or blocks, the interventions on health and family welfare, women and children, and school/higher/vocational education departments need to be focused to bring those blocks/ districts on par with the rest of the state. This is important as these schemes together focus on the improvement of the overall health and mental status of children and youth in these blocks/districts. A healthy child performs well in terms of learning outcomes. A stunted, malnourished child cannot perform well. To improve the quality of our human capital, the workforce of tomorrow, social sector schemes aimed at their development should be implemented in convergence at the district level, especially in identified educationally backward blocks and aspirational districts.

#### Conclusion

We started focusing on skill development and training of youth from the Eleventh Five Year Plan onwards, anticipating India's potential in terms of human capital. Though convergence of skill development schemes was brought about, the educational attainment of children and youth in the demographically advantageous states is still behind the all India indicators. Without attaining a minimum educational qualification of at least 12 years of schooling, skill enhancement programs cannot be acquired. In today's job market where the application of digital technology is seamlessly penetrating across all sectors and job profiles. it is important that a minimum required educational qualification be set for tech based skilling. In light of this, the New Education Policy is focusing on Early Childhood Care and Education<sup>10</sup> for 3-5 years, and the NIPUN Bharat Mission<sup>11</sup> which focuses on improving Foundational Literacy & Numeracy skill-levels for Grade 3 students. Unless our foundational level of reading, comprehension and numeracy are enhanced, the progress of the youth in attaining higher educational and skill levels would remain a goal. A skilled workforce will enhance labour productivity and gross income, and bring about equitable distribution of income within the economy.

#### Notes:

- <sup>1</sup> Youth in India 2022, Ministry of Statistics and Programme Implementation
- <sup>2</sup> ibid
- <sup>3</sup> Women and Men in India, 2020, Ministry of Statistics & Programme Implementation
- 4 ibid
- 5 ibid
- 6 ibid
- 7 ibid
- <sup>8</sup> https://www.niti.gov.in/aspirational-districts-programme
- https://www.education.gov.in/sites/upload\_files/mhrd/files/Educationally%20Backward%20Blocks.pdf
- 10 https://www.education.gov.in/shikshakparv/Infographics/ECCE\_en.pdf
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"It doesn't matter how intelligent you are, how well off you are, or how well connected you are. Your perseverance, your courage – if you keep that intact, only such people will always be successful."

-Sudha Murthy